

**AGE DETERMINATION OF *ACACIA ERIOLOBA* IN  
THE KALAHARI GEMSBOK NATIONAL PARK**

by

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## ABSTRACT

### AGE DETERMINATION OF *ACACIA ERIOLOBA* IN THE KALAHARI GEMSBOK NATIONAL PARK

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High quality wood core samples were collected from individual *Acacia erioloba* trees of unknown age by means of an effective non-destructive method of sampling.

The equipment used is a definite improvement over conventional, hand-turned borers and other described powered equipment. Cores were smooth, not burned and large enough to study more than one radius.

In the majority of samples examined, seasonal changes were reflected in the wood anatomy as bands of marginal parenchyma on the polished surfaces of discs or cores. Estimated carbon age was determined by means of  $^{14}\text{C}$  analysis for all samples. There was a strong correlation between growth-ring count and estimated carbon age.

A correlation was also found between age and stem circumference although age based on stem circumference overestimated age.

Age structure of the *Acacia erioloba* population in the interior dune area and northern Nossob Riverbed was subsequently determined.

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