HABITAT AND FEEDING ECOLOGY OF THE GREATER KUDU (*Tragelaphus strepsiceros*) IN THE CENTRAL FREE STATE

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A SUMMARY OF THE RESEARCH PROTOCOL:

A field study on wild kudu is in process. The study is being done on a private game reserve in the Brandfort district. A kudu is a browser, meaning it mainly feeds on leaves and shoots of trees and shrubs. Visual observations on the kudus are done with binoculars to determine feeding preferences (what plant species are preferred), time spent feeding, activity patterns, habitat preferences and sexual segregation. Post-browsing measurements are done on the trees in order to determine the percentage browse removed from a plant during feeding sessions. Dung/droppings are collected to be analysed in the laboratory for nitrogen content.

Studies on vegetation of the area are also underway in order to i) create a vegetation map; ii) determine carrying capacity (number of animals that can be sustained by the area); iii) measure natural plant chemicals (phenolics and secondary metabolites), that is used as chemical defence against browsing; iv) monitor seasonal changes in leaf carriage of deciduous trees (phenology); etc.

Two of the kudus (bull and cow) were fitted with collars. One is a radio collar used to locate the bull and his herd, the other is a satellite collar that sends GPS data via satellite to a computer and helps to locate the breeding herd. This data is used to determine 24 hour habitat preference (by overlaying it on the vegetation map) and small migration patterns in their limited space. Both collars were fitted under supervision of a veterinarian after temporarily immobilising the animals (See photos taken by Beanélri Janecke). Results from this study are already showing potential to provide a wealth of currently unknown information about the feeding ecology of the kudu. Other similar studies are also planned.

Students from the department are helping to prepare a kudu cow for the fitting of a satellite collar that gives hourly GPS data on the location of her breeding herd. Photo: Beanelri Janecke

Studente uit die department sit hand by om ‘n koedoekoei voor te berei vir die passing van ‘n satelliet-halsband (*collar*) wat uurlikse GPS data van haar teeltrop se posisie gee.

Vivian (MSc student) is fitting a radio collar on a kudu bull under supervision of a veterinarian. This is used to locate the bull and his herd to do visual observations. Photo: Beanelri Janecke

Vivian (MSc student) is besig om ‘n radio halsband (*collar*) aan ‘n koedoebul te sit, onder toesig van ‘n veearts, om die bul en sy trop op te spoor vir visuele observasies. Foto: Beanelri Janecke

After the collaring, the drowsy bull gets up when the anaesthetic wears off. Photo: Beanelri Janecke

Nadat die halsband aangesit is, word die bul wakker van die ‘narkose’ en staan wankelrig op. Foto: Beanelri Janecke

The students were also part of the process of moving a roan antelope (temporarily immobilised) to another camp. Photo: Beanelri Janecke

Die studente het ook gehelp om ‘n bastergemsbok (tydelik verdoof) te verskuif na ‘n ander kamp. Foto: Beanelri Janecke

A breeding herd of kudu is drinking at a water trough – the satellite collar is clearly visible on the cow on the left. Photo: Vivian Butler with a camera trap.

‘n Koedoe teeltrop drink water by ‘n krip – die sateliet halsband is duidelik sigbaar op die koedoe aan die linkerkant. Foto: Vivian Butler met ‘n “camera trap”.

A kudu is drinking water at the trough at night. Photo: Vivian Butler with a camera trap.

‘n Koedoe drink in die aand water uit die krip. Foto: Vivian Butler met ‘n “camera trap”.

Students are usually taken to experience a game auction. Game, like these impala, can be viewed in the bomas before the auction begins. Photo: Beanelri Janecke

Studente word ook blootgestel aan ‘n wildveiling. Wildspesies, soos hierdie rooibokke kan voor die veiling in die bomas besigtig word. Foto: Beanelri Janecke

Kudus in the boma at a game auction. Photo: Beanelri Janecke

Koedoes in die boma by ‘n wildveiling. Foto: Beanelri Janecke

Hot, fresh dung is collected in the veld for nitrogen analysis in a laboratory. Photo: Beanelri Janecke

Warmvars mis word versamel in die veld vir stikstof-analise in die laboratorium. Foto: Beanelri Janecke

Dried dung is grounded up for nitrogen analysis with everything being covered in dung powder! Photo: Beanelri Janecke

Gedroogte mis word opgemaal vir stikstof analise en alles word bedek met mispoeier! Foto: Beanelri Janecke