BIRD OF THE YEAR 2020

SOUTHERN GROUND-HORNBILL

Bucorvus leadbeateri

Weighing in

Southern Ground-Hornbills are avian giants and the world's largest hornbill. Males weigh about 4.2 kilograms and females about 3.3 kilograms. The beak is long and decurved, with a raised casque at the base of the upper mandible, as in all hornbills. The bare skin of the face and throat is bright red, but females (and some males) show blue markings on the upper throat. The bird's pale yellow eyes are fringed by long, broad lashes that provide both shade and protection. Its plumage is entirely black except for pure white primaries and upper primary coverts that are normally only visible when the hornbill takes flight.

Dual nationality

Its range stretches across 14 countries in East, Central and southern Africa, from Kenya in the north to South Africa in the south. Its status is least well known in Angola, the Democratic Republic of Congo and northern Mozambique. An inhabitant of woodland as well as grassland areas that are completely treeless, it is the hornbill species least reliant on wooded cover.

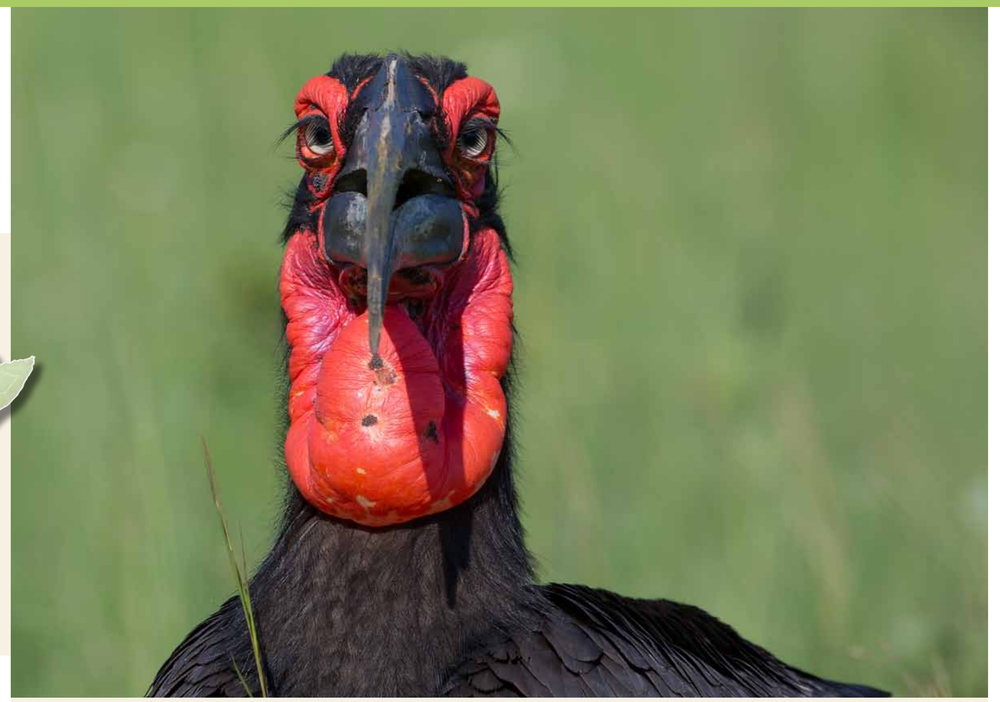
ZACK RHEEDER

Helping hands

This species usually lives in territorial groups of three to five birds, although groups as large as 12 have been recorded. Group territories vary widely, from 6–10 square kilometres in private conservation areas adjacent to the Kruger National Park to 200 square kilometres on private farmland in the Limpopo Valley.

The core of the group comprises an alpha pair, while other group members are offspring of varying ages from previous breeding attempts by the dominant pair. They help to defend their permanent territory and to feed the female and any newly produced young. Most older helpers are males, as the older females disperse to seek breeding opportunities elsewhere. This is the largest bird species in the world to show such cooperative breeding.

ALBERT FRONEMAN



HUGH CHITTENDEN

Bushveld baritones

The start of each day is typically heralded with a deep and rhythmic booming chorus given by all older group members and it can be heard up to five kilometres away. The long trachea and, in particular, the large inflatable throat sacs probably play a key role in the production of these impressive vocalisations, which give rise to one of its colloquial names, the thunderbird (it's also known as the rainbird).

On the menu

The ground-hornbill's diet is diverse and comprises any small animals the hornbills can overpower. Invertebrates feature prominently, especially grasshoppers, beetles, termites, mopane worms, spiders, solifugids and scorpions, but also molluscs, centipedes and millipedes, earthworms and crustaceans. Vertebrate prey includes hares, mongooses, squirrels, rodents, snakes (even venomous species), lizards and chameleons, tortoises and turtles, and frogs and toads. Avian prey is also taken, and the hornbills raid nests for eggs and chicks. They occasionally take carrion.

The beak, paired with the powerful neck, is a devastating weapon used for stabbing, grasping, bludgeoning and crushing prey. It is also used to dig for prey, especially in dry conditions. Larger prey is hunted by group members in unison and then ripped apart. To capture flushed prey, the hornbills follow herds of ungulates and are attracted to fires. Like most other hornbills, they never drink from open water and receive their hydration through their prey.

CHRIS VAN ROOYEN

Boom or bust?

This unique species has decreased throughout its range. Rwanda, Burundi, Swaziland and to some extent Malawi now support only remnant populations restricted to tiny protected areas. Kenya, Zimbabwe, Botswana, Namibia and South Africa boast larger populations, but the species has lost 70–90 per cent of its original range in some of these states and is now common only in large protected areas. The global conservation status of this hornbill is considered Vulnerable, but Endangered in South Africa, Swaziland and Namibia.

These birds face a wide array of threats. Habitat loss and degradation through extensive crop farming, commercial afforestation, high human densities, bush encroachment, over- and undergrazing, erosion and climate change expel the birds from their ancestral grounds. Indirect poisoning through baits set for mammalian predators is a particularly pervasive peril. Lead poisoning from swallowing spent ammunition is a recently appreciated danger, and this is yet another species at risk from electrical infrastructure, with reported electrocutions at transformer boxes. Re-introduced birds are susceptible to Newcastle disease. Harvesting for traditional use and the zoo trade exerts further pressure on Southern Ground-Hornbills.

One threat is peculiar to the species. On noticing their reflection in windows when foraging close to buildings, the hornbills peck at the glass, typically shattering it. In one instance, 150 windows were broken in a single morning at a rural school. Understandably, this can elicit retribution from aggrieved parties.

MABULA GROUND HORNBILL PROJECT

HUGH CHITTENDEN

Family time

Breeding starts in spring and takes place in large cavities in trees or in crevices in cliffs. Occasionally the birds will dig out a hollow in an earth bank or a donga, the only known cases of hornbills excavating their own nests. The same site will often be used for many years. Unlike other hornbills, breeding female ground-hornbills are not sealed into the cavity during nesting. The typical clutch is two eggs and only the alpha female breeds, fed by other group members. The eggs hatch up to 14 days apart and the second-hatched chick usually dies of starvation within a few days, unable to compete with its larger sibling.

All older group members defend the nest, even mobbing predators as formidable as lions and leopards if they approach too closely, while a Verreaux's Eagle was killed by five group members when it passed too close to a nest. Breeding success is naturally low. At best, groups fledge only a single chick every two or three years, though perhaps more typically every five to 10 years. Fledged youngsters are fed by group members until they are about two years old. Full adult appearance is attained at four to six years and birds in captivity only begin breeding when they are at least eight years old. In the wild they are probably much older, as they first need to achieve alpha breeding social status. Adults are long-lived; a captive bird survived to 66 years.

Cultural icon

These compelling birds feature prominently in African lore. They are famed as makers of rain, and not just of drizzle but of downpours, reflecting the perception of them as creatures of unusual potency. Other associations, rooted in the bird's dignified demeanour, relate to wisdom and to promoting calmness in people of agitated disposition. Based on its tight familial bonds, the species is also seen as a protector of home and kin. Its unforgettable call holds a special place in folklore and is widely interpreted as repetitive bickering between spouses. However, the awe in which this bird is held easily turns to dread and it can signify bad tidings.

HUGH CHITTENDEN

MABULA GROUND HORNBILL PROJECT

SECOND CHANCES

The Mabula Ground Hornbill Project (*www.ground-hornbill.org.za*) is the BirdLife South Africa Species Guardian for this threatened bird and coordinates conservation efforts throughout its range. A key conservation strategy involves rearing in captivity second-hatched wild chicks that would otherwise naturally perish. These naive youngsters are re-wilded in 'bush schools' where they are mentored by wild free-roaming groups until they are bush-savvy enough to form independent sub-populations.

Some wild groups, and even populations, are limited by the availability of suitable nest sites, so artificial nests are being provided and these enhance breeding success.

The Mabula Ground Hornbill Project also spearheads measures to mitigate direct threats. These include minimising risks from poisoning and electrocutions, and screening window panes in susceptible buildings to eliminate reflections. Re-introduced birds are vaccinated against Newcastle disease. Perhaps the most crucial aspect of the project is an intensive awareness programme that focuses on increasing local communities' understanding of the importance and vulnerability of this wonderful bird.

TEXT BY DAVID ALLAN