

Victoria Jones

Shamwari Game Reserve (Education Reserve), Eastern Cape, South Africa

I applied for the Society of Biology Travel Grant in order to help fund a university field trip to the Shamwari Game Reserve in the Eastern Cape of South Africa, without the aid of the grant, funding the trip myself would have been very difficult.

The trip was a unique opportunity to be able to carry out field work in one of the planet's biodiversity hotspots; this allowed me to improve on my data collection and observational skills, as well as problem solving and working and communicating within a team.

We were divided into four groups of five and each group given the task of creating and designing an experiment to test a given hypotheses by means of a data collection project during the trip. Each group was given the opportunity to carry out all four data collection projects, with the instructions of the group which designed each project. The projects were based on predator/prey interaction within the reserve; this was particularly interesting to observe predator/prey interaction within Shamwari as this reserve offers the unique breeding/educational area where there are no large predators present in contrast to the main reserve which has many large predators including the 'big 5', which is made up of lions, African elephants, cape buffalo, leopards and rhinoceros. The data collection projects aimed to answer the following questions:

- How is bird feeding behaviour affected by the availability of nearby coverage from trees/bushes?
- How does ungulate vigilance and feeding behaviour vary in relation to different group sizes, different species and varying distances from coverage?
- Do different species of ungulates prefer to be within thick cover from trees, near thick cover from trees or in open grassland areas? This was determined by identifying different species' dung and noting the distance either within or without cover from trees.
- Are there a significantly different number of aardvarks in the educational, predator free reserve in comparison to the main reserve? This was determined by observing the amount of aardvark damage to termite mounds within the main reserve and comparing it with the amount of aardvark damage observed in the educational/breeding reserve without predators present. Whether termite mounds were inhabited or not was also noted as termite numbers may have been a limiting factor for the presence of aardvarks.

As all of the projects were focussed on predator/prey interactions, the information gathered is important in understanding animal behaviour and relationships in a natural environment and can therefore be used to aid conservation and maintenance of healthy animal populations. The final project on the list above was the experiment which my group and I designed and analysed. This project was of particular interest to the research staff within the game reserve, as recent sightings of aardvark in both sections of the reserve had declined.

Our research and results indicated that there appeared to be a higher density of aardvark damage to termite mounds in the main reserve, suggesting a higher number of aardvarks present. There also appeared to be a higher density of inhabited termite mounds within the main reserve; therefore, it may be that aardvarks are being attracted to the main reserve, even though there is increased predator risk, because there are higher densities of termites - their main food source.

Overall, the trip really was a once in a lifetime opportunity and allowed me to observe many rare, cryptic and amazing animals and birds in their natural habitats, including white and black rhino, a serval cat, leopards, cheetah and many more.