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ELEPHANT RIDING: THE FACTS

(Prepared by Belynda Zolotto)

The Asian Elephant is a critically endangered species, facing a very high risk of extinction. For the Thai Asian Elephant, the primary cause of this is habitat loss. The forests and grasslands needed to support a population of elephants have been disseminated by human activity and simply no longer exist. Domesticated elephants are the answer to creating a sustainable future for Thai elephants but providing a supportive environment for elephants in an elephant village or camp/centre requires money. For the Royal Elephant Kraal Village, like other such dedicated, protective centres, tourism is an important source of income. Providing an ethical and humane riding experience for visitors is critical if their programs are to be continued in the long term.

Recently claims have been circulating on the internet and media, maintaining that this practice is damaging for the elephants, even cruel. The Royal Elephant Kraal Village (the Kraal) strongly disputes this assertion and this article sets out some of the facts, and the maths, to demonstrate that elephants are well able to easily carry the weight of humans on their backs. The Kraal has gone to great lengths to ensure that the elephants in its care are well-treated, that their participation in the riding program is beneficial and that the equipment used for rides is well designed and comfortable for the elephant.

The emotive claims against the practice liken the experience of carrying people on the elephant's back to a human carrying a 50 pound backpack for nine hours a day and purport that it will lead to permanent spinal injuries.¹ Instead of making exaggerated comparisons between the human experience and that of animals in order to appeal to people's emotions, always a risky exercise, let's look at the facts.

The article referenced above states that an elephant giving rides is equivalent to a human carrying around 50 pounds (approximately 22.9 kg) for 9 hours a day. In this instance, the ratio of weight of the backpack being carried to an average human body weight of 75kg would be 30.5%.

Note that, to the elephant's advantage, this is not an equal comparison, as humans are bipedal and elephants are quadrupeds, making the dispersion of the extra weight more stable and balanced for the elephant.

So, if the weight of a human is 75kg and the weight of a male elephant is 5000kg, then the weight of the human on top of the elephant would be equal to 1.5% of the elephant's body weight. The elephant is actually only carrying what would be for a human the equivalent of 1.12kg on his back, a lot less than the 22.9kg backpack. With regard to the weight of a female elephant, averaging 2700kg, the human weight of 75kg would be equal to 2.8% of the female elephant's weight. The elephant is actually only carrying what would be for a human the equivalent of 2.1kg on her back. Hardly strenuous considering that the average weight of a woman's handbag is between 2.35 and 10kg!

An elephant can carry up to 25%² of its body weight without causing any discomfort or pressure to its body or spine.

¹ See Responsible Travel Tales, < <http://journals.worldnomads.com/responsible-travel/story/81053/Thailand/Why-Elephant-Riding-Should-Be-Removed-from-Your-Bucket-List>>, accessed 4 August 2014.

² This figure is extrapolated from studies on the weight carrying ability of horses. A recent study testing previous theories regarding the weight carrying ability of horses by the Ohio States University Agricultural Technical Institute



Instead of unverified assertions, let’s look at the facts regarding the weight that an elephant at Elephantstay and the weight that an elephant at the Ayutthaya Elephant Palace/Wang Chang (the Royal Elephant Kraal’s tourist centre) carries as a comparison of its body weight. Table 1.1 below sets out the weight of the elephants at Elephantstay, the average weight of the mahout and the average weight of Elephantstay participants and shows the weight percentage to the elephant’s body weight.

Table 1.1: Total weight percentage of elephant body weight when giving rides at Elephantstay (ES)

Name	Sex	Elephant Weight (kg) ³	25% of elephant body weight (kg)	Mahout average weight (kg) ⁴	ES participant average weight (kg) ⁵		Mahout plus ES participant total weight (kg)		Weight % of elephant body weight	
					Female	Male	Female	Male	Female	Male
Gatin	F	2321	580.25	60	74	88	134	148	5.77	6.37
Honey	F	2630	657.50	60	74	88	134	148	5.09	5.62
Jumpee	F	2410	602.50	60	74	88	134	148	5.56	6.14
Pisamy	F	2398	599.50	60	74	88	134	148	5.58	6.17
Rasamee	F	3010	752.50	60	74	88	134	148	4.45	4.91
Rosukon	F	2560	640.00	60	74	88	134	148	5.23	5.78
Rumruay	F	2081	520.25	60	74	88	134	148	6.43	7.11
Sinuwan	F	2480	620.00	60	74	88	134	148	5.40	5.96
Yitor	F	2640	660.00	60	74	88	134	148	5.07	5.60

However, at Wang Chang, in addition to the mahout and the tourist(s), the elephant is also carrying a yang (chair/howdah) and blankets/padding. Table 1.2 below provides the combined weight of the following: a yang, blankets/padding, mahout, and two male tourists (allowing a few extra kilograms to the average weight of humans).

Table 1.2: Weights associated with giving rides at the Ayutthaya Elephant Palace (Wang Chang)

Yang	Blankets/padding	Mahout	Tourist x 1	Tourist x 2	Total
20kg	20kg	65kg	90kg	90kg	285kg

Now, let’s look at Rumruay, as one of the lightest elephants in weight at the Kraal, as an example. Her weight equals 2081kg and 25% of her body weight is 520.25kg. The 285kg combined weight that she would be carrying during a typical ride is considerably less than the 25% of her body weight that she is capable of carrying without discomfort or pressure on her body and/or spine.

Table 1.3 below makes the same comparison for the other elephants at the Kraal showing that they carry a fraction of the amount that they are physically capable of carrying.

confirmed that the collective weight of rider and gear should not exceed 20% of the total weight of the horse. (Journal of Equine Veterinary Science, vol. 28, no. 1 (2008), pp. 28-33). Considering the more robust anatomical structure of elephants, the figure for these animals is usually estimated at 25% of the elephant’s body weight.

³ Elephantstay elephant weight statistics taken June 2013, Ayutthaya, Thailand.

⁴ An average weight has been used for mahout body weights.

⁵ USA average human body weights have been used for calculations as Americans are one of the heaviest in the world, <<http://www.cdc.gov/nchs/data/nhsr/nhsr010.pdf>>, accessed 6 August 2014.

**Table 1.3: Total weight percentage of elephant body weight when giving tourist rides at Wang Chang**

Name	Sex	Elephant Weight (kg) ⁶	25% of elephant body weight (kg)	Yang & padding (kg)	Mahout Weight (kg) ⁷	Tourist (males) x 2 ⁸	Weight % of elephant body weight
Big	M	5000	1250	40	65	180	5.70
Boonlot	M	3700	925	40	65	180	7.70
Chomanaad	F	3200	800	40	65	180	8.90
Cochalaat	M	4060	1015	40	65	180	7.01
Jumjuree	F	2200	550	40	65	180	12.95
Kachaa	M	4000	1000	40	65	180	7.12
Ngathong	M	3560	890	40	65	180	8.00
Phootson	F	3500	875	40	65	180	8.14
Sophaa	F	3000	750	40	65	180	9.50

As well as providing an exciting experience for the human passengers, the elephants benefit from the practice of elephant rides. Riding provides socialisation, stimulation and exercise. The Kraal's pregnant elephants give rides and have produced 67⁹ successful births which is also a testament to the benefits of riding. Wang Chang has been designed as a model for how to provide ethical elephant tourist rides. Elephants at the centre are not giving rides all day but sporadically throughout the working day. The elephants that give rides work on a rotational basis which ensures that they can rest in between each ride. Rides are between 10 to 30 minutes in duration and on flat ground with running water available along the walk for the elephants to refresh themselves. They are provided with shelter, food and water for drinking and showering throughout the day. Mistnets are used in the elephant rest area, to create a cool and comfortable environment. All elephants are given rostered days off from working at Wang Chang providing rides.

The Kraal's yangs have been specifically designed to be as light as possible for the elephants. The thickness of the blankets/padding provides a cushion to ensure that the yang is not rubbing directly on the elephant's skin or causing friction and irritation to the elephant. The yang's frame sits on either side of the elephant's back to ensure there is no direct pressure on the elephant's spine, a practice followed by many other centres in Thailand.

The Royal Elephant Kraal Village and Wang Chang work closely with the Tourism Authority of Thailand in relation to their promotional videos as they want to promote elephants that are healthy, humanely treated and have an excellent standard of care. This high standard of care and treatment (and also safety) is widely recognised. The Thai Royal Palace frequently sends VIP visitors, including visiting royalty from other countries, to Wang Chang to view, interact with and ride the elephants.

⁶ Elephant weight statistics taken June 2013, September 2013 and April 2014, Ayutthaya, Thailand.

⁷ An average weight has been used for mahout body weights.

⁸ USA average human body weights have been used for calculations as Americans are one of the heaviest in the world, <<http://www.cdc.gov/nchs/data/nhsr/nhsr010.pdf>>, accessed 4 August 2014. Note: the vast majority of tourists at Wang Chang are Japanese, lowering the percentage even further.

⁹ As at November 2014, there have been 58 successful births at the Kraal, with more on the way.



The Kraal's elephants come from many different backgrounds and have many different histories, some we know of and others we don't. There is nothing that we can do about their pasts, but we can provide them with a safe haven of love, care, food, exercise, and stimulation and a future that is far better than their past. Not all elephants in Thailand have been put through the "crush" or "breaking of their spirit" in order to be able to let humans ride them. A UN report on "crush" and other training techniques, quoted in *Gone Astray*, states that, "An elephant born in captivity is brought up amongst human beings and its training is humane from the day it begins; but a wild beast parted from the herd and its mother must suffer agonies before its will is broken."¹⁰ The breeding program at the Kraal allows for human/elephant interaction from the moment they are born. They learn to trust and bond with humans and relationships form and grow. Positive reinforcement and food is used with all training techniques, including training to be ridden.

Before jumping to conclusions about the effect of the elephant ride program on the elephants, consider the facts and make an informed decision regarding your participation. Facts and mathematics indicate that the practice of providing elephant rides is neither strenuous for the elephant nor damaging to the elephant's back and/or spine. Additionally, our experience and anecdotal evidence suggests that the elephants benefit in many ways from giving rides.

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¹⁰ UN report, *Gone Astray: The Care and Management of the Asian Elephant in Domesticity*, <http://www.fao.org/3/contents/ae165984-7121-5959-9e9e-3fab81ea9a82/ac774e00.htm>, accessed 4 September 2014.