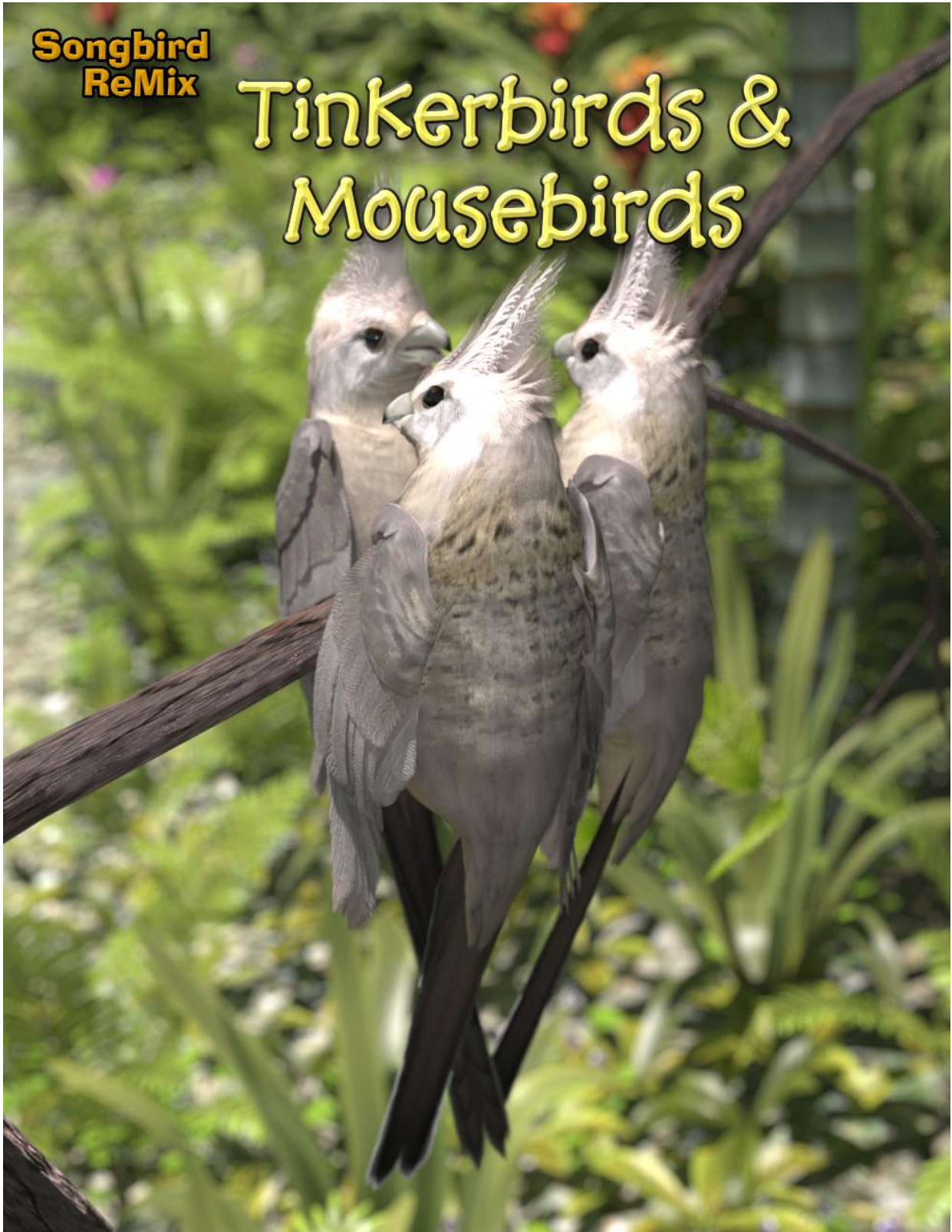


**Songbird
ReMix**

Tinkerbirds & Mousebirds



Avian Models for 3D Applications

Characters and Procedural Maps by Ken Gilliland

Songbird ReMix

Tinkerbirds & Mousebirds

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Songbird ReMix

Tinkerbirds & Mousebirds

Introduction

This set includes two different families of endemic African birds, Tinkerbirds and Mousebirds. Tinkerbirds or tinker barbets are the genus *Pogoniulus* of the *Lybiidae*, the African barbet family of near passerines. They are named for their repetitive, metallic call that sounds remarkably like a small hammer tapping rhythmically on metal. Tinkerbirds are widely distributed in tropical Africa.

Mousebirds are birds in the order *Coliiformes*. They are named for their soft, fur-like plumage and their unique habit of scurrying and creeping through dense bushes and leaves in search of food, which mimics the behavior and appearance of a mouse. They are the sister group to the trogons, hornbills, woodpeckers, barbets and more. They are now confined to sub-Saharan Africa, but once had a wider range that once included all of Africa, some of Europe and even parts of North America. Mousebirds also have pamprodactyl feet, which means that the number two and three toes face forward, while the one and four toes can be held forward or backwards. This arrangement allows mousebirds to hang upside down to feed on fruit. They can also use their feet to hold food while eating.

Songbird ReMix Tinkerbirds & Mousebirds include all known species of both birds, from the flashy Southern Red-fronted Tinkerbird to the dramatic White-headed Mousebird. As with all Songbird ReMix birds, the models come with a huge host of morphs that allow the bird to go from a perched position to full flight and mimic all of their natural behaviors.

There are two versions of this set for native support in Poser and DAZ Studio. Materials have been tuned to support Iray, Superfly and Firefly renderers.

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):

- **Woodpeckers and Toucans (Order Piciformes)**
- **Mousebirds (Order Coliiformes)**
- **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.



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 alphabetically and stop on “manakin”. Looking across to the second column, you will now know 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. This is a known Poser issue and may be addressed in the future. Increasing the SubD may minimize 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.

IK Concerns

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 and Poses

Type Folder	For what species?
Woodpeckers and Toucans (Order Piciformes) Tinkerbirds	Speckled Tinkerbird Green Tinkerbird Moustached Tinkerbird Western Tinkerbird Red-rumped Tinkerbird Yellow-rumped Tinkerbird Yellow-throated Tinkerbird Northern Red-fronted Tinkerbird Southern Red-fronted Tinkerbird Yellow-fronted Tinkerbird
Mousebirds (Order Coliiformes)	Speckled Mousebird White-headed Mousebird Red-backed Mousebird White-backed Mousebird Blue-naped Mousebird Red-faced Mousebird

Songbird ReMix

Tinkerbirds & Mousebirds

Tinkerbirds

Speckled Tinkerbird
Green Tinkerbird
Moustached Tinkerbird
Western Tinkerbird
Red-rumped Tinkerbird
Yellow-rumped Tinkerbird
Yellow-throated Tinkerbird
Northern Red-fronted Tinkerbird
Southern Red-fronted Tinkerbird
Yellow-fronted Tinkerbird

Mousebirds

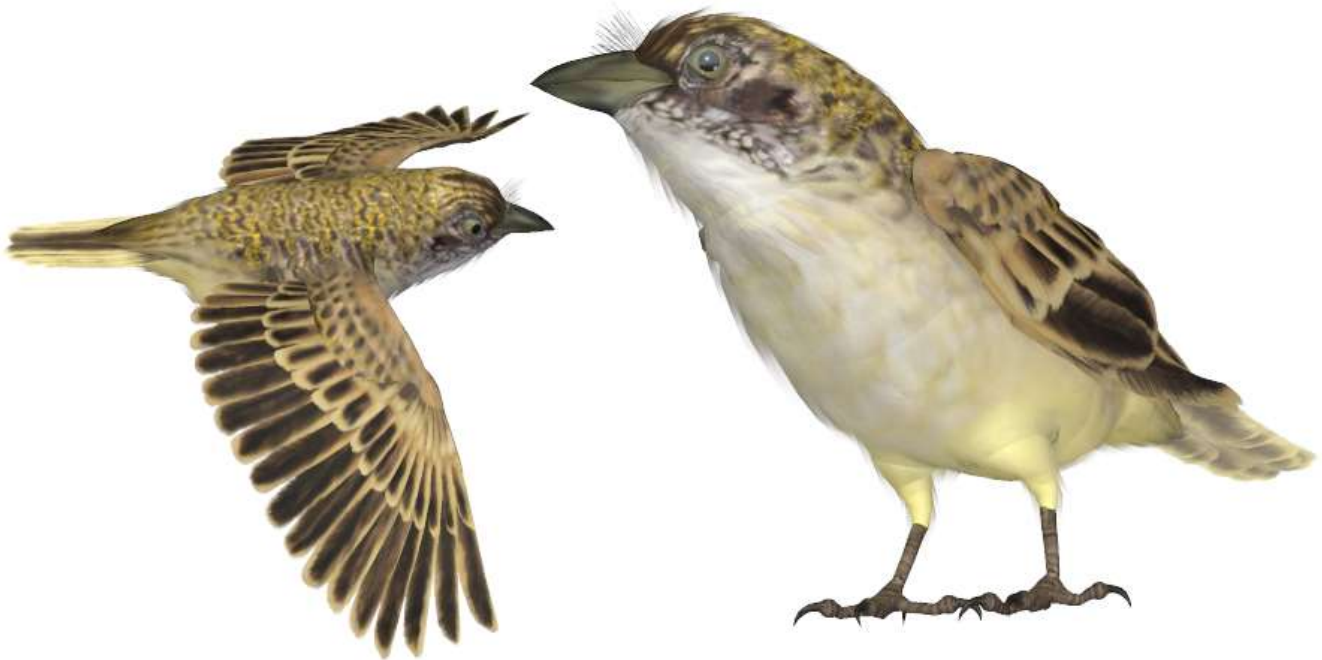
Speckled Mousebird
White-headed Mousebird
Red-backed Mousebird
White-backed Mousebird
Blue-naped Mousebird
Red-faced Mousebird

Common Name: Speckled Tinkerbird
Scientific Name: *Pogoniulus scolopaceus*

Size: 4.7 inches (12 cm)

Habitat: Africa; It is found in three areas within central Africa; Sierra Leone and southeastern Guinea east to southern Nigeria; Bioko Island and southern Cameroon eastward to Uganda, south to northern Angola and southern Democratic Republic of the Congo.

It occupies primary forest at the edges, in clearings, and also secondary forests and plantations of trees. It will visit gardens. It requires dead wood for excavating nest holes. It occurs up to 1300 m in western Africa, up to 1800 m farther east.



Status: Least Concern. **Global Population:** Unknown number of mature individuals with a decreasing population.

Diet: Omnivorous; berries and fruit, particularly mistletoe, but also takes insects as it forages in deep cover.

Breeding: Sexes are alike. It is large for a tinkerbird, with scaly markings above. The nominate race has blackish-olive crown feathers broadly edged and tipped with yellow. The upper-parts are blackish-gray with broad yellow fringes. The rump is yellower, the under-parts are light yellow-buff with darker mottling. The immature is similar to the adult, with its markings yellower, the base of bill yellow, and often a barred throat.

Cool Facts: There are three subspecies:

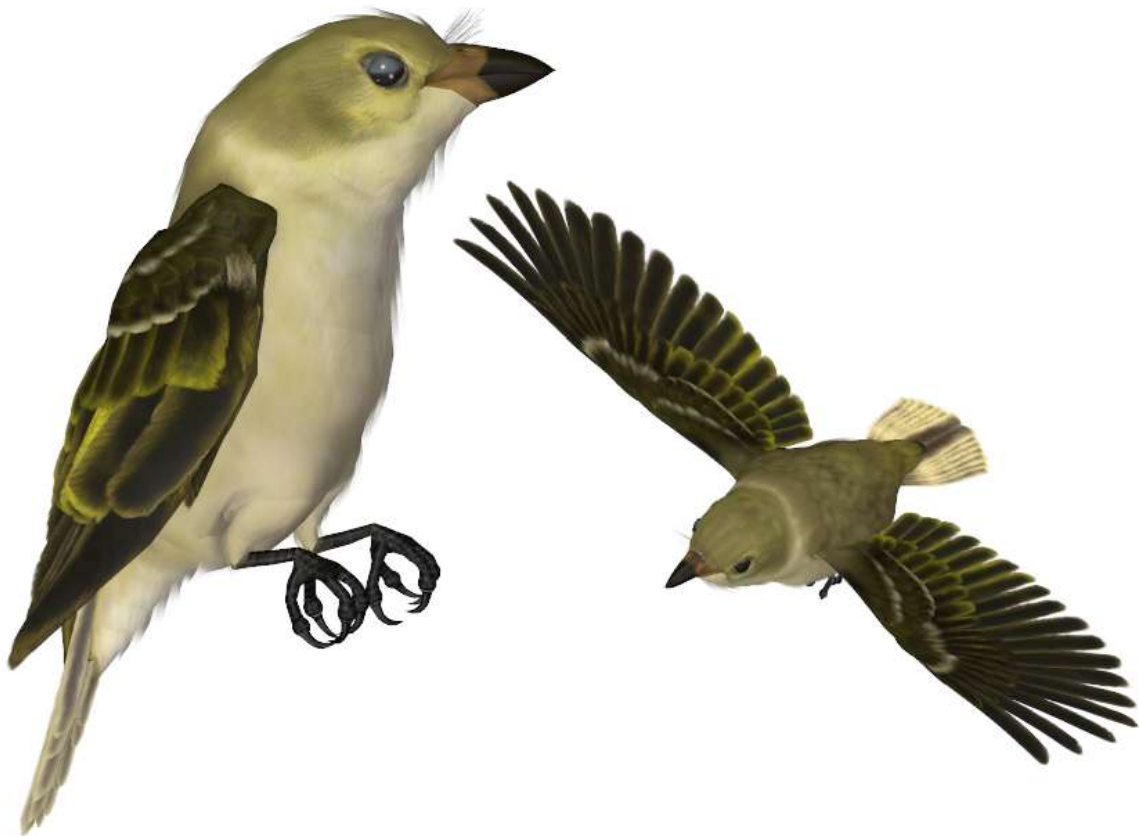
- *P. s. scolopaceus*. The nominate race is endemic to Sierra Leone and southeastern Guinea east to southern Nigeria.
- *P. s. stellatus*. This race is endemic to Bioko Island. It is the largest and more olive-green above and paler below.
- *P. s. flavisquamatus*. It is found in southern Cameroon eastward to Uganda, south to northern Angola and southern Democratic Republic of the Congo. It is larger than the nominate race, more marked and thus darker below. The crown is especially darker than in the other races.

Common Name: Green Tinkerbird
Scientific Name: *Pogoniulus simplex*

Size: 4.5 inches (11.5 cm)

Habitat: Africa; it is found along the East African coastal plain, inhabiting the foothills of the Eastern Arc Mountains and the Great Rift Valley. This range extends from Kenya in the north to Mozambique in the south, with a westward occurrence in Malawi east of the Rift Valley. It also occurs in the island of Zanzibar.

It inhabits a variety of forest and thicket habitats across East Africa, ranging from coastal rag thickets at sea level to mid- and Afromontane forests up to 1,700 meters in elevation. It exhibits a preference for dense, tangled understories within these habitats, often found in secondary forests and degraded remnants. While generally forest-dependent, it may occasionally venture into adjacent open woodlands.



Status: Least Concern. **Global Population:** Unknown number of mature individuals with a decreasing population. While the population trend appears to be decreasing, the decline is not considered rapid enough to warrant a vulnerable status. Although the population size is unknown, it is not believed to approach the thresholds for vulnerability.

Diet: Omnivorous; berries and fruit, particularly mistletoe, but also takes insects as it forages in deep cover.

Breeding: Sexes are alike. It is overall olive-green at a glance. The species has a short, dagger-shaped bill with a two-toned appearance. The bill is black with varying degrees of yellow or horn coloration at the basal portion. The face and head lack obvious markings, and the upperparts are olive-green. The throat and underparts are pale olive-gray and contrast visibly with the darker upperparts. The light-yellow median coverts and yellow fringed greater coverts give the wings a two-barred appearance. The flight feathers are dark, and both the secondaries and tertials have pronounced yellow margins. Perhaps the most striking feature is the bright yellow rump, sometimes visible when perched and often puffed up when calling or excited.

Very little is known about the species' breeding habits, as only two nests have been documented. During a birding trip with Reach Africa Safaris on 3–4 March 2014 in the Boniane-Unguana area of Mozambique, 12 birders observed and photographed a Green Tinkerbird at what appeared to be its nest, marking only the third confirmed sighting of this species in southern Africa and the first documentation of its nesting behavior. The nest, located 1.6 meters off the ground in a dense thicket, was decorated with mistletoe fruit and seeds. The observation revealed that only one bird seemed to attend the nest, incubating for approximately 20 minutes before foraging. Upon returning, the bird made a distinct call, different from its usual vocalizations.

Cool Facts: Much of the life history of the Green Tinkerbird remains shrouded in ornithological obscurity. In southern Africa, the species went unrecorded for 45 years before the "lost" population of the Sul do Save, Mozambique was rediscovered.

Common Name: Moustached Tinkerbird
Scientific Name: *Pogoniulus leucomystax*

Size: 3.7 inches (9.5 cm)

Habitat: Africa; its range covers Kenya, Malawi, Tanzania, Uganda, and Zambia where it is resident. It inhabits high-altitude evergreen forests usually between 900 and 2,500 m (3,000 and 8,200 ft) above sea level, although it may also be found upwards of 3,000 m (9,800 ft). Some individuals also dwell in the lower parts of the Usambra mountain range at an altitude of 450 m (1,480 ft). The moustached tinkerbird primarily frequent the dense interior of secondary growth forests. While the moustached tinkerbird is non-migratory, some occasionally wander away from established populations to small forest patches 30–40 km (19–25 mi) away.

Status: Least Concern. **Global Population:** Unknown number of mature individuals with a decreasing population.

Diet: Omnivorous; berries and fruit, particularly mistletoe, but also takes insects as it forages in deep cover.



Breeding: Sexes are alike. The moustached tinkerbird has mostly a yellow-tinged-green color, a paler belly, and darker undersides. Feathers on the upper lores, ear covert, and the sides of the neck are gray with green tips giving a more olive-gray appearance. From the corners of the bill, the characteristic white slash runs across the

lower lores and lines the undereye. From there, it continues down each side of the neck where it broadens and abruptly ends. The blackish sides contrast with the yellow-green back and bright-yellow rump. Yellow-green lines the otherwise black tail feathers. The wings are black with green-yellow-lined inner primaries and secondaries. Yellow-tipped greater and middle coverts give the illusion of a broad yellow bar running across each wing. When in flight, the mostly off-white underwings are visible. The moustached tinkerbird has black feet and a two-toned bill. The bill is off-white to yellow up to some place along the mid-bill where the color scheme shifts to gray or black.

On the immature, the yellow patches on the rump and wings may not be as bright. The pale belly patch may also be larger, paler, and yellower. Young chicks have hypotarsal spiky scutes.

It is hole-nesting species. Parents dig out the nest cavity in dead trees. Nest entrance averages 2 cm (0.79 inches) in diameter. The entrance's small size protects the vulnerable young from mammalian predators. Parents average 1–2 eggs per brood and are quite successful: all chicks often fledge. Females typically lay sometime between September and November, rarely in December. Early layers sometimes attempt a second clutch in December once the chicks fledge. A single nesting period lasts around 33 days with a two-month interval in-between clutches. During the breeding season, parents feed chicks insects and mistletoe berries. Chicks regurgitate mistletoe seeds and parents typically carry them away keeping the space clean. Often, dry seeds gather on the rim of the nest-hole in conspicuous rings.

Cool Facts: When feeding on mistletoe fruits, it has been seen removing the indigest exocarps of some fruits before swallowing the small berries whole. Within a few minutes following ingestion, the bird regurgitates viscin-covered mistletoe seeds. The sticky substance lands onto neighboring branches often near the source plant. Mistletoe seeds germinate in the 1–2 following days. The moustached tinkerbird is an important close range disseminator of the mistletoe species it consumes.

There are two races:

- *P. l. leucomystax*. The nominate race is found in extreme eastern Uganda (Mount Elgon) and central Kenya south in the highlands to northeastern Tanzania.
- *P. l. meridionalis*. This race is found in southern Tanzania to Malawi west of the Rift Valley.

Common Name: Western Tinkerbird
Scientific Name: *Pogoniulus coryphaea*

Size: 3.5-3.9 inches (9-10 cm)

Habitat: Africa; native to Central Africa, where it has been recorded at altitudes from 900 to 3,030 m (2,950 to 9,940 ft).

It has a threefold area of presence: the Angolan montane forest–grassland mosaic, the Western High Plateau and the Albertine Rift montane forests.

Status: Least Concern. **Global Population:** Unknown number of mature individuals with a decreasing population.

Diet: Omnivorous; berries and fruit, particularly mistletoe, but also takes insects as it forages in deep cover.



Breeding: Sexes are alike. The nominate race has a broad golden-yellow band from forehead to rump, bordered black on each side. It has a white malar stripe. The wings are black and gold with grayish-olive under-parts. It is easily distinguished from both *P. simplex* and *P. leucomystax* by general coloration and pattern, but its voice is similar. The immature is duller than the adult and the base of bill is yellow.

Breeding season occurs in October in Cameroon, June–August and November–January in East Zaire, April–May in Uganda, and May–June in Angola. It is a non-social breeder

and strongly territorial. Nests are excavated in a dead stub or small dead tree. It usually lays 3 eggs.

Cool Facts: There are three races:

- *P. c. coryphaei*. The nominate race is found in eastern Nigeria and adjacent western Cameroon uplands.
- *P. c. hildamariae*. This race is endemic to the eastern Democratic Republic of the Congo, southwestern Uganda, western Rwanda and western Burundi. It is slightly smaller, more yellow, less golden than the nominate race.
- *P. C. angolensis*. This race is found in west-central Angola. It is more pale yellow than race *hildamariae*, duller and grayer and less olive below.

Common Name: Red-rumped Tinkerbird
Scientific Name: *Pogoniulus atroflavus*

Size: 4.7-5.1 inches (12-13 cm)

Habitat: Africa; it is widely distributed across the tropical rainforests of mid-western Africa.

It lives in mangrove forests, forest clearings, plantations, and grasslands. Red Rumped birds are typically found at elevations below 800 m, however in certain parts of West Africa, they can be found at up to 1,550 m of elevation. The species is distributed throughout mid-west Africa, where it occupies tropical and subtropical forested regions, and is lower rank on the food chain.



Status: Least Concern. **Global Population:** 300,000 mature individuals with a decreasing population. Although the population trend is considered decreasing, there are no major conservation actions currently in place due to its relatively low risk of endangerment.

Diet: Omnivorous; diet consists mainly of fruits, figs and species of *Allophylus* and *Loranthus*, as well as insects and spiders.

The Red-rumped tinkerbird can be found at all levels of the forest but is most active in the canopy. They can also be found foraging on the lower branches of trees.

Breeding: Sexes are alike. It is noted for its distinct coloration—a yellow chest, black head and back, and red lower back or rump that gives the species its name. The wings are black with yellow-tipped feathers, and younger birds tend to display duller plumage with a yellowish bill.

Breeding periods vary across its range: from November to May and August in West Africa, May to June in the Central African Republic, and June to February in Uganda.

Cool Facts: The species is closely related to other members of the genus *Pogoniulus*, including *P. bilineatus*, *P. pusillus*, and *P. chrysoconus*.

Common Name: Yellow-rumped Tinkerbird
Scientific Name: *Pogoniulus bilineatus*

Size: 3.9-4.7 inches (10-12 cm)

Habitat: Africa; it is found in Angola, Benin, Burundi, Cameroon, Central African Republic, Republic of the Congo, Democratic Republic of the Congo, Ivory Coast, Equatorial Guinea, Eswatini, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Liberia, Malawi, Mozambique, Nigeria, Rwanda, Senegal, Sierra Leone, South Africa, South Sudan, Tanzania, Togo, Uganda, Zambia, and Zimbabwe.

It is native to the moist tropical and subtropical regions of sub-Saharan Africa.



Status: Least Concern. **Global Population:** Unknown number of mature individuals with a decreasing population.

Diet: Omnivorous; berries and fruit, particularly mistletoe, but also takes insects as it forages in deep cover.

Breeding: Sexes are alike. The epitome of a tinkerbird, with contrastingly marked face, strong bill, rather short tail. It is black above, with a golden rump, and golden-yellow in the wings. It has a white supercilium, a white line across the forehead and down to the

neck side, a white throat. The under-parts are pale olive-yellow, more olive laterally. It is distinguished from similar Yellow-throated Tinkerbird (*P. subsulphureus*) by larger size, white throat, more golden rump. Immatures are duller, greener, less black than the adults, with a yellow base of the bill.

Cool Facts: Six subspecies are recognized. The races differ mainly in coloration of pale areas of plumage.

- *P. b. leucolaimus*. First reported by JP Verreaux and JBE Verreaux in 1851. This race is found in Senegambia to South Sudan, Uganda, southeastern Democratic Republic of the Congo, and northern Angola. It is small (wing of male 55–56.5 mm) and brighter yellow, with less olive.
- *P. b. poensis*. First reported by Alexander in 1908. This race is endemic to the highlands of Bioko Island (Gulf of Guinea). It is paler yellow on the rump and under-parts and with a whiter breast (wing of male 55–56.5 mm)
- *P. b. mfumbiri*. First reported by Ogilvie-Grant in 1907. This race is endemic to the southwestern Uganda and eastern Democratic Republic of the Congo to western Tanzania and Zambia. It is large (wing 48–55 mm) and with buff on the sides and flanks.
- *P. b. jacksoni*. First reported by Sharpe in 1897. This race is endemic to the highlands of eastern Uganda, central Kenya, Rwanda, and northern Tanzania
- *P. b. fischeri*. First reported by Reichenow in 1880. This race is endemic to coastal Kenya to northeastern Tanzania; Zanzibar, and Mafia Island. It is the same size as the nominate race (wing of male 52–60 mm), with a whiter throat, a yellower rest of the underparts, larger gold rump, and becoming clinally paler to the North.
- *P. b. bilineatus*. First reported by Sundevall in 1850. The nominate race is endemic to eastern Zambia and southern Tanzania to Mozambique and eastern South Africa.

Common Name: Yellow-throated Tinkerbird
Scientific Name: *Pogoniulus subsulphureus*

Size: 4.3 inches (11 cm)

Habitat: Africa; it is found throughout the lowland intra-tropical rainforest of Sub-Saharan Africa.

Status: Least Concern. **Global Population:** Unknown number of mature individuals with a decreasing population.

Diet: Omnivorous; berries and fruit, particularly mistletoe, but also takes insects as it forages in deep cover.



Breeding: Sexes are alike. Tiny, thick-billed barbet. Black head with white moustachial stripe and white breast diagnostic.

Cool Facts: This species differs from the Yellow-rumped Tinkerbird principally by the eye stripes being more yellowish in color and having a white, not gray breast. There are three subspecies:

- *P. s. chrysopygus*. First reported by Shelley in 1889. This race is found in Sierra Leone and southeastern Guinea eastward to southern Ghana.

- *P. s. flavimentum*. First reported by J. Verreaux & E. Verreaux in 1851. This race is found in Togo eastward to southern Central African Republic and southern Uganda, and south to the central portion of the Democratic Republic of the Congo and northwestern Angola.
- *P. s. subsulphureus*. First reported by Fraser in 1843. The nominate race is endemic to Bioko Island.

Common Name: Northern Red-fronted Tinkerbird
Scientific Name: *Pogoniulus uropygialis*

Size: 3.7-4.3 inches (9.5-11 cm)

Habitat: Africa; it is endemic to East Africa.

It occupies various habitats dry woodland, bushland, riverine bush in desert, scrubland, cut-over forest and gardens.

Status: Least Concern. **Global Population:** Unknown number of mature individuals with a stable population.



Diet: Omnivorous; berries and fruit, particularly mistletoe, but also takes insects as it forages in deep cover.

Breeding: Sexes are alike. It is a strikingly marked bird, characterized by a red patch above the bill in adult males. Adult birds are distinguished from the Yellow-fronted Tinkerbird by their bright red frontal coloration. While identification of immatures can be challenging, they can be differentiated from those of the Northern Red-fronted Tinkerbird by their slightly smaller size and darker back coloration.

Cool Facts: It was regarded as conspecific with the southern red-fronted tinkerbird. Its vocal repertoire includes a monotonous, repetitious "took" call, often delivered in long series, as well as a higher-pitched, two- or three-part call and a rapid trill.

Two subspecies are recognized:

- *P. u. uropygialis*. First reported by Heuglin in 1862 This race is found in Eritrea to central Ethiopia and north Somalia
- *P. u. affinis*. First reported by Reichenow in 1879 This race is found in southeast Sudan to south Somalia south to Uganda and southeast Tanzania.

Common Name: Southern Red-fronted Tinkerbird
Scientific Name: *Pogoniulus pusillus*

Size: 3.5-4.1 inches (9-10.5 cm)

Habitat: Africa; it is found in southern Mozambique and eastern South Africa.

Status: Least Concern. **Global Population:** Unknown number of mature individuals with a stable population.

Diet: Omnivorous; berries and fruit, particularly mistletoe, but also takes insects as it forages in deep cover.



Breeding: Sexes are alike. It is a plump bird, with a short neck, large head, and short tail. The adult has black upper parts heavily streaked with yellow and white, and a golden wing patch. Its head has a strong black and white pattern, with a red forecrown spot. Its underparts and rump are lemon yellow. Young birds lack the red forehead.

It nests in a tree hole and lays two or three eggs.

Cool Facts: At about 101 repetitions per minute, the red-fronted tinkerbird's call is a fast *tink-tink-tink-tink*, very similar to that of the yellow-fronted tinkerbird. Many barbets perch prominently, but unlike their larger relatives, the smaller tinkerbirds sing from cover and are more frequently heard than seen.

Common Name: Yellow-fronted Tinkerbird
Scientific Name: *Pogoniulus chrysoconus*

Size: 4.1-4.7 inches (10.5-12 cm)

Habitat: Africa; a widespread and frequently common resident breeder in much of Africa south of the Sahara Desert.

It is associated with mesic, open to closed broadleaved or mixed woodlands and scrub. It is found in riparian vegetation but occurs only sparsely in dry savanna and teak woodlands

Status: Least Concern. **Global Population:** Unknown number of mature individuals with a decreasing population.



Diet: Omnivorous; insects and fruit.

Mistletoe fruits (*Tapinanthus* and *Viscum spp.*) are swallowed whole. The sticky seeds are regurgitated and wiped off on nearby branches. Across their distribution range, yellow-fronted tinkerbirds are the most important disperser of mistletoes.

Breeding: It is plump, with a short neck, large head, and short tail. The adult has black upperparts heavily streaked with yellow and white. Its head has a strong black and white pattern, with a yellow forecrown spot. The underparts and rump are lemon yellow. Both sexes are similar in appearance, but young birds have a differentiating dark crown that lacks the distinct yellow spot.

The species nests in cavities excavated in dead limbs of trees, some 2 to 5 meters above the ground. A clutch of 2 to 3 matt white eggs is laid on a base of wood chips at the bottom of the nesting chamber. The nestlings call persistently, and are reared on fruit and insects by both parents. Nests usually do not survive a season and maybe usurped by larger species of barbet

Cool Facts: The subspecies vary with respect to size and color tone of the plumage streaks. They include:

- *P. c. chrysoconus*. First reported by Temminck in 1832. The nominate race is found in southwestern Mauritania and Senegal east to northwestern Ethiopia, south to northern edge of forest in central Cameroon, north and northeastern Democratic Republic of the Congo, Burundi and northwestern Tanzania.
- *P. c. extoni*. First reported by Layard in 1871. It is found in Angola, southeastern Congo and the southern Democratic Republic of the Congo eastward to southern Tanzania, southward to north-central Namibia, northern Botswana, northeastern South Africa and southern Mozambique.
- *P. c. xanthostictus*. First reported by Blundell and Lovat in 1899. This race is endemic to the highlands of central and southern Ethiopia.

Common Name: Speckled Mousebird
Scientific Name: *Colius striatus*

Size: 13.7 inches (35 cm) (tail comprising over 50% of the length)

Habitat: Africa; it is distributed from Cameroon east to Eritrea and Ethiopia, south through eastern Africa to southern South Africa and it is overspread whole part of Tanzania.

Most habitats are suitable for this species, except the rainforests and more arid areas. This mousebird prefers open bushveld habitats. It is widespread in savanna and open woodlands, as well as areas with tangled thickets. It is a common "backyard bird," often seen in urban areas that contain gardens and orchards.



Status: Least Concern. **Global Population:** Unknown number of mature individuals with a decreasing population.

Diet: Frugivore; it subsists on fruits, berries, leaves, seeds and nectar, and is fairly strict in its choice of food from area to area.

These are conspicuously social birds, feeding together and engaging in mutual preening. They also accompany each other when they go to ground to dust bathe (also to occasionally to swallow pebbles to assist in grinding up vegetation as they digest it).

Upon nightfall, they roost in very tight groups of 20 or so birds and on cold nights they can become torpid. Being in a torpid state could make them easy prey, but the large groups are apparently effective enough to deter most nocturnal predators.

Breeding: Sexes are alike. It is dull brown in overall color on the back and on the head (including a prominent crest). The bill is black on the upper part and is a pinkish color on the lower part.

The speckled mousebird may breed at any time of the year. The nest is a large (for the bird) and untidy cup made of vegetable and animal material (sometimes including cloth and paper) and is constructed by both the male and female. The clutch size ranges from one to seven eggs (apparently based on latitude), but usually averages 3–4 eggs. Nestlings are fed by both parents and also by helpers, which usually are juveniles from previous clutches. The incubation period is fourteen days and the offspring will leave the nest for the first time at about seventeen or eighteen days. After a little over a month, the nestlings will begin foraging for themselves.

Cool Facts: The subspecies mainly differ in the contrast on the head, the throat color, the amount of barring and the iris color. Seventeen subspecies are recognized:

- *C. s. nigricollis*. First reported by Vieillot in 1817. It is found in Ghana and Nigeria to southwest Central African Republic and south to west Angola and the southwest Democratic Republic of the Congo.
- *C. s. leucophthalmus*. First reported by Chapin in 1921. It is found in north Democratic Republic of the Congo, southeast Central African Republic and southwest Sudan.
- *C. s. leucotis*. First reported by Rüppell in 1839. It is found in east Sudan, Eritrea and west, central Ethiopia.
- *C. s. hilgeri*. First reported by Zedlitz in 1910. It is found in southwest Djibouti, northeast Ethiopia and northwest Somalia.
- *C. s. jebelensis*. First reported by Mearns in 1915. It is found in southern Sudan, northeast Democratic Republic of the Congo and north Uganda.
- *C. s. mombassicus*. First reported by Van Someren in 1919. It is found in south Somalia to northeast Tanzania.
- *C. s. kikuyensis*. First reported by Van Someren in 1919. It is found in central Kenya and north Tanzania.
- *C. s. cinerascens*. First reported by Neumann in 1900. It is found in west, central Tanzania.
- *C. s. affinis*. First reported by Shelley in 1885. It is found in east Tanzania to northeast Zimbabwe and north Mozambique.
- *C. s. berlepschi*. First reported by Hartert in 1899. It is found in southwest Tanzania to northeast Zambia and Malawi.
- *C. s. kiwuensis*. First reported by Reichenow in 1908. It is found in east Democratic Republic of the Congo, central, south Uganda, Rwanda, Burundi and northwest Tanzania.
- *C. s. congicus*. First reported by Reichenow in 1923. It is found in east Angola to south, southeast Democratic Republic of the Congo and west Zambia.

- *C. s. simulans*. First reported by Clancey in 1979. It is found in central Mozambique and southeast Malawi.
- *C. s. integralis*. First reported by Clancey in 1957. It is found in northeast South Africa, southeast Zimbabwe and south Mozambique.
- *C. s. rhodesiae*. First reported by Grant and Mackworth-Praed in 1938. It is found in east Zimbabwe and west Mozambique.
- *C. s. minor*. First reported by Cabanis in 1876. It is found in east South Africa and Eswatini (formerly Swaziland).
- *C. s. striatus*. First reported by Gmelin in 1789. The nominate race is found in southern South Africa.

Common Name: White-headed Mousebird
Scientific Name: *Colius leucocephalus*

Size: 11.4-12.2 inches (29-31 cm) (tail comprising over 50% of the length)

Habitat: Africa; it is found only in east Africa where it occurs in southern Somalia and parts of Kenya with its range just extending into southern Ethiopia and northern Tanzania.

It inhabits arid bushland up to 1,400 m above sea-level.



Status: Least Concern. **Global Population:** Unknown number of mature individuals with a decreasing population. It is relatively uncommon, with its range fragmented in possibly four distinct areas. It is fairly common and widespread in coastal southern

Somalia, but absent or nearly so close to Ethiopian border. It is local and rather uncommon in Kenya; and formerly considered frequent in southeastern Ethiopia, but in fact, just one sight record exists from the country.

Diet: Frugivore; it eats fruits (such as *Solanum*), leaf buds and flowers (such as *Acacia*).

It is usually seen in groups numbering 6–11 birds.

Breeding: Sexes are alike. The plumage is mainly grayish with black and white barring on the back, neck and breast. It has a white crest, crown and cheeks. There is a white stripe down the back which becomes visible when the bird flies. Around the eye is a patch of dark, bare skin. The bill is bluish-white above and buff below. In juvenile birds, the throat and breast are buff.

Egg laying has been recorded in July in Somalia, in June–August in southwestern and central Kenya, and in February, May–July and November in Tanzania. The nest is an open cup of twigs and pliable material, placed in thick, thorny bush or tree. Usually 3 dull white eggs are laid.

Cool Facts: There two races:

- *C. l. turneri*. This is race is considered the “Northern” species and found in north-central Kenya (southeastern of Lake Turkana and Marsabit southward to the Isiolo District). It is darker than the southern form and larger. It is darker on the throat, mantle and lesser wing-coverts. It is more heavily barred on the hindneck, and the vinaceous pink is restricted to its upper breast and flanks
- *C. l. leucocephalus*. The nominate “southern” race is found in southeastern Ethiopia, southern Somalia, southeastern Kenya and adjacent area of northeastern Tanzania.

Common Name: Red-backed Mousebird
Scientific Name: *Colius castanotus*

Size: 11.8-14.9 inches (30-38 cm) (tail comprising over 50% of the length)

Habitat: Africa; It is found in Angola and the Democratic Republic of the Congo. River borders that provide water sources for vegetation like trees and bushes are the ideal homes for mousebirds. Their environment is located near the rivers between borders of both southern Angola and northern Namibia. The red-backed mousebird prefers less dense forests than those favorable to other mousebirds. Shrubs are also favored, especially with thorns, to keep predators away from their nests.



Status: Least Concern. **Global Population:** Unknown number of mature individuals with a decreasing population. It is common within its comparatively restricted area, but generally uncommon in the south of its range. Its range recently extended northward to Zaïre province of extreme northwestern Angola.

Diet: Mostly fruits, very often cultivated ones (pawpaw, banana, mango, figs). It also eats flowers, blossoms and green leaves. Occasionally, it will feed on termites.

It sometimes forms mixed-species flocks with the Red-faced mousebird (*Urocolius indicus*). Flocks of up to 20 have been seen in thickets and patches of the coastal forests from Bengo south to Benguela town, and foraging parties of up to 12 in the clearings in coffee forest at N'Dalatando.

Breeding: Sexes are alike. Its face and forehead are black with whitish-gray feather tips. The crest, rest of the head, the mantle and the wings are brown. It has a bright chestnut patch on the lower back and rump. Its long, graduated tail is brown. The sides of the head and throat are grayish. The under-parts are grayish brown, slightly more vinous on the breast and buffy on belly. The upper mandible is black with gray spot on culmen while the lower mandible is whitish. The feet and toes are coral-red to scarlet. The upper half of the iris yellow while its lower portion is duller and greener. Juveniles are duller chestnut on the rump, paler brown edges to the wing-coverts, the upper mandible greenish and lower dark. The iris is dark brown.

Cool Facts: It differs from rather similar, but smaller, Speckled Mousebird (*C. striatus*) in having bright chestnut on its back and rump, with no barring on its mantle, throat and breast.

Common Name: White-backed Mousebird
Scientific Name: *Colius colius*

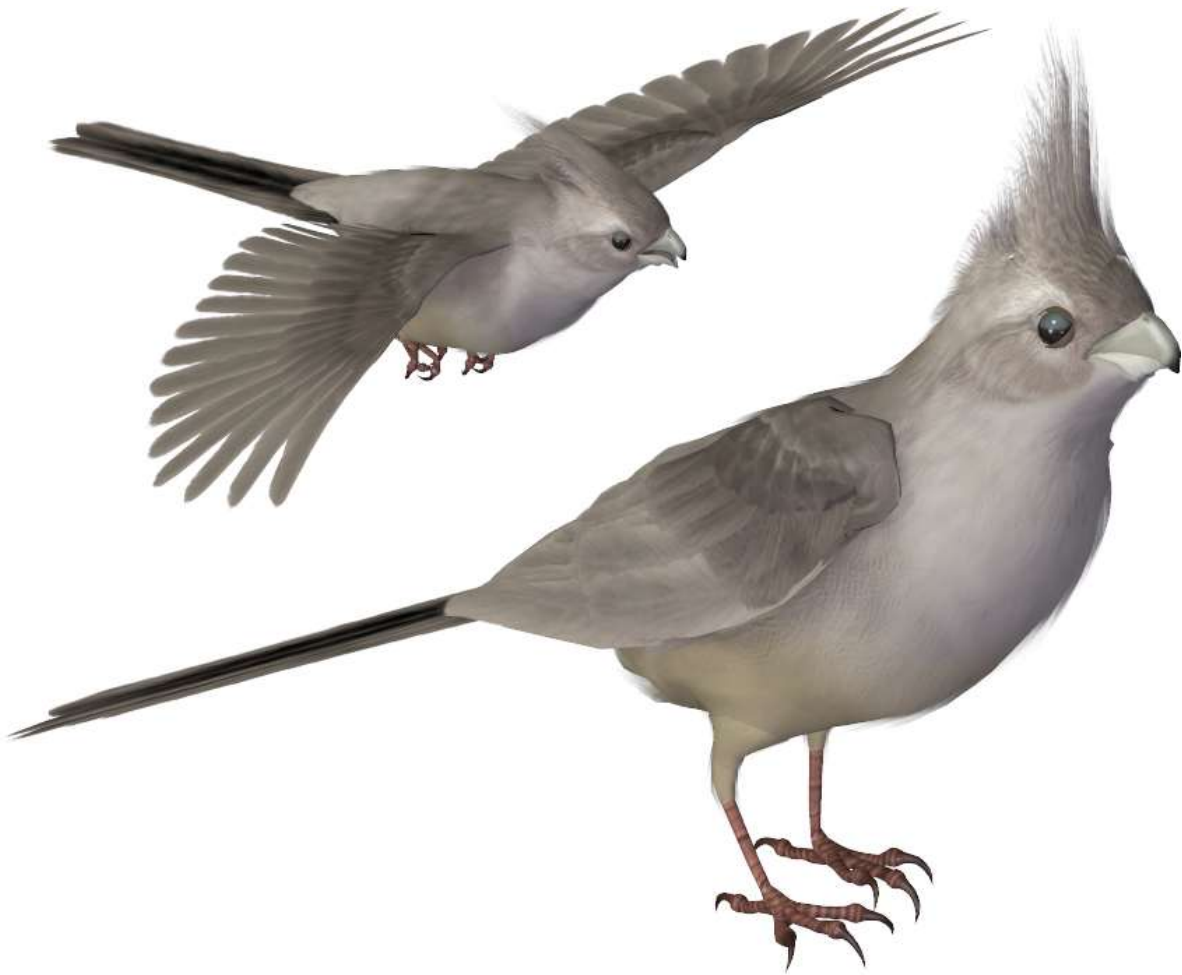
Size: 11.4-12.6 inches (29-32 cm) (tail comprising over 50% of the length)

Habitat: Africa; distributed in western and central regions of southern Africa from Namibia and southern Botswana eastwards to Central Transvaal and the eastern Cape.

This mousebird prefers scrubby dry habitats, such as thornveld, fynbos scrub and semi-desert.

Status: Least Concern. **Global Population:** Unknown number of mature individuals with a decreasing population.

Diet: Frugivore; subsists on fruits, berries, leaves, seeds and nectar. It also will feed on the buds of some plants, sometimes to the extent of stripping the branches of ornamentals such as fiddlewoods.



Its feeding habits make it very unpopular with fruit farmers and domestic gardeners, which might be why it is very shy as a rule. When it spots a human it either sits quietly in a tree or takes off immediately.

Sometimes it will settle on lawns when the grass is flowering and feed on the grass stigmata and stamens. In the wild its fruit-eating habits are an important factor in disseminating seeds of indigenous berry-producing plants such as *Halleria lucida*. However, it also spreads the seeds of invasive aliens such as *Cotoneaster*.

This is a markedly social bird, with small groups of presumably related birds feeding together and engaging in mutual preening. It roosts in groups at night. Its perching habits are amusingly parrot-like; it often almost hangs from its legs rather than squatting on them like most birds, and commonly with each leg gripping a different upright branch.

Breeding: Sexes are alike. The upper parts, head, prominent crest and breast are gray apart from a white back stripe flanked by two broad black stripes and a dark red, or maroon, transverse band at the base of the tail. The white is not visible unless the wings are at least partly open, such as when the birds are alighting, or sometimes in hot weather. The belly is buff in color. The bill is bluish white with a black tip, and the legs and feet are red.

These sedentary birds may breed at any time of the year when conditions are favorable. The nest is a large cup well hidden in a thicket. Nestlings are fed by both parents and also by helpers, usually young birds from previous clutches.

Cool Facts: The white-backed mousebird has a whistled *zwee-wewit* call. It also has a buzzing or crackling call that might be for alarm or keeping in contact with the group.

There are two subspecies:

- *C. c. damarensis*. This race is found in Namibia and southern Botswana south to northern South Africa (northwestern Northern Cape Province)
- *C. c. colius*. The nominate race is found in South Africa, from Western Cape Province east to Eastern Cape and Free State, and north to Gauteng.

Common Name: Blue-naped Mousebird
Scientific Name: *Urocolius macrourus*

Size: 13-14.2 inches (33-36 cm) (tail comprising over 50% of the length)



Habitat: Africa; it has a scattered distribution across central and eastern Africa.

It is found in open woodland and the bush in semi-arid country, including thornbush, savanna, and open Acacia woodlands. It frequents bushes along watercourses and wells, date-palm groves, farms, outskirts of villages and towns, and gardens. It is found from sea-level to 1900 m in Kenya, where typically found below 1600 m, but to 2000 m in Ethiopia. Where it is sympatric with the Speckled Mousebird (*C. striatus*), it tends to occupy the drier habitats.

Status: Least Concern. **Global Population:** Unknown number of mature individuals with a decreasing population. Widespread and fairly common to common, or locally abundant, throughout most of its range from Senegal to Ethiopia and Kenya. It is very common and widespread in Somalia, although some inexplicable and often large gaps in distribution there. It is now uncommon in northern Nigeria, where its decrease in population is noted in Kano State since at least 1970s. Apparently, it is expanding its range in Senegal, where it benefits from extensive planting of the introduced neem tree (*Azadirachta indica*). In Senegal, it is identified as particularly at-risk during operations aimed at controlling populations of Red-billed Queleas (*Quelea quelea*). Its roosts are sprayed with fenthion (a toxic pesticide).

Diet: Mainly fruits, supplemented with leaves, flowers and buds. Berries (*Salvadora persica*) are of supreme importance in some areas such as Niger and Chad. Other plants that are exploited include *Balaenites aegyptiaca*, *Capparis decidua*, *Boscia senegalensis*, *Grewia villosa*, Tamarindus and Ficus, as well as dates, and many other cultivated fruits, especially those of *Azadirachta indica* (which is commonly grown in towns).

It is usually observed in groups of up to ten birds (up to 50 may gather at single fruiting tree). Flocks typically wander from one known fruiting tree to the next, stopping to forage every 20–200 m, following same route at same time each day.

Breeding: Sexes are similar except in tail length (the females is shorter). The nominate race has ash-gray plumage, darker above than below, with a bright turquoise-blue patch on its nape and hindneck and a long crest. It has a very long, slender and steeply graduated tail. The bare skin on its lores and around eyes are crimson-red. Most of the upper mandible is crimson-red, while the rest of the bill is black. The feet are a purplish red. The juvenile lacks the blue nape patch, has a shorter crest, pink facial skin, and a greenish bill.

Cool Facts: There are seven recognized subspecies:

- *U. m. macrourus*. The nominate race is found in Senegambia to east Ethiopia.
- *U. m. syntactus*. This race is found in Sahel from Mali, southern Niger, and northern Nigeria east to Sudan, Eritrea, and northern Ethiopia. It is paler, more yellowish than the nominate race.
- *U. m. laeneni*. This race is found in Aïr Massif, in north-central Niger. It is smaller and even paler than race *syntactus*.
- *U. m. pulcher*. This race is found in extreme South East South Sudan, Eastern Uganda, Kenya, extreme South Ethiopia, Southern Somalia and Northern Tanzania. It has a reddish tinge on the breast, ashy (not yellowish) wash to the upper-parts and is larger (wing of 87–99 mm, versus 85–95 mm in the nominate race).

- *U. m. abyssinicus*. This race is found in Central and Southern Ethiopia, and Northern Somalia South to about Beledweyne. It has a whiter throat and a darker breast than race *pulcher*.
- *U. m. griseogularis*. This race is found in South Sudan, Eastern Democratic Republic of Congo, Western Uganda, Rwanda, Burundi, and North Western and South Western Tanzania; this race sometimes said to occur in South Western Ethiopia. It is darker than race *pulcher*, with a grayer throat and breast (lacking any reddish wash).
- *U. m. massaicus*. It is endemic to central and eastern Tanzania (eastward to near Dar-es-Salaam). It is paler and grayish compared to race *pulcher*.

Common Name: Red-faced Mousebird
Scientific Name: *Urocolius indicus*

Size: 11.4-14.6 inches (29-37 cm) (tail comprising over 50% of the length)

Habitat: Africa;

Status: Least Concern. **Global Population:** Unknown number of mature individuals with a stable population. It is widespread and common in South Africa and Botswana, widespread and common in Zambia (except in the west and northeast); very common in southwest Angola; locally common in Malawi, where absent from much of central and northern region, and common in southern Mozambique. It has been sighted in all protected areas in southern Malawi. As with other members of the *Coliidae*, distribution appears to be influenced by the presence of suburban gardens, fruit farming and irrigated agriculture; considerable increases were reported in both Namibia and Zimbabwe during 1940s and 1950s, but atlas work shows no substantial changes in any part of southern Africa since the 1970s. In South Africa, there are some decreases along the Orange River, where the White-backed Mousebird (*Colius colius*) is now more common than present species.



Diet: Mostly fruits, also leaves, buds, flowers and nectar. In South Africa, where regularly observed taking nectar of *Aloe*. *Salvadora persica* is a very important food in the Namib Desert. Cultivated and exotic plants extensively exploited, such as mulberry

and vines in Zimbabwe, and consumes fruit of *Melia azderach* (which is poisonous to poultry).

Breeding: Sexes are alike. It has gray upper-parts with a greenish metallic sheen, especially on wings and tail. It is buff below with its tail very long and slender, sharply graduated. The nominate race is a dark ashy blue-gray above, including the crest. It has a buff forehead and tawny-buff below. The under-side of its wings and tail are chestnut. The bare skin on its lores and around eyes are a carmine-red. Most of the upper mandible is carmine-red, while the rest of its bill is black. The feet are dark purplish-red. Its iris is yellow to dark brown. Juveniles have their crowns and ear-coverts buff, buff edges to wing-coverts, bare orbital skin and base of bill greenish, feet duller and their irises brown.

Nests are found throughout year, but with greater frequency in the spring/summer. The nest is an untidy open bowl with large foundation of dry twigs, usually branched and thorny (often of *Acacia karoo*), and finely lined cup of variety of softer materials including grass, moss, vegetable down, lichens, cobwebs, feathers, wool and paper. Nests are usually solitary, but occasionally somewhat colonial (up to three in one shrub). 2-6 eggs are laid and incubated by both sexes, sometimes with a helper for 10-15 days. Chicks fledge after 14-20 days.

Cool Facts: It differs from the Blue-naped Mousebird (*U. macrourus* which occurs parapatrically in southern Tanzania) in its darker coloration, buff forehead, and no blue patch on its nape. The sympatric *Colius* species does not have such gray plumage and lacks the bare red patch around eye.

Races differ mainly in intensity of plumage color. There is a total of five recognized subspecies:

- *U. i. mossambicus*. This race is found in east Angola to southwest Tanzania and Malawi. It is the darkest of the races and one of the largest.
- *U. i. lacteifrons*. This race is found in western Angola, north & central Namibia and western Botswana. It is the palest with a creamy-white forehead, and the ear-coverts lack the greenish tinge.
- *U. i. pallidus*. This race is found in southeast Tanzania and northeast Mozambique. It is paler than the nominate race and tinged pink below.
- *U. i. transvaalensis*. This race is found in Central and eastern Botswana and southwest Zambia to Mozambique and South Africa. It is less blue-toned with a brownish-cream forehead, and is paler than the nominate race.
- *U. i. indicus*. The nominate race is found in south and central South Africa.

Special Thanks to...

...my beta team

Alisa and FlintHawk

Species Accuracy and Reference Materials

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.

The author-artist has tried to make these species as accurate to their real-life counterparts as possible. With the use of one generic model to create dozens of unique bird species, some give and take is bound to occur. The texture maps were created in Painter with as much accuracy as possible. Photographic references from photographs from various Internet searches and several field guides were used.

Field Guide Sources:

- **Wikipedia** (<http://www.wikipedia.com>)
- **Birdlife International** (<http://www.birdlife.org>)
- **Handbook of the Birds of the World Alive** (<https://www.hbw.com>)

Songbird ReMix Merchandise



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