

Remote Identification And Measuring Of Buffalo

The use of available technology and the applied learning process, which is fundamental to the College's training methodology, is aimed at helping develop best practice for the industry. One area currently being addressed by the Sustainable Use and Field Guiding Department is the ageing of wildlife, more particularly buffalo, correctly and to look at whether harvesting of these species, depending on their age, is genetically sustainable.

"The continual removal from any gene pool of the best trophy specimens before their genes have been afforded every opportunity to be passed on will, over decades, result in the gene pool being impacted negatively," said Dr. Kevin Robertson who heads up the department.

With modern-day technology however, it is now possible to reverse any such trend – and this is where Wynand Uys of Changing Tides 1126CC and his amazing aerial photography comes into the picture. "Through trial and much error Wynand has perfected the technique of being able to take, from a slow-flying fixed-wing aircraft, series of high resolution photographs of buffalo herds. Stitching all the photos together creates a single photo of the whole herd. Small groups of bulls and even lone dagga boys can now also be clearly photographed from the air," said Dr. Robertson.

In addition, the Taylor First Molar Tooth Aging Method enables us, by measuring the crown heights of the two first molar teeth from a bull buffalo's lower jaw and by then plotting this average on a graph, to accurately determine a buffalo's age in years.

When this information is linked back to the bull's specific secondary sexual characteristics (like boss development, the position and condition of the ear tips and other facial features), one can over time become pretty good at ageing live buffalo bulls as well, he said.

In teaching the students about accurate ageing techniques, he says that by repeating the process a couple of thousand times, it is possible to become really good at such age estimations. "Most buffalo, south of the Zambezi, are born within a distinct late summer calving season. This fact allows then allows us to age live sexually mature buffalo bulls even more accurately, down to a couple of months in fact."

By also using other methods such as spread of a mature buffalo bull's ear tips when they are in an alert and "pricked" position and comparing this to the outside spread of a bull's horns, allows for ranking all sexually mature bulls (those 5 years of age or older) identified in the photographs into the following age (5 to 15 years) and size categories (low 30's, 30-33"; mid 30's, 34-36"; high 30's, 37-39"; low 40's, 40 to 43"; mid 40's, 44-46" etc.).

By using available technology and analyzing the photographs taken, it is now possible to accurately

by Kevin Robertson, Southern African Wildlife College, Sustainable Use and Field Guiding

determine the average age and trophy quality of a buffalo herd or population. This research, technology and applied learning is set to help guide the industry.

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