

# Update on Long-term Luangwa Giraffe Work for Giraffe Conservation Foundation and Leiden Foundation



*Figure 1. An adult bull watches from a giraffe herd in South Luangwa's Lupande Game Management Area while cows and calves feed.*



Long-term conservation work by the Zambian Carnivore Programme (ZCP) on the Luangwa Valley's giraffe population continued in 2017 for the ninth year, with support of the Giraffe Conservation Foundation and the Leiden Foundation. Given this is a geographically isolated and small population likely less than 1,000 individuals, the Luangwa giraffe are highly susceptible to small population effects, both sudden and gradual; thus a better understanding of population size, trends, and factors limiting or threatening the population is of high importance for conservation measures.

The spot patterns of giraffe make them easily identifiable by individual, and given that they are long-lived and have variable rates of survival and reproduction depending on their age and gender, intensive studies of individuals provide significant insights into giraffe dynamics. Year-round data collection using intensive photographic monitoring over an approximately 3,000 km<sup>2</sup> area continued in 2017 although it was constrained by some restrictions in field work lasting from January through April, after which field work effort and subsequent giraffe data collection dramatically increased with 2-4 field teams typically collecting data every day of each month.

### **Giraffe Research**



*Figure 2. Graduate student Samantha Phillips collects data on a Luangwa giraffe herd as part of her research*

With the giraffe database now under the management of ZCP Research Partner Dr. Alec Lindsay of Northern Michigan University, we have now secured a Masters' student at NMU to oversee the analysis of hundreds of giraffe sightings and thousands of giraffe photographs. Samantha "Sam" Phillips is a student from Michigan with a great interest in giraffe who will be producing the first work from our long-term database on giraffe dynamics. Sam had the opportunity to visit South Luangwa in June with Dr. Lindsay and meet up with the ZCP team to discuss and collect giraffe data. Sam

will be estimating population sizes and trends of Luangwa giraffe as well as the factors limiting survival as part of her graduate degree. In order to accomplish this she trains and oversees a large team of undergraduates and together approximately 52 hours per week has been spent on giraffe analyses, with 282 giraffe identified to date from 2016 sightings. These numbers will be significantly increased with the start of the academic year when the workforce available is much larger, and we would like GCF/Leiden will be involved in the development of her project.

### Snared Giraffe



Figure 3. Scouts from CSL practice giraffe roping procedures with the new giraffe rope

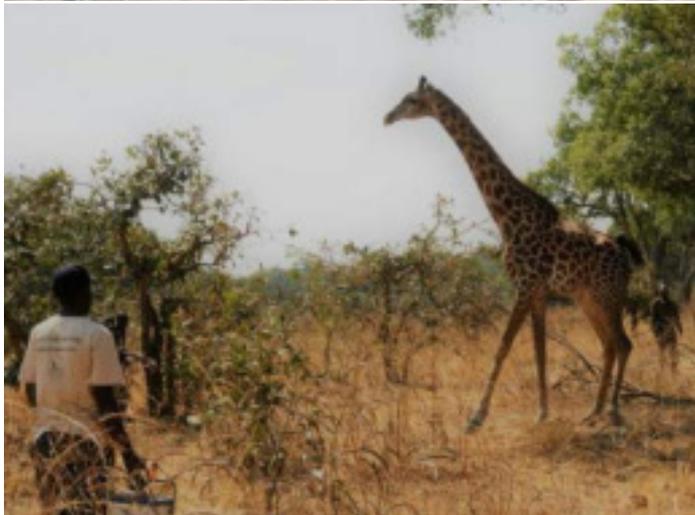


Unfortunately snaring by-catch is still a regular source of injury and mortality for Luangwa giraffe, given that these animals tend to frequent the areas with the highest densities of snares (in the riverine woodlands). ZCP has always worked closely with partner organization Conservation South Luangwa and the DNPW to help dart and treat snared giraffe and co-finances a field-based Zambian wildlife vet with CSL. However the CSL ‘giraffe rope’ was in need of replacement long ago, so with additional funding secured through GCF and Leiden Foundation we purchased a new giraffe rope (Fig. 3).

Figure 4. Teams from CSL, DNPW and ZCP restraining a darted giraffe before removing its snare



And it was not long before field teams located a snared giraffe and the CSL team experienced in giraffe capture mobilized to the scene. The animal was safely darted, treated and released without incident (Fig 4-5) but snaring by-catch continues to be a serious problem for giraffe and other species of concern.



*Figure 5. The snare prior to removal (above) and Dr. Sichande watching the giraffe recover*