

CHRISTIE SAMPSON

THE DEATH OF GIANTS

HOW A MOVEMENT STUDY UNCOVERED
A NEW POACHING THREAT

'While we didn't meet our original goals, the collapse of our project actually lead to revelations that initiated anti-poaching and conservation efforts across the country, ensuring that this region's elephants will be more effectively protected'

Christie Sampson

Christie Sampson shares how the devastating experience of losing collared elephants to an unexpected poaching threat lead to an improved understanding of wildlife crime in the region, and spurred strengthened anti-poaching efforts to protect critical elephant populations.



Preparing to collar an elephant

The first time one of the elephants in our project was poached was gut-wrenching. Watching that last data point come in after spending weeks capturing elephants to attach the GPS collars, and months monitoring their movements through the patchwork of landscapes across Myanmar, was a loss of not only an important part of our study, but also an animal who we had come to know.

Poaching wasn't supposed to be occurring in our study area. In fact, one of the reasons we were working in the Bago Yoma was because it was deemed to be safely positioned far enough away from locations elsewhere in the country where reported poaching syndicates and smugglers were threatening endangered species. Unfortunately, the loss of that first elephant was only the beginning.

Myanmar is often considered one of the best places for Asian elephants to make a stand, with elephants in this region slowing the overall population decline rates occurring across their thirteen range countries. Despite increasing pressures from expanding development and agriculture, Myanmar contains some of the largest remaining swaths of unfragmented habitat for elephants and other wildlife in the region. Many

of the country's large forested systems connect to other complexes in neighboring countries, linking populations together across geopolitical boundaries and making the preservation of the animals and habitats there a top priority for conservationists.

Myanmar's wild elephant population collapsed from around 10,000 individuals in the 1940s to an estimated 1,430–2,065 individuals in the early 2000s. This loss has been attributed to many factors, the first being the extensive campaign to capture live elephants for use in the timber industry. Historically, timber was a major economic pillar for the country. Methods used to capture the individual animals included the using a kyone (also called khedda), a stockade trap which could result in over a 70% mortality rate. But following the timber export ban initiated by the government in 2013, live capture was considered less of a threat, though animals were still illegally captured and sent to other countries for the tourism industry.

Assessing how impacts from habitat loss affected elephants and addressing human-elephant conflict became focal points in the effort to conserve the remaining population. That's what we were there to study. Using GPS collars to monitor

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movement, we hoped to uncover how elephants used the landscape, and find ways for them and their human neighbors to coexist.

This is not to say that poaching was completely off the radar. The Myanmar government's wildlife officials were aware of poaching within the country's borders, particularly along the western border at the beginning of our project. The conservation agency TRAFFIC had also published a report several years earlier in 2008, assessing the risk of the ivory and live animal trade to the country's elephant population and highlighting the threat that the illegal wildlife product trades posed.

Because only male Asian elephants have large tusks, and proportions of males with and without tusks varies between 10% -90% in different populations, some elephants were thought to be at less risk for poaching for ivory. Of the elephants captured and collared for our study, only one had tusks, so we began the project without too much concern for the threat of poaching.

But then we began losing the elephants. At first we hoped it was an issue with the collars; a flaw in the components design did end up leading to a significant number of collar failures over the course of the study. However, when the ground

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The first photos we received were snapped on an old cell phone, showing a grainy black lump in the general outline of an elephant. We thought perhaps the poachers had tried to burn the elephant to hide the crime. But later when the ground team was able to send video of the site, what we thought was a burned exterior was actually a mass of insects feeding on the areas where the poachers had removed the skin of the elephant.

Elephant skin removed by poachers for the illegal wildlife product trade.



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Eventually, we lost 7 of the 19 elephants we collared in the first 2 years of our study to poachers. They had expanded from killing elephants for their ivory, now poaching them to meet growing consumer demands for elephant meat and other body parts, especially skin.

Surveys of wildlife markets around Myanmar in 2014 documented the explosion in the elephant skin trade, especially in areas such as Mong La along the border with China. The sale of skin was previously suggested to be a by-product of poaching for ivory. But the elephants we were finding were often tuskless males or females and were largely intact, though some villagers caught by police reported receiving meat as payment for helping poachers locate elephants.

The idea that poachers were targeting females as well as males was particularly sobering. Breeding age female elephants drive population stability, and the loss of these individuals can have longterm and devastating consequences for species survival. Our plan to use movement data to help wildlife managers develop strategies for humans and elephants to live together instead revealed that any animal could be marked for death.

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An elephant skull after being stripped of its skin and tusks by poachers.



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ecology of a critical elephant population failed, this research provided data that spurred both the Myanmar government and conservation organizations to action. When animals with collars were poached, we were able to find the elephant carcasses quickly, in some cases arriving before the poachers could remove the skin or before the skin could be packaged for transport. Our team members on the ground gathered information and located dozens more poached elephants, many of them skinned, which we wouldn't have even been



A collared elephant at home in Myanmar.

looking for previously. This included the discovery of an entire herd of approximately 20 individuals that had been killed along the western coast. Additionally, our collaborators launched a massive campaign to raise awareness for poaching and the illegal wildlife trade, Voices for Momos, that has reached millions of people. The failure of our planned study also changed how we were working in the country and with the people of Myanmar. It led to a new series of programs integrating people and technology, and projects working with local organizations and communities trying to identify the drivers of poaching and find local solutions to a worldwide problem.

While we didn't meet our original goals, the collapse of our project actually lead to revelations that initiated anti-poaching and conservation efforts across the country, ensuring that this region's elephants will be more effectively protected from this destructive threat. It's difficult to imagine more devastating circumstances of failure in conservation than losing the very wildlife we were studying and protecting to such violence. But the actions resulting directly from our discovery of this threat show that even the most devastating of circumstances can lead to positive impact, a vital message for conservationists fighting the ongoing battle against wildlife crime.

ABOUT THE AUTHOR



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Christie Sampson is an Eyes High Postdoctoral Scholar at the University of Calgary, a Research Associate with the Smithsonian Conservation Biology Institute, and an Adjunct Faculty member at Clemson University. Her research currently focuses on using interdisciplinary tools to support the conservation of endangered species and habitats around the world.