

Avian Models for 3D Applications
Characters and Procedural Maps by Ken Gilliland

Songbird ReMix

more Cool & Unusual Birds

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Songbird ReMix more Cool & Unusual Birds Manual & Field Guide

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Introduction

More Cool and Unusual Birds brings 15 of the more interesting and colorful birds on the planet. From the jungles of New Guinea come the exotic birds of paradise with huge tail plumes or long antennae-like feathers. There's a crested hummingbird, a green woodpecker and the vibrant Cocks-of-the-Rock from the Amazon and the impossibly long Fork-tailed flycatcher from the Yucatan. From the American Southwest is the desert expert, the Black-throated Sparrow that can survive on no water and where there is water-- the fishing expert, the Belted Kingfisher will rule the skies. Painted Buntings, Redstarts and Orioles add vibrant colors to fill out this collection as well. As with all Songbird Remix add-on libraries, there's an arsenal of conforming parts to create the birds and many parts are easily interchangeable to create your own bird species.

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**
 - **SBRM Base Model**- This model is use with most birds in this package. Load this model first and then the appropriate Conforming Parts as needed.
 - **SBRM Syndactyl Base Model**- This model is specifically for use with Birds that have Syndactyl feet (such as Kingfishers). See the "**S**" icon in the lower right corner? This corresponds with characters in the Pose folders. All MAT/MOR files with the "**S**" icon use this model.
 - **SBRM Zygodactyl Base Model**- This model is specifically for use with Birds that have Zygodactyl feet (such as Kingfishers). See the "**Z**" icon in the lower right corner? This corresponds with characters in the Pose folders. All MAT/MOR files with the "**Z**" icon use this model.
 -

- **Conforming Parts** (All Conforming Crests have alpha-numeric icons in the lower right corners such as “C02”, “C07” or “T4”. 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 covers 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:
 - **<C02> Conforming Crest 2.** For use with the Andean and Guianan Cock-of-the Rocks. There are some morphs in the head section.
 - **<C07> Conforming Crest 7.** For use with the ‘Akohekohe.
 - **<C08> Conforming Crest 8.** For use with the King of Saxony Bird of Paradise. Look to the BODY Section for Full Body Morphs and individual sections for other morphs. This conforming part uses the “Easy Pose” technology for greater ease of use.
 - **<T4> Conforming Tail 4.** For use with the Lesser Bird of Paradise. Look to the BODY Section for Full Body Morphs and individual sections for other morphs. **TIP:** It’s better to pose/morph the lower Plumes first, and then adjust the Upper Plumes.
 - **<T5> Conforming Tail 5.** For use with the Fork-tailed Flycatcher. Look to the tailfeathers section for morphs.



Conforming Crest Quick Reference

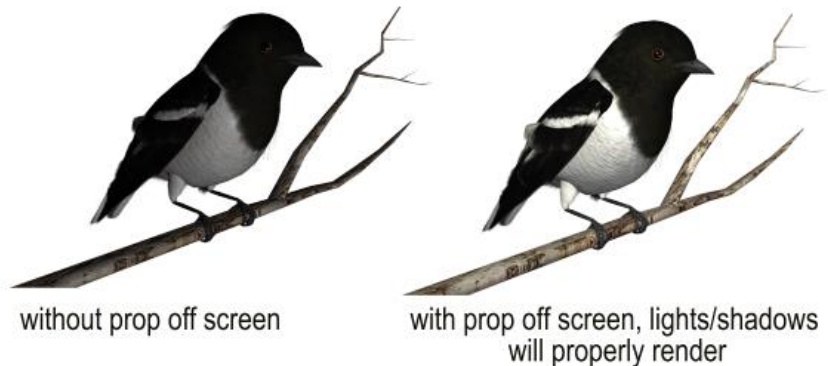
Load Model(s)	To Create... (apply MAT/MOR files)
	<ul style="list-style-type: none"> • Apapane • Black-throated Sparrow • Frilled Coquette • Hooded Oriole • Painted Bunting • Painted Redstart • Vermillion Flycatcher
	<ul style="list-style-type: none"> • Andean Cock-of-the-Rock • Guinean Cock-of-the-Rock
	<ul style="list-style-type: none"> • 'Akohekohe
	<ul style="list-style-type: none"> • Lesser & Greater Bird of Paradise • King of Saxony Bird of Paradise
	<ul style="list-style-type: none"> • Lesser Bird of Paradise
	<ul style="list-style-type: none"> • Fork-tailed Flycatcher
	<ul style="list-style-type: none"> • Belted Kingfisher
	<ul style="list-style-type: none"> • Green-barred Woodpecker

Creating a Songbird ReMix Bird

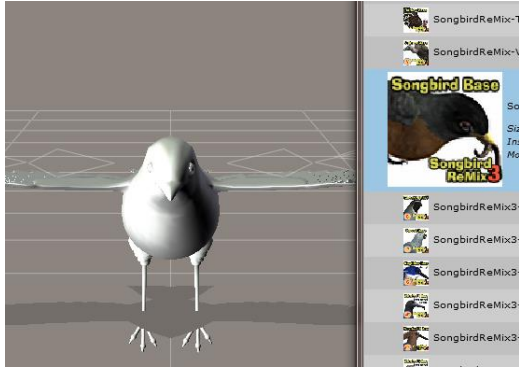
1. Choose what you want to load. For this example, we'll create a Warbler species.
2. Load Poser or DAZ Studio and select **FIGURES** and the Songbird ReMix folder. DAZ Studio users will select the "Poser Formats" → "My Library" → "FIGURES" → "Songbird ReMix".
3. Because all of the Warbler use the "Songbird" 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 Warbler 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 Warbler. It will automatically apply the correct DAZ Studio material settings if you are using DAZ Studio.

Scaling and Square Shadows in Poser

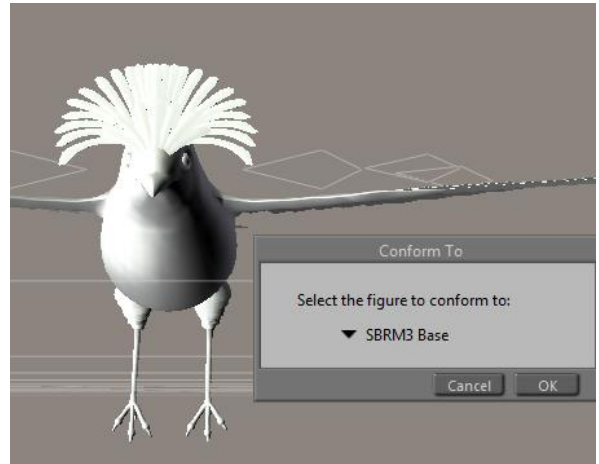
All the birds in this package have to scaled proportionally to DAZ 3D's Victoria and Michael models. The smallest of the included birds **MAY** render with a Square shadow or improper lighting. This is a bug in Poser. Poser can't figure out how to render a shadow for something really small, so it creates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



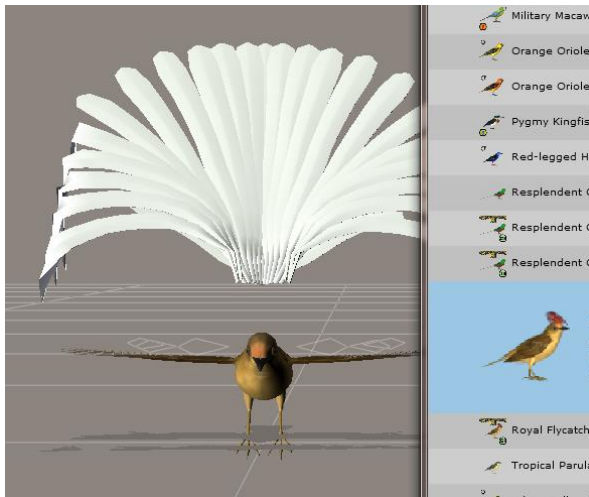
How to build a Songbird ReMix Character with a Conforming Crest in Poser



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.



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



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...

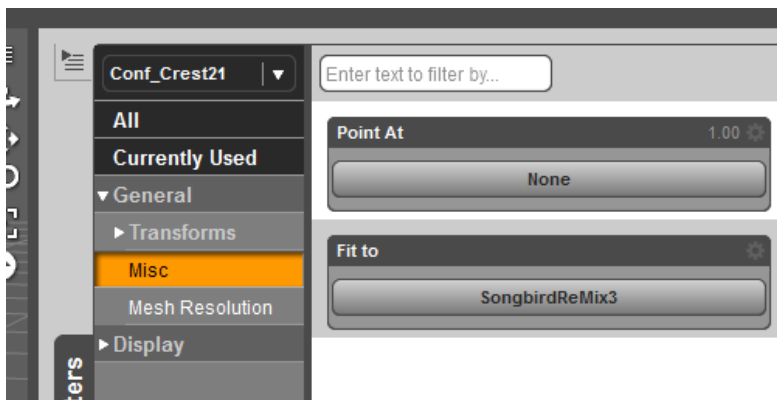
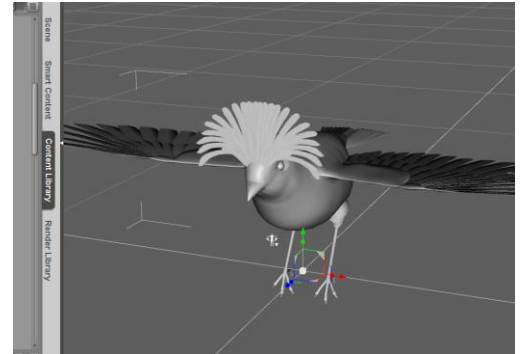


Songbird ReMix.com

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.

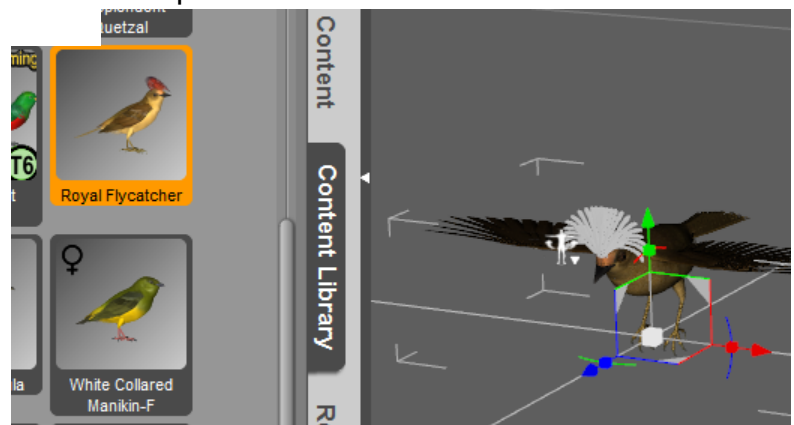
Now, using the "FIT TO" command in the Parameters Tab, Select the Songbird ReMix Model. Go back to the **Scene** Tab and select the Songbird ReMix Model.



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.

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.



Important information regarding Poses and Transparency MATS included in this package

Since many of the bird species in this package have very specific behaviors, I felt it was important to provide some very specific poses that depict this behavior.

! Droopwings: A partial pose that simply drops the wings lower on the body. Drooped wings in the avian world often is sign of submission, affection or wanting to be fed.

FTFlycatcher: (Fork-tailed Flycatcher). This pose set for the Bird base and Tail5 depicts a normal level flight for this Flycatcher. And yes, that long tail does ripple in the wing.

Kingfisher: (Belted Kingfisher). A typical hunting flight pose.

KosBOP: (King of Saxony Bird of Paradise) This pose set is a typical mating display. When the male is very excited the long antennae-like plumes become fully erect tower above his head.

LesserBOP: (Lesser/Greater Bird of Paradise). This pose set is a typical perched mating display.

LesserBOP2: (Lesser/Greater Bird of Paradise). With such a long tail, I felt it was important on have an on the ground pose.

Perch04. A perched Male and Female pose set that depicts paring.

Redstart: (Painted Redstart): This pose is the stance a Redstart uses to flush out its prey.

Woodpecker: A typical Woodpecker foraging pose.

! TailTransON/OFF & WingTransON/OFF: Here are the long awaited Transparency maps for the wings and tail. These MATS should be applied **AFTER** the textures are applied. This will work with 90% of the Songbird ReMix Library. There are certain birds that already use wing or tail transparencies. These transparency maps **should not be applied** to those birds. In this package do not apply the Transparency Maps to the **Frilled Coquette's Wings** or the **Fork-Tailed Flycatcher's Tail**.

more Cool & Unusual Birds

Field Guide

Australasia

Lesser & Greater Bird of Paradise
King of Saxony Bird of Paradise

Hawaiian Islands

'Akohekohe
Apapane

South America

Andean & Guianan Cock-of-the-Rock
Green-barred Woodpecker
Frisled Coquette

North and South America

Fork-tailed Flycatcher

North America

Belted Kingfisher
Vermillion Flycatcher
Hooded Oriole
Painted Bunting
Painted Redstart
Black-throated Sparrow

Common Name: Lesser & Greater Bird of Paradise

Scientific Name: *Paradisaea minor* & *Paradisaea apoda*

Size: Lesser BOP 12-12 ½ inches (32cm); Greater BOP 13-13 ½ inches (34cm)

Habitat: *Lesser:* Misool and Jobi Islands of West Irian Jaya and northern New Guinea; *Greater:* Southwest New Guinea and Aru Island, Indonesia. Birds of Paradise are found in lowland and hill forests.

Status: Least Concern.

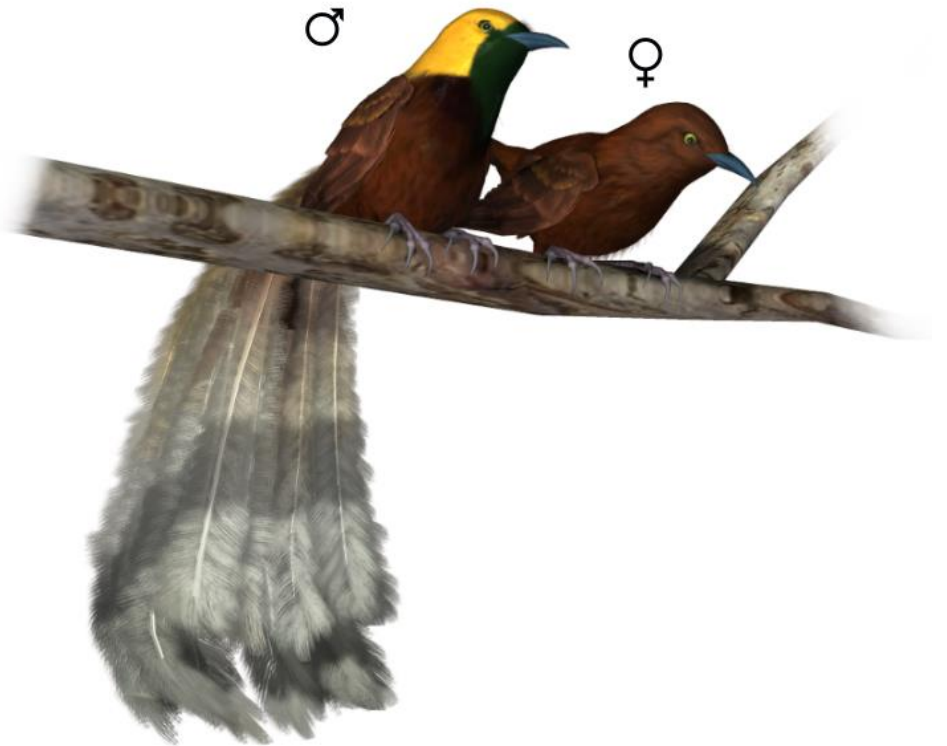
Global Population:
Unknown.

Diet: Food largely consists of fruits, some seed and insects.

Breeding: The males are polygamous and perform courtship displays in groups. Females lay two pink-colored eggs with darker markings in a nest high above ground usually in a tree. Females are maroon-brown with no barring on their chests.

Cool Facts: The members of the genus *Paradisaea* are best known for their plumage. The Greater Bird of Paradise was described from specimens brought back to Europe from trading expeditions. These specimens had been prepared by native traders, removing their wings and feet for shipment. This treatment of the specimens led Europeans to think that the birds never landed but was kept permanently aloft by their plumes, hence the name "Bird of Paradise". The Latin name, "*apoda*" means without feet.

As with all Birds of Paradise, the Lesser and Greater have elaborate mating rituals. Males gather in a clearing taking up positions they held during previous mating seasons and have competitive courtship displays. They spar individually with their neighbors often putting on extravagant mating dance, plumage displays and vocal challenges with each other to woo a female.



Common Name: King of Saxony Bird of Paradise
Scientific Name: *Pteridophora alberti*

Size: 8 ½ inches (22cm)

Habitat: New Guinea. Lives high in the tree canopy of the cloud forests.

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

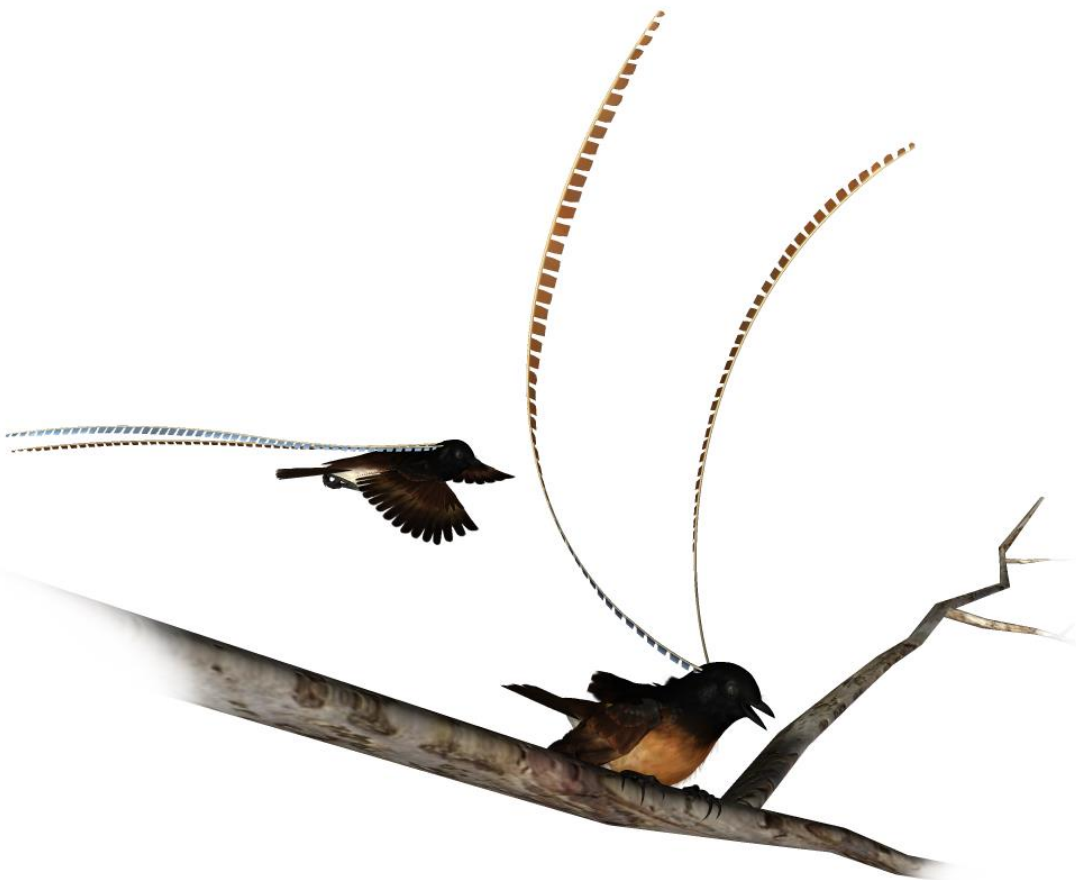
Diet: Diet consists mainly of fruits, berries and arthropods.

Breeding: Females are grey-brown with barred chests and no plumes.

Cool Facts: The bird gets its name from King Albert of Saxony.

The two incredibly long, scalloped brow plumes can be erected at the bird's will and are part of its mating display as well as a bobbing up and down dance. So bizarre were its head plumes that when the first specimens were brought to Europe, it was believed to be a fake.

While the males of King of Saxony Birds of Paradise are hunted for their usual head plumes which are used by natives for ceremonial purposes, it is a common species throughout its large habitat range.



Common Name: 'Akohekohe (Crested Honeycreeper)
Scientific Name: *Palmeria dolei*

Size: 7 inches (18cm)

Habitat: Oceania; the Hawaiian Islands. Northeastern slope of Haleakala Volcano on the island of Maui. The species formerly occurred on the neighboring island of Moloka'i, but that population is now extinct. Almost the entire population is found between 1,500 and 2,300 meters of elevation, in forest permanently enshrouded in clouds and mist. Average rainfall is 235 to 275 inches per year.



Status: Endangered. **Global Population:** 3,800 Mature individuals after a big decline, the 'Ahohekohe populations appear to have stabilized. At this point in time, the major threats appear to be the negative effects of introduced animals (especially feral pigs) and plants. Feral pigs wreak havoc on the soil and

vegetation in native forests, destroying native understory and subcanopy plants and creating wallows that can act as breeding sites for disease-carrying mosquitoes. Rainforest areas that have been affected by pigs can recover if the pigs are removed, but these areas have higher concentrations of non-native plants. Although 'Akohekohe feed primarily in the canopy on 'ohi'a trees, they also feed on flowering understory shrubs. The destructive activities of pigs, together with the encroachment of non-native plants into formerly pristine forest, may cause 'Akohekohe to search for food at lower elevations, where infectious mosquitoes and avian diseases are common.

Diet: Nectar from the 'Ohi'a tree makes up 40-75% of these birds' diets. They also feed on the nectar of other plants, caterpillars, flies, spiders, and other invertebrates.

Breeding: Breeding appears to begin in February-March. No nests have been described, although immature birds have been observed with adults in May-August.

Cool Facts: The Hawaiian name for this species, pronounced "ah ko-hay ko-hay," comes from a commonly heard call that it makes.

The 'Akohekohe is very aggressive and will chase off Apapane and I'iwi for possession of 'ohi'a blossoms.

Common Name: Apapane

Scientific Name: *Himatione sanguinea*

Size: 5 inches (13cm)

Habitat: Oceania; the Hawaiian Islands. The Apapane can be found on six out of the eight Hawaiian Islands. Commonly found in the wet, mesic forests of 'O'hia lehua blossoms, located on the island of Kauai at Kokee Park, Koolau range on Oahu, and a large population of Apapane at the Volcano National Park on the island of Hawaii. They are mostly found in high altitudes above 1250 meters for protection from predators like the mongoose, rat, and deadly *avian malaria* carrying mosquitoes. These predators are the cause for the great decline in the Apapane population.

Status: Least Concern. **Global population:** 3000. While the estimated 3000 Apapane number appear to be low, the Apapane is not considered to be an endangered species.



Diet: Primarily 'O'hia lehua nectar with some fruit and insects.

Breeding: Nests are mostly found in the crown of the 'O'hia lehua trees. The breeding season is during the months of

January thru July. The female have approximately 2-4 white eggs with red markings. Incubation lasts 13-14 days and during this time the female does not sing at all and only she incubates the eggs. After hatching, both parents feed the young juveniles and care for them until they are ready to fledge.

Cool Facts: While Apapane nests are mostly found in 'O'hia lehua trees there is evidence that nests have also been found in lava tubes on the Island of Hawaii.

Apapane are frequently found in small groups, foraging through 'O'hia lehua trees, hopping from flower to flower consuming the nectar; they rarely feed from the ground. The Apapane have two distinct flight patterns: straight flight and a circling flight.

Common Name: Andean & Guianan Cock-of-the-Rock
Scientific Name: *Rupicola peruviana* & *Rupicola rupicola*

Size: Andean: 12 ½ inches (32cm); Guianan 12 inches (30cm)

Habitat: South America. The Andean Cock-of-the-rock is distributed in Andean cloud forests from Venezuela, through Colombia, Ecuador and Peru, to Bolivia. The Guianan Cock-of-the-rock is distributed in the mountainous regions of Guyana, eastern Colombia, southern Venezuela, Suriname, French Guiana and northern Amazonian Brazil. The preferred habitat is humid forest near rocky outcrops.



Status:
Least Concern.
Global Population:
Unknown.

Diet: Diet consists mainly of fruit.

Breeding: Males are polygamous. Females are significantly darker and browner than the

males and has a shorter crest. They build shallow nests with mud and plant material on the walls of rocks. The female lays 1-2 eggs. The male does not participate in the building of the nest or the incubation of the eggs.

Cool Facts: The common name comes from part of their nest building materials, rocks.

Like Birds of Paradise, Cocks-of-the-Rock have elaborate mating rituals. Males gather in a clearing taking up positions they held during previous mating seasons and have competitive courtship displays. They spar individually with their neighbors often putting on extravagant mating dance, plumage displays and vocal challenges with each other to woo a female.

The Andean Cock-of-the-Rock is the national bird of Peru.

Common Name: Frilled Coquette
Scientific Name: *Lophornis magnificus*

Size: 2 ½ inches (6.5cm)

Habitat: South America. Eastern Brazil from Bahia to Santa Catarina. Found in humid forest, secondary woodland and cerrado.



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

Diet: Nectar and some insects.

Breeding: Only males have the bright orange “frilled” Crest. Nests are small cups made of spider web silk and other materials attached to a small branch.

Cool Facts: The Frilled Coquette is the smallest Brazilian hummingbird. All Coquettes have a white band between their wings and tail feathers.

Common Name: Green-barred Woodpecker
Scientific Name: *Colaptes melanochloros*

Size: 10 ½ inches (27cm)

Habitat: South America. East and central South America from northeast Brazil to Bolivia and central Argentina. It is found in a variety of habitats from forest to caatinga and desert scrub.

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

Diet: Feeds mostly on ants; also eats spiders, fruits and berries.

Breeding: The male has a red malar, while females are black.

Cool Facts: Woodpeckers have zygodactyl feet, with two toes pointing forward, and two backward. These feet, though adapted for clinging to a vertical surface, can be used for grasping or perching. The woodpecker's long tongue, in many cases as long as the woodpecker itself, can be darted forward to capture insects. The tongue is not attached to the woodpecker's head in the same way as it is in most birds, but instead it curls back up around its skull, which allows it to be so long.

Some consider the Green-barred Woodpecker to be the same species as the Golden-breasted Woodpecker



Common Name: Fork-tailed Flycatcher
Scientific Name: *Tyrannus savana*

Size: 14-16 inches (Males are 37–41 cm in length; females, 28–30 cm)

Habitat: North and South America. Its breeding range is found from central Mexico to central Argentina where it is usually found year round except for the southern parts of its range where it retreats northward for the winter. This species is also known to wander widely. It has occurred on a few occasions in the United States and Canada. This bird occurs in a wide variety of habitats including pastures, riparian forests, and open residential areas with scattered trees.

Status: Least Concern. **Global**

Population:
5,000,000 -
50,000,000 Mature
individuals.

Diet: Insects and other arthropods; will switch to berries and small fruits during winter if insects become scarce.

Breeding: Females have a somewhat shorter tail, while it is significantly shorter in juveniles. Builds a shallow cup nest 1-10m in a shrub or short tree. Females normally lay 2-3 eggs.

Cool Facts: The Fork-tailed Flycatcher has the longest tail in the Flycatcher family, even longer than its cousin, the Scissor-tailed flycatcher.



Common Name: Belted Kingfisher
Scientific Name: *Ceryle alcyon*

Size: 11-14 inches (28-35cm)

Habitat: North America. *Summers:* Breeds from Alaska to Newfoundland, southward to southern United States. *Winters:* from southern Canada southward to northern South America. Found by open bodies of water.

Status: Least Concern. **Global Population:** 2,000,000 mature adults.



Diet: Fish, aquatic invertebrates, insects, and small vertebrates. Hovers above, searching for prey and dives to strike, often submersing it's self into the water.

Breeding: Nest in burrow in bank near water. The tunnel slopes upward from the entrance to keep water from entering the nest. Tunnel length ranges from 30 to 250 cm (1 to 8 ft). No lining used. 3-5 white eggs are laid.

Cool Facts: The breeding distribution of the Belted Kingfisher is limited in some areas by the availability of suitable nesting sites. Human activity, such as road building and gravel pits, has created banks where kingfishers can nest and allowed the expansion of the breeding range.

During breeding season the Belted Kingfisher pair defends a territory against other kingfishers. A territory along a stream includes just the streambed and the vegetation along it, and averages 1 km or ½ mile long.

Common Name: Vermilion Flycatcher
Scientific Name: *Pyrocephalus rubinus*

Size: 5-6 inches (13-15cm)

Habitat: North America. **Summers:** Breeds in southern Arizona, New Mexico, and Texas, and widely throughout Mexico, Central America, and much of South America, including the Galapagos Islands. **Winters:** Resident year-round throughout almost all of breeding range. Populations in the United States migrate or wander in winter. Found in scrub, desert, cultivated lands, and riparian woodlands.



Status: Least Concern.

Global Population:
5,000,000 - 50,000,000
mature individuals.

Common in most of its range. Human water use and land development have caused drastic declines in Vermilion Flycatcher populations in the lower Colorado River Valley. Habitat destruction poses threats to the species in various parts of its range.

Diet: Insects and other arthropods. Sits and waits on an open perch, locates

prey, and pursues it. Often takes prey on the wing, from ground level to a height of about 10 meters (33 ft).

Breeding: The nest is a loose cup of twigs, grasses, and fibers, lined with down, feathers, and hair. Usually placed in a fork in a horizontal tree branch, about 8-20 feet off the ground. 2 to 4 white or creamy colored eggs, with bold dark blotches and small lighter spots are laid.

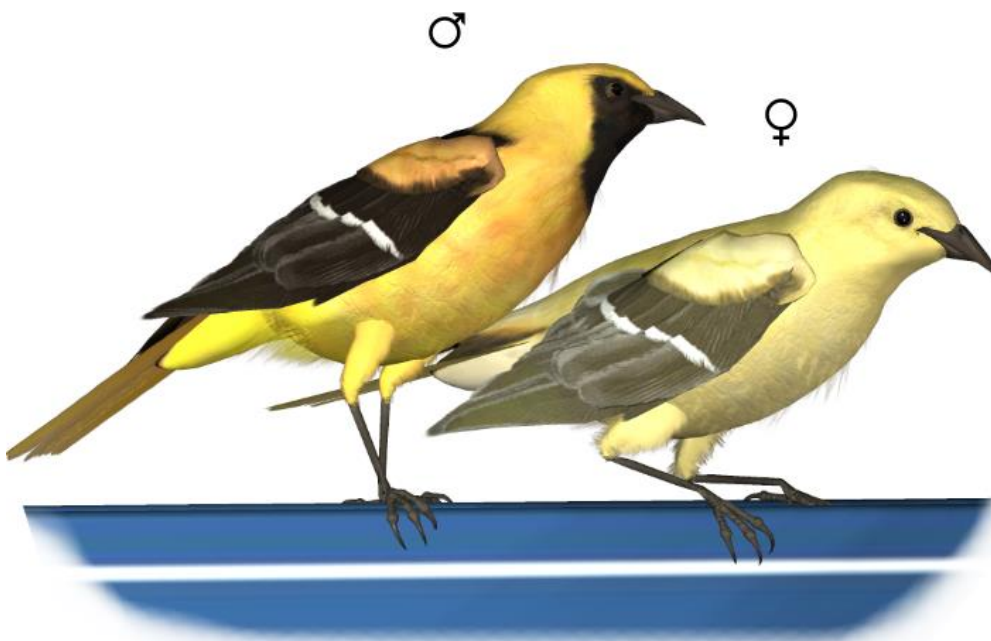
Cool Facts: The male often seeks to initiate courtship by delivering a butterfly or other showy insect to the female. The average male Vermilion Flycatcher spends about 90 percent of the day perched.

Common Name: Hooded Oriole
Scientific Name: *Icterus cucullatus*

Size: 7-8 inches (18-20cm)

Habitat: North America. *Summers:* Breeds in lowlands of western and southern California, eastward to Arizona and southwestern New Mexico, and southward into Mexico. Also in southern Texas and eastern Mexico and Belize. *Winters:* in Mexico and a few in California and Arizona each year. Breeds in areas with scattered trees, such as desert oases and along streams. Also in mesquite brush. Common in urban and suburban areas. Fond of palm trees.

Status: Least Concern. **Global Population:** unknown. Expanding range in some



areas, perhaps as a result of using ornamental trees in urban areas. Lower Rio Grande population decreased markedly in 20th century, perhaps because of cowbird nest parasitism.

Diet: Insects, spiders, nectar, and fruit.

Breeding: Nest is a cup of

woven plant fibers, suspended from leaves of trees. May be hanging or attached by sides of nest as well as rim. 3 to 7 white eggs with irregular brown spots around large end.

Cool Facts: When the nest is suspended from palm leaves, the female pokes holes in the leaf from below and pushes the fibers through, effectively sewing the nest to the leaf.

Common Name: Painted Bunting
Scientific Name: *Passerina ciris*

Size: 5.5 inches (12-13cm)

Habitat: North America. **Summers:** Breeds in two different regions. Western population ranges from southern Missouri and Kansas to the Gulf Coast and northern Mexico. Eastern population breeds along the Atlantic coast from central North Carolina to north-central Florida. **Winters:** Western population winters in Mexico southward to Panama. Eastern population winters on the Florida peninsula, the Florida Keys, the Bahamas, and rarely in Cuba. Found in Open brushlands, thickets, and scattered woodlands and along the Atlantic coast in hedges and yards.



Status: Near Threatened. **Global Population:** 4,500,000 mature individuals. Breeding Bird Surveys show a steady decline in overall population since 1965. Males are targets of trappers for the pet bird trade, especially in Mexico. Listed as a species of special concern on the Partners in Flight WatchList.

Diet: Insects, insect larvae, and spiders

Breeding: Nests are a deep, neatly woven cup of plant fibers, lined with hair or fine grass. Usually placed in low vegetation. 3-4 Grayish or bluish-white eggs with gray or brown speckles are laid.

Cool Facts: The western population of Painted Buntings begins its fall migration before molting, molts in staging areas in southern Arizona and northern Mexico, then continues to migrate further south. This migration-molt pattern is common among waterfowl but very rare among songbirds. In contrast to the western population, the eastern population of Painted Buntings molts on its breeding grounds before migration.

Male Painted Buntings are highly territorial and aggressive toward each other. Fights between males, which include pecking, beating with wings, and grappling, sometimes result in death.

Common Name: Painted Redstart
Scientific Name: *Myioborus pictus*

Size: 5-6 inches (13-15cm)

Habitat: North America. East Arizona, West New Mexico, Southwest Texas, Mexico and the Yucatan Peninsula. Found in wooded areas.

Status: Least Threatened. **Global Population:** 2,000,000 mature individuals.

Diet: Mostly insects; also some tree sap, sugar water, peanut butter, and suet. Gleans insects from leaves, trunks, and branches. Also hawks insects in the air. Actively fans its tail and wings to elicit movement by prey. Also turns body back and forth to flush insects.

Breeding: Nests are a cup of coarse grasses and pine needles, located on the ground, on slopes, or rock walls. 3 to 7 white eggs with brown speckles, especially at the larger end are laid.



Cool Facts: Despite its common name, the Painted Redstart is not particularly closely related to the American Redstart. Members of its genus, common in the Neotropics, are sometimes known as "whitestarts" to distinguish them. The name "redstart" was taken from a European thrush that has a bold reddish tail pattern.

Like other "redstarts" in its genus, the Painted Redstart flashes its white wing patches and outer tail feathers when foraging. These actions appear to flush insects that the redstart then pursues and captures.

Common Name: Black-throated Sparrow
Scientific Name: *Amphispiza bilineata*

Size: 5-6 inches (12-14cm)

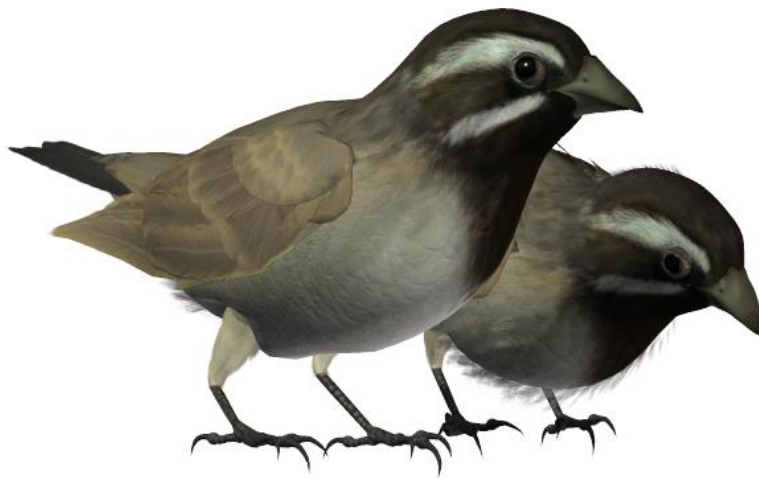
Habitat: North America. *Summers:* Breeds from southern Oregon and Idaho southward to central Mexico and central Texas. Also locally in Washington and central California. *Winters:* From southern Nevada and central Texas southward.

Status: ~~Status:~~ Least Concern. **Global Population:** 30,000,000 mature adults. Declining across range in United States, probably because of habitat loss to urban development.

Diet: Seeds and some insects.

Breeding: Sparrows are generally ground nesters.

Cool Facts: The song is a series of two opening notes followed by a buzz or trill, or sometimes several. Black-throated Sparrows are often found in mixed flocks of White-crowned Sparrows and Brewer's Sparrows in the winter. The Black-throated Sparrow is the king of the desert-adapted sparrows as it can satisfy all



its water requirements from the seeds and insects it eats. It will, however, take advantage of spring water if available.

The Black-throated Sparrow establishes a large territory it defends during nest construction and egg laying. Once incubation starts, males are less responsive to intruders and their territory boundary shrinks.

Species Accuracy and Reference Materials

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 Goggle searches and several field guides were used.

- **"The Sibley Guide to Birds"** by David Allen Sibley,
- **"Birds of South America"** by Francisco Erize, Jorge R. Rodriguez Mata, Maurice Rumboll
- **"A Guide to the Birds of Mexico and Northern Central America"** by Steve N.G. Howell and Sophie Webb
- **"Life of the Birds"** BBC TV Series with David Attenborough



Special Thanks to...

....my betatesters (Bea, Jan, Kelvin, Nancy, Rhonda and Sandra)



Field Guide Sources:

- Cornell Lab of Ornithology (<http://www.birds.cornell.edu>)
- National Audubon Society Watchlist (<http://www.audubon.org>)
- Honolulu Zoo (<http://www.honolulu zoo.org>)
- Wikipedia (<http://www.wikipedia.com>)
- “Birdlife International” (<http://www.birdlife.org>) (for population estimates)

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