



Avian Models for 3D Applications
Characters and Texture Mapping by Ken Gilliland

Songbird ReMix

AFRICA

Manual

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Songbird ReMix

AFRICA

Manual & Field Guide

Introduction

This is the sixth add-on package to the Songbird ReMix series and explores many colorful tropical bird species found in East Africa. Many birds included in this package include male and female species because of the great variance in markings. Many birds in the same species do range considerably in color and variety. This package tries to emulate the colors and markings in the most commonly found variants. These birds are perfect companion for many of the other fine products ranging from the animals such as the Millennium Big Cat to the Kente Village Props.

Overview and Use

The set is located within the **Animals : Songbird ReMix** folder. Here is where you will find a number of folders, such as **Bird Library**, **Manuals** and **Resources** . Let's look at what is contained in these folders:

- **Bird Library:** This folder holds the actual species and poses for the "premade" birds. Birds are placed into a "type" folder (such as "Birds of Prey (Order Falconiformes)" which for example would hold falcons, hawks and eagles). The birds for this set can be found in the following folder(s):
 - **Parrots and Cockatoos (Order Psittaciformes)**
- **Manuals:** Contains a link to the online manual for the set.
- **Props:** Contains any props that might be included in the set
- **Resources:** Items in this folder are for creating and customizing your birds
 - **Bird Base Models:** This folder has the blank, untextured model(s) used in this set. These models are primarily for users who wish to experiment with poses or customize their own species of bird. When using physical renderers such as Iray and Superfly, SubD should be turned to at least "3". For DAZ Studios 3Delight renders, the SubD must be turned from the "High Resolution" setting to the

“Base” setting (otherwise some areas will render incorrectly transparent).

Poser Use

Select **Figures** in the **Runtime** Folder and go to the **Animals : Songbird ReMix** folder. Select the bird from the renderer *Firefly or Superfly*) folder you want and simply click it to load. Some birds in the Songbird ReMix series may load with attached parts (*Conformers*) such as tail or crest extensions. Some of these parts have specific morphs. You will need to click on the attached part to access those controls. Associated poses can be found in the same folder- **Bird Library : (Type) : Poses**.

DAZ Studio Use

Go to the **Animals : Songbird ReMix** folder. Select the bird from the renderer (*3Delight* or *Iray*) folder you want and simply click it to load. Some birds in the Songbird ReMix series may load with attached parts (*Conformers*) such as tail or crest extensions. Some of these parts have specific morphs. You will need to click on the attached part to access those controls. Associated poses can be found in the same folder- **Bird Library : (Type) : Poses**. Note: Using the "Apply this Character to the currently selected Figure(s)" option **will not** properly apply the correct scaling to the bird selected. It is better to delete the existing character first and load the one you want to use.

One Folder to Rule Them All

When I reworked the entire Songbird ReMix library starting in 2018, I decided to abandon the way the birds were sorted (by product name) and choose an Ornithological approach. All birds are found in the Bird Library folder and are arranged by type of bird. This approach is hopefully easier for most to find what bird they are looking for. Admittedly, it will take some getting use to for some longtime users, but I've always approached the Songbird ReMix series as a learning tool as well as a graphics tool, so hopefully some knowledge will rub off by seeing how birds are grouped.

Probably the most deceiving subfolder in the **Bird Library** is “**Perching Birds (Order Passeriformes)**”. This is folder you probably will end up “favoriting” because this one folder (Passeriformes) **holds more than 50% of all birds**. Perching birds range from cardinals and jays to chickadees, crow and swallows.

[illegible]

Finding the bird you want within the “**Perching Birds (Order Passeriformes)**” folder can be daunting, even for an experienced birder (such as myself), so I’ve included an online reference tool within this folder that helps to make your search easier. Click the “**Perching Birds Finder**” icon and when loaded, look at the first column and search for the type of bird you want. For example, I want a “manakin” (a bird common to Central and South America). Scroll down the first column and stop on “manakin”. Looking across to the second column, you will see that manakins can be found in the “Tyrant Flycatchers & their Allies” subfolder.

Physical-based Rendering

Iray and **Superfly** requires more CPU and memory horsepower than the legacy renderers because of ray-trace bounces and higher resolution meshes needed for displacement. Poser's **Superfly** renderer will require that the "Min Transparent Bounces" be set to **at least 16** and that the "Max Transparent Bounces" be set to **at least 32** in render settings. Superfly renders may show artifacts in the head area. The higher the bounce settings, less chance those will be apparent. This is a known Poser issue and may be addressed in the future. Increasing the SubD may minimize this issue. A good work around solution for Superfly artifacts is to HIDE Fluff areas (Correction Controls).

Hiding Transparency Panes

In some camera angles and lighting situations, the area where a transparency pane connects to the main body may be obvious and undesirable. In the Correction Controls area of the model, you can hide individual sections on these transparency panes to avoid this issue.

Posing & Shaping Considerations

This volume has various species, so when using generic poses not every pose will work perfectly with every bird. You may find that some minor alteration on the stock poses may be warranted.

Here are some of the most common alterations you may need to make:

- Birds will not be flat on the zero plane due to leg size and overall scale.
- Because of the numerous beak shapes, closing the beak may range from 0.5 to 1. Usually 0.8 is about right.
- **Raise Upper Beak** (*in Action Controls*): This morph is a "one size fits all" control. Because of the variety of beak shapes. It may not work with all birds.
- **Tongue poke-through** (especially when the beak is open). This can be easily solved by using the **Throat-Fuller1 & 2** morphs (*found in Creation Control/Head Shapes*).

Some poses may go askew when IK is turned on. By default, Poser's IK feature is turned off when loading a bird. To turn it on, select the "Figure" category from the main tool bar and "Use Inverse Kinematics" from the submenu.

By default, DAZ Studio's IK feature is turned on when loading a bird. This will cause the thigh and shin rotations change when the character is moved. The **CTRL K** keypress will turn IK on and off in DAZ Studio. IK doesn't work that well in Studio, so I suggest selecting the character in the **Scene tab** and simply deleting the two IK body parts to remove IK.

Where to find your birds

Type Folder	Bird Species
Kingfishers (Order Coraciiformes)	Blue-headed Bee-Eater Lilac-breasted Roller
Parrots and Cockatoos (Order Psittaciformes)	Fischer's Lovebird
Perching Birds (Order Passeriformes) Sunbirds and their Allies	Black-headed Weaver Stuhlman's Sunbird
Perching Birds (Order Passeriformes) Thrushes, Oxpeckers & their Allies	Red-billed Oxpecker Red-backed Scrub Robin
Perching Birds (Order Passeriformes) Tyrant Flycatchers & their Allies	Red-cheeked Cordon Bleu Shelley's Crimsonwing
Turacos and relatives (Order Musophagiformes)	White-bellied Go-Away Bird Purple-crested Turaco
Woodpeckers and Toucans (Order Piciformes)	Red and Yellow Barbet

Where to find your poses

Type Folder	For what species?
Kingfishers (Order Coraciiformes)	All Bee-eaters and Rollers
Parrots and Cockatoos (Order Psittaciformes)	All Parrots
Perching Birds (Order Passeriformes) Poses can be found in "Universal Poses" & "type" folders	All Songbirds
Turacos and relatives (Order Musophagiformes)	All Turacos
Woodpeckers and Toucans (Order Piciformes)	All Barbets

Songbird ReMix

AFRICA

Field Guide

Purple-crested Turaco

Fischer's Lovebird

Blue-headed Bee-Eater

Red and Yellow Barbet

Black-headed Weaver

Red-cheeked Cordon Bleu

Lilac-breasted Roller

Red-billed Oxpecker

Stuhlman's Sunbird

White-bellied Go-Away Bird

Shelley's Crimsonwing

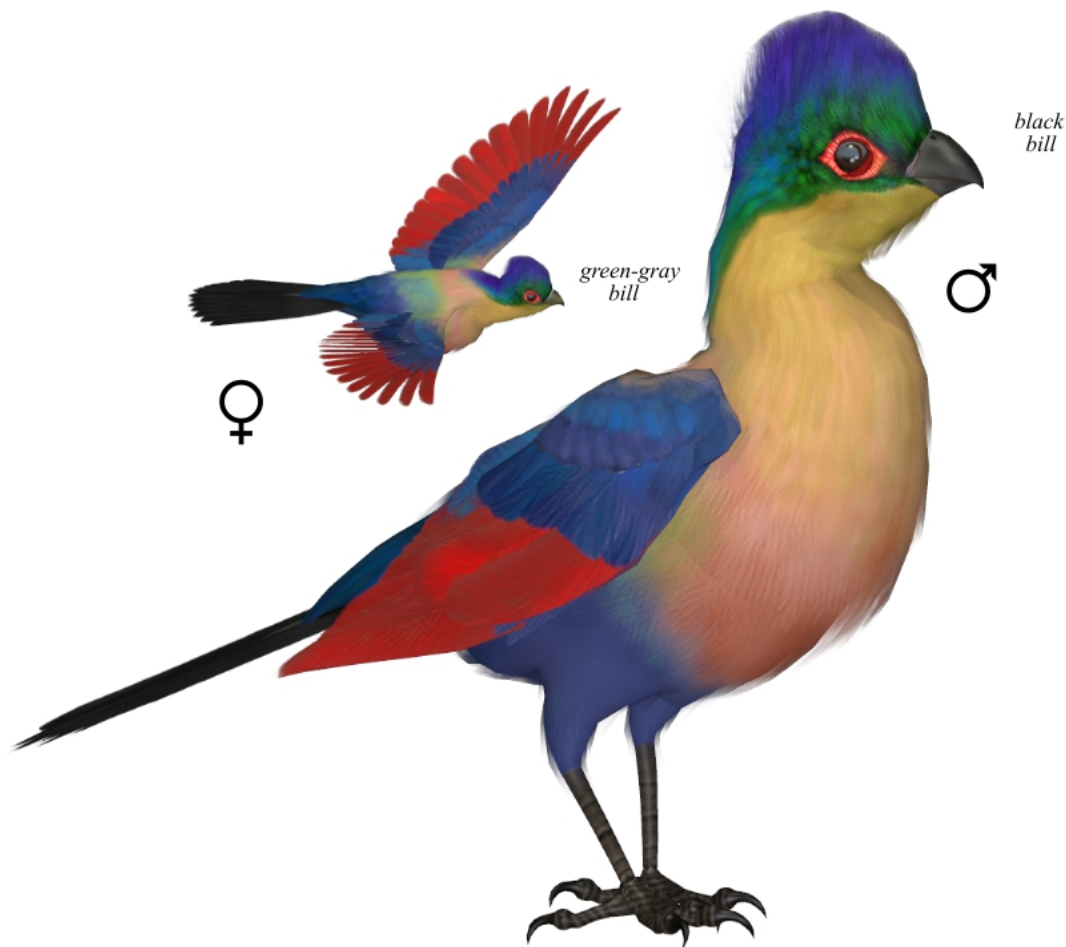
Red-backed Scrub Robin

Common Name: Purple-crested Turaco
Scientific Name: *Tauraco porphyreolophus*

Size: 17 inches (42-46 cm)

Habitat: Africa; Southeastern Kenya, eastern portions of Rwanda and Burundi, south through Tanzania to Zambia (Victoria Falls, Luano and Luangwa Valleys), Malawi, Mozambique, and Zimbabwe to Eswatini and northeastern and eastern South Africa.

Typically found in moist woodland, evergreen thickets and riparian growth, but also frequents coastal forest, *Brachystegia* woodland, and in some areas, suburban parks, gardens and exotic tree plantations. Occurs from sea level up to 1,850 m.



Status: Least Concern to Near Threatened. **Global Population:** 3,360,000 mature individuals with a decreasing population trend. Stable, common within its area. An essentially resident species which, although localized, is quite common in several parts of its southern African range. Owing to severe loss of habitat and indiscriminate trapping in Tanzania, however, subspecies *chlorochlamys* has

become a near-threatened taxon within its range in East Africa, where only a few small isolated groups now survive

Diet: Frugivorous; it most frequently consumes the fruits of the fig-mulberry (*Ficus sycamorus*), as well as *F. soldanella*, *Strychnos decussata*, *S. potatorum*, *Lannea stuhlmanni*, and *Berchemia discolor*. It has also been seen taking the fruits of *Ekebergia*, *Vitex*, *Syzygium*, *Diospyros*, *Maesa*, *Rhus*, *Crocoxylon*, *Duranta*, *Feretia*, *Pseudocadia*, *Olea*, *Celtis*, *Mimusops*, *Ziziphus*, *Rhoicissus*, *Antidesma*, *Chaetacme*, and *Cassine*, as well as several other species of *Ficus* and buds of *Capparis*. In southern Africa, readily visits birds feeding stations and consumes paw-paw, guava, mulberries, and maize-meal.

Like other turacos, it is gregarious, often occurring in flocks of 4–6 individuals or more. It is a weak flier, but moves with great agility in the trees, running along boughs and bounding among the branches. It is more often heard than seen, and makes a distinctive cackling series which that starts with short subdued notes that become longer and louder, reaches a stable pace and then ends abruptly; “cococo-co-co-co-cro-cro-crO-CRO-CRO-CRO-CRO”.

Breeding: Male and female look alike with the exception of the beak color. The adult has its forehead, superciliary area, cheeks and ear coverts colored with a glossy emerald-green. The rounded crown, crest, and nape are an iridescent dark violet-purple. The lower cheeks, chin, throat and neck are green. The upper back and breast are green, washed with a rose-pink. The lower back, and wing-coverts (except lesser coverts) are grayish blue. The rump is a dull blue-black, The upper tail coverts, tail and inner secondaries are a glossy violet-blue with greenish wash. The primaries and outer secondaries are crimson with dark brownish edges and tips. The belly and thighs are pale bluish slate. The eyes are brown, with the bare orbital skin being stark scarlet. The bill is black with the male and light greenish-gray with the female. The legs and feet are blackish. Juveniles are similar to the adult, but the crimson in the wings are duller and less extensive.

They built nests of twigs and sticks in the canopy and lay 2 to 3 eggs. They breed January–March in Tanzania, January in Malawi, December in Zambia, October–January in Zimbabwe, November–December in South Africa. Nest a flimsy unlined platform of interlacing twigs 3–9 m above ground, well concealed in a tree among matted creepers or dense parasitic growth, often in isolated thicket or at edge of forest. Lays 2–3 rounded, glossy white eggs, laying interval 1–2 d; incubation 22–23 d, by both sexes. On hatching, young are covered with thick grayish brown down; brooded almost continuously for the first week, fed by both parents by regurgitation, parents swallowing chicks' feces immediately when they appear; chicks become active at 3 weeks, moving out of nest to climb about in nest tree, and make first flight at about 38 days.

Cool Facts: Turacos come from the *Musophagidae* family which literally means “banana-eaters”. The *Musophagidae* classification has been recently renamed to *Tauraco*.

The greenish color in the feathers comes from *turacoverdin* which is the only true green pigment in birds. Other greenish colors in birds actually come from a yellow pigment such as lypochrome which when combined with the prismatic bluish structure of the feather looks green. The red pigment in the wings comes from *turacin*. Both *turacoverdin* and *turacin* are unique to Turacos.

- *T. p. chlorochlamys*. First reported by Vigors in 1831. It is found in southeastern Kenya through Tanzania, Burundi, and Rwanda to Zambia (Victoria Falls, Luano and Luangwa Valleys), Malawi, and northern Mozambique. Subspecies *chlorochlamys* lacks the pink wash to the upper back and breast. The bare scarlet skin around eye typically extends farther forward. The belly and thighs are dull greenish gray. The secondaries and the tail lack greenish tones.
- *T. p. porphyreolophus*. First reported by Shelley in 1881. The nominate subspecies is found in Zimbabwe and Mozambique south to northeastern and eastern South Africa. It is similar to *chlorochlamys*, but the mantle and breast are green with pinkish wash.

Common Name: Fischer's Lovebird
Scientific Name: *Agapornis fischeri*

Size: 6 inches (15 cm)

Habitat: Africa; North-Northwestern Tanzania, Rwanda, Burundi, Zimbabwe and Kenya.

It lives in wooded grasslands with *Acacia*, *Commiphora* and *Adansonia*, at 1100–2200 m elevation levels, and cultivated areas to the western part of its range. It is found to be commonest in savanna dominated by *Acacia tortilis*, with other *Acacia* and *Balanites aegyptiaca* the principal associates, and a ground layer of



grasses made up of *Penisetum*, *Digitaria*, *Themeda* and *Eustachys*. In the Serengeti, it is present in all types of woodland and borassus palms (*Borassus aethiopum*); this latter is chief habitat in the south of range. Riverine forest,

dominated by Ficus, Ziziphus, Tamarindus, Aphania, Garcinia and Eckbergia, is an important dry season habitat. It avoids miombo woodlands.

Status: Near threatened. **Global Population:** 290,000 - 1,002,000 Mature individuals. There has been a major population decline since the 1970s owing principally to widespread trapping for the wild bird trade and poisoning in farmed areas. Export for this bird became illegal in 1992.

Diet: Seeds of grass (*Penisetum mezianum*) and weed (*Achyranthes asper*) collected from seed heads or off the ground. It also takes Acacia seeds directly from the tree or on the ground. Fruit includes *Rhus villosa*, *Commiphora* and *Ficus capensis*.

It drinks daily at waterholes and other surface water. It is often seen feeding on the ground in small to large flocks. They are extremely noisy and gregarious. They found descend in farmed areas to eat millet and maize and are considered a pest to farmers.

Breeding: Male and female look alike. The forehead and bill are red, less intense on rest of the head and shading on the nape, sides of neck and throat to a yellowish pink, then green on the lower breast and belly. Its back, wings and tail are dark green. Its upper tail-coverts are dark blue. Immatures have duller colored head.

They breed from January to April and June to July. Nesting takes place in tree cavities where 3 to 8 eggs are incubated for 23 days. Chicks fledge 38 days.

Cool Facts: This is one of the smallest lovebirds. Fischer's lovebirds are difficult birds to keep healthy in captivity. They are active birds that need a lot of room. When confined to a cage their health tends to suffer.

The Fischer's Lovebird occasionally color mutates. Blue is the most common variant. The Blue version has a pale pink beak, bright blue back, tail, and chest, with a white neck and a pale gray head.

Common Name: Blue-headed Bee-eater

Scientific Name: *Merops muelleri*

Size: 17.5 inches (19 cm)

Habitat: Africa; South Mali, Sierra Leone, West Guinea, Liberia, West Ivory Coast, Ghana, Southeastern Nigeria, Southwest Cameroon, South Central African Republic, Equatorial Guinea, East Gabon, Congo Brazzaville, Congo Zaire and West Kenya.

It is found at forest edges and riverine woodlands.



Status: Least Concern. **Global Population:** 2,690,000 mature individuals with a declining population trend. Sparse to locally common in former Zaire and quite common in Gabon. Range of outlying population in Kenya has contracted; formerly recorded at Nyarondo, Lerundo and Elgon, now probably restricted to Kakamega and South Nandi Forests, where uncommon. Kakamega birds persecuted by stone-throwing boys, but considerably more serious threat posed by significant inroads resulting from farming, and also trampling by cattle, which

now graze throughout the forest. Species present in a number of national parks, e.g. Korup (Cameroon) and La Lopé (Gabon).

Diet: Prey includes honeybees, ichneumons, ants, other *hymenopterans*, butterflies, moths, orthopterans, beetles and tabanid flies, all taken on wing. In western Kenya, during nesting season, commonest prey caught were sawflies, wasps, bees, and ants. Larger prey items were generally taken to the nest.

It makes short, fly-catching sorties from low down or high up, mainly within 4 m of ground in thick woody growth, sweeping low after passing insect, seizing it and wheeling back to same perch. Over 55% of sallies result in a successful catch. Bees typically beaten and rubbed against their twig perch.

Breeding: The male has pointed white forehead feathers, a pale blue crown and purple-blue nape. The sides of the head are black, the red chin feathers are stiff and narrow with “T” barbs not radiating, but forming a straight tuft. The upper parts and wings are a deep chestnut. The tail is square-ended, it appears blue above when closed but concealed parts are black. The tail black below. The under parts purplish-blue. The iris is dark red-brown. The female are generally very similar to the male, but some individuals have olive wash on the chestnut parts and a green wash on blue parts. The red chin patch is smaller and the iris is wine-red. Immature birds have the chestnut parts more ochreous than the adults and blue parts more dusky turquoise, with the crown, cheeks and mantle washed olive.

Breeding season occurs from January through May in western Kenya, while in Gabon nest building starts in October and flying young have been spotted in February. Couples probably have helpers, but no recent evidence of this. Bee-eaters excavate a 60 cm-long burrow in bank. sometimes beside a game trail. The clutch have up to three eggs.

Cool Facts: Bee-eaters are rather silent. Their song is a medley of well-spaced notes, some strident or piercing, others soft and nasal. The calls include a weak, high-pitched, squeaky “*tsee-sup*” or more tinkling “*trrrri-wit!*”. There is also a high-pitched trill “*triii...triii*”

While most bee-eaters are gregarious and form large colonies, the Blue-headed Bee-eater is a solitary bird. These shy birds prefer dark forests. They perch high in the canopy. Like many flycatchers, their stance is upright, often with a wagging tail. It selects its’ target and flies out to catch its’ prey and generally returns to the same perch and eat and repeat the process. And yes, it eats bees and wasps. It repeatedly hits the bees on a hard surface, making the bee expend its’ venom and it can be eaten.

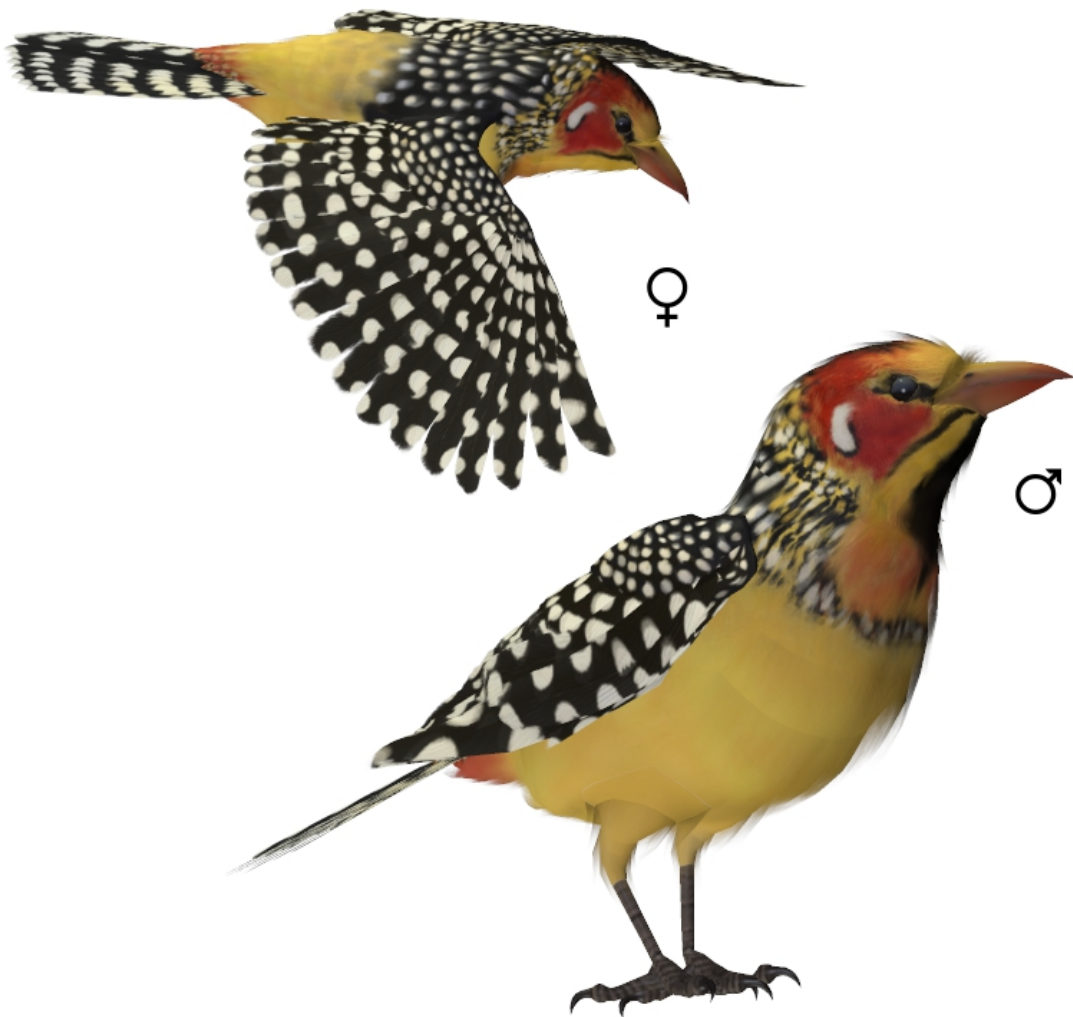
Common Name: Red-and-Yellow Barbet
Scientific Name: *Trachyphonus erythrocephalus*

Size: 9 inches (20-23 cm)

Habitat: Africa; Southwestern Sudan, South Ethiopia, Somalia, Northeastern Uganda, Kenya and North Tanzania.

They breed near uneven terrain with outcrops, steep stream channels, or termite mounds in open woodland, wooded grassland, scrubland, and edges of deserts with lush streamside vegetation.

Status: Least Concern. **Global Population:** 2,740,000 mature individuals with a stable population trend. It is generally thought to be common throughout its



range. Its group size probably reflects relative health of the local populations. It is dominant over other barbets, including *T. darnaudii* of flatter, drier country (where latter may out-compete it), and also over woodpeckers. In some parts of range, children dig out nests and feathers used in adornment by some tribes. This species is also taken to be kept as caged bird. It is present in several protected areas; the Samburu Reserve, and the Tsavo East and Tsavo West National Parks (Kenya), and the Serengeti National Park (Tanzania).

Diet: Figs, other fruits and their seeds, as well as spiders, various insect larvae, beetles, mantids, grasshoppers, locusts, harvestmen, termites and ants; also eats lizards, centipedes, small birds and birds' eggs; takes all kinds of household refuse, including bread, cereal, hamburger, chicken bones, bananas, melon, in fact any food discarded by humans.

Forages in group (6-8 barbets), sometimes very loosely, moving over ground, under or near bushes and trees; will search walls and roofs of buildings and probe tyres and radiators of cars for insects.

Breeding: It is a very distinctive barbet. The male nominate race has black cap and slight crest, and black throat patch. It is spotted and streaked red, yellow, white and black, with long, pointed orange or red bill. There is a white "half-moon" about ear opening, surrounded by black and red. The black upper parts are marked yellow and white, with red tips of upper tail-coverts. The tail has large yellowish spot-bars, yellow with some spotting and marks below, and red under tail-coverts. Females have red-yellow on the crown, rarely with a little black and more commonly has small black bib. Immatures are more yellow and brown and dull. The subspecies races vary mainly in brightness and intensity of color. The Red-and-Yellow barbet is distinguished from D'Arnaud's barbet (*T. darnaudii*) by its larger size, brighter appearance, different head pattern, and larger and brighter bill. It is different from the Yellow-breasted barbet (*T. margaritatus*) by being much more red in plumage, and having the black and red edge to white ear-covert marks.

Breeding season occurs from February through July in north and September through January in the south; mainly during and after rains. The male of group hops about primary female, his tail cocked, the female's swinging, both with head feathers erect. They may preen each other and the male will mate feed. In duets, other group-members are actively kept below duetting male and female.

The nest dug in bank or termite mound 1–4 m from ground, a tunnel (40 cm or more deep) is dug. The diameter of the nest-chamber is 11-12 cm. New nesting tunnels are excavated yearly. Their territories are often large, but always along well-wooded streams. Two to six eggs are laid. In captivity, the male incubates, feeds young more than the female does. All group-members (up to 8) feed insects and other arthropods to chicks, removing legs and wings from larger ones, feeding rate 3–12 times per hour. Once fledged the young move with the group,

begging for food from all members. There were at least five breeding attempts throughout the year, with at least four broods, from a single nesting hole in southeastern Sudan

Cool Facts: Barbets get their name from the bristles which fringe their heavy bills. The species avoid both very open areas and areas of dense woodland, instead preferring broken terrain such as riverbeds and cliffs or termite mounds. Barbets do not migrate.

Songs “erupt” from greeting ceremony and chorus of all group-members, but only primary pair sings synchronized duet with overall sound of “red’n yell-ow” as repeated duet set; male 3 whistled notes dropping in pitch, female 3–5 higher-pitched, shorter whistles, these fitting together, at about 2 sets every 3 seconds, repeated over and over for up to 2 minutes; pre-duet chorus of “tik”, “tik-it” and “chowp” notes, though birds arriving to join start with loud, rattling “kuk” series; other calls a soft “chuk” by adults coming to feed young, sharp “kik-kik-” alarm, and begging, chattery notes.

This distinctive bird graces the front cover of two most popular Africa Bird Field Guides. The primary reason the **Songbird ReMix Africa** set came to be was the author wanted to have this Barbet model.

- *T. e. shelleyi*. It is found in eastern Ethiopia to northwestern and southern Somalia. Race *shelleyi* is considerably smaller than the nominate with even less red and orange, but more yellow, and the belly is yellow-white.
- *T. e. versicolor*. It is found in northeastern Uganda and southeastern South Sudan to southern and central-east Ethiopia and northern Kenya. It is slightly smaller than the nominate, with less red on head and body and none on upper tail- or under tail-coverts, rather more yellow overall.
- *T. e. erythrocephalus*. The nominate subspecies is found in central Kenya to northeastern and north-central Tanzania.

Common Name: Black-headed or Village Weaver
Scientific Name: *Ploceus cucullatus*

Size: 6.5 inches (14 cm.)

Habitat: Africa; A resident of Cape Verde Island, Senegal, Gambia, Guinea Bissau, Guinea, Sierra Leone, Liberia, South Mali, Ivory Coast, Burkina Faso, Ghana, Togo, Benin, South Niger, Nigeria, Cameroon, Central Africa Republic,



South Chad, Sudan, Ethiopia, South Somalia, Congo Zaire, Uganda, Kenya, Rwanda, Burundi, Tanzania, Equatorial Guinea, Gabon, Congo Brazzaville, Angola, Zambia, Malawi, Mozambique, Botswana, Zimbabwe and Eastern South Africa. There are introduced, self-sustaining populations in Portugal and Spain.

It lives in savannas, forest clearings, swamps and towns. It can be found in damp areas with tall grass near rivers or standing water, also reedbeds and papyrus. It may forage in tree savanna in drier areas. It is generally found below 1500 m and is more or less confined to rivers and similar wetlands.

Status: Least Concern. **Global Population:** 23,900,000 mature individuals with a stable population trend. The global population size has not been quantified, but the species is described as common over much of its range.

Diet: Seeds and insects; young fed largely with insects.

It uses prying actions of its bill when foraging. It forms flocks in non-breeding season.

Breeding: The male nominate race in breeding colors has its forehead, crown, cheek, chin and throat black. There is a black bib which extends to the center of breast with a narrow yellow collar on nape of the neck. The mantle and back are greenish-yellow, the rump yellow and the tail is an olive-green. The upper wing are brown and the primaries are with yellow margins. The wing-coverts have broad yellow edges, The breast is yellow except for the black bib (which sometimes has chestnut-brown edges). The belly, flanks, thighs and under tail coverts are also yellow. The iris is dark brown, the bill black and the legs are brown. The male non-breeding has its forehead, crown and nape a dull olive-green, the mantle and back are brown with broad central streaks on the feathers, and the rump is brown with greenish wash. Its tail is olive-green, the wings brown with paler edges on the remiges and wing-coverts. The supercilium is yellowish with greenish-yellow cheek and ear-coverts. The chin and throat are a dull white, tinged with yellow while the breast is a buff gray, with the flanks and thighs being buff,. The belly and the under tail-coverts are dull white. The bill has a black upper mandible and a horn-colored lower mandible.

The female is like non-breeding male, but with duller yellow margins on the remiges and a dull yellow throat. The juvenile resembles the female, but with pale buff under parts, broad buff margins on the wing-coverts and less streaking on the mantle and back. The bill is brown with a darker upper mandible. Captive-bred males do not acquire breeding plumage in first year. Races differ in breeding plumage of male.

It breeds from May through October in Mauritania, April–November in Senegal, June–September in Gambia, July–October in Mali, August–October in Burkina Faso (July–August at Ouagadougou), June–November in Niger, August in Togo, May and July–October in Nigeria; in Democratic Republic of the Congo, June–August in the northeast, November–April in Kimbombo, January–May in Itombwe and the eastern region, August–September in central regions; August–September in Sudan and Ethiopia, March–May and August–September in

Uganda, and February–March in Zambia. It is a polygynous species, mating with two or three females in territory simultaneously. Occasionally, it can be monogamous. It is both a solitary and colonial nester, nesting alongside the Slender-billed Weaver (*P. pelzelni*) and the other Village Weavers, sometimes with the Lesser Masked Weaver (*P. intermedius*) or the Southern Red Bishop (*Euplectes orix*). When the females arrive, male displays by fluttering wings while hanging below nest entrance. The nest is a tightly woven onion-shaped structure with an entrance midway which built by the male. Inside, it is lined by female with fine grass, sometimes also some feathers, and with distinct ceiling layer of grass strips, slung between vertical stems (supported at one side only) in elephant grass, reeds or papyrus over water, sometimes suspended from pendulous twigs in bush or small tree. The male will repair damage to nest during construction, but not once nest occupied, and female will attempt to block holes with lining material. A clutch of 2–3 eggs is laid and the incubation is performed by the female only. Both sexes feed nestlings and fledglings.

Cool Facts: Weavers are common birds of the open bush and wooded areas and very gregarious. They have adapted well to humans and often nest in villages and towns. They form large colonies with multiple nests hanging from trees.

Males build tightly woven nests hanging from trees. Females survey the nests and then choose the best nest builders as their mates, hoping to pass on the good nest building genes to her offspring.

The weaver's call includes harsh buzzes and chattering. While it does raid farmland for seed, it equally eats the insects that destroy the crops, so farmers tolerate their intrusions.

There are four subspecies:

- *P. m. melanocephalus*. The nominate subspecies is found in southern Mauritania, northern and southwestern Senegal, Gambia, southern Mali and southwestern Niger.
- *P. m. capitalis*. It is found in western Guinea-Bissau, eastern Guinea, Burkina Faso, northeastern Ghana, Togo, Benin, Nigeria (on major rivers), northern Cameroon, southwestern Chad and northern Central African Republic. It has more chestnut below than the nominate, and the upper-parts more yellow.
- *P. m. duboisi*. It is found in Congo, southern Central African Republic, southwestern South Sudan, northern, central and southeastern Democratic Republic of the Congo and northern Zambia. It has yellow under parts, lacking any brown wash; also it is longer and has a more slender bill.
- *P. m. dimidiatus*. It is found in the southeastern Sudan and western Eritrea south to the northeastern Democratic Republic of the Congo, Uganda, southwestern Kenya and northwestern Tanzania. It has rich chestnut under parts, with the yellow restricted to the belly.

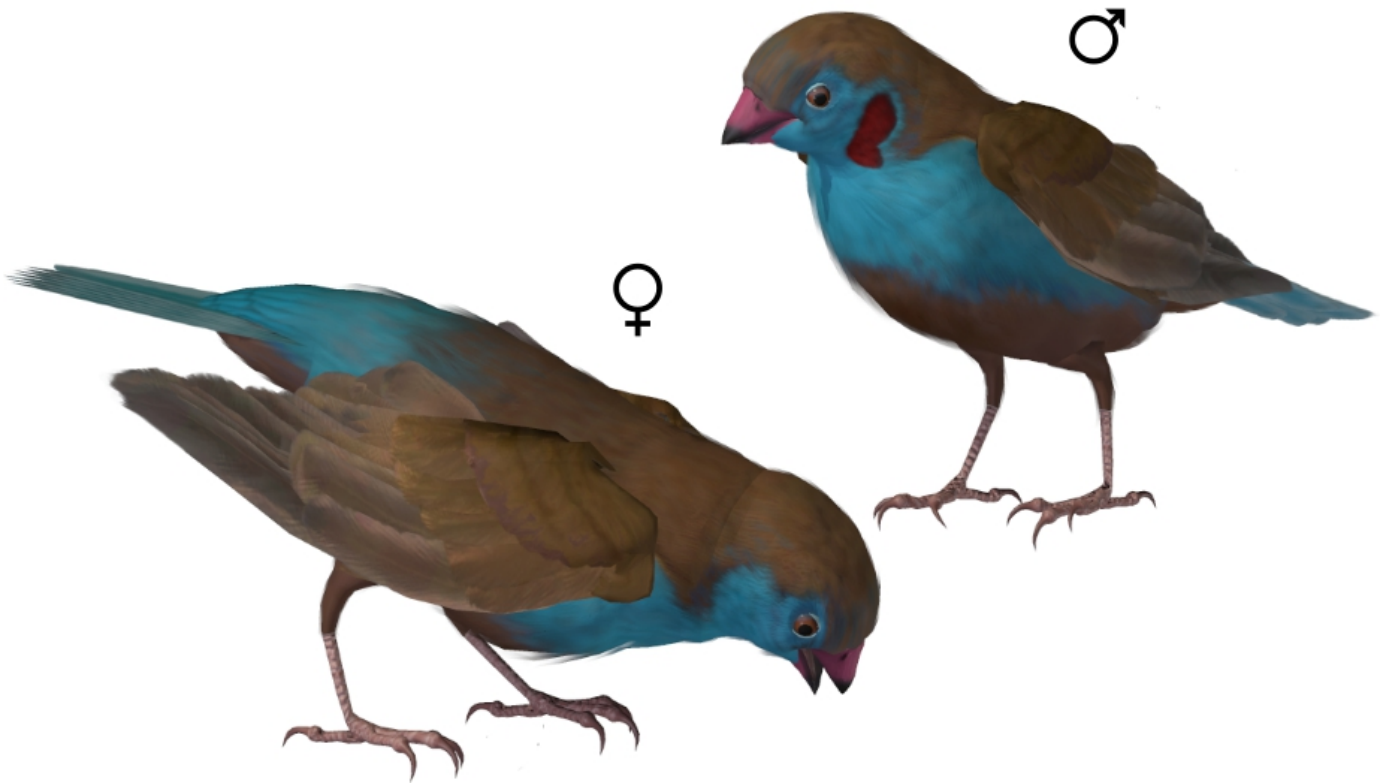
Common Name: Red-cheeked Cordonbleu

Scientific Name: *Uraeginthus bengalus*

Size: 5 inches (12-13 cm)

Habitat: Africa; Cape Verde Island, Southern Mauritania, Senegal, Gambia, Guinea Bissau, Guinea, Southern Mali, Northern Burkina Faso, Northern Ghana, Southern Niger, Northern Nigeria, Northern Cameroon, Central Africa Republic, Southern Chad, Southern Sudan, Ethiopia, Somalia, Southeastern Congo Zaire, Uganda, Kenya, Tanzania, Eastern Angola, Northwestern Zambia and Northern Mozambique.

It lives in dry savanna and woodland thickets; especially Thornbush, bushy grasslands and in sahelian and the northern guinean woodlands. It is often found in village areas with millet and manioc (*Manihot esculenta*).



Status: Least Concern. **Global Population:** 15,900,000 mature individuals with a stable population trend. The global population size has not been quantified, but the species is described as common over much of its range. Very widely kept in captivity.

Diet: Small grass seeds , also termites (Isoptera), moth larvae (Lepidoptera).

Feeds on the ground in cultivation, edges of thickets and grassy woodland. Forages mostly in pairs and in small flocks ; sometimes associates with other estrildids. Often tame.

Breeding: Male nominate race has crown to back and upper wing light grey-brown to mid-brown, primary P9 narrow near tip on inner web, rump, uppertail-coverts and long pointed tail blue; red patch on ear-coverts, rest of face and breast to flanks light turquoise to bright cobalt-blue (meeting blue of rump), centre of belly to vent and undertail-coverts buffy white; iris dark brown, eyering pale blue-grey; bill pale grey to pale violet-pink, blackish cutting edges and tip; legs greyish-pink. Female resembles male, but blue colour paler, blue below less extensive and reaching only to centre of breast and upper flanks, and no red ear patch. Juvenile is like female, but paler blue on breast, young male with trace of blue on flanks, this lacking on young female, both sexes with bill black; acquires adult plumage in 3–4 months.

Breeds in late rains and early dry season (mainly Sept–Dec) in Senegal, Apr–Jan (mainly Jul–Oct, May and Jul–Sept) in Gambia, in Jul–Oct rains in Nigeria, in Apr–Dec in Ethiopia, in Dec–Apr in Zambia, and in Aug–Nov in NE DR Congo (Uele); breeds in time with regional rains in E Africa. Courting male faces female, raises head, holding tip of feather in upward-pointing bill, jerks head up and down, then perches, with plumage sleeked, close to female, turns tail and head towards her, and bounces up and down; courtship behaviour like that of *U. angolensis*. Nest ball-shaped with low side entrance, made from stems and heads of fine grasses, sometimes with outer layer of roots or bits of yellowish dry grass, lined with feathers or soft grasses, placed 1–4 m above ground in tree or shrub; sometimes takes over old nest of another species (and does not add fresh lining), and pairs use neighbouring old nests of colonial weavers (*Ploceus*). Clutch 3–5 eggs; incubation period 13–14 days; hatchling has pink skin, long and light yellowish-brown to grey down, gape-flange on upper mandible has oval blue papilla with black border inside mouth, gape corner a thin greyish-white band, below it a slight swelling on lower mandible with black band across outer ridge, whitish palate grading to pinkish in front and sky-blue behind, whitish area with three black spots, roof of mouth behind palate black, inner bill tip with two large black spots, tongue pink with black ring and bluish-grey tip, lower mouth whitish with black crescent near tip, and black crescent under tongue (by time of fledging, gape papilla paler blue, gape and inner mouth paler); nestling period 16–19 days. Apparently, on basis of song mimicry in Kenya, nest parasitized occasionally by Steel-blue Whydah (*Vidua hypocherina*), and females of that species seen to visit nests of present species. Estimated annual adult survival 0.54.

Cool facts: Distance contact call, given when separated from mate, when disturbed and when in flight, a thin rising whistled "tseek" or a series as "tsee-tsee-tsee" at 6–8 kHz; nest call of brooding bird, given when mate approaches nest, a soft "pwe-pwe-pwe"; alarm call a slow chatter, 8–13 notes per second. Song a series of short, thin notes and longer sweet whistles, "see-syooo-si-wee,

see-see-suwee"; each male has two song themes with minor variations (distinct from songs of other males), loud undirected song with sharp introductory notes, buzzy middle notes and upslurred whistles near end, "chuckle-jur-jiwee-see-see", similar to song of *U. angolensis*, soft song ends with "pwe-pwe" (like nest call). Female song shorter and less complex, with sibilant whistles and sometimes a chirping buzz or trill.

There are four subspecies:

- *U. b. bengalus*. The nominate subspecies is found in S Mauritania, Senegal, Gambia, Guinea-Bissau, Guinea, Mali, Burkina Faso, Ivory Coast and Ghana E to S Sudan, Eritrea and Ethiopia, S to W Cameroon, Central African Republic, NE DR Congo, Rwanda and Kenya (W of Rift Valley, S to L Victoria) Introduced to the Hawaiian Islands.
- *U. b. brunneigularis*. This subspecies is found in S Somalia and Kenya (from L Baringo E to coast) S to NE Tanzania (S to North Pare Mts and Tanga). Race *brunneigularis* male has upperparts a greyer brown than nominate, female has side of head to throat gray-brown, breast and flanks blue.
- *U. b. ugogensis*. This subspecies is found in S Kenya (Mara) and Tanzania (from Serengeti and Mt Kilimanjaro S to Rukwa, Usanga Flats and Iringa). Race *ugogensis* male is paler above than previous, female brown on side of neck to below ear-coverts.
- *U. b. katangae*. This subspecies is found in S and SE DR Congo (S Kasai, Katanga), NE Angola and N Zambia. The male of the *katangae* race has its upper parts dull and dark. The female upper parts are darker or duller brown, the sides of head are blue and the under parts are buffy gray-brown.

Common Name: Lilac-breasted Roller
Scientific Name: *Coracias caudatus*

Size: 15 inches (58cm)

Habitat: Africa; It is endemic to Ethiopia, Djibouti, Somalia, Southern Congo Zaire, Southeastern Uganda, Kenya, Rwanda, Burundi, Tanzania, Angola, Zambia, Malawi, Mozambique, Namibia, Botswana, Zimbabwe and North Zaire. Nominate race is resident, with some dispersal in Zanzibar (e.g. to Pemba Island), Zambia and Zimbabwe, where evidently moves into breeding areas in



August and disperses widely post-breeding, from April, being present in northwestern Zambia almost only from May through September. Race *lorti*, after breeding in northwestern Somalia and central Ethiopia, with virtually entire population migrating in September and October to winter in southern Somalia and southern Ethiopia. The population breeding in southern Somalia and northeastern Kenya moves to central and southern Kenya, spending the non-breeding season there from December through March. It is a recorded vagrant in Oman, Yemen, Eritrea and on Central Island, (Lake Turkana, Kenya).

It prefers the acacia woodland with well-spaced trees, pure grassland (where it uses any elevated perch), the rolling bushy game lands, light forests, riverside woods, and cultivated lands. It stays clear of human habitation.

Status: Least Concern. **Global Population:** 11,800,000 mature individuals with a stable population trend. Populations increase in summer and decrease in winter. It is abundant in Somalia; common in eastern Africa and Malawi and in parts of Ethiopia and Zambia; frequent in Zimbabwe except the the east; frequent in Transvaal southward to and around the Swaziland border. The density in eastern Kenya is estimated at 4 birds/km². It occurs in many national parks (Awash (Ethiopia), Lake Mburo (Uganda), Nairobi, Tsavo East and Tsavo West (Kenya), Ruvuvu (Burundi), Virunga (Congo-Kinshasa), Liwonde (Malawi), Chobe (Botswana) and Etosha (Namibia)).

Diet: Arthropods and small vertebrates are preferred. Their diet includes locusts, grasshoppers (including the noxious *Phymateus viridipes*), crickets, beetles, butterflies, moths, hairy caterpillars, ants, scorpions, centipedes, spiders, snails, frogs, lizards and small birds.

It keeps watch from an elevated perch and swoops down to land next to prey on ground, seizes it in its bill, and swallows it whole or dismembers it. It is attracted to bush fires because of the amount of fleeing insects.

Breeding: It is a slim roller with streamered tail. The nominate race has a whitish forehead and supercilia, a glossy olive-green crown and hind neck, warm brown back, a dark blue rump, and azure upper tail-coverts. The wings are dark blue, including the lesser coverts, the rest of wing-coverts are a paler blue, and the primary-coverts and bases of the remiges are a brilliant azure-blue. The tail is bluish-olive with outer feathers being azure-blue with dark tips, the outer most elongated into black streamers. The cheeks are red-pink, the lower throat and breast are lilac with white streaks and the belly is blue. Sexes are alike. The juvenile is duller and lacks the tail-streamers. Its forehead and eyebrow are buff, buffish cheeks and breast with broad whitish streaks.

Courtship displays are fast swallow dives from high elevations with a rolling or rocking motion. They are monogamous. Egg laying begins in April through June in Somalia, March and August–September in Ethiopia, March–November in East Africa, September–November in Malawi, August–November in Zambia, and August–December in Zimbabwe and South Africa. It is strongly territorial, aggressive and vocal in defence of its territory. In areas where species is only migrant visitor, birds arrive on breeding grounds already paired. The nest a flat pad of a few bits of grass, placed in an existing cavity 2·5–5 m up in dead tree (usually casuarina or baobab), a palm or even a termite mound. It has been known to evict other birds.

A clutch of 2–4 slightly glossy white eggs is laid and incubation by both sexes for about 22–24 days. The fledging period lasts 35 days. The young are fed by parents for about 10 days further.

Cool facts: Bold and confident, they often swoop down on to prey from high perches. They are acrobatic fliers often rolling to the right or left 4 to 5 times with tucked wings within a couple seconds at a very fast speed, hence the name “Rollers”.

Light and temperature make the feather colors of this bird from brighter or duller, depending on the weather.

Rollers will often lay on ant nests, allowing ants to cover its' body. The ants remove parasites and scales from it's' feathers. This is called “anting”.

- *C. c. lorti*. The blue-breasted Roller is found in Ethiopia and Somalia southward to northeastern Kenya. It differs from the nominate is having the lilac-breast replaced with the blue of the belly color.
- *C. c. caudatus*. The nominate subspecies is found in Angola east to Uganda and central and eastern Kenya, southward to Namibia and northern and eastern South Africa.

Common Name: Red-billed Oxpecker
Scientific Name: *Buphagus erythrorhynchus*

Size: 8 inches (20 cm)

Habitat: Africa; Eritrea, Ethiopia, Djibouti, extreme southeastern South Sudan (possibly southeastern Sudan) and northern, western & southern Somalia southward (patchily) to the southern Democratic Republic of the Congo, Zambia, Malawi, extreme southeastern Angola, northeastern Namibia (Caprivi Strip),



northern and eastern Botswana, Zimbabwe, northern and eastern South Africa, Swaziland and southern Mozambique.

It is found in savanna woodlands and farmlands, up to 3000 m. It is absent from forested regions and from arid, treeless areas. Trees are required for roosting and breeding. Its occurrence is dependent on the presence of wild ungulates or domestic stock, on which the birds spend almost all of their time.

Status: Least Concern. **Global Population:** 8,930,000 mature individuals with a decreasing population trend. It is widespread in eastern and southeastern Africa, and common in game reserves; in the year 2000, estimates of more than 32,000 individuals in Kruger National Park (South Africa) and more than 3,000 in adjacent Mozambique. The current distribution is patchy compared with historical records. It has been successfully reintroduced in parts of its former range, and in some regions encouraged in ranching areas as a biological control agent for ticks on domestic stock, in conjunction with chemical controls which is not toxic to the birds. Previously, numbers and range were greatly reduced as a result of destruction of wild game, and use of toxic chemicals for dipping domestic stock. It is beneficial in removing ectoparasites from large mammals, but this must be balanced against direct harm caused by feeding on blood of domestic livestock. It occurs in numerous protected areas such as the Tarangire National Park and Mikumi National Park, in Tanzania, Liwonde National Park, in Malawi, and Mahango Game Reserve, in Namibia.

Diet: Primarily ectoparasites found on large mammals. These include mainly ticks, but also mites, lice, leeches and biting flies. Termite alates are also taken in addition to (with varying extent) the blood and mucus from host animal in feeds on as well.

Oxpeckers can eat up to 12,000 tick larvae or 100 adult ticks per day. Cattle are the primary hosts in settled areas, but it will also feed off of donkeys, mules, camels, pigs, sheep and goats. In game reserves and natural habitats, it is found chiefly on giraffes, African buffalo, black rhinoceros, white rhinoceros, eland, greater kudu, sable antelope, Burchell's zebra, impala, roan antelope, hippopotamus, warthog, blue wildebeest, nyala, lesser kudu, oryx, and large gazelles such as Sömmering's gazelle. Some mammals, such as African elephants, common waterbuck and bushbuck, and even some individuals of regular host species, may reject attentions of oxpeckers by dislodging them, using tail, trunk and horns, and on occasion resorting to rolling.

It stalks insects by landing on host. Attached parasites are grabbed in its bill tip and plucked off skin if visible. Ticks hidden in fur are collected by scissoring, in which bill is laid against surface and opened and closed rapidly while being pushed through hair. Pecking, in a "woodpecker" style, with its bill closed or slightly open, also used both to remove parasites and to open wounds on host. Scissoring is also employed to collect fluid at mouth or nasal openings of host, or blood from wounds. It removes scabs and keeps injuries open in order to feed on blood, although areas kept free of maggots and infected tissue. It will also create wounds, particularly on domestic animals in poor condition. It also hawks flying

insects. It forages in small groups, and up to 15–20 individuals seen on a single giraffe.

Breeding: Male and female look alike. Its appearance can be variable, with a dark olive-brown head to throat and tail. The mantle often comparatively paler, most of the upper wing is darker and more olive-gray. The chest to under tail-coverts are a lighter brown with the thighs being dark brown. The iris is yellow to red with bare yellow skin around the eye. The bill is laterally flattened, slightly bulbous towards center and bright red. The legs are gray-brown to black. The juvenile is like adult in plumage with the bill initially being yellow (at the fledging stage) but changing to dark brown within 2 months, then to red at about 7 months. The eyes are dark brown, becoming partly yellow at 4 months and as adult by 6–7 months.

Breeding follows the rainy season, January–March in Eritrea, Ethiopia and Somalia (recorded also April, July and August in Ethiopia); recorded in all months in Kenya and Tanzania, December–February in Zambia, October in Malawi, October–December in Botswana, November–December in Zimbabwe, and October–March in South Africa. It can have up to three broods per season.

Oxpeckers are monogamous but are co-operative breeders, the pair is assisted by group of helpers (adults and subadults), which feed nestlings and fledglings. Courtship, involving wing displays and courtship feeding, and copulation take place on mammal host. The nest composed of hair plucked from host mammals, dried dung, grass and rootlets, placed in natural tree hole, 1–15 m above ground, sometimes in cleft in stone or gap in stone wall, site may be used in successive years. Only nest-site defended, and no extended territory. The clutch is 2–5 eggs and are incubated by both sexes for 12–13 days. The nestlings are fed by both parents and by helpers, with up to seven birds feeding the brood at one nest. The nestling period lasts for 27–30 days and the fledglings feed themselves by 21 days. By 40 days, the begging approach is usually aggressively rejected by adults, but the young are occasionally fed by helpers for up to 90 days after fledging.

Cool facts: There is some dispute in scientific circles whether the Oxpecker helps to remove parasites from his host mammals or is a parasite itself. Oxpeckers are also known to create and keep wounds open on its host to attract insects and feed on the mammals' blood as well. There is also in question whether the Oxpecker keeps tick populations in check.

In areas where the related and endangered Yellow-billed Oxpecker is found, the absence of the Yellow-billed has been correlated with more tick-based diseases amongst human populations.

Common Name: Stuhlman's Sunbird
Scientific Name: *Cinnyris stuhlmanni*

Size: 5.5 inches (13-14 cm)

Habitat: Africa; endemic to the Rwenzori mountains of Burundi and Rwanda.

It lives in Hypericum scrub, montane forest, bamboo, heaths, forest edges and clearings, above 2000 m.



Status: Least Concern-Near Threatened. **Global Population:** 55,000 mature individuals with a stable population trend. It is threatened due to its' limited habitat and range. Abundant in Burundi near Rwanda border between 2750 m and 3500 m, but rare below 2400 m. Uncommon in the Rwenzori Mountains in the Democratic Republic of the Congo. Abundant above 2750 m on Mt. Muhavira, in Uganda.

Diet: Nectar, insects, and spiders.

It forages singly and in pairs; sometimes in larger flocks. It visits flowers of *Balthasaria schliebenii*, *Crotalaria agatiflora*, *Hypericum revolutum*, *Kniphofia princiæ*, *Lobelia gibberoa*, *Lobelia mildbraedii* and *Symphonia globulifera*.

Its behavior is acrobatic, similar to that of a chickadee or tit.

Breeding: The male of the nominate race in breeding plumage has its head to upper breast and upper parts, including the scapulars and the lesser and median wing-coverts, a metallic emerald-green. The upper tail-coverts are a metallic violet-blue and the tail is very dark brown with white tips and narrow white edges on two outer feather pairs, graduated, with two central feathers a little longer than outer feathers. The upper wing is mostly dark brown, the feathers are more olivaceous on the edges. The lower breast is with a thin metallic violet band, bordered below by a broader scarlet band, with brown speckling. There is dark olive below, the pectoral tufts are yellow, the under wing-coverts and axillaries are gray. The iris is dark brown and the bill and legs are black. The non-breeding male resembles the female, but the wings are darker and the wing-coverts retain the metallic coloration.

The female is dark olive-green above, darker on side of face, wings and tail dark brown, wing feathers with pale edges, primaries with yellow tinge on edges, lesser and median coverts dark olive-green; grey-olive with indistinct darker barring below, centre of belly pale, tinged yellow, underwing-coverts and axillaries white, washed yellow; bare parts as male.

Egg-laying begins in June, September and December in the Democratic Republic of the Congo and September and December in Uganda. The male breeding displays involve hopping with drooped and quivering wings while singing, with pectoral tufts splayed at right angles to body.

The nest built by the female and is a small oval structure constructed from lichen, moss, leaves, feathers and papyrus, held together with cobwebs, and lined with papyrus and feathers, placed 2–5 m up in a tree. The clutch is usually only one egg.

Cool facts: This bird is largest of the double-collared sunbirds and likes flowering shrubs at forest edges.

Its flight is fast and direct with their short wingspan. They collect nectar by hovering like a hummingbird, but usually perch to feed.

This and other sunbirds used to be in the *Nectarinia* family before they were moved to the *Cinnyris* family.

- *C. s. stuhlmanni*. The nominate species is known as the “Rwenzori Double-collared or Stuhlman’s Sunbird”. It is found in the Rwenzori Mountains, in the northeastern portion of the Democratic Republic of the Congo and western Uganda.
- *C. s. schubotzi*. It is endemic to the mountains of Nyungwe Forest, in southwestern Rwanda (southern Lake Kivu), and western Burundi (mountains northeastern of Bujumbura). The female has its throat and upper breast darker gray than other races.

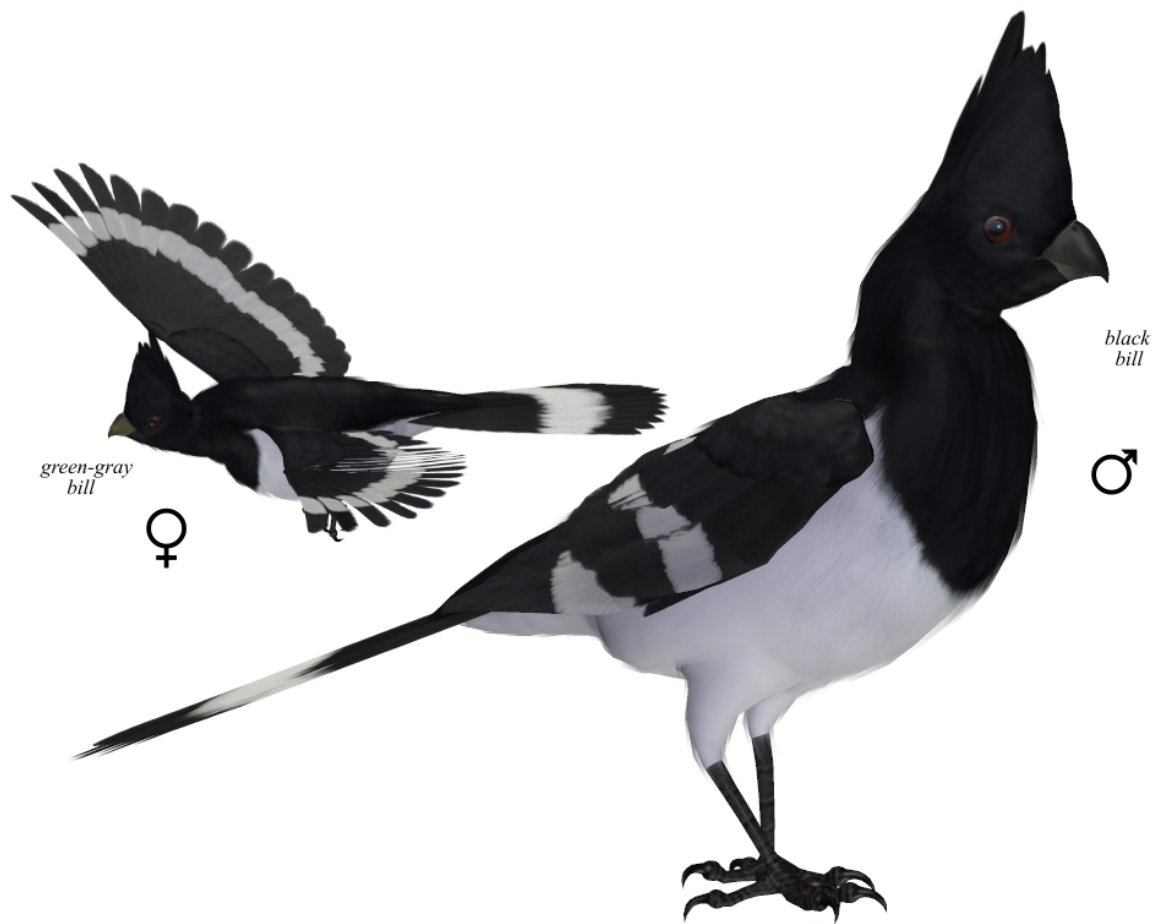
- *C. s. chapini*. It is endemic to the mountains of the eastern Democratic Republic of the Congo from west of Lake Edward (Nord-Kivu district) south to northwestern of Lake Tanganyika (Mt. Kabobo, in Sud-Kivu). The male has shorter bill (22–25 mm) than nominate, with a darker red breast band, belly dark gray.
- *C. s. graueri*. It is endemic to the mountains south and east of Lake Edward (eastern Democratic Republic of the Congo and southwestern Uganda) south to the north tip of Lake Kivu (Virunga Volcanoes and northwestern Rwanda above 1800 m). The male is similar to nominate but smaller and shorter-billed (17·5–21·5 mm), with uppertail-coverts more violet blue, the breast band is brick-red and the abdomen buff-gray (less olive).

Common Name: White-bellied Go-Away Bird
Scientific Name: *Corythaixoides leucogaster*

Size: 20 inches (50 cm)

Habitat: Africa; It is restricted to the acacia savannas in eastern and northeastern Africa. Northwestern, central and southern Somalia, Eritrea, Ethiopia, South Sudan, northeastern Uganda (Karamoja and Teso), northern and eastern Kenya and south through eastern plateau of Tanzania (western to Tabora, south to Ruaha National Park).

Commonly found in open dry shrub and woodlands where the weather is typically hot. It prefers low-lying acacia steppe and savanna with scattered trees.



Status: Least Concern. **Global Population:** 3,450,000 mature individuals with a stable population trend. Although no real indication of population numbers available, observations indicate that species is abundant in many areas. It possibly suffers some predation by birds of prey in the same way as do other birds in similar habitats.

Diet: Fruits , flowers, seeds and buds of acacias, particularly favouring the young green pods of *Acacia tortilis*.

The white-bellied go-away-bird is sedentary in its range, wandering locally when searching for water and food sources. They are gregarious birds that do not migrate but move in family groups of up to 10. They are territorial and a breeding pair likely maintains its territory year round. The species are very agile climbers, allowing for easy foraging in the tree tops.

Breeding: The adult bird is dark gray to black, with white belly and under tail-coverts. It has a stiff, pointed, 60 mm-long brownish gray crest with dark brownish black tips rises from the forehead. The sides of the head, chin and entire neck and breast are black-gray, like the upper parts. The median and greater upper wing-coverts with black ends forming partial bars on closed wing; white bases to black primaries form a conspicuous white patch in flight. The tail black with broad white median band. The bill is blackish in male , pea-green in female (becoming yellowish when breeding). The eyes are hazel-brown with the legs and feet being black. The juvenile is similar to the adult but browner, particularly on the wing-coverts.

It breeds February–July in Somalia and Ethiopia, February–August in Kenya and Tanzania, July–August in Northeastern Uganda. During the breeding season (which usually starts with the rainy season), White-bellied Go-away-birds become much more vocal. This varies according to range. The birds exhibit courtship behaviour, including chases from tree to tree and displays, where the birds bow and flick the long tail whilst raising and lowering the crest. The black and white pattern is enhanced by these postures and this is believed to be the purpose of the patterning. The White-bellied Go-away-bird is monogamous and mutual feeding has been recorded between partners.

The nest seems small for the bird, its frail flat structure of twigs, some 3–12 m above ground and generally in an acacia-type tree. The female lays 2–3 oval, glossy, pale bluish eggs with an incubation of 27–28 days, which is performed by both sexes.

Cool facts: It is a very bold bird and while you would assume it's name comes from it being a pest, it isn't. It makes a call that sounds like “gorrwAAay”. It is quite a vocal bird. Its vocabulary comprises several mainly short nasal calls, often repeated in series. Commonly heard are a nasal “gwah”, a shorter staccato “wak”, a drawn-out “nyaaah” and, of course, a slightly longer “gorrwAAay”.

There is an ongoing discussion over generic-level classification, the White-bellied Go-Away Bird is often referred to as being in the genus *Corythaixoides* or *Criniferoides*. Most earlier taxonomic treatments place it within *Corythaixoides*, however many concluded that it required the genus, *Crinifer*.

Common Name: Shelley's Crimsonwing
Scientific Name: *Cryptospiza shelleyi*

Size: 5 inches (13 cm)

Habitat: Africa; Mountains of Albertine Rift in Uganda, eastern Democratic Republic of Congo, Rwanda and Burundi.

It inhabits the under-story of closed-canopy moist forest, often in lush valley bottoms near water, as well as low secondary growth at forest edges, forest clearings and glades dominated by large herbs, bamboo thickets and the upper forest/moorland eco-tones from 1550 to 3000 m.

Status: **Endangered**. **Global Population:** 1,000-2,499 Mature individuals with a decline trend. The population has declined by 50% in the last 15 years. It is a



restricted-range species, present in the Albertine Rift Mountains EBA. It is considered "rare" in almost its entire range, and has been declining because of continuing deforestation and forest degradation causing its population to become seriously fragmented.

The forest in the Itombwe Mountains and Kahuzi-Biéga National Park is under increasing pressure from pastoralists, farmers, pit-sawyers, miners and hunters. Thousands of refugees from Burundi and Rwanda live in camps at the base of Itombwe's eastern escarpment and to the north. The clearance of forest for

agriculture has increased dramatically in the past few years as maize crops have failed, causing famine. There is also some localized forest loss in Itombwe as a result of gold-mining. In contrast, reports suggest that there has been very little encroachment at Nyungwe in recent years, due to the conflict-related emigration of local people.

The IUCN has proposed that researchers investigate declines and fluctuations in Shelley's crimsonwing population, in order to assess threats of extinction. This includes surveying the extent of its habitat. The species is currently being researched in low density areas and of recent there was a very clear sighting of this bird in Ruhijja still part of Bwindi Impenetrable Forest as it was seen feeding from the ground for more than 3 minutes before it flew off, including the Virunga National Park in the Democratic Republic of Congo, Nyungwe Forest Reserve in Rwanda, and Rwenzori Mountains National Park and Bwindi Impenetrable National Park in Uganda.

Diet: Small seeds, notably of balsam (Impatiens), also insects.

Feeds on and close to ground. Forages mainly in pairs and in small groups.

Breeding: The male has its head to below the eye, ear-coverts, nape and upper parts a maroon-red with a black tail and upper wing. The inner tertials are edged red. The chin to throat, sides of neck and upper belly are olive, while the lower belly and under tail-coverts are black. The flanks are a peach-orange. The iris is dark brown with a pink eye-ring. The bill is red and the legs are black. The female has its head and most of under parts a light olive-green, the upper parts red, wings a slightly tinged brown, the lower belly and under tail-coverts a sooty black. The juvenile is like the female, but lacks the orange wash on the flanks.

They build large domed nests and lay 5-10 white eggs.

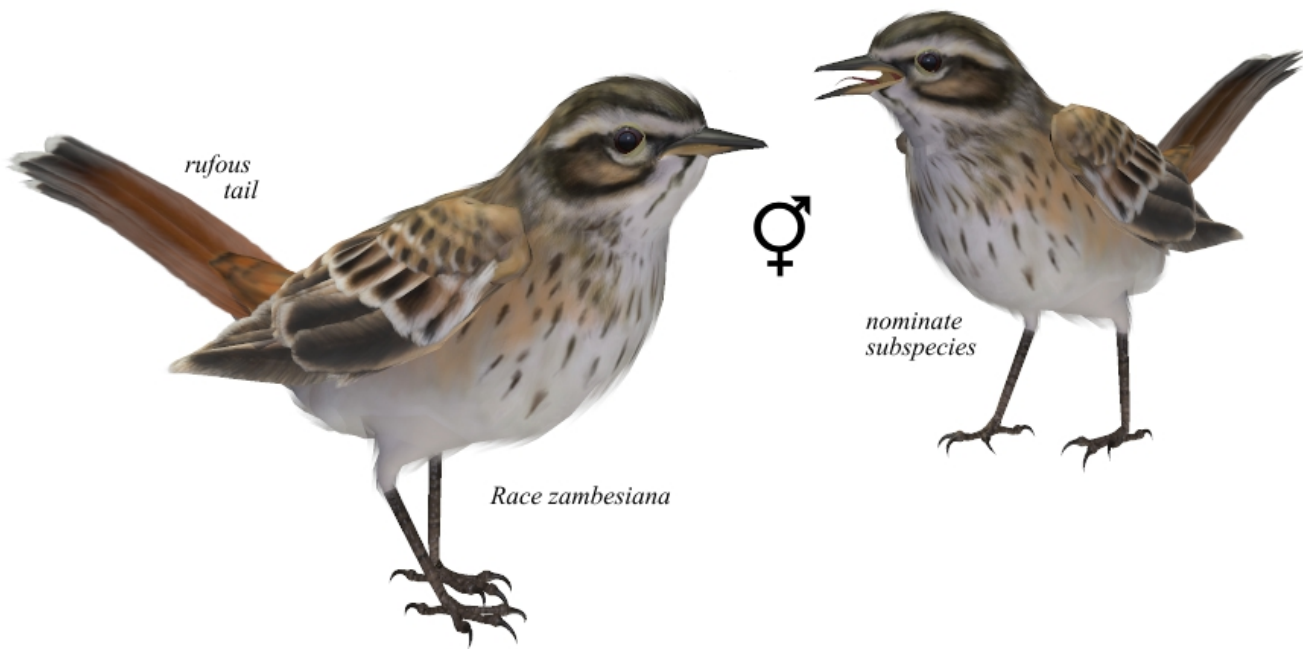
Cool facts: Feeds in low cover and on the ground. Very shy. Their voice is a sharp, high-pitched *tit tit tit* call. Rising and falling series of high-pitched *tu tutu ti ti ti*.

Common Name: Red-backed Scrub-robin
Scientific Name: *Cercotrichas leucophrys*

Size: 6 inches (15cm)

Habitat: Africa; it is found in Senegal, Gambia, Guinea, Southern Mali, Ghana, Nigeria, Central Africa Republic, Southern Chad, Sudan, Ethiopia, Southern Somalia, Congo Zaire, Uganda, Kenya, Rwanda, Burundi, Tanzania, Equatorial Guinea, Congo Brazzaville, Angola, Zambia, Malawi, Mozambique, Botswana, Zimbabwe and South Africa.

It occupies a wide variety of bushy and wooded country. It prefers open arid thorn-scrub and woodland, notably where dominated by *Acacia* or *Commiphora* and where clumps and thickets of *Aloe* plants occur. It can also be found in dune scrub and the edges of dune forest. Usually, it is abundant in sweet-grass areas supporting high numbers of grazing mammals.



Status: Least Concern. **Global Population:** 13,100,000 mature adults. Not threatened and common within its range. The common scrub-robin of much of eastern and central Africa. It is frequent to abundant in numbers, with very large range and great ecological flexibility (preferring drier habitat than most congeners). Its overall numbers are high, and unlikely to be greatly affected by habitat changes. It is locally common in coastal and southeastern Gabon and in the People's Republic of Congo. It is considered a rare spot in the Sudan.

Diet: Invertebrates, mainly insects, and in particular, termites. Its diet includes termites, ants, beetle, moths and caterpillars, plant bugs, crickets and grasshoppers, spiders, fruit, parasitic wasps, millipedes, flies and ant-lions.

The young are fed caterpillars, small moths and millipedes, Lampyrinae larvae, spiders, damselflies, small grasshoppers, and fly and beetle larvae. They consumes small drupes of Vitex; in winter may probe aloes for nectar.

They forage mainly on the ground, flipping leaf litter with their bills. They break open termite galleries on leaf debris, and search droppings of large herbivores for fly larvae and dung beetles and occasionally make sallies after alate termites.

Breeding: Nominate race is olive-brown above, shading to rufous on the rump, with blackish wings that have a double white wingbar and buffy margins of flight-feathers. The tail is black and the outer feathers have white spots on the tips and white outer edges. There is a white supercilium, subocular crescent, submoustachial and chin to throat. The cheek is olive-brown and there are dark brown lores and eyestripe, and a dark malar linking to a dark-streaked olive-buff breast and flanks. The rest of the underparts are white. The bill is black and the legs are pinkish-gray. Sexes are similar. The juvenile is like the adult, but scaled dark above and below.

Breeding season begins in March through May in Ethiopia; October–January in Rwanda; at any time of year in Democratic Republic of the Congo and eastern Africa (but mainly April–May in the latter); October–November in Angola; October–February in Mozambique, Malawi and Zambia; September–February (peak October–December) in South Africa. The territory size is based on spacing of singing males 0.75–1 ha. The nest is an open cup type, usually untidy, made of dead grass, bark flakes, slender twigs and/or dead leaves, lined with grass rootlets, grass heads and/or leaf skeletons. It is usually placed about 20 cm up in grass tussock often near a tree base.

2-3 eggs are laid and incubated for 12 days. The nestling period lasts for 11–12 days and post-fledging independence occurs after 2 weeks. Nest predation by the slender mongoose (*Herpestes sanguineus*) is common.

Cool facts: This robin is almost always seen with its tail cocked, waved or fanned. This robin forages on the ground and is usually solitary, inhabiting woodland and savanna with thickets.

This bird was formerly known as the Red-backed Scrub Robin. It was renamed and reclassified in the mid-1980's as the "White-browed Scrub-robin". It again recently went under a name changed back to the Red-backed Scrub Robin.

The races form two geographically interdigitating groups, the northeastern “white-winged group” and the “red-backed group”, which possibly differ also in habitat and voice (limited evidence suggests that on average white-winged group has simpler song of fewer notes, or less variation in note shapes, with phrases repeated for longer periods without changing). Nine subspecies are currently recognized.

White-winged Group

- *C. I. leucoptera*. It is found in southeastern South Sudan, central and southern Ethiopia, northern Somalia and northern Kenya. It is slightly paler than the nominate with grayer head, rufous-brown from the scapulars to lower back, intensifying to rufous on the rump and three-quarters of tail. It has mostly white edgings of the wing-coverts and flight-feathers (making a large panel) and only faintly marked below. It is more heavily buff-tinged on the flanks.
- *C. I. eluta*. It is found in southeastern Ethiopia, southern Somalia and northeastern Kenya. It is paler above than *leucoptera*.
- *C. I. vulpina*. It is found in eastern Kenya and eastern Tanzania. It has less gray in the crown, more intense rufous on the scapulars, less brown and white on the tail tips.

Red-backed Group

- *C. I. brunneiceps*. It is found in central and southern Kenya and northern Tanzania. It is larger than the preceding races, darker on the crown, less white in the wing (usually showing two clear wingbars) and the breast is buffy-white.
- *C. I. zambesiana*. It is found in extreme southern and southwestern South Sudan, northern and eastern Democratic Republic of the Congo, Uganda and western Kenya southward to eastern and southern Zambia, eastern Zimbabwe and northern Mozambique. It is very like nominate, but with the tail is mostly rufous
- *C. I. sclateri*. It is endemic to central Tanzania. It is like *brunneiceps* but smaller, brighter above and less streaked below.
- *C. I. munda*. It is found in southern Gabon east to the western Democratic Republic of the Congo and southward to central Angola. It resembles *sclateri* but is duller above and the tail is less rufous.
- *C. I. ovamboensis*. It is found in southern Angola and northern Namibia east to southwestern Zambia and western Zimbabwe. It is similar to *munda*, but grayer above with a little rufous in the tail.
- *C. I. leucophrys*. The nominate subspecies is found in southern Zimbabwe and southern Mozambique southward to northern and eastern South Africa.

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Special Thanks to my beta testers...

2004 Original Release (B.L. Render)

- **2006 "SBRM2" Re-release:** Jan, Rhonda and Sandra
- **2010 "SBRM3" Re-release:** Ali, Bea, Jan, Kelvin, Sandra & Katt
- **2020 "SBRM4" Re-release:** Alisa, FlintHawk and Tparo

Species Accuracy & Reference Materials

The author has tried to make these species as accurate to their real life counterparts as possible. Many birds of the same species do vary considerably in color. This package tries to emulate the colors and markings in the most commonly found variants.

With the use of one generic model to create dozens of unique bird species, some give and take is bound to occur.

The model was created in Modo. The model rigs in Poser and DAZ Studio. The texture maps were created in Painter.

Field Guide Sources:

- **"Field Guide to the Birds of East Africa"** by Terry Stevenson and John Fanshawe
- **Wikipedia** (<https://www.wikipedia.com>)
- **BirdLife International** (<https://www.birdlife.org>)
- **Birds of the World** (<https://birdsoftheworld.org>)
- **Honolulu Zoo** (www.honolulu zoo.org)
- **Handbook of the Birds of the World Alive** (<https://www.hbw.com/>)

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