

# History and management of black rhino in KwaZulu-Natal: a population genetic approach to assess the past and guide the future

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The numbers of black rhino (*Diceros bicornis*) in Africa declined dramatically during the last century due to poaching and habitat fragmentation and as such, significant concerns exist with regards to the long-term population viability and the management of these fragmented populations. A considerable proportion of the remaining black rhino (spp. *minor*) are found within South Africa where they fall largely under the protection and management of Ezemvelo KZN Wildlife. Using microsatellite markers, we provide information on the genetic diversity, population differentiation and level of inbreeding among 77 *D. b. minor* individuals sampled in seven protected areas within KZN and a single population from Zimbabwe. We found low levels of differentiation between populations; this result is not unexpected given the history of establishments and translocations between reserves. In fact, we argue that the translocations conducted by Ezemvelo KZN Wildlife have contributed to the acceptable levels of heterozygosity and minimal inbreeding which characterise the majority of protected areas in the province. The information presented here forms the basis of an ongoing monitoring programme aimed at providing vital information which, when taken with ecological and other data, will direct the future management decisions regarding translocations between reserves in South Africa and the exchange of individuals with other countries.