



## Establishing elephant exclusion zones for rhinos

Elephants are a keystone species, playing a crucial role in maintaining an ecosystem's health and functioning. Their presence contributes to seed dispersal, vegetation management, and overall biodiversity.

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However, as Lewa's elephant population has increased (a result of increased insecurity in northern Kenya since the 1980s and land fragmentation in southern and eastern Kenya), they are rapidly changing Lewa Wildlife Conservancy's plant life. In turn, this is impacting the food available for species like black rhinos.

Since 1995, to reduce the impact of the increasing elephant pressure, Lewa has created 'exclusion zones'. The zones are relatively small areas that are separated from the wider landscape using electric fences. They prevent access to elephants (which can freely migrate to find forage elsewhere) and provide an environment where woody vegetation can grow and recover. Importantly, these zones have become areas of high productivity for black rhino food.

The black rhino is an iconic species for Lewa and their seasonal dietary responses are complex. They are mixed feeders throughout the year with no preference for acacia, especially during the wet season. Exclusion zones not only provide black rhinos with various types of woody vegetation, but harbour herbaceous layers, a vital black rhino dietary component.

To maximise wildlife dynamics and maintain ecological balance, it is important to ensure that the exclusion zones are interconnected in a fair distribution across the landscape. This helps facilitate the movement of animals around the Conservancy, preventing species from concentrating in specific areas, which could lead to intra-species fighting and ecosystem degradation. By avoiding wildlife hotspots, conservation efforts can be spread more evenly to support a healthy diversity of species across the landscape.



Beyond acting as a food source for black rhinos, exclusion zones bring other benefits. As a diverse, unique and protected area within a much larger landscape, the zones can act as carbon sinks, reduce habitat degradation and attract other endangered species, including leopards and lions.

Whilst the creation of zones is important, carefully managing them is also essential. Rotating exclusion zones can be a useful approach to dealing with elephant pressure, allowing new areas to recover and regrow, and supporting the needs of elephants too.

Of course, elephants are an iconic species and across the African continent, they remain endangered. Conserving their population remains important, and strategies like the creation of exclusion zones are vital to enable successful coexistence with elephants, while still achieving the desired vegetation and biodiversity across a landscape to sustain other species.

To date, Lewa has created 42 exclusion zones, covering 10,152 acres (approximately 11% of the Lewa-Borana Landscape).