AN OSTEOLOGICAL COMPARISON BETWEEN BONTEBOK, *Damaliscus pygargus pygargus,* AND BLESBOK, *Damaliscus pygargus phillipsi* AND ITS BEARING ON THE EVOLUTION OF BONTEBOK.

By

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DECLARATION

I declare that this dissertation is my own, unaided work. It is submitted for the Degree of Master of Science at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other University.

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ABSTRACT

The alcelaphine species *Damaliscus pygargus* has two subspecies: the bontebok *Damaliscus pygargus pygargus* and the blesbok *Damaliscus pygargus phillipsi.* On analogy with black wildebeest evolution, it is thought that the two subspecies became biogeographically distinct during the Last Glacial, when lowered sea levels exposed additional plains habitat on the continental platform. This would have caused reproductive isolation between interior and coastal populations with the Cape Fold Mountains acting as biogeographic barrier. The aim of this study was to test the possibility of the osteological discrimination between the two subspecies by using reference specimens from the National Museum, Bloemfontein, and Iziko South African Museum, Cape Town. It was hypothesized that bone morphology and measurements would serve to differentiate between the subspecies, which are adapted to different environments, and thus experience different stresses. However, results showed no significant differences between the two subspecies osteologically.

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LIST OF FIGURES