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Wildlife tourism in semi-captive settings: a case study of elephant camps in northern Thailand

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Due to improved transportation and communication technology, changing social attitudes towards nature and wildlife, and the physiological benefits of interaction with animals, tourism centred on wildlife in captive and semi-captive settings is becoming increasingly popular. One example of wildlife tourism in a semi-captive setting is the proliferation of ‘elephant camps’ in Thailand, where tourists interact in a variety of ways with domesticated elephants. Though work in elephant camps can be difficult for elephants, tourism provides the only viable legal option for elephant owners and handlers to earn income. This study examines the characteristics, preferences, and values of the visitors of three elephant camps in the vicinity of Chiang Mai in northern Thailand and argues that despite reflecting divergent worldviews on, and practical approaches to, animal rights, each type of camp makes significant contributions to the overall welfare of Thailand’s domesticated elephants.

Keywords: wildlife tourism; Thailand; elephants; animal rights

Introduction

Due to their association with royalty and religious mythology, elephants have historically played an important role in Thai culture (Amranand, Warren, & Lear, 1998; Komar, Melamid, & Fineman, 2000; Ringis, 1996). The use of elephants in transportation, logging, and military campaigns also guaranteed their economic importance. Today, however, elephants are principally utilised in the tourism industry. The rising interest in elephants among tourists in Thailand reflects a heightened interest globally in ‘wildlife tourism’ (Higginbottom, 2004; Higham & Lück, 2008; Tapper, 2006). Newsome, Dowling, and Moore (2005, pp. 18–19) define wildlife tourism as ‘tourism undertaken to view and/or encounter wildlife’, which ‘can take place in a range of settings, from captive, semi-captive, to in the wild, and . . . encompasses a variety of interactions from passive observation to feeding and/or touching the species viewed’. There are many reasons for the growing popularity of wildlife tourism. On a practical level, ease of transport, improved communication technology, and state and private sector policies have made it easier in recent decades for tourists to reach areas where wildlife is located (Shackley, 1996). On a more social and psychological level, people desire interactions with wildlife

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because of the recuperative effects of natural settings (Hartig & Evans, 1993; Ulrich, 1983, 1993), changing social attitudes towards nature and wildlife (Duffus & Dearden, 1990), the physiological benefits of interaction with animals (Franklin & White, 2001; Katcher & Wilkins, 1993; Kellert, 1996), and 'biophilia', the innate human 'tendency to focus on life and lifelike processes' (Wilson, 1984, p. 1).

Wildlife tourism occurs within what Orams (1996, p. 40) calls a 'spectrum of tourist-wildlife interaction opportunities' ranging from captive settings completely constructed by humans, to semi-captive settings featuring containment but some freedom of movement, to wild areas in the natural environment. The types of settings in which wildlife tourism takes place, and the nature of the interactions found in those settings, are shaped largely by differing values regarding the relationship between humans and wildlife. Bentrupperbäumer (2005) discusses four universal values that determine people's views of wildlife in a tourism context. First, the dominionistic view, which sees animals as under the dominion of human beings, emphasises mastery, domination, and control of animals, and currently prevails in the wildlife tourism industry (Kellert, 1996; Orams, 2002). Second, the utilitarian view, also common to wildlife tourism settings, values animals only for their ability to provide concrete social, economic, or psychological benefits to humans. Third, the moralistic view challenges the anthropocentric values underpinning most wildlife tourism, positing instead that the welfare and rights of animals as living creatures are equally as important as the needs and desires of wildlife tourists (Hughes, 2001). Finally, the protectionistic view endorses the use of wildlife tourism to promote species conservation and preservation by, among other things, providing financial incentives to protect animals and engaging in captive breeding efforts.

Nowhere is the debate over the role of captive wildlife in tourism more pertinent than in Thailand, where elephants now form a crucial component of the tourism industry, particularly in the northern provinces that together contain three-quarters of all captive elephants in the country. Currently, nearly every domesticated elephant in Thailand is employed in the tourism industry, with most working in semi-captive 'elephant camps' (*baang chang* in Thai). Although elephants working in camps tend to fare better than those toiling away in circus venues, or in illegal logging operations, most still live far from ideal, natural lives. Camp elephants face several problems. First, elephants working in camps suffer injuries ranging from normal cuts and bruises caused by trees and shrubs to more serious abrasions caused by the hook (ankus) used by mahouts (elephant handlers) for control and discipline (Khawnual & Clarke, 2002). Second, elephant camps are artificial environments where elephants from all over Thailand, and even Southeast Asia, are thrown together, thereby prohibiting the natural formation of herds centred on matriarchal family groups. Without opportunities to bond naturally, elephants in camps have problems reproducing, and in some cases show behavioural signs of stress. Third, aside from needing to purchase an enormous quantity of food every single day – elephants consume between 100 and 200 kg per day – camps also struggle to provide a sufficient variety of food, the correct balance of particular food groups (e.g. staples such as grass versus supplements such as fruits), and food that is free of chemical residues from fertilisers and pesticides (Phuangkum, Lair, & Angkawanith, 2005). Finally, the high level of control and discipline required of elephants in tourist camps necessitates harsh training methods, particularly when an elephant is first 'broken' at the age of three or four. The method used for centuries throughout Southeast Asia to break elephants is known in Thailand as *phajaan* and involves confining and torturing calves into submission (Hile, 2002; King, 2005).

This article examines the preferences, values, and opinions of elephant camp tourists and assesses the role played by different kinds of elephant camps in improving the

welfare of domesticated elephants in Thailand. Aside from some unpublished reports (Preechapanaya, 2000), conference papers (Khawnual & Clarke, 2002; Tipprasert, 2002), and studies of domesticated Asian elephants more broadly (Chatkupt, Sollod, & Sarabol, 1999; Lair, 1997), few have directly examined the role of tourist camps specifically in the welfare of elephants. This is surprising considering the importance of elephants in the tourism industry of northern Thailand, and the passion with which animal rights groups argue against the use of elephants in tourism. Likewise, many authors (Cohen, 1982, 1983, 1989, 1996; Dearden, 1991, 1993; Dearden & Harron, 1994; Hayami, 2006; Hvenegaard & Dearden, 1998; Michaud, 1997) have thoroughly examined the role of ecotourism and ethnic tourism among the national parks and 'hilltribe' communities of northern Thailand, but little mention is made except in passing on the use of elephants. Finally, while studies on the relationship between tourism and elephant welfare in Africa are common (de Boer, Stigter, & Ntumi, 2007; Boshoff, Landman, Kerley, & Bradfield, 2007; Kerley, Geach, & Vial, 2003; Lötter, Henley, Fakir, Pickover, & Ramose, 2008; Millspaugh et al., 2007; VanderPost, 2007), the Asian elephant continues to be ignored in the growing literature on wildlife tourism. This article attempts to fill these gaps in the tourism literature and argues that there are several dilemmas when it comes to improving the welfare of elephants in Thailand, the most important of which is the need to accept and promote both anthropocentric and ecocentric elephant camps, despite the limitations associated with each type of camp.

Methods

Since they account for more elephants than any other tourism-related setting, elephant camps offer excellent opportunities to study the ways in which tourism contributes to the welfare of elephants. There are roughly 40–50 elephant camps throughout Thailand (Tipprasert, 2002), with tourist destinations such as Ayutthaya, Chiang Mai, Phuket, and Pattaya hosting the majority of camps. This article focuses specifically on a group of elephant camps in northern Thailand. Elephants are an important component of tourism in northern Thailand in general, and in Chiang Mai in particular. Elephant camps are scattered throughout Chiang Mai province, but most major camps (i.e. those with more than 15 elephants) lie within a 2h driving distance to the north or south of Chiang Mai city. There are seven major camps in just three Amphoe (districts) – Mae Rim, Mae Taeng, and Chiang Dao – to the north of Chiang Mai city. The elephant camps that served as locations for this study are located in Amphoe Mae Taeng, along the Mae Taeng River (Figure 1).

This area is roughly 50 km from Chiang Mai city and is home to three major camps located close to one another along the river bank (for years there were four camps, but one camp was very recently acquired by one of the three remaining camps). In total, there are roughly 150 elephants in these three camps. The concentration of so many camps and elephants in a small and seemingly random location is deliberate because this area is accessible to tourist buses coming from Chiang Mai and also sits at the beginning of a 4-km stretch of the Mae Taeng River that is easily traversed by bamboo raft. Additionally, the surrounding area offers adequate forest cover and access to water for elephants. While all elephant camps in Thailand provide potentially interesting case study information related to animal welfare, the camps in the Mae Taeng district are especially important since most international visitors to northern Thailand pass through Chiang Mai city at some point during their vacation, with 80–90% of 'Western' visitors to Chiang Mai (according to several local experts interviewed) experiencing some form of contact with elephants, including in tourist camps.



Figure 1. Northern Chiang Mai province, Thailand.

The data for this study were collected at all three large elephant camps in the Mae Taeng River area. The styles and business practices of the three camps reflect and embody competing paradigms or worldviews on the place and role of humans in the natural world. The *anthropocentric* worldview positions humans as separate from and in charge of nature, where wildlife and natural resources are valuable only in the context of human needs, values, and desires (Fennell, 2003; Newsome et al., 2005). The *ecocentric* worldview, also known as biocentrism (Devall & Sessions, 1985), posits that all species, including human beings, have an equal importance and right to exist, and that all living things are dependent both on one another and on a healthy environment (Miller, 2004). While the anthropocentric paradigm sees nature in an instrumental way (as a means to a human end) and stems from an 'ethic of use', the ecocentric paradigm stems from an 'ethic of nature' and recognises the intrinsic value of all life forms apart from their utility to humans (Wearing & Neil, 1999).

The camp most reflective of the ecocentric worldview is *Thai Ruk Chang* (TRC). (Please note that for the sake of anonymity, the names of the camps have been changed.)

TRC was established in 1996 but moved to its current location along the Mae Taeng River in 2003. As a sanctuary, TRC acquires elephants that are abused, abandoned, or injured in logging or tourism. There are approximately 30 elephants in TRC, and no work is required of the elephants; instead, tourists pay for the opportunity to feed, observe, and bathe elephants. TRC hosts both *visitors*, who stay at the camp for just 1 day, and *volunteers*, who pay for the opportunity to volunteer their labour and skills for a period of 1–4 weeks. Due to its success at handling elephants in a less punitive manner than traditional methods, and its attempt to move the tourism industry in a more ecocentric direction, TRC and its founder have received a great amount of recognition, receiving a number of awards and being featured in hundreds of magazine articles, newspaper stories, and documentary films.

The other two camps reflect an anthropocentric worldview. *Tammachat Elephant Camp* began operations in 1987 and currently maintains 67 elephants. *Tom Klua Elephant Camp* was founded in 1996 and has 56 elephants. The 'products' offered by *Tammachat* and *Tom Klua* are almost identical and include an elephant ride, a rafting trip down the Mae Taeng River on a bamboo raft, a buffet lunch, an oxcart ride, and a 1h show in which elephants kick soccer balls, dunk basketballs into hoops, play musical instruments, dance to music, follow mahout commands, and paint using brushes held in the tips of their trunks. Aside from differing in the kinds of activities offered to tourists, and the nature of interaction between tourists and elephants, TRC differs from the other two camps in that it owns all of its elephants. By contrast, *Tammachat* and *Tom Klua* own only 22% and 18% of their elephants, respectively, and therefore must rent the remaining elephants on a monthly basis, either from members of the Karen minority group living in northern Thailand or from Thais based in both northern and northeastern Thailand (Isaan). In terms of the four values discussed in the introduction that shape the nature of the tourist–wildlife relationship, TRC reflects utilitarian and moralistic views, whereas *Tammachat* and *Tom Klua* reflect dominionistic and utilitarian views.

This article is based on data collected between July 2007 and August 2008. Three kinds of data were gathered for this study. First, in-depth semi-structured interviews lasting between 2 and 4 h took place with the owners and managers of the three camps studied. Extensive interviews were also conducted with several resident experts on the topics of elephant welfare or tourism in Chiang Mai, including the Assistant Director of the Tourism Authority of Thailand (TAT) Northern Region 1 office in Chiang Mai city, the President of the Chiang Mai Guide Association, four staff members from the Thai Elephant Conservation Center (TECC) in Lampang province, the Director of the Ecumenical Coalition on Third World Tourism, located in Chiang Mai, the Thai author of one of only two known academic studies of this area's elephant camps (Preechapanya, 2000), and Lair, widely recognised as the world's leading English-speaking authority on domesticated Asian elephants. Interviews were conducted in English and Thai.

Second, using convenience sampling, self-administered surveys were completed by a total of 556 individuals visiting the three camps in question. Tourists completed surveys in person while visiting the camps. The surveys cover such topics as demographic data, reasons for visiting or volunteering at an elephant camp, numerical rankings of various elements of the elephant camp experience, and assessments of the learning value of the elephant camp visit. Questions asked on the surveys were shaped partly by the interests and goals of the author and partly by the desires of camp owners and managers for particular data that would help improve their operations. Data from the self-administered surveys were coded and entered into SPSS. Finally, in addition to interviews and surveys, the author or his Thai research assistants made more than 35 visits to the three elephant

camp under investigation and carried out informal conversations with more than 300 tourists and elephant camp staff members.

Characteristics, satisfaction levels, and values of elephant camp tourists

Compared with the average international tourist in Thailand, visitors of elephant camps are much more likely to come from Western Europe, North America, or Australia (Table 1). With the exception of Singapore in the case of *Tammachat* and *Tom Klua* visitors, not a single Asian country is represented in the top five countries of residence among the visitors of the three camps examined in this study. By contrast, of the 14.46 million international tourist arrivals in 2007 in Thailand, 39% claimed residence in one of five Asian countries: Malaysia (10.7% of total arrivals), Japan (8.6%), Korea (7.4%), China (6.9%), and Singapore (5.5%) (Tourism Authority of Thailand [TAT], 2008).

Elephant camp visitors also differ considerably from the average international tourist in Thailand when it comes to gender, length of stay, and the percentage making their first trip to Thailand (Table 2). In particular, the ratio of males to females among the three groups of visitors is much lower than the ratio among all international tourists in Thailand. Taken together, 36.5% of the 536 visitors surveyed are male, whereas the figure for Thailand as a whole is 65.2% (TAT, 2008). The average length of stay among elephant camp visitors varies from 18.3 days for TRC visitors to 28.8 days for TRC volunteers; for all visitors combined, the average is 21.1 days. The international tourist in Thailand, however, stays in Thailand for a much shorter time – roughly 9.2 days on average – but has more travel experience in Thailand, as measured by the percentage visiting Thailand for the first time (TAT, 2008). Lastly, elephant camp visitors tend to be younger (roughly 33.5 years on average for all elephant camp visitors surveyed) than international tourists in Thailand as a whole (39.4 years old on average).

In general, respondents from all three tourist groups express a high level of satisfaction with the various components of their elephant camp visits (Tables 3 and 4). Visitors of *Tammachat* and *Tom Klua* are most satisfied with the elephant ride (with 90.7% responding

Table 1. Top five countries of residence of elephant camp visitors.

	Top 5 countries of residence of visitors (percentage of total visitors)
<i>Tammachat/Tom Klua</i> visitors (N = 164)	1. USA (15.6) 2. Australia (12.9) 3. UK (9.7) 4. France (8.1) 5. Singapore (6.5)
TRC visitors (N = 262)	1. Australia (19.5) 2. USA (17.6) 3. UK (14.5) 4. Canada (11.8) 5. The Netherlands (10.7)
TRC volunteers (N = 130)	1. USA (39.1) 2. UK (20.0) 3. The Netherlands (12.7) 4. Canada (10.9) 5. Australia (7.3)

Table 2. Age, gender, and travel experience (in Thailand) of elephant camp visitors.

	<i>Tammachat/Tom Klua</i> visitors (N = 164)	TRC visitors (N = 262)	TRC volunteers (N = 130)	International tourists in Thailand (2007) (N = 14,464,228) ^a
Average age	37.3	34.6	28.6	39.4
Male (%)	38.6	40.2	25.5	65.2
Female (%)	61.4	59.8	74.5	34.8
Average length of stay during this visit (days)	20.2	18.3	28.8	9.2
Percentage making their first trip to Thailand	56.2	63.7	70.2	39.0
Average number of total visits to Thailand	2.4	2.6	1.6	n.a.
Average time spent in Thailand on all trips (weeks)	5.9	6.7	5.1	n.a.
Percentage who planned to visit an elephant camp before arriving in Thailand	71.7	66.3	89.7	n.a.

^aSource: TAT (2008).

Table 3. Satisfaction among *Tammachat/Tom Klua* visitors with specific aspects of visit.

Satisfaction with	Percentage of respondents (N = 164)					Mean score (on a 5-point Likert scale)
	Very unsatisfied	Unsatisfied	Neutral	Satisfied	Very satisfied	
Value of money spent	1.9	7.4	13.0	46.3	31.5	3.98
Variety of activities	1.8	1.8	14.0	47.4	35.5	4.12
Journey to camp	0	1.8	14.0	43.9	40.4	4.23
Friendliness of staff	1.8	0	10.5	28.1	59.6	4.44
Rafting	3.4	0	10.3	48.3	37.9	4.17
Elephant show	1.8	3.6	17.9	35.7	41.1	4.11
Elephant ride	1.9	1.9	5.6	33.3	57.4	4.43
Oxcart ride	3.8	1.9	23.1	40.4	30.8	3.92
Skill of mahouts	4.3	0	6.4	40.4	48.9	4.30
Quality of food	1.9	0	16.7	42.6	38.9	4.17
Quality of facilities	1.9	0	9.3	50.0	38.9	4.24
Educational value of visit	5.4	5.4	17.9	46.4	25.0	3.80
Price of goods in gift shop	2.1	6.3	20.8	60.4	10.4	3.71
Range of goods in gift shop	6.4	2.1	38.3	44.7	8.5	3.47
Authenticity of experience	1.8	8.9	8.9	35.7	44.6	4.13
Fun of visit	1.8	3.6	5.4	26.8	62.5	4.45

that they are either ‘satisfied’ or ‘very satisfied’), the skill of mahouts (89.3%), and the fun associated with the visit (89.3%). The average percentage of *Tammachat* and *Tom Klua* visitors, across all categories or aspects of the visit, who chose ‘very satisfied’ is 38.2, while 80.1% chose either ‘satisfied’ or ‘very satisfied’.

Satisfaction scores for both TRC visitors and volunteers are even higher than for *Tammachat* and *Tom Klua* visitors (Table 4). The percentage of TRC visitors who report

Table 4. Satisfaction among TRC visitors and volunteers with specific aspects of visit.

Satisfaction with	Percentage of respondents (N = 262)					Mean score (on a 5-point Likert scale)
	Very unsatisfied	Unsatisfied	Neutral	Satisfied	Very satisfied	
<i>Value for money spent</i>						
Visitor	0.4	1.2	2.3	27.7	68.4	4.61
Volunteer	1.0	1.0	8.6	23.8	64.8	4.50
<i>Booking procedure</i>						
Visitor	0	2.4	6.3	18.3	73.0	4.62
Volunteer	1.1	4.3	6.5	25.8	62.4	4.44
<i>Journey to camp</i>						
Visitor	0.8	2.7	4.7	27.3	64.5	4.52
Volunteer	0.9	0	1.9	23.4	73.8	4.67
<i>Staff's knowledge</i>						
Visitor	0.4	0.8	1.5	18.1	79.2	4.75
Volunteer	0	2.9	0	24.8	72.4	4.67
<i>Friendliness of staff</i>						
Visitor	0.4	0.4	0.8	8.0	90.4	4.88
Volunteer	0.9	0.9	5.7	13.2	79.2	4.69
<i>Elephant feeding</i>						
Visitor	0.8	0	2.3	21.6	75.3	4.71
Volunteer	0.9	0	2.8	29.9	66.4	4.61
<i>Quality of food</i>						
Visitor	0.8	0	1.5	10.8	86.9	4.83
Volunteer	0.9	0	0	12.8	86.2	4.83
<i>Elephant river bathing experience</i>						
Visitor	0.4	0	3.5	22.8	73.4	4.69
Volunteer	0.9	0	2.8	21.5	74.8	4.69
<i>Way elephants are handled</i>						
Visitor	0.4	0	1.2	15.1	83.4	4.81
Volunteer	0.9	1.9	3.7	25.2	68.2	4.58
<i>Quality of facilities</i>						
Visitor	1.2	0.4	1.6	19.1	77.7	4.72
Volunteer	0.9	2.8	12.3	34.9	49.1	4.28
<i>Educational value of visit</i>						
Visitor	0.4	1.5	4.13	30.4	63.6	4.56
Volunteer	0.9	1.9	6.8	30.4	60.4	4.52
<i>Price of goods in gift shop</i>						
Visitor	0	1.4	1.8	37.1	59.7	4.55
Volunteer	0.9	0.9	2.8	38.7	56.6	4.49
<i>Range of goods in gift shop</i>						
Visitor	0.9	4.4	9.8	44.9	40.0	4.19
Volunteer	0.9	1.9	11.3	37.7	48.1	4.30

being 'satisfied' or 'very satisfied' across all categories is 23.2 and 72, respectively, for a total of 95.2%; the corresponding figures for TRC *volunteers* is 26.3 ('satisfied') and 66.3 ('very satisfied'), for a total of 92.6%. Among TRC visitors, the way in which the elephants are handled (98.5% 'satisfied' or 'very satisfied'), the friendliness of the staff (98.4%), and the quality of the food (97.7%) produced the highest satisfaction scores;

for TRC volunteers, the three aspects of the visit that are most satisfying are the quality of the food (99% 'satisfied' or 'very satisfied'), the journey to the camp (97.2%), and the staff's knowledge (97.2%).

As mentioned earlier, not all questions asked on the surveys (such as those related to satisfaction levels) overlap among the three groups of surveyed tourists due to the different kinds of activities offered at the different camps, as well as the particular requests made by the owners and managers of each camp regarding survey questions. Nevertheless, among the eight variables related to satisfaction that do overlap, every single one reveals statistically significant differences in satisfaction scores, particularly between *Tammachat* and *Tom Klua* visitors, on the one hand, and TRC visitors and volunteers, on the other (Table 5). The only exception to this pattern seems to be the relatively lower satisfaction scores among TRC volunteers with the quality of facilities, but this can be explained by the requirement that volunteers sleep overnight in basic hostel-style accommodations on site, whereas TRC visitors visit the camp for only 1 day.

As discussed in the methods section, the three camps that were studied for this research reflect different value orientations, with *Tammachat* and *Tom Klua* promoting an anthropocentric worldview and TRC endorsing a more ecocentric approach. Everything about the interaction between tourists and elephants at *Tammachat* and *Tom Klua* centres on anthropocentric desires, tastes, and interests. From the ride on the backs of elephants through nearby forests to the 1h show that highlights the intelligence, agility, strength, and obedience of elephants, the sole role of elephants in these two camps is to provide tourists with novel, fun, memorable, and safe experiences. By contrast, TRC exists mostly for the sake of the elephants and accepts tourist visitation only because the camp could not operate without the revenue that tourists provide. Elephants at TRC are not required to

Table 5. Comparison of satisfaction scores from three groups of elephant camp visitors.

Satisfaction with	Percentage of respondents 'satisfied' or 'very satisfied' (with mean score on a 5-point Likert scale)			<i>p</i> -Values*
	<i>Tammachat/Tom Klua</i> visitors (N = 164)	TRC visitors (N = 262)	TRC volunteers (N = 130)	
Value for money spent	77.8 (3.98)	96.1 (4.61)	88.6 (4.50)	(0.000, 0.001, 0.332)
Journey to camp	84.8 (4.23)	91.8 (4.52)	97.2 (4.67)	(0.004, 0.000, 0.138)
Friendliness of staff	87.7 (4.44)	98.4 (4.88)	92.4 (4.69)	(0.000, 0.003, 0.001)
Quality of food	81.5 (4.17)	97.7 (4.83)	99.0 (4.83)	(0.000, 0.000, 0.994)
Quality of facilities	88.9 (4.24)	96.8 (4.72)	84.0 (4.28)	(0.000, 0.919, 0.000)
Educational value of visit	71.4 (3.80)	94.0 (4.56)	90.8 (4.52)	(0.000, 0.000, 0.979)
Price of goods in gift shop	70.8 (3.71)	96.8 (4.55)	95.3 (4.49)	(0.000, 0.000, 0.588)
Range of goods in gift shop	53.2 (3.47)	84.9 (4.19)	85.8 (4.30)	(0.000, 0.000, 0.631)

**p*-Values are from one-way ANOVA tests and Tukey's Honestly Significant Difference (HSD) post-hoc tests comparing the mean satisfaction scores of the three tourist groups for each element of satisfaction measured. *p*-Values of <0.05 are shown in bold and indicate a statistically significant difference. The first *p*-value in the parentheses measures the significance of differences between the scores of *Tammachat/Tom Klua* visitors and TRC visitors. The second *p*-value derives from a comparison of *Tammachat/Tom Klua* visitors and TRC volunteers. The third *p*-value derives from a comparison of TRC visitors and TRC volunteers.

perform any work whatsoever in order to receive food, veterinary care, and adequate free time to eat, drink, rest, and bathe. Their needs as sentient beings, and ‘purposive agents or actors in their own right’ (Hughes, 2001, p. 322) beyond their utility for humans, therefore factor heavily into the approach taken by the camp’s owner and managers, though it should be pointed out that TRC’s dual status as a sanctuary and tourist camp makes it necessary to downplay the importance of the elephants’ economic utility.

The differences between the anthropocentric approach of *Tammachat* and *Tom Klua*, and the ecocentric approach of TRC are reflected in the worldviews of the tourists who visit each camp. All three groups of tourists were asked on surveys to respond to several statements meant to solicit information regarding individuals’ opinions and values (Table 6). For statements related to the environment and animal rights, there are significant differences between the three groups, with *Tammachat* and *Tom Klua* visitors displaying a greater adherence to an anthropocentric paradigm than TRC visitors and volunteers. It is also interesting to note that the higher levels of satisfaction among TRC visitors and volunteers noted earlier are evident once again in responses to statements regarding the sufficiency of visitor interactions with

Table 6. Comparison of opinions and values of three groups of elephant camp visitors.

	Percentage of respondents who ‘agree’ or ‘strongly agree’ (with mean score on a 5-point Likert scale)			
	<i>Tammachat/Tom Klua</i> visitors (<i>N</i> = 164)	TRC visitors (<i>N</i> = 262)	TRC volunteers (<i>N</i> = 130)	<i>p</i> -Values*
I feel completely safe around the elephants in the camp	81.4 (4.28)	90.5 (4.46)	82.1 (4.20)	(0.226, 0.799, 0.007)
I will recommend to others that they visit the camp	73.6 (3.98)	95.3 (4.83)	94.4 (4.74)	(0.000 , 0.000 , 0.376)
My level of interaction with the elephants was sufficient	72.2 (3.89)	82.6 (4.31)	73.8 (4.03)	(0.005 , 0.625, 0.018)
Tourism contributes to the welfare of the Thai elephant	52.7 (3.56)	57.2 (3.72)	41.9 (3.16)	(0.677, 0.114, 0.000)
I am worried about global warming	67.6 (3.84)	83.6 (4.29)	90.7 (4.49)	(0.000 , 0.000 , 0.087)
The environment is more important than economic growth	56.8 (3.72)	72.8 (4.03)	76.5 (4.01)	(0.003 , 0.021 , 0.983)
Human needs are more important than animal rights	22.5 (2.37)	16.6 (2.05)	13.0 (1.93)	(0.023 , 0.005 , 0.616)
Elephants are better off in the wild	45.2 (3.34)	69.8 (3.95)	82.9 (4.37)	(0.011 , 0.000 , 0.142)

**p*-Values are from one-way ANOVA tests and Tukey’s HSD post-hoc tests comparing the mean satisfaction scores of the three tourist groups for each element of satisfaction measured. *p*-Values of <0.05 are shown in bold and indicate a statistically significant difference. The first *p*-value in the parentheses measures the significance of differences between the scores of *Tammachat/Tom Klua* visitors and TRC visitors. The second *p*-value derives from a comparison of *Tammachat/Tom Klua* visitors and TRC volunteers. The third *p*-value derives from a comparison of TRC visitors and TRC volunteers.

elephants, as well as whether visitors will recommend the camp to others. As was the case with the satisfaction data presented above, TRC visitors tend to be the most satisfied group of elephant camp visitors.

In order to assess differences regarding travel preferences, surveys given to all three tourist groups asked elephant camp visitors to state the level of importance of 13 specific travel attributes (Table 7). With the exception of two travel attributes – namely, cost and doing new things – there are significant differences in the importance of every other attribute when comparing *Tammachat/Tom Klua* visitors to TRC visitors or volunteers. It is clear that *Tammachat* and *Tom Klua* visitors are as a group more stereotypically ‘conventional’ in their tourist outlooks and preferences than TRC visitors and volunteers. For example, convenience, rest, and relaxation are more important for *Tammachat* and *Tom Klua* visitors than for visitors and volunteers at TRC. Moreover, those who visit *Tammachat* and *Tom Klua* are less inclined than those visiting or volunteering at TRC to place importance on authenticity, meeting other travellers, adventure, education, and being different than other tourists.

Table 7. Comparison of the importance of specific travel attributes to three groups of elephant camp visitors.

Attribute	Percentage of respondents selecting ‘important’ or ‘very important’ (with mean score on a 5-point Likert scale)			
	<i>Tammachat/Tom Klua</i> visitors (<i>N</i> = 164)	TRC visitors (<i>N</i> = 262)	TRC volunteers (<i>N</i> = 130)	<i>p</i> -Values*
Taking care of the natural environment	90.0 (4.23)	92.8 (4.53)	92.1 (4.54)	(0.000 , 0.001 , 0.993)
Having authentic cultural experiences	89.4 (4.32)	95.1 (4.61)	96.1 (4.58)	(0.000 , 0.005 , 0.900)
Convenience	70.7 (3.90)	56.5 (3.59)	57.6 (3.50)	(0.006 , 0.003 , 0.731)
Cost	77.7 (3.97)	67.8 (3.77)	73.6 (3.99)	(0.119, 0.974, 0.088)
Rest and relaxation	73.5 (3.96)	84.1 (3.72)	66.7 (3.71)	(0.048 , 0.080, 0.989)
Meeting other travellers	29.8 (3.05)	50.6 (3.39)	81.5 (4.17)	(0.006 , 0.000 , 0.000)
Minimising the impact of travel	48.0 (3.43)	71.4 (4.01)	74.8 (4.03)	(0.000 , 0.000 , 0.975)
Visiting pristine environments	47.9 (3.29)	60.5 (3.67)	59.0 (3.51)	(0.006 , 0.291, 0.409)
Having adventurous experiences	74.5 (4.00)	83.5 (4.24)	88.2 (4.39)	(0.021 , 0.001 , 0.287)
Doing new things	86.3 (4.41)	90.1 (4.43)	90.5 (4.49)	(0.981, 0.674, 0.727)
Having fun	90.3 (4.63)	93.5 (4.57)	96.1 (4.76)	(0.719, 0.222, 0.027)
Having educational experiences	75.1 (4.10)	95.9 (4.54)	90.6 (4.53)	(0.000 , 0.000 , 0.993)
Being different than other tourists	55.8 (3.49)	87.1 (4.34)	87.0 (4.40)	(0.000 , 0.000 , 0.852)

**p*-Values are from one-way ANOVA tests and Tukey’s HSD post-hoc tests comparing the mean satisfaction scores of the three tourist groups for each element of satisfaction measured. *p*-Values of <0.05 are shown in bold and indicate a statistically significant difference. The first *p*-value in the parentheses measures the significance of differences between the scores of *Tammachat/Tom Klua* visitors and TRC visitors. The second *p*-value derives from a comparison of *Tammachat/Tom Klua* visitors and TRC volunteers. The third *p*-value derives from a comparison of TRC visitors and TRC volunteers.

Looking closer, it appears that the lowest *p*-values, and therefore the most statistically significant differences, come in categories usually linked to preferences and values associated with 'alternative' (to mass, packaged) tourists: taking care of the natural environment, having authentic cultural experience tourists, minimising the impact of travel, having educational experiences, and being different than other tourists. Additionally, the tendency of *Tammachat* and *Tom Klua* visitors to fall along the anthropocentric end of the values continuum is demonstrated in lower scores on statements related to environmental issues such as the importance of taking care of the natural environment, minimising the impact of travel, and visiting pristine environments. While significant differences exist between the visitors of the two types of camps studied, TRC visitors and volunteers exhibit highly similar preferences and values to one another, differing in only 2 of the 13 attributes measured ('meeting other travellers' and 'having fun').

Elephant camp contributions to animal welfare

For those interested in improving the day-to-day lives of individual elephants working in the Thai tourism industry, it would seem – based on what is demanded of elephants at the three camps, the values of the tourists who visit, and the differing worldviews of the owners and managers of the three camps – that the welfare of domesticated elephants in Thailand would probably best be served by promoting and prioritising ecocentric camps such as TRC. Elephants in anthropocentric camps such as *Tammachat* and *Tom Klua* work hard and risk potential injury to satisfy the needs and desires of tourists, whereas elephants in ecocentric camps such as TRC enjoy more space to roam, more time interacting freely with other elephants, and few if any demands to provide 'services' to tourists.

However, not only would it be a mistake to dismiss the role played by anthropocentric camps such as *Tammachat* and *Tom Klua* in improving the lives of elephants, but the inherent limitations of ecocentric camps in Thailand necessitate the acceptance of all types of elephant camps, including those that animal rights activists criticise because of their use of elephants in recreational and entertainment-oriented activities.

Anthropocentric camps such as *Tammachat* and *Tom Klua* contribute in three ways to elephant welfare. First, the hundreds of thousands of tourists that pass through *Tammachat*, *Tom Klua*, and other Chiang Mai elephant camps every year provide valuable revenue to camp operators, elephant owners, and mahouts. More income to owners and handlers in almost every case is beneficial to the welfare of individual elephants. Camp owners and managers stated in interviews that during the low season, rented elephants that are no longer needed are often forced into the harshest life imaginable for an elephant, namely wandering urban streets with their mahouts, who earn money by selling food to onlookers. The more money that elephant owners and mahouts receive, the more money there is to purchase adequate veterinary care and the right quantity and quality of food. Even though, in practice, profits derived from elephants do not always translate into better treatment of elephants, the 5000–7000 baht (\$150–\$210) per month that elephant owners receive for a rented elephant in *Tammachat* and *Tom Klua* is surely better than the income that would be received in the absence of tourism. Further, work in tourism benefits elephants because it provides income to those mahouts who do not own their own elephants but instead are hired by elephant owners, in some cases the owners of the camps; roughly half of all mahouts in *Tammachat* and *Tom Klua* are hired. Tips given by tourists for rides or photo opportunities allow hired mahouts to supplement the 3000–5000 baht (\$90–\$150) salaries that they receive per month. As a poorly paid and socially marginalised group, hired mahouts benefit greatly from any additional income provided by tourists in the

form of tips. The elephants that they handle also benefit since this extra income diminishes the need for mahouts to seek outside employment, which would result in less time spent feeding, bathing, and getting acquainted with their elephants. It is important to note also that the bananas and sugarcane that are purchased by tourists in the camps, in 30 baht (90 cent) increments, to feed the elephants represents 10–20% of the total food consumed by elephants in *Tammachat* and *Tom Klua*. As this is provided at no charge at all to mahouts or to the camp, it is in effect a small food subsidy and therefore an income supplement.

Second, the high number of tourists that pass through *Tammachat* and *Tom Klua* every single day creates a heightened demand for elephants, needed mostly to provide three rides per day for tourists. In a political, economic, and social environment that in Thailand has failed to protect elephants based on their inherent, intrinsic worth as living creatures, the welfare of elephants is largely dependent on their economic value and utility to humans (Lair, 1997). The anthropocentric elephant camps of Chiang Mai such as *Tammachat* and *Tom Klua* boost demand for elephant labour and thereby provide the value and utility so crucial to elephant welfare in Thailand. There seems, therefore, to be a necessary trade-off between animal *welfare* and animal *rights* (Hughes, 2001), whereby the welfare of domesticated elephants in Thailand as a group is fostered by sacrificing the rights of individual elephants to live as free, intrinsically valuable, and sentient beings.

Third, many authors (Ballantyne, Packer, Hughes, & Dierking, 2007; Goff, Lockhart, Ogden, & Dierking, 2005; Hancocks, 2001; Maple, McManamon, & Stevens, 1995; Tribe & Booth, 2003) have commented on the importance of education in animal welfare and wildlife conservation. The potential for education in anthropocentric camps is high due not only to the large number of visitors but also because, as illustrated earlier in Tables 5 and 7, *Tammachat* and *Tom Klua* visitors, compared with TRC visitors and volunteers, are unsatisfied with the educational value of their visits and are less interested in having educational experiences while travelling in general. Thus, when it comes to education, it could be said that the average *Tammachat* and *Tom Klua* visitor is an emptier canvas on which to draw. Interestingly, visitors of all three camps report statistically significant increases in their perceived level of knowledge of elephants as a result of their visits to the camps (Table 8).

Even though *Tammachat* and *Tom Klua* visitors, as a group, feature less interest than TRC visitors and volunteers in the environment and animal rights (Table 6), their perceived level of knowledge of elephants prior to visiting the camp is significantly higher than for TRC volunteers (but not for TRC visitors). At the conclusion of the trip, however, the level of knowledge reported by TRC visitors and volunteers is significantly higher than for *Tammachat* and *Tom Klua* visitors, as would be expected considering the longer visit lengths and more deliberate focus on education and information found at TRC. Nonetheless, it is noteworthy and encouraging that *Tammachat* and *Tom Klua* visitors significantly improve their knowledge of elephants despite the absence of informational pamphlets, visual displays, and in the case of one of the camps, narration to accompany the 1h elephant show.

One could argue that elephants in anthropocentric camps live imperfect, compromised lives as the price for enhancing their utilitarian value to humans, but there is no doubt that, for a domesticated elephant in Thailand, there is no better life than the rehabilitative and animal-centred atmosphere of TRC. However, for the domesticated elephant population in Thailand as a whole, TRC has little direct impact. The large space naturally required by elephants and a purposeful capping of visitor and volunteer numbers mean that TRC cannot increase the number of elephants or tourists significantly. This, in turn, means that TRC cannot create the same kind of demand for elephants as the conventional,

Table 8. Comparison of elephant camp visitors' perceived level of knowledge of elephants before and after visit

	Mean score on a 10-point Likert scale, from 1 (no knowledge) to 10 (expert)			<i>p</i> -Values*
	<i>Tammachat/Tom Klua</i> visitors (<i>N</i> = 164)	TRC visitors (<i>N</i> = 262)	TRC volunteers (<i>N</i> = 130)	
What was your level of knowledge of elephants before visiting this camp?	4.48	4.08	3.79	(0.139, 0.014 , 0.389)
What is your level of knowledge of elephants now that you have visited the camp?	6.27	6.96	7.59	(0.000, 0.000, 0.000)
<i>p</i> -Values**	0.000	0.000	0.000	

**p*-Values are from one-way ANOVA tests and Tukey's HSD post-hoc tests comparing the mean satisfaction scores of the three tourist groups for each element of satisfaction measured. *p*-Values of <0.05 are shown in bold and indicate a statistically significant difference. The first *p*-value in the parentheses measures the significance of differences between the scores of *Tammachat/Tom Klua* visitors and TRC visitors. The second *p*-value derives from a comparison of *Tammachat/Tom Klua* visitors and TRC volunteers. The third *p*-value derives from a comparison of TRC visitors and TRC volunteers.

**The *p*-values in this row are from paired-samples *t*-tests comparing, for each group of tourists, perceived levels of knowledge before camp visit to levels of knowledge after visit. *p*-Values of <0.05 are shown in bold and indicate a statistically significant difference between pre-trip and post-trip scores for each tourist group.

anthropocentric camps in the area. Nevertheless, in successfully demonstrating an alternative, more ecocentric model of tourist-wildlife interaction, TRC is crucial for elephant welfare because of its potential indirect influence on the conventional elephant camps in the Mae Taeng area and beyond. TRC is, in short, a paradigm shifter.

In a competitive business environment such as the elephant trekking/camp sector, operators are reluctant to take risks. Even assuming that an operator had the space, training, personnel, marketing expertise, confidence, and environmental inclination necessary to run a more ecocentric camp, what if the idea fails? Additionally, most elephant camps in Thailand respond to competition by offering more entertainment and variety rather than spending resources on improving quality or experimenting with more ecocentric approaches. Bucking this trend, the founder of TRC took a large risk by acquiring rescued elephants, which as injured, disabled, or otherwise unfit for work in conventional elephant camps possess little value in a typical economic sense. TRC took the chance that foreign tourists and donors would support such an ecocentric concept and fortunately, it has proven viable. In fact, TRC has not only shown other camp owners that an ecocentric approach is possible, but that it can be highly successful as well. The enormous international exposure and recognition that TRC and its founder have received has been noticed (and occasionally resented) by other elephant camp owners who must now wonder about the profitability of moving towards a more ecocentric approach, even if it only means slightly less emphasis on entertainment at their anthropocentric camps. Whether or not TRC's success has influenced already established camps such as *Tammachat* and *Tom Klua* will never be known, as owners and managers are loathe to admit emulating a competitor, but since 2000, at least two ecocentric camps closely resembling TRC have opened in the Chiang Mai area.

In the end, regardless of the attractiveness of camps like TRC, animal rights activists and others interested in the welfare of the Asian elephant must recognise that camps like

TRC are difficult to replicate in anything other than an incremental fashion. First of all, it is difficult and expensive to find land that is large and suitable enough to properly host the same number of elephants as found in the major anthropocentric elephant camps. The high cost of providing first-rate veterinary care, adequate food, and attractive mahout salaries is also a limitation of sanctuaries such as TRC (Lair, 1997), especially since this money must be raised by attracting international donations or charging very high prices. The price for a 1day visit to TRC is 10 times the price paid by visitors of *Tammachat* and *Tom Klua*. Aside from pricing a sizeable segment of Thailand's tourists out of the market, camps like TRC appeal to a select audience. In particular, visitors to TRC must be willing to get muddy and dirty bathing elephants in a river, must devote the entire day to the visit rather than fitting it in along with other tours, and must be satisfied with simply observing and 'being' among elephants for hours at a time.

Perhaps the biggest reason why camps like TRC carry a limited appeal among most tourists is the enormous popularity of anthropocentric activities, particularly elephant riding. As demonstrated in Table 3 in the previous section, 90.7% of *Tammachat* and *Tom Klua* visitors are 'satisfied' or 'very satisfied' with their elephant ride, whereas the mean score for satisfaction with the elephant ride is third highest among all 16 aspects or components of their visit. Further, when asked to rank the importance of 14 specific components of their elephant camp visits, *Tammachat* and *Tom Klua* visitors chose elephant riding as the most important component, while 69.4% selected elephant riding as one of their top three favourite activities; this is almost double the percentage choosing the next most popular activity, bamboo rafting (Table 9).

Tammachat and *Tom Klua* visitors were also asked to choose among competing pairs of activities in terms of their appeal (Table 10). Once again, elephant riding emerges as a dominant preference among *Tammachat* and *Tom Klua* visitors, with more than 90% choosing elephant riding over all other competing activities.

Based on the data presented above, it is obvious that elephant riding, an activity intimately tied to anthropocentric values and preferences, is a crucial component of the experiences of *Tammachat* and *Tom Klua* visitors. As such, its elimination from the list of activities offered by the vast majority of elephant camps in Thailand is unlikely.

By contrast, in employing 'protected contact' (i.e. positive reinforcement) rather than traditional punitive tactics as the principal method of handling elephants, TRC has no choice but to forgo activities that require a high degree of mahout control over an elephant's behaviour. Riding, in particular, requires more control over elephants than any other activity in elephant camps. Several *Tammachat* and *Tom Klua* employees commented that injuries seem to increase during the high season, when the need to service larger numbers of guests leads to more shifts for riding elephants, more shows for performance elephants, and more frequent and forceful use of the mahout's hook (ankus), since a tight schedule requires that elephants stay focused and moving steadily while giving tourists rides. Though the hook should be used directly on the head or in the ear canal only under dangerous circumstances, the need for greater disciplinary control of elephants during the high season leads to more wounds caused by overly rigorous and inappropriate use of the hook. Camps such as TRC that prioritise the rights of elephants and avoid punitive controlling measures such as the hook are therefore prohibited from giving the rides so valued by conventional tourists visiting elephant camps in Thailand. Since riding is so popular with the visitors of *Tammachat* and *Tom Klua*, and presumably all other elephant camps in Thailand, moving too far in an ecocentric direction whereby no riding is offered at all would likely pose problems for anthropocentric camps operating in such a competitive business environment.

Table 9. Comparison of the importance of specific components of elephant camp visit among *Tammachat* and *Tom Klua* visitors.

Component of elephant camp experience	Percentage of respondents (N = 164)					Mean score on a 5-point Likert scale (with rank)	Percentage choosing activity as top three favourite activity
	Very unimportant	Unimportant	Neutral	Important	Very important		
Elephant riding	1.9	1.9	24.1	35.2	37.0	4.04 (1)	69.4
Elephant show in general	6.8	9.1	25.0	31.8	27.3	3.64 (6)	24.3
Elephant painting	10.0	12.0	14.0	30.0	34.0	3.66 (5)	30.6
Elephant dancing	8.5	12.8	29.8	25.5	23.4	3.43 (12)	14.2
Elephants playing music	8.3	10.4	29.2	27.1	25.0	3.50 (11)	11.3
Elephants playing soccer and basketball	8.9	6.7	26.7	26.7	31.1	3.64 (7)	22.6
Elephants performing logging tasks	6.3	12.5	25.0	27.1	29.2	3.60 (8)	12.4
Elephants showing obedience to mahout	6.5	10.9	26.1	21.7	34.8	3.67 (4)	13.9
Feeding elephants	6.4	6.4	40.4	21.3	25.5	3.53 (9)	35.5
Oxcart riding	8.7	19.6	28.3	26.1	17.4	3.24 (13)	21.0
Souvenir shopping	24.4	24.4	31.1	11.1	8.9	2.56 (14)	4.8
Playing with elephants	4.5	4.5	27.3	38.6	25.0	3.75 (3)	27.4
Bamboo rafting	0.0	5.7	17.1	45.7	31.4	4.03 (2)	37.1
Eating lunch	10.6	2.1	34.0	31.9	21.3	3.51 (10)	16.1

Table 10. Side-by-side preferences for specific activities among *Tammachat* and *Tom Klua* visitors (N = 164).

'If you had to choose only one of the two items listed in the pairing below, which is more appealing to you?' (with percentage of respondents preferring one over the other)
Elephant riding (95.2) versus elephant show (4.8)
Oxcart riding (5.7) versus elephant riding (94.3)
Elephant painting (36.1) versus feeding elephants (63.9)
Elephant riding (91.7) versus watching elephant tricks (8.3)
Feeding elephants (66.3) versus watching elephant tricks (33.7)
Elephant show (32.4) versus watching elephants bathing in river (67.6)

Conclusion

Aside from work in tourism, domesticated elephants in Thailand possess few legal options for earning a living. Though much less dangerous than illegal logging or street-wandering, work in elephant camps nevertheless features several problems related to injuries, social environment, nutrition, and training methods which together compromise the daily welfare of individual elephants. However, life for domesticated elephants in Thailand would surely be worse in the absence of the economic value and utility provided by tourism demand. Thus, although it features negative trade-offs, tourism-related work, particularly in elephant camps, represents the most optimal solution for promoting the welfare of domesticated elephants, especially in light of prevailing political, economic, cultural, and environmental circumstances in Thailand.

There are important differences between elephant camps in northern Thailand. On the one hand, *Tammachat* and *Tom Klua* reflect an anthropocentric worldview in which elephants are valued mostly for their ability to fulfil human desires and tastes and to provide recreation and entertainment to humans. On the other hand, TRC operates according to ecocentric principles and views elephants as intrinsically worthy, regardless of their utility to humans and beyond any supposedly anthropomorphic traits that they may possess. These differences in worldviews are mirrored in the tourists who visit each camp. All three groups of elephant camp visitor surveyed for this research express high levels of satisfaction, but TRC visitors and volunteers, on the whole, feature significantly higher levels of satisfaction than *Tammachat* and *Tom Klua* visitors. Further, statistically significant differences exist among tourist groups when it comes to values, beliefs, and opinions related to the environment and animal rights.

Animal rights activists in Thailand and beyond have squared off against those with a vested interest in maintaining the high volume, entertainment-oriented nature of anthropocentric elephant camps. However, the data collected for this study indicate that the goal of overall elephant welfare may in fact be most effectively promoted not by rejecting anthropocentric camps altogether and viewing ecocentric camps as an obvious and easy solution, but rather by acknowledging that each type of camp has a role to play. Critics of the use of elephants in tourism should acknowledge the financial utility and value that anthropocentric camps create for elephants, while camp owners should seek ways of improving their products by balancing the preferences of tourists for anthropocentric activities such as elephant riding with the more naturalistic ethos of ecocentric camps, which, it would appear, is not only good for business and beneficial for the welfare of domesticated elephants, but is also more rewarding and educational for visitors, as this study, like several others (Andersen, 2003; Hancocks, 2001; Smith & Broad, 2008), has shown. Considering the many

hurdles associated with reintroducing elephants into the wild ('Working for Peanuts', 2008), the lack of remaining suitable elephant habitat, and the enormous expense involved with adequately caring for elephants, it appears that in the short term at least, the welfare of domesticated elephants in Thailand is best served by a combination of continued tourism demand and sustained pressure on camp owners and managers to move camps in a slightly more ecocentric direction.

A number of limitations to this study should be noted. First, though diligent efforts were made to approach a wide variety of tourists, the convenience sampling used to collect quantitative data meant that self-administered surveys were often completed by tourists who were most comfortable with English, resulting in certain nationalities perhaps being over-represented in the sample. Second, pressure from camp managers and tour agents to limit the length of the surveys (and therefore the time required by visitors to complete them) restricted the number and range of questions that could be asked. If given more leeway to distribute longer surveys, it would have been possible, for example, to not only further explore the importance of values related to environmentalism and animal rights among the different groups of tourists, but also to explore what exactly tourists in anthropocentric camps learn about elephants because of their visits to the camps. Third, due to both space limitations, and the empirical nature of this study, this article does not address the political context and framework in which the use of elephants in tourism is situated. In particular, there is a need for further research on the wider political setting, paying attention especially to the role of government agencies and the political connections of those involved in 'elephant tourism'.

Lastly, this article examines camps in only one region of the country, but it would be interesting to see whether the differences in camps and tourist groups, and the particular roles played by the two kinds of camps in promoting elephant welfare, hold true for elephants in other parts of Thailand. Further, it would be instructive to compare domesticated elephants in Thailand to elephants in Africa, where several studies have explored various dimensions of the human–elephant interaction. For example, Millsbaugh et al. (2007) indicate that providing rides to tourists increases faecal glucocorticoid metabolites (FGM) levels – a key measure of stress response – among working African elephants, and that elephants should be allowed to interact with one another immediately following rides in order to reduce their stress levels. Though the elephants in the anthropocentric camps in the Mae Taeng area do interact with one another between rides, it would be valuable to measure FGM levels to gauge whether elephants are overly stressed by having to provide too many rides, or rides that last too long. A comparison with African elephants would offer two additional benefits. First, as Lötter et al. (2008, p. 334) point out, further research is required to determine the 'ethical acceptability of taming and training African elephants for the tourism industry'. Similar ethical issues demand further investigation in the Thai context, and it would be interesting to compare and contrast the frameworks of ethical debates regarding the domestication and use of Asian and African elephants for recreational purposes. Second, contrary to Thailand, which features no special legal protections, regulations, or standards for domesticated elephants, countries such as South Africa have drafted thorough standards that not only require permits to keep captive elephants or to employ them in 'elephant back safari' operations, but also ensure that captive elephants are handled by trainers or assistants with several years of experience (DEAT, 2008). Close examination of the successes and failures associated with South Africa's efforts to enforce elephant management standards in the coming years could provide valuable lessons for those hoping to implement similar standards in Thailand.

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