

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

Songbird ReMix AFRICA

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Opinions expressed on this booklet are solely that of the author, Ken Gilliland, and may or may not reflect the opinions of the publisher, DAZ 3D.

Songbird ReMix AFRICA Manual & Field Guide

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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 DAZ 3D products ranging from the animals such as the Millennium Big Cat to the Kente Village Props.

Overview and Use

Select **Figures** in Runtime Folder and go to the **Songbird ReMix** folder. Here you'll find an assortment of files that are easily broken into 2 groups: **Conforming Parts** and **Bird Base models**. Let's look at what they are and how you use them:

• Bird Base Models

- Songbird ReMix Base Model- The primary bird model base for about 80% of SBRM birds
- Songbird ReMix Gamebird Base Model- This model is specifically for use with the Turaco. See the "G" icon in the lower right corner? This corresponds with characters in the Pose folders. All MAT/MOR files with the "G" icon use this model.
- Songbird ReMix Parrot Base Model- This model is specifically for use with the Lovebird. All MAT/MOR files with the "P" icon use this model.

- Songbird ReMix Zygodactyl Base Model- This model is specifically for use with Barbets. All MAT/MOR files with the "Z" icon use this model.
- **Conforming Parts** (All Conforming Crests have alphabetical Icons in the lower right corners such as "C1", "C2" or "R". This corresponds with characters in the Pose folders. All MAT/MOR files with the same icon use that particular Conforming Part. *Be sure to read this:* Most conforming parts are Crest which cover the head part. When posing the Base Model, the Conforming Part will follow any Bend, Twist or Rotate Commands. It will not obey any **SCALE** or **MORPH** commands you give the Base Model. You must manually scale the Conforming Part and with morphs such as "OpenBeak" you must also set it's counterpart in the head part of the Conforming Crest. So Now let's look at what's included in Conforming Parts:
 - <C01> Conforming Crest01. For use with the White-breasted Go-Away Bird. There's some Head morphs such as "RaiseCrest".
 - <C16> Conforming Crest16. For use with the Lilac-breasted Roller. This adds a hairy crest and chin that can be used by either the Songbird or Parrot base. There are a few morphs in the Head part.
 - <C030> Conforming Crest02. For use with the Purple-crested Turaco. There's a few Head morphs included.



Quick Reference for Conforming Parts

Load Model(s)	To Create (apply MAT/MOR files)
Songbird Base	 Blue-headed Bee-Eater Black-headed Weaver Red-billed Oxpecker Red-cheeked Cordon Bleu Rwenzori Double-collared Sunbird Shelley's Crimsonwing White-browed Scrub Robin
Songbind Base Conforming Fresh Songbind Bongbind Reality	White-bellied Go-Away Bird
Songbird Base Follar Crast Songbird Redify (16)	Lilac-breasted Roller
G Constitute G Constitute G Constitute G Constitute Crestitute G Constitute Crestitute G Constitute Reinitite Reinite Reinitite Reinitite Reinitite Reinitite Reinitite Reinite Reinitite Rein	Purple-crested Turaco
Perrot Base	Fischer's Lovebird
Woodpeeker Base Zreodactyl Z Songbird Remix	Red and Yellow Barbet

Creating a Songbird ReMix Bird

- 1. Choose what you want to load. For this example, we'll create a Blackbird species.
- Load Poser or DAZ Studio and select FIGURES and the Songbird ReMix folder. DAZ Studio users will select the "Poser Formats" → "My Library" → "FIGURES" → "Songbird ReMix".
- 3. Because all of the Blackbirds use the "Songbird" base model we'll load that.
- 4. Go to the **POSES** folder and **Songbird ReMix** Master folder, then select the appropriate Songbird Remix library. This again, for DAZ Studio users will be found in the "Poser Formats" file section.
- 5. Select one of the Blackbird Species and load/apply it by clicking the mouse on to our loaded Songbird ReMix base model. This species pose contains morph and texture settings to turn the generic model into the selected Blackbird. It will automatically apply the correct DAZ Studio material settings if you are using DAZ Studio.

Scaling and Square Shadows in Poser

All the birds in this package have to scaled proportionally to DAZ 3D's Victoria and Michael models. The smallest of the included birds **MAY** render with a Square shadow or improper lighting. This is a bug in Poser. Poser can't figure out how to render a shadow for something really small, so it creates a square shadow. The calution

shadow. The solution is to put a larger item that casts a normal Poser shadow in the scene (even if it is off camera) and the square shadows will be fixed or BODY scale the bird to a larger size.



without prop off screen



with prop off screen, lights/shadows will properly render

How to build a Songbird ReMix Character with a Conforming Crest in Poser



3. Select the Base Model and go to **POSES.** Select and apply the appropriate Character/Material pose setting for the bird you're creating.



Orange Oriole Orange Oriole Pygmy Kingfis d-legged H splendent (Royal Flycatch Tropical Parul

- 1. In the Figures section, load a Bird base Model. Then load the appropriate conforming part for the bird you're trying to create.
- 2. Conform it to the bird base model.



4. The Conforming part will look wrong. That's okay—we're going to fix that now. Select the conforming part and apply appropriate Character/Material pose for the part.

5. Voila! Your bird is done. Just remember to select the bird base when posing and often there are additional morphs in the conforming part you can use.





Updates and Freebies

The Songbird ReMix series is constantly growing and improving. New morphs and additions to upcoming and future products often end up benefiting existing sets with new geometry, morphs and textures.

Songbirdremix.com always has the latest updates and additions to existing Songbird ReMix products (often months before they are updated at DAZ), plus the latest digital and real bird news, tutorials, videos, all the Field Guides, free bird characters, props and much more...



How to build a Songbird ReMix Character with a Conforming Crest in DAZ Studio

In the **Runtime** folder, select **Figures** and load the Songbird ReMix Model and the appropriate Conforming Crest in Studio. Select the Conforming Crest by selecting on the screen or in the **Scene** Tab.

Now, using the "FIT TO" command in the Parameters Tab, Select the Songbird ReMix Model. Go back to the **Scene** Tab and select the Songbird ReMix Model.



Now that the bird is sized, select the conforming part and apply the conforming part character settings.

Voila! Your bird is done. Just remember to select the bird base when posing and often there are additional morphs in the conforming part you can use.



Select the Studio **Content** Folder and go to the **Animals : SBRM : !CreateYour Own : Characters** folder and select the appropriate Songbird Remix library. Apply the Character setting to the bird base. It will probably reduce the size significantly and change the shape of the bird.





Songbird ReMix AFRICA Field Guide

Purple-crested Turaco Fischer's Lovebird Blue-headed Bee-Eater Red and Yellow Barbet Black-headed Weaver Black-headed Weaver Red-cheeked Cordon Bleu Lilac-breasted Roller Red-billed Oxpecker Rwenzori Double-collared Sunbird White-bellied Go-Away Bird Shelley's Crimsonwing White-browed Scrub Robin

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

Size: 17 inches (42-46 cm)

Habitat: Africa; Southwestern Uganda, Southeastern Kenya, Tanzania, East Zambia, Malawi, Mozambique, Zimbabwe and East Zaire. Found in riverine forests, woodlands, thickets and moist brush from sea level to 1300m.



Status: Least Concern. Global Population: unknown. Stable, common within its area.

Diet: Wild and cultivated fruits and to a lesser extent; flowers and insects.

Breeding: Male and female look alike. They built nests of twigs and sticks in the canopy and lay 2 to 3 eggs.

Cool Facts: Turacos come from the *Musophagidae* family which literally means "*banana-eaters*". The Purple-crested Turaco has previously been considered parapathic with Musophaga, though it does bear morphological similarities with Tauraco species. The nominate features a salmon wash on anterior chest up towards the throat, around the neck and nape. This is lacking in T.p.chloroclamys whose neck plumage is olive green. Robust dark purple crest and metallic green on the lores and face to the coverts make for easy identification.

Often seen in the canopy, generally running and jumping from limb to limb hunting for fruit. They glide weakly from tree to tree giving the appearance of jumping from limb to limb rather than flying. 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.

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

Size: 6 inches (15cm)

Habitat: Africa; North-Northwestern Tanzania, Rwanda, Burundi, Zimbabwe and Kenya. Lives in wooded grasslands with acacia or commiphora; also in more open grassland with adansonia & cultivation; Commonest in acacia tortilis savanna

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: Fruit and nuts.

Breeding: Male and female look alike.

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. 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.

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 grey head.

Common Name: Blue-headed Bee-eater Scientific Name: Merops muelleri

Size: 17.5 inches (19cm)

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. Found at forest edges and riverine woodlands

Status: Least Concern. **Global Population:** Unknown. Not threatened, however their range has contracted over the years and the birds are now under threat in



their last remaining habitats. This is mostly from human impact; deforestation and cattle grazing.

Diet: Bees, butterflies and flying Insects.

Breeding: Male and female look alike. 2-9 eggs in tunnels on sandy banks.

Cool Facts: Often seen feeding on the ground in large flocks. Male and female look alike.

Behavior: 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 (23cm)

Habitat: Africa; Southwestern Sudan, South Ethiopia, Somalia, Northeastern Uganda, Kenya and North Tanzania. Found in riverine forests, woodlands, thickets and moist brush from sea level to 1300m.



Status: Status: Least Concern. Global Population: Unknown.

Diet: Termites and other insects.

Breeding: The

female is similar to the male, but is, overall, much duller, with less red and orange, and more yellow and white. Specifically, females lack the throat patch, and typically lack the crown. Young birds

are also duller- they typically have less red and orange, as with the female. The spots on the back are less white, and all blacks are more brown. The eyes are typically grey. They nests and roosts in tunnels, laying 2-4 eggs.

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.

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

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

Size: 6.5 inches (17cm)

Habitat: Africa; 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. Lives in savannahs, forest clearings, swamps and towns.

Status: Least Concern. Global Population:

unknown. The global population size has not been quantified, but the species is described as common over much of its range.

Diet: Seed and insects.

Breeding: Males create tightly woven nests. 2-3 eggs are laid.



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 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.

Common Name: Red-cheeked Cordonbleu **Scientific Name:** *Uraeginthus bengalus*

Size: 5 inches (13cm)

Habitat: Africa; Cape Verde Island, Southern Mautitania, 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. Lives in dry savannah and woodland thickets



Breeding: Nests are large domed grass structures with a side entrance; generally found in a tree or bush. 4-5 eggs are laid.

Cool facts: Feeds on the ground in small flocks. Often tamed as pets and commonly found in urban areas.

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

Size: 15 inches (58cm)

Habitat: Africa; Ethiopia, Djibouti, Somalia, Southern Congo Zaire, Southeastern Uganda, Kenya, Rwanda, Burundi, Tanzania, Angola, Zambia, Malawi, Mozambique, Nambia, Botswana, Zimbabwe and North Zaire. Commonly found in open bush country, wooded grasslands and woodlands from sea level to 2000m.

Status: Least Concern. Global Population: unknown. Populations increase in summer and decrease in winter.

Diet: Grasshoppers, beetles, lizards, crabs and occasionally small birds

Breeding: Rollers nest in tree cavities often using abandoned woodpecker or kingfisher nests.



They lay 2-4 eggs and both parents incubate the eggs for 22-24 days. Courtship displays are fast swallow dives from high elevations with a rolling or rocking motion. They are monogamous.

Cool facts: Bold and confidant, they often swoop down on to prey from high perches. They are acrobatic flyers 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.

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

Size: 8 inches (20cm)

Habitat: Afica; SW Central African Republic, Southeastern Angola, Zambia, Congo Zaire, Southeastern Sudan, Ethiopa, Somalia, Kenya, Uganda, Tanzania, Rwanda, Burundi, Zimbabwe, Northeastern Nambia, Eeastern Botswana, Southern Mozamique and Malawi in open savannah

Status: Least Concern. Global Population: unknown. Not threatened and common within it's range.



Diet: Ticks and other insects.

Breeding: Male and female look alike. Oxpeckers are monogamous. Nesting occurs in branches of a tree or shrub. The bird lays 2-5 red eggs.

Cool facts: The Oxpecker is a solitary bird. Feeds on insects, primarily ticks, on large mammals. 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 auestion 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: Rwenzori or Stuhlman's Double-collared Sunbird **Scientific Name:** *Cinnyris stuhlmanni*

Size: 5.5 inches (14cm)

Habitat: Africa; Rwenzori mountains of Burundi and Rwanda. Lives in forest highlands and gardens terraces from 2000 to 4000m.

Status: Near Threatened. **Global Population:** unknown. It is threatened due to its' limited habitat and range.

Diet: Nectar from flowers and insects.

Breeding: 1-3 eggs are laid in a purse-shaped suspended nest of twigs, feathers and other

simular materials.

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

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.

Common Name: White-bellied Go-Away Bird **Scientific Name:** *Criniferoides leucogaste*

Size: 20 inches (50cm)

Habitat: Africa; Ethiopia, Djibouti, Somalia, Kenya, Tanzania, and Malawi. Commonly found in open dry shrub and woodlands.

Status: Least Concern. Global Population: unknown. Not threatened and common within its range.

Diet: Fruit and to a lesser extent; flowers and insects.

Breeding: Male

and female look alike except for the beak; Males have black beaks and females are more greenish. They built nests of twig and sticks in the canopy and lay 2 to 3 eggs.

Cool facts: 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 "go-way go-wayeeerrr".

Usually seen in small groups, sometimes in the grounds of camps or lodges eating fruit and flowers from the trees and shrubs.



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

Size: 5 inches (13cm)

Habitat: Africa; Congo Zaire, Uganda, Rwanda and Burundi. It inhabits the understory 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 ecotones from 1550 to 3000m.

Status: Vulnerable. **Global Population:** 2,500-9,999 Mature individuals. This rare species has shown population declines at least locally in the past, for reasons unknown, but possibly related to ongoing deforestation and forest degradation throughout its range - if thus related; an overall decline is likely to be continuing. Its population is severely fragmented and is inferred to be small.



The species occurs in protected areas in part of its range. including the Virunga National Park in the DRC, Nyungwe Forest Reserve in Rwanda, and Rwenzori Mountains National Park and **Bwindi-Impenetrable** National Park in Uganda. A research project on crimsonwings, including this species, is underway at Bwindi Forest

Diet: Insects and seed

Breeding: 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* call. Rising and falling series of high-pitched *tu tutu ti ti ti*.

Common Name: White-browed Scrub-robin Scientific Name: Cercotrichas leucophrys

Size: 6 inches (15cm)

Habitat: Africa; 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 in the savannah and

open areas.



Diet: Insects and spiders.

Breeding: Nests in bushes or on the around

Cool facts: Tails

are frequently 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 (Erythropygia leucophrys). It was renamed and reclassified in the mid-1980's.

Species Accuracy and Reference Materials used

This package wouldn't have been possible without the support of Rhonda (my wife), B.L.Render (aka Bloodsong) for her contributions to Songbird ReMix, and my dad, for making me do all those birding trips I hated as a kid.

The author 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.

Field Guide Sources:

"Field Guide to the Birds of East Africa" by Terry Stevenson and John Fanshawe

Internet sources:

Wikipedia (www.wikipedia.com) Honolulu Zoo (www.honoluluzoo.org) Birdlife International (www.birdlife.org)



