

## An Investigation into the Body Condition Score (BCS) of Wild Asian Elephants following the wet season in Uda Walawe National Park, Sri Lanka

As a wildlife enthusiast and keen traveller, for my final year research project which forms part of my Veterinary Degree, I was determined not to be stuck in a laboratory for a month, instead aiming to go abroad and possibly aid in some way towards conservation.

When the prospect of working in Sri Lanka, a country with abundant wildlife, picturesque scenery and incredibly warm people to conduct research to aid in the conservation of Asian Elephants arose, I jumped at such an opportunity.



Asian Elephants, while being such iconic species, are at risk of extinction, currently listed on the IUCN Red List of endangered species. The need to ensure a viable population in captivity is thus imperative yet captive Asian Elephants have a much lower life expectancy and poorer fecundity than wild Asian Elephants. It's suggested that improvements in the knowledge of husbandry and nutrition of captive populations is needed to improve this situation.

Given that wild elephants seem to manage far better than those in captivity, I wanted to somehow evaluate their dietary effectiveness and make recommendations for captive populations based on my findings. Body Condition Scoring (BCS) presented a viable method for this as whilst representing adiposity of individual animals, is easily applicable to wild as well as captive individuals through solely visual measurements.

BCS was carried out in Uda Walawe National Park (UWNP) which has one of the largest populations of Asian Elephants in Sri Lanka. Gathering data unfortunately meant very early mornings! Elephants are most active at around 6am which meant we needed to be within UWNP by then to maximise the number of elephants we could measure. The park, however, was incredibly serene at this hour and provided some amazingly intimate moments with herds making the weary eyes well worth it!

Measuring the BCS of the elephants essentially involved driving around the park in a 4 by 4 and viewing designated prominences on each individual, whilst also estimating age and gender where possible.



Difficulties along the way involved a hairy moment where our 4 by 4 wouldn't start whilst a young bull decided to get a close look at us, as well as days where the weather, typical of the Sri Lankan monsoon season, took a turn for the worse.

Being based in an elephant orphanage, The Elephant Transit Home (ETH), postponed research trips were fortunately never dull days. The ETH, rescued many young elephants for various reasons. Once 5 years of age and deemed healthy, they were returned to the adjacent UWNP. I was lucky enough to be involved in various activities at The ETH including bottle feeding the infants, rehabilitating a young calf with a gunshot wound, as well as taking part in a number of post mortems including a leopard and sloth bear.



When our vehicle was fit to run and the skies had cleared, we would set out for several more trips before analysing our findings.

We identified a poor BCS in general suggesting that the elephants of UWNP are struggling to meet their dietary needs following the wet season. Additionally, females had worse BCS than males, suggesting that lactational demands are exacerbating this nutritional deficit. Herd size had no influence on BCS and was not affected by the number of calves/infants within the herd; however, studies involving more animals are needed to establish this.



I hope this study will be the starting part for larger, ongoing projects to evaluate BCS during different periods within UWNP and ultimately within different regions of Sri Lanka.

This project was truly a once in a lifetime opportunity which wouldn't have been possible without the generous contribution from BVA Overseas Group for which I am extremely grateful. I would also like to thank Dr Vijitha Perera and Dr Ayona Silva-Fletcher for their valued guidance and expertise and to the hard working team at the ETH and UWNP, I would like to thank you for your warm welcome.

