

ASA
Avicultural Bulletin



ASA

A JOURNAL FOR BIRD BREEDING, CONSERVATION,
RESTORATION AND EDUCATION

November-December 2020



NEXT ISSUE

PAPUAN HORNIBILLS

Lisa Marun

The purposes of the Society are the study of foreign and native birds to promote their conservation and protection; the dissemination of information on the care, breeding, and feeding of birds in captivity; the education of Society members and the public through publications, meetings, and available media; and the promotion and support of programs and institutions devoted to conservation. Front Cover: Southern ground hornbill male (*Burcorvis leadbeateri*) photo Hugh Chittenden Inside Cover: Kokomo Papauan Hornbill (*Rhyticeros plicatus*) Photo: Lisa Marun. © 2012-2020 Avicultural Society of America. All rights reserved. No part of this work may be reproduced without express written permission by ASA.

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November/December 2020

President's Message

Greetings, fellow Aviculturists:

As I am writing this to you, I am, thankfully, recovering from COVID-19.

We usually reflect on the past year but, I feel so optimistic for what lays before us in 2021, I don't want to look back. Do you?

We can start by healing and getting back to normal and then, let the games begin! Planning conferences and get-togethers as we have in years gone by.

Yes, I am bursting with optimism! The nests will be full of fertile eggs and the weather will be conducive to birds doing what birds do.

We will be out and about again and look forward to seeing each other, in person, at another ASA conference with an international line-up of speakers. We're chomping at the bit to make it happen. Will I see you there? I hope so!

I would, however, reflect on the enormous contributions made by the authors, photographers, editorial team, and everyone else that contributes to the making of the ASA e-Bulletin. We are nothing without them.

This issue, in particular, touches my heart. Our feature article is about the 2020 BirdLife South Africa Bird of the Year, the southern ground hornbill (*Bucorvus leadbeateri*). Listed Vulnerable within their range by IUCN, these hornbills are already considered Endangered within South Africa and Namibia.

In honor of this occasion, I have created an embroidery design available for various clothing articles with 20% going to the Mabula Ground Hornbill Project. These funds will go to directly addressing southern ground hornbills' multiple threats, including habitat loss, secondary poisoning, and direct persecution.

Best wishes this holiday season to all of our ASA family and friends around the world! I look forward to another busy year—decade!—of learning about, caring for, sharing with others, and helping to protect birds near and far.

Stay safe and stay well!
Yours truly,

Carol Stanley

President, YOUR Avicultural Society of America

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SOUTHERN GROUND-HORNBILL

Weighing in

Southern ground hornbills are avian giants and the world's largest hornbill. Males weigh about 4.2 kg, or a little over 9 lbs., and females about 3.3 kg (just over 7 lbs.). The beak is long and decurved, with a raised casque at the base of the upper mandible, as in most hornbills. The bare skin of the face and throat is bright red, but females (and some males) show blue markings on the upper throat. Long, broad lashes that provide both shade and protection fringe the bird's pale yellow eyes. 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. The status of southern ground hornbills is not as 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.



Photo: Zack Rheeder



Photo: Hugh Chittenden

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 km² in private conservation areas adjacent to the Kruger National Park to 200 km² on private farmland in the Limpopo Valley.

A group core comprises an alpha pair, while other group members are offspring of varying ages from previous breedings by the dominant pair. The additional group members help to defend their permanent territory and to feed the alpha 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.



Photo: Albert Froneman

Bushveld baritones

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



Photo: Hugh Chittenden

On the menu

The southern 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 mollusks, centipedes and millipedes, earthworms, and crustaceans.

Vertebrate prey include 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



Photo Chris Van Rooyen

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.

Boom or bust?

This unique species faces 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.

Family time

Breeding starts in spring and takes place in large cavities in trees and in cliff crevices. 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, but they are fed by other group members. Only the alpha female breeds, typically producing two eggs per clutch. The eggs hatch



Photo: Mabula Ground-hornbill Project

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 (*Aquila verreauxii*) 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. Group members feed fledged youngsters until they are about two years old.



Photo: Hugh Chittenden

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 when they first breed, as they need time 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. Southern ground hornbills are famed as makers of rain, and not just of drizzle but of downpours, reflecting the perception of them as creatures of unusual potency.



Photo: Hugh Chittenden

Other associations, rooted in the bird's dignified demeanor, relate to wisdom and the promotion of calmness in those who are easily agitated. 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.

SECOND CHANCES

The [Mabula Ground Hornbill Project](#) is the [BirdLife South Africa Species Guardian](#) for this threatened bird and coordinates conservation efforts throughout its range. A key conservation strategy involves rearing second-hatched wild chicks in captivity 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 subpopulations. Some wild groups, and even larger populations, are limited by the availability of suitable nest sites, so artificial nests are being provided to enhance breeding success.

The Mabula Ground Hornbill Project also spearheads measures to mitigate direct threats. These include minimizing risks from poisoning and electrocutions, and screening windowpanes 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 program that focuses on increasing local communities' understanding of the importance and vulnerability of this wonderful bird.



Photo: Mabula Ground-hornbill Project

About the Author

David has been the bird curator at the [Durban Natural Science Museum](#) for more than two decades. As for his ornithology career, Transvaal Division of Nature Conservation is where it all began. There, he worked on birds of prey and threatened birds of the Highveld grasslands. David also studied cranes and bustards and was a fieldworker for the first bird atlas project while at the University of Cape Town for nearly a decade.

He has authored, co-authored, and edited for a [diverse and extensive list of publications](#), and is frequently invited to speak and teach about South Africa's birds. A particular interest in pelagic seabirds has led to scores of trips off Durban to see these birds.

Read [The Leopard's Echo interview with David](#) to learn a great deal more about his accomplishments, passions, and adventures.

~ Identification and Biology ~

SOUTHERN GROUND-HORNBILL

The Southern Ground-Hornbill is an iconic species that is endemic to Africa. They are the **largest** of all hornbill species and are identified by their **black plumage** and striking **red face and throat**.

SCIENTIFIC NAME: *Bucorvus leadbeateri*

HEIGHT: up to one metre tall

MASS: ♂ 3.6-6.2 kg ♀ 2.25-4.6 kg

BEHAVIOUR

They are highly adapted to a **terrestrial lifestyle**. They have stout legs and their feet are scaly making them tough and strong for walking on land. They walk on the end joints of their toes so that they **walk** effectively rather than hopping like other hornbills. This allows them to move quickly in order to hunt their prey and also to avoid predators.

CONSERVATION STATUS

Endangered in Eswatini, Namibia and South Africa.

Vulnerable Worldwide.

DISTRIBUTION

Angola, Botswana, Burundi, Democratic Republic of Congo, Eswatini, Kenya, Mozambique, Namibia, Rwanda, South Africa, Tanzania, Uganda, Zambia and Zimbabwe

GROUP STRUCTURE

They are found in groups of **2-12** individuals. There is one **alpha breeding pair**, while the other birds assist in raising chicks. The rest of the group is usually comprised of young males and immatures.

BEAK

Strong bill with a **casque**, used to dig in the ground and catch and hold onto prey.



FACIAL SKIN

The facial skin can be enlarged for territorial display

Males are all red
Females have a violet patch
Juveniles have a lighter yellow throat

EYES

Good eyesight to scan for prey on the ground
Long eyelashes to protect their eyes from the sun

PLUMAGE

Black feathers covering the body
The primary feathers and wing covers are white and are only visible in flight

WINGS

Large and broad wingspan of 1.2 to 1.8 metres.

LEGS & FEET

Strong, scaly, long legs and toes for walking on land.
They walk on their tip toes.
Anisodactyl foot structure: 3 toes point forwards and 1 backwards.



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BirdLife International (2015). Southern Ground-Hornbill. The IUCN Red List of Threatened Species 2015 & 2016. Downloaded from <http://www.iucnredlist.org>.
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Designed by Caitlin Judge

~ Environment and Habitat ~

SOUTHERN GROUND-HORNBILL

Southern Ground-Hornbills are **endemic** to sub-equatorial Africa. They can be found at sea-level to altitudes of 3000 metres across the biomes they inhabit: **savanna, open woodland** and **grasslands**.

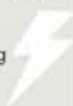
GRASSLANDS

Grasslands make up 28% of the terrestrial surface area of southern Africa. They are dominated by a **single vegetation layer, mainly grasses**, with little to no tree cover and summer rainfall. The topography ranges from flat plains to undulating hills, valleys or escarpments with an altitude range of around 300-3500 m. The climate is generally cooler than savannas.

THUNDER OR RAIN BIRDS

Southern Ground-Hornbills are often associated with **deep booming calls** and **good summer rains**.

They synchronise their breeding with the first good summer rains.



OPEN WOODLAND

Woodlands are areas that are composed of up to 70% **woody vegetation** (scattered trees and bushes) with well-spaced canopies that still allow light to reach the ground. Trees such as leadwood, marula and the African baobab are important to Southern Ground-Hornbills for **nest cavities** and as high, safe places to **roost**. Southern Ground-Hornbills tend to only tolerate areas with less than 40% bush cover.

Groups are often found along drainage lines and around waterholes due to the richer prey diversity and availability.

SAVANNA

Savannas make up the **largest biome** in southern Africa and contain a high diversity of plant and animal species. They are characterised by **both a grassy and woody layer** of vegetation. They are warm and relatively dry environments with summer rainfall, interspersed by periods of drought and dry seasons.



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HANS HORNBERG
HANS HORNBERG
HANS HORNBERG



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~ Threats and Conservation ~
SOUTHERN GROUND-HORNBILL

Southern Ground-Hornbills are **Vulnerable** worldwide and **Endangered** in South Africa. They face an array of threats, which make their conservation challenging but vital for their survival.



HABITAT LOSS

Approximately **65%** of their their historical habitat in South Africa is **no longer occupied** by SGHs. This is due to alteration of their open savanna and grassland habitats by factors such as human expansion, agriculture, and climate change.

Suitable large **nest trees are in decline** due to wood harvesting, strong winds, fire, and elephant impact.

Habitat fragmentation has caused populations to be segregated, making the mixing of individuals and finding mates more difficult.

REPRODUCTION RATE

Low reproduction rate, compounded with other threats, leaves them especially vulnerable to extinction risk.

WINDOW BREAKING

Their territorial behaviour causes them to attack their reflection in any shiny surface, such such as mirrors and windows. They **mistake their own reflection** for an intruding bird. This can result in injury to birds, damage to property, and this can sometimes result in their persecution.

SECONDARY POISONING

This can occur when they feed on carcasses that have been intentionally **laced with poison** to target various carnivore species.

If they consume an animal that has been shot with a lead bullet, this can result in **lead toxicosis**. This can be fatal for the hornbill.

Pesticides or poison aimed at crop-raiding birds can also harm the hornbill if it consumes the carcass of a targeted bird.

BELIEF-BASED MEDICINE

They are sometimes opportunistically **hunted** and used in traditional rituals and medicine.



CONSERVATION MEASURES

Different conservation initiatives are vital to slow the decline of the species. Some of these include:

- **Mitigation** of known threats.
- **Reintroducing** redundant second-hatched chicks raised in captivity into suitable areas in the wild.
- Supplying **artificial nests**.
- Public **education** and **awareness**.
- **Research** into species behaviour to inform conservation management.
- Promoting **sustainable** and **environmentally** conscious living choices by co-inhabitants.



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MAFWA
Malaria and Febrile Widespread in Africa



H
HORN BIRDS
HORN BIRDS

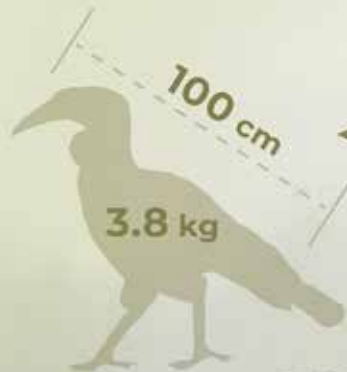


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SOUTHERN GRO

CONSERVATION STATUS:

Worldwide they are listed as **VULNERABLE**
In South Africa they are **ENDANGERED**



ONE BIG BIRD

Southern ground-hornbills are the **largest** of the 54 hornbill species. They have black plumage and characteristic red facial skin. They can live between **50 and 60 years**.

SEXY IN P

In mature
have fully
while the
patch of
the bill.

References:

BirdLife International 2016. *Bucorvus lead*
doi.org/10.2305/IUCN.LI.K.2016-3.RLTS.T2266
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Ground Hornbills *Bucorvus leadbeateri* in
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GROUND-HORNBILL

AN AFRICAN LIFE

They are found in African countries, including: Kenya, Rwanda, Democratic Republic of Congo, Tanzania, Zambia, Mozambique, Zimbabwe, Angola, Namibia, Botswana and South Africa.



70% As much as
FORMER RANGE HAS
DECREASED
In South Africa



RED
The birds the males
y red facial skin,
the female has a
violet blue below

LIFE IN THE NEST

Ground-hornbills nest in **tree cavities** or sometimes earth banks and holes in cliff faces. They only breed on average every **2.6 years** but the fledgling rate is less at **1 chick per 5 years**.



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MADULA
CONSERVATION



HANS HOHENSTEIN
charitable trust



Designed by Caitlin Judge

CULTURAL AS

Hornbills often feature in the **beliefs** and **practices** of African and Asian countries. They hold great significance in many **cultures** and there are varied stories about them.



many cultures
PROTECT THE SPECIES
due to their reputation as the
RAIN BIRD

Southern Ground-Hornbills are often associated with **bringing rain**. In cultures, such as those of the Ndebele people, they are held **sacred** because of this and it is taboo to kill or persecute them.

If the Southern Ground-Hornbill **calls** during the day it signals that rain is coming.

They signify the beginning of the **rain season** and are thought to bring rain in **droughts**.



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ASSOCIATIONS



KNOWLEDGE

The birds are thought to know about **special information**, such as trees that possess medicinal properties.

BELIEF-BASED MEDICINE

They are selectively hunted and used to harness **powers** to find food and to help people **predict the future**. Parts may also be used in traditional rituals to **protect people from lightning** or to strike an enemy with lightning.

BAD OMEN

They can be thought to be an omen of **loss** or **destruction**. If the bird comes close to or enters the home, it is believed to signal that an elderly person will die.

PROTECTION

They are associated with protective beliefs and practices. Many believe they have the capacity to **ward off lightning** and to **protect against evil** spirits.



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ground hornbill Project.



E. r. riedeli



E. r. aruensis



E. r. vosmaeri



E. r. polychloros



E. r. solomonensis



E. r. cornelia



E. r. macgillivrayi



E. r. roratus (Ambon)



E. r. biaki



E. r. roratus (Seram)



Not Steve's Photo Pick

These geese breed north of the timberline in Greenland, Canada, Alaska, and the northeastern tip of Siberia, and spend winters in warm parts of North America from southwestern British Columbia through parts of the United States to Mexico. It can fly as far south as Texas and Mexico during winter, and returns to nest on the Arctic tundra each spring.

It is a rare vagrant to Europe but for a frequent escape from collections and an occasional feral breeder. Snow geese are visitors to the British Isles where they are seen regularly among flocks of barnacle, Brent and Greenland white-fronted geese. There is also a feral population in Scotland from which many vagrant birds in Britain seem to derive.

Wikipedia





Snow geese (*Anser caerulescens*)
Photo: Lisa Marun

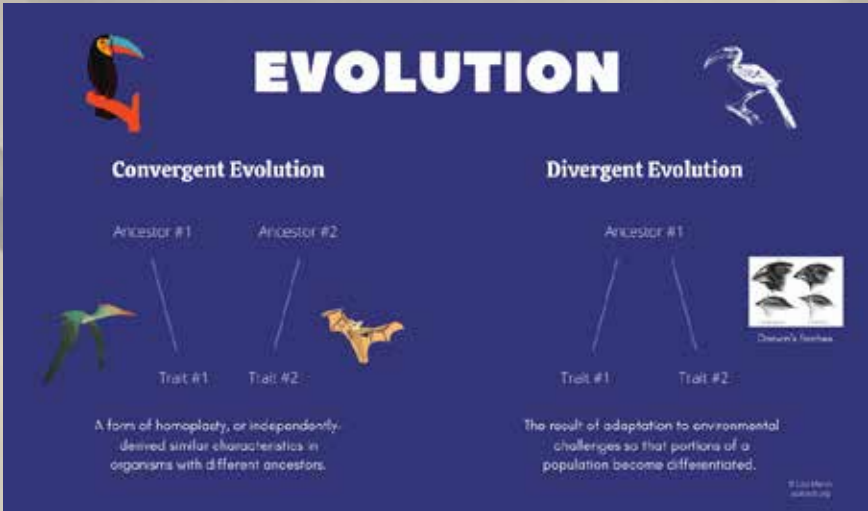


Jim Sorenson, Birds in shoes
“The Turkey” How appropriate
for the season for him to be on
our pages.

About

I enjoy nature and adding
something out of the ordinary.
All my drawings are available
at https://www.redbubble.com/shop/?query=jim%20sorensen%20birds%20in%20shoes%20series&ref=search_box





Of Hornbills and Toucans: An Example of Convergent Evolution

Levi Fuentes

Evolution Primer

Convergent evolution is when organisms of different lineages evolve similar features independently to meet an ecological niche or environmental demand. A common example of this is the evolutionary multiplicity of wings. Wings evolved four separate times: first in insects; next in pterosaurs (sometimes erroneously called pterodactyls); then in birds (aka *avian dinosaurs*); and most recently (in evolutionary terms) in bats. Insects aside, pterosaurs, birds, and bats all modified their

forelimbs to meet the demands required for powered flight.

The wing example may be one we're familiar with when it comes to highlighting the concurring evolution of similarly utilized body parts for species that are very far apart taxonomically, or in terms of their evolutionary ancestors. This convergent evolution contrasts with the type of evolution we may normally think of, which is actually divergent evolution—or the small and large variations appearing over time between species having a common ancestor, such as Darwin's finches. Canine divergence would be a good non-avian example of this—with wolves, dogs, foxes, coyotes, and jackals all having modern-day gray wolf lineage.



Knobbed hornbill (*Rhyticeros cassidix*) Photo: Helmhornvogel Weltvogelpark Walsrode

Not Necessarily All in the (Same) Family

Two families of birds I often see being confused with each other, or even being incorrectly labeled as being related to each other, are hornbills (Bucerotidae, including the subfamilies Bucerotinae and Bucorvinae) and toucans (Ramphastidae). This confusion is understandable given that a cursory comparison of hornbills and toucans belies the fact that they are not very close taxonomically, and their perceived similarities are instead due to convergent evolution.

As for the similarities between hornbills and toucans, beginning with diet, both are primarily frugivores with omnivorous tendencies. They supplement fruit with the eggs, nestlings, or

adults of smaller bird species, along with insects and other invertebrates, reptiles, and small mammals. This holds true for most toucans and hornbills, the exceptions being some African hornbills of the Bucerotinae subfamily (e.g. genera *Lophoceros*, *Tockus*, and *Horizocerus*), along with the ground hornbills (subfamily Bucorvinae), being primarily carnivores that will supplement their diets with fruit and other plant material.

Both toucans and hornbills disperse the seeds of many plant species, earning them the reputation as being among the important rainforest engineers in their native ranges. Superficially, they both sport large, colorful beaks, and use them to reach and manipulate food and objects. Most toucans also rely heavily

on their beaks to help [dissipate heat](#), and hornbills do so as well to a limited extent.

It bears emphasizing that both hornbills and toucans can be found throughout the tropics in their respective ranges. As such, these corresponding natural habitats in geographically distinct parts of the world have likely guided the convergent evolution that led to many of the similarities we see between the two otherwise very distinct families today. The shape, size, and relatively light weight of their beaks, for example, give each of them habitat-specific advantages in terms of having a built-in tool and mechanism for temperature regulation in distinct places where they have had similar challenges.

Birds of a (Different) Feather...

Now we get into the differences, starting with hornbills. This Old World family of about 55-60 living species is native to the forests, rain forests, and savannas of sub-Saharan Africa, Southeast Asia, and the Indian subcontinent.

Phylogenetically, hornbills include two subfamilies:

Bucorvinae (ground hornbills) and Bucerotinae. [Recent genomic data](#) reveals that hornbills are most closely related to bee-eaters and woodpeckers, with their next closest relatives being trogons. (Note that in the Sibley-Ahlquist taxonomy, Bucorvinae and Bucerotinae are elevated to the family level, with both belonging to Bucerotiformes, a separate order from Coraciiformes, where they are otherwise placed.)

Hornbills are one of the few bird species that sport casques, or thick keratin growths on the top of the upper mandible, which may provide some added reinforcement. While casques are imperceptible on some species, on others they are used to show maturity, to amplify calls, and—in some species—the casques are used in aerial jousting or as a strong hammer-like tool. While some hornbills are mostly black and white in body plumage, many are grey, brown, a reddish-orange, or any combination of these colors.

Hornbills are sexually dimorphic to varying degrees depending on species. Males and females are often easy to tell apart due to differences in body size, facial skin coloring, eye coloring, casque size, and overall plumage



Abyssinian ground hornbill (*Bucorvus abyssinicus*) Photo Carol Stanley



Southern ground hornbill (*Bucorvus leadbeateri*) Photo Carol Stanley

colors and patterns. Hornbills also sport eyelashes and have binocular vision. While seeing the tip of the beak would seem like a disadvantage, this allows them to be even more precise and dexterous with their beaks.

The general body plan of a hornbill, aside from large beaks, body color, and the occasional facial adornment, is that of a

long-bodied, long-tailed bird that can cover great distances (the ground hornbills, as their name suggests, spend most of their time on the ground, but can fly when pressured). While both hornbills and toucans are cavity breeders, hornbills are unique in that the female will barricade herself in the tree hollow, plastering the hole



Sumba Hornbill (*Rhyticeros everetti*) Photo: Ingo Waschkies

with fruit pulp, mud, and poop, leaving only a slit for her mate to pass food to her and the babies, all the while molting out her feathers to line the nest.

Toucans, on the other hand, are a family of over 40 species (within five genera including all species of toucans, toucanets, and aracari) endemic to the New World, with most species living arboreal lives in the lowland Neotropics. They can be found from as far north as east-central Mexico, where the northern emerald-toucanet (*Aulacorhynchus prasinus prasinus*) resides, to as far south as southeastern Brazil and northeastern Argentina—where the spot-billed toucanet (*Selenidera maculirostris*), the southern subspecies of the toco toucan (*Ramphastos toco albogularis*), and red-breasted or green-billed toucan (*Ramphastos dicolorus*) resides. Only toco toucans (*Ramphastos toco*) naturally reside outside of forested areas, and are often seen in savannas, which are a common habitat of ground hornbills (Bucorvidae).

Phylogenetically, the Ramphastidae family is in the order Piciformes, which includes barbets, the toucan-barbet, honeyguides, and woodpeckers.



Spot-billed toucanet (*Selenidera maculirostris*)
Photo: Jerry Jennings



Northern emerald toucanet *Aulacorhynchus prasinus* Photo: Carol Stanley



Toco Toucan (*Ramphastos toco*) Photo: Carol Stanley



Red-breasted or green-billed toucan (*Ramphastos dicolorus*) Photo: Jerry Jennings

The body colors often seen in members of this order are greens, black, white, and reds, with some genera sporting blue-greys, oranges, and yellows. Their next closest relatives are those in the order Cariamiformes—the seriemas.

Toucans are mostly monomorphic with regards to their coloration, though males' beaks are often longer, more slender, and/or more curved than those of females. Some exceptions to this rule include the more dimorphic green aracari (*Pteroglossus viridis*), lettered aracari (*Pteroglossus inscriptus* ssp.), chestnut-eared aracari (*Pteroglossus castanotis*), and red-necked aracari (*Pteroglossus bitorquatus* ssp.), as well as toucanets in the genus *Selenidera*.

Lastly, the general body plan of toucans is that of large-beaked, rather short-bodied birds with short- to medium-length tails, though species of the genera *Andigena*, *Aulacorhynchus*, and *Pteroglossus* sport rather long tails in proportion to their bodies. Unlike hornbills, most are relatively weak fliers, preferring instead to hop from branch to branch; hence the

vastly wider wingspan of hornbills in comparison with toucans.

Hopefully this has helped better inform you about both hornbills and toucans, and has made clear that the results of convergent evolution can be deceptive. Just because they look the same superficially, eat almost the same things, and fulfill some similar ecological niches doesn't mean hornbills and toucans are as closely related as one might think. Rather, similar environmental demands have given each family of birds an opportunity to evolve some similar advantageous characteristics.

About the Author

Levi Fuentes is a lifelong bird admirer who enjoys researching and learning about the avian world. He first became a bird owner at the age of 12.



Green araçari (*Pteroglossus viridis*)
Photo: Jerry Jennings



Sanford's Sulawesi hornbill (*Rhabdotorrhinus exarhatus sanfordi*) Photo Wikidpedica



Red-necked araçari (*Pteroglossus bitorquatus*)
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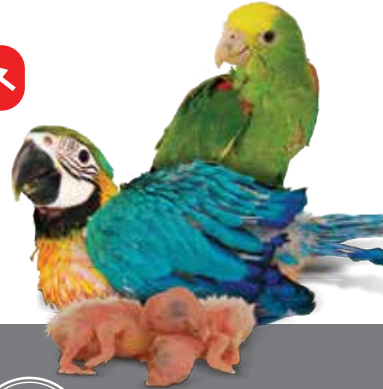
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Who's Your Daddy?



Photo: Rick Rosenthal

Stumped? See answer on page 38



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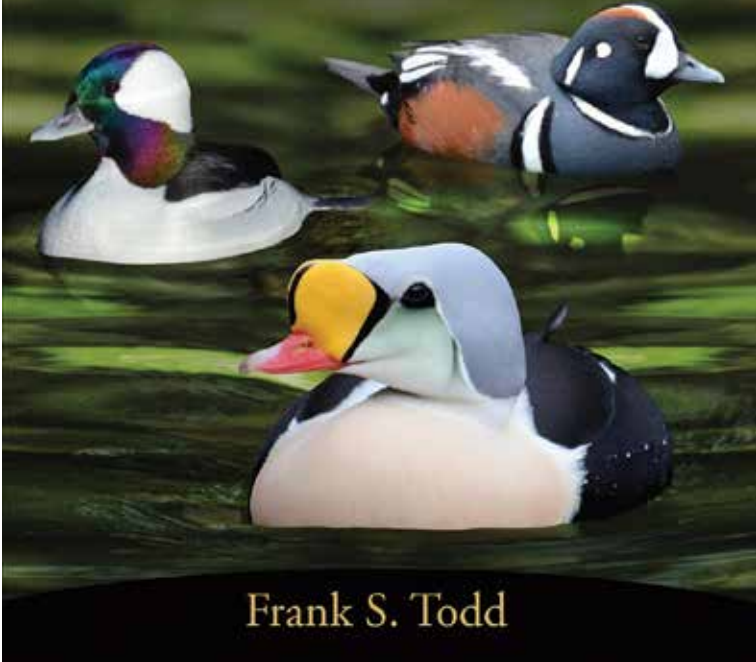
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Grey-winged trumpeter *Psophia crepitans* Photo: Rick Rosenthal

Who's Your Daddy?

From page 41, Answer:

Grey-winged trumpeter (*Psophia crepitans*)

Rick Rosenthal is the aviculturist that took photos of the chick he is raising.

Rick wanted to be sure to mention that Steve Duncan incubated the egg and Sarah Brabbs fed the chick from day one.

The grey-winged trumpeter (*Psophia crepitans*) is a member of a small family of birds, the Psophiidae. It is found in the northern Amazon rainforest and Guiana Shield in tropical South America. Unlike all other trumpeters, the rump and back are grey in the grey-winged trumpeter.

The grey-winged trumpeter is a dumpy, guineafowl-like bird with a long neck and legs, and short yellow chicken-like bill. It is 48–56 centimetres (19–22 in) long and 1.3 kilograms (2.9 lb) in weight. The soft plumage is mainly black, but the feathers of the inner wing are grey.

These are gregarious forest birds which nest in hollow trees, laying 3-4 white eggs that are incubated by all members of a group of five or more birds. When not breeding, the flocks may number 50 or more. Their food is insects and fruit, picked off the ground. They are weak fliers, and will run by preference.

The grey-winged trumpeter's song is a low humming, but its call, as its name suggests, is a very loud JEEK or honking TZAAK. This bird is kept as a pet by Amerindians, since it is easily tamed, hunts snakes, and is a very efficient sentinel, with its unmistakable alarm call.

A captive grey-winged trumpeter named Trumpy was kept at Jersey Zoo by the author Gerald Durrell, and was noted for interacting with the people and animals of the zoo. "Trumpy" is mentioned several times in Durrell's book "Menagerie Manor".



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2021 EVENTS

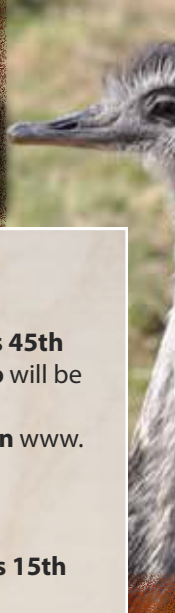


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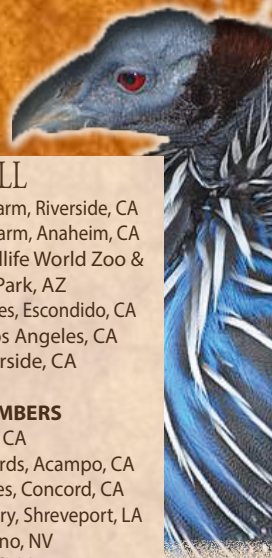
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