

Project Update: April 2022

Over the past 3 months there have been a number of activities and field work conducted in Hwange National Park (HNP) to help us better understand giraffe genetics, ecology and the current threats that they are facing in Zimbabwe. We recently completed our first field research trip to Hwange National Park and a detailed breakdown can be found below:

Field Research

Field research was done across two main areas within HNP, namely, Main Camp and Ngamo Plains areas. These two areas differ substantially with regards to habitat types and different management strategies. Our main focus was to gain a better understanding of giraffe ecology during the late wet season, focusing specifically on their population dynamics, dietary preference and browse availability and activity budgets. A total of 5,734 observations was recorded during this time (population dynamics = 132; dietary selection = 2106; activity budgets = 3496). In addition, 15 vegetation transects were done, which will help us determine how much browse is available to giraffe in HNP.

Initial data suggest that giraffe herds tend to be smaller in less favourable habitats where resources are harder to come by and larger in favourable habitats. Previous studies reported that giraffe will form larger herds when resources are in abundance, and there is not a lot of intra specific competition. Although giraffe do not form stable herds, they do tend to feed together with other giraffe when there are plenty of resources available.



We also found that there was a strong preference for specific tree species, which made up the majority of the giraffe's diet in HNP. Three species contributed to a combined total of >60% of the giraffe's diet during the late wet season. These three species are *Diospyros lycioides* (bluebush), *Vachellia erioloba* (camelthorn), and *Dichrostachys cinerea* (sicklebush). Two of these species, *V. erioloba* and *D. cinerea*, have also formed an important part of giraffe diets in other areas of Africa; however,

that has not been the case for *D. lycioides*. A theory towards this shift in dietary selection is that there are too many elephants (*Loxodonta africana*) in HNP and that they are shaping the vegetation to become less favourable to giraffe. Although, this theory will have to be further explored as we collect more extensive data over the next year, through vegetation transects and analysis.

Giraffe population numbers are still declining in HNP, which is a real cause for concern and recent surveys by ZimParks suggest that numbers may have decreased by ~20% in the last 5 years. It is due to these declines that interventions are needed to better manage giraffe populations in the future. With sound conservation initiatives and better strategies, we will continue to do the work on the ground to secure a future for giraffe in Zimbabwe and the rest of Africa.

Collaborations and partnerships

We continue to work closely with local government (ZimParks) to further develop this project and increase awareness of giraffe conservation in Zimbabwe and specifically HNP. There have been further involvements from locals and other organisations in HNP to strengthen our relationships with communities in the surrounding areas.



Future Plans

There is need for further field work in HNP which will be done over the next year. We will also be fitting 15 GPS satellite units to giraffe in HNP in June 2022 which will help us determine the spatial ecology of giraffe across the park. In the coming months, it will also be important to educate locals and field guides (e.g., tourism lodges) in HNP on our initial giraffe findings to ensure that correct data is shared between all involved.

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