

# BLACK RHINO MONITORING IN UMFOLOZI GAME RESERVE

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*Black rhino in Umfolozi Game Reserve*

The monitoring of black rhino in Umfolozi Game Reserve and in all Natal reserves that contain black rhino has intensified dramatically in the past three years. The rapid decline of the species to the north has been the primary reason for the accelerated effort in establishing sustainable monitoring systems and strategies.

In Umfolozi and other reserves in Natal, the density of black rhino is such that conventional methods of counting and monitoring, such as aerial census, are ineffective and inaccurate due to the fairly low density of black rhino and the poor visibility in the dense habitat they occupy. For such an endangered species, the previous rough estimates and trends became unacceptable to game reserve managers in the late '80s and a more effective method had to be developed to enable managers to make realistic and sound decisions for the management of their black rhino populations.

The main purpose of the intensive monitoring is to establish a better understanding of the estimate, structure and performance of the population both for biological and security reasons. The biological aspects involve monitoring of calving rates, interval and survival as well as the general structure and distribution of the population, longevity and mortality and factors which may be influencing these aspects. The security aspects monitor the effects of poaching on black rhino and what measures should be implemented to combat the threat.

To ensure that both the biological and security objectives are reached, an intensive programme has been implemented to monitor *individually* as many black rhino as possible. The monitoring technique is more commonly known as the *Black Rhino Individual Identification (I.D.) Programme*. The programme is designed around a clearly defined classification of "recognisability" of each rhino and information is carefully scrutinised and divided into seven categories.

The most important of these categories is Cat. 1, which is a rhino with a positive, unchangeable feature such as a notched ear, missing tail or permanent scar which would be recognisable to anyone at any stage of its future life. It is for

this reason that such an animal holds a high status (Cat. 1), because its performance and history can be monitored throughout its life. At the other end of the scale, (Cat. 7) is an animal which is only known by location, sex and age. Any feature would be unknown until verified.

In Umfolozi Game Reserve each Section Ranger has a file containing history records, drawings and photographs relating to all observed black rhino. The information gathered and transferred into the file is strictly quality controlled and one of the main objectives is to "adopt" as many Cat. 1 recognisable animals as possible, which in essence would give the Manager better control over the population.

To gather this information, the Section Ranger and his game guards allocate a significant part of their time on patrol making contact with black rhino.

Other means of covering the area thoroughly in a short space of time has been the use of a helicopter deploying teams to identify rhino on the ground which have been located from a fixed-wing aircraft. A recent successful exercise to increase the number of distinguishable (Cat. 1) animals was an ear-notching programme facilitated by a fixed-wing aircraft and a helicopter as useful aids to observe, immobilise and notch the animals' ears with a formalised code.

As a result of this system, the manager is now able to make sound decisions based on accurate information which, in the case of Umfolozi, has allowed a number of black rhino to be "harvested" and re-distributed onto public and private land, enhancing their chances of long-term survival. Without an effective monitoring system this may not have been possible.



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