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## Namibian Black Rhino Habitat Assessment

s a result of poaching, 25 years ago, the desert-adapted black rhino (Diceros bicornis bicornis) teetered on the edge of extinction. Since then Save the Rhino Trust (SRT), together with local communities, have succeeded in eliminating poaching in the Kunene region of Namibia, so that currently north-west Namibia holds the largest unfenced population of black rhino in Africa.



However, through habitat destruction and population fragmentation, groups of black rhino have been separated for at least 100 years, and therefore habitat assessment has become one of the key conservation strategies for wildlife management. While the SRT has studied rhino habitat on a large scale, in 2005, a black rhino workshop was held among different stakeholders, where the need to research the habitat of the black rhino on a local scale was raised. The Namibian Black Rhino Assessment, carried out by M.Sc. student, Basilia Shivute, therefore explored the use of habitat by the black rhino within its range, taking into account plant density, diversity, tree and shrub species composition, and investigated the influence of terrain on both the vegetation and on the black rhinos.

This study was carried out in the Kunene Region, an area of about 144,255 km2, where tourism has been identified as a key development sector for the region. Three sites were selected within the Region: Palmwag Concession, ≠Koadi //Hoas Conservancy and Torra Conservancy. These areas were selected on the basis that Palmwag concession and Torra conservancy contain at least 90% of black rhino in north-west Namibia, while ≠Koadi //Hoas is earmarked as a reintroduction site, with a reintroduction trial already started.

Species diversity, richness, composition, and browse availability were analysed in relation to environmental variables such as rainfall, slope and distance to major rivers or perennial springs.

The study found that black rhinos utilise areas of higher elevations, areas of closer proximity to major rivers and perennial springs, areas of higher rainfall range and areas with steeper slopes. Closer proximities to water sources emphasise the importance of water in an arid environment like north-west Namibia. This study highlighted the variation of species diversity, richness, and composition in different main habitats as well as in different geographic locations. It has also therefore formed a foundation to guide creation of multiple, black rhino habitat suitability models across their historical range to prioritise optimal sites for translocation.

The project may also establish a means of rapid monitoring of black rhino habitat, which can be incorporated into Save the Rhino Trust monitoring programme. Moreover, the study has added to the much-needed vegetation diversity database in these areas.  $\check{\Upsilon}$ 



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