

# SOUTHERN GROUND-HORNBILL vanishing icon



An alpha male, his bare throat fully inflated, delivers lining of leaves and grass to his mate, just visible inside the natural nest cavity in a large leadwood tree.

MARTIN BENADIE

GROUND-HORNBILLS ARE THE EARLIEST offshoot of the currently surviving members of the hornbill order Bucerotiformes. They branched off about 30 million years ago, during the Oligocene epoch when grasslands first developed and spread across the world. But modern-day pressures from man are proving too great for this ancient lineage, and its populations are starting to show a swift decline, affecting not just the Southern Ground-Hornbill *Bucorvus leadbeateri* in South Africa but across their African range, and including the Northern (Abyssinian) Ground-Hornbill *B. abyssinicus*. The Southern Ground-Hornbill is listed as Vulnerable throughout its sub-equatorial range.

**GROUND-HORNBILLS** are top predators of the savannas, icons along with rhinos, wild dogs and cheetahs, and they are the largest cooperative breeders in the world.

Threats to Southern Ground-Hornbills are many and often complex. The birds occur naturally at low densities and each group requires a huge territory, the size of which is determined by habitat quality. In the Kruger National Park and KwaZulu-Natal Midlands, these territories are about 100 square kilometres, in the drier Limpopo River valley they increase to about 250 square kilometres, whereas among tropical woodlands at Mana Pools in Zimbabwe or Niassa in Mozambique groups can manage with a mere 60 square kilometres.

They are also slow breeders and can live about as long as humans; one captive bird reached the ripe old age of 66 years. Most only attain sexual maturity at approximately eight years of age, and their complex cooperative breeding structure means that only one alpha pair in a group forms the breeding unit. The rest of the group share the parental >

above, right *Ground-Hornbills walk alongside a road in the Kruger National Park. During the dry winter season, food is limited and the birds have learnt to beg for scraps from motorists, sometimes to their detriment as they may be killed or injured by careless drivers.*



TANJA MERENSKY

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### MABULA GROUND-HORNBILL PROJECT

This project is the only one engaged exclusively in ground-hornbill conservation (for both the Southern and Northern species). In South Africa, this non-profit organisation is an active member of the national Southern Ground-Hornbill Action Group. In line with the group's 2011 Species Recovery Plan, the project is responsible for the removal and hand-rearing of otherwise redundant second-hatched chicks from the wild, as well as captive-breeding and reintroduction programmes. Some of its many other interventions include monitoring the health of South African populations of ground-hornbills, an education and awareness programme, work in rural areas to reduce poisoning of the birds and their persecution for window-breaking, as well as investigating the genetic health of the populations that occur in neighbouring states and across their African range.

The formal link with the BirdLife network has given the organisation access to international and especially African conservation research networks and funding opportunities.

For more information, visit [www.ground-hornbill.org.za](http://www.ground-hornbill.org.za)



ALBERT FRONEMAN



An immature male carries a baboon spider as food for courtship or to provision the alpha breeding female. The blue-grey mark on the red skin over the jaw muscle is a tattooed number, a method used in the past to trace the survival of individuals.

territory, helping to rear the alpha's chick, defending the group's territory and learning their parental roles over a number of years before they move off to initiate their own breeding unit. For the first two to three years of their lives, the fledglings learn the rules of the wild from the rest of the group, such as where to sleep, what to hunt and what to avoid. Group size can range from a single pair to at least nine birds, but the average is about four. Long-term research in the Kruger National Park reveals that,

on average, groups only successfully raise one chick every nine years. However, the provision of artificial nest sites has proved to greatly increase the breeding rate. In rural areas, the ground-hornbills face a myriad anthropogenic threats. As with many species, loss of habitat plays the major role in reducing the viability of a population. The birds not only have less space in which to live as human settlements expand, they lose suitable nesting trees and good quality foraging areas. The demand for firewood and timber,

the expansion of monoculture crops and plantations, overgrazing of ground cover, poor fire management practices and bush encroachment are all culprits. Coupled to this are other threats that cause unnatural increases in mortality. A significant hazard, suspected of initially dropping the populations, is the indiscriminate use of agro-chemical poisons – bait intended for species such as jackals, but which is also attractive to this carnivorous hornbill. Despite eco-friendly alternatives being available, pesticides applied



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inappropriately to crops poison invertebrates which the hornbills subsequently eat and they then become victims of secondary poisoning. As the birds forage together, this can be life threatening for a number of birds in a single group. Electrical transformer boxes also take their toll because the birds, being such inquisitive creatures, are inclined to peck around between the live wires and are electrocuted.

The territorial nature of the ground-hornbill also contributes to its downfall. When a ground-hornbill sees its reflection in a window, windscreen, mirror or shiny car, it views it as a competitor that must be vanquished. This is a common behaviour in many birds, such as some species of weavers and sparrows which peck at windows. In the case of the ground-hornbill, however, the difference is the size of its bill and the power behind it, given that this tool is designed for dispatching prey such as puff-adders or hares. The cost of repairing broken windows can drive even

the most conservation-minded landowner to pick up a rifle or lay down poison.

Being so charismatic, ground-hornbills are sought after by zoos and private collectors and are harvested from the wild. Their trade is not yet regulated by CITES, despite the species' threatened conservation status. The ground-hornbills' importance among local communities works both for and against them: in areas where they are culturally revered, they are unharmed or even actively protected, whereas in areas where they are used for traditional medicines and other cultural practices, such as indicators of rain or protectors from lightning, they are harvested.

Because there are sizeable populations in the Kruger National Park and surrounding private conservation areas (about 1 500 birds, but comprising less than 400 breeding groups), there is a misconception that the species is doing well. In reality, these birds

constitute more than half of the entire South African population of Southern Ground-Hornbills. The remainder persist on smaller reserves in state, commercial and rural properties in Mpumalanga, Limpopo, KwaZulu-Natal and the Eastern Cape. The Kruger National Park is probably not large enough to sustain a viable population and it is obviously also risky to have all the hornbills in just one area, so it is vital that we do all we can to boost the 'outside' populations as a buffer and as insurance for the conserved population.

LUCY KEMP

above, left An alpha pair perched in a position typical of a preamble to mating.

above A group of hornbills on the move on a hot day in the Kruger National Park, their upper wing coverts raised and bare underwings exposed to radiate excess heat.

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