

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

Songbird ReMix YUCATAN

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Songbird ReMix YUCATAN

Manual & Field Guide

Introduction

Songbird ReMix Yucatan journeys into the deep rainforests and ancient empires of the Mayans and Aztecs. Here, the diversity of birds is simply amazing. The Yucatan is home to the smallest of the Kingfishers, the Pygmy, and the largest of the Macaws, the Military. From the stately and true to its' name, Elegant Trogon, to the incredible crest of the Royal Flycatcher to what many consider the most beautiful bird in the world, the Resplendent Quetzal, these are all worthy centerpieces in any form of imagery.

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:











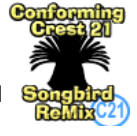



- **Bird Base Models**
 - **Songbird ReMix3 Base** - This model is used with all songbirds.
 - **Songbird ReMix3 Parrots Base** – This model is used with all Parrots and Cockatoos and is identified with the “**P**” icon
 - **Songbird ReMix3 Syndactyl Base** – This model is used with all Kingfishers and Kookaburras and is identified with the “**S**” icon
 - **Songbird ReMix3 Woodpecker Base** – This model is used with all Woodpeckers and Heterodactyl birds such as Trogons. It is identified with the “**Z**” icon.
- **Conforming Parts** (All Conforming Crests have alphanumeric icons in the lower right corners such as “C01”, “C21” or “T03”. 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 Crests, 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” or “Stretch” 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 Crest 1.** For use with the Black-throated Magpie-Jay. All morphs are found in the HEAD section.
- **<C18> Conforming Crest 18.** For use with the Resplendent Quetzal. Morphs are found in the HIP and HEAD sections. HIP morphs control the characteristic feathers that drape over the folded wings. HEAD morphs control the fuzzy head.
- **<C21> Conforming Crest 21.** For use with the Royal Flycatcher. All morphs are found in the HEAD section.
- **<T06> Conforming Tail 6.** For use with the Black-throated Magpie-Jay and Resplendent Quetzal. This part has many morphs in the TAILFEATHERS section.



Conforming Crest Quick Reference

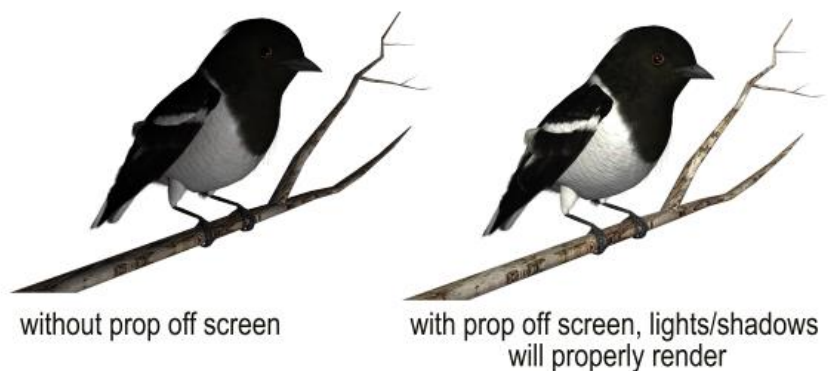
Load Model(s)	To Create... (apply MAT/MOR files)
	<ul style="list-style-type: none"> Cozumel Thrasher Mangrove Swallow Orange Orioles Red-legged Honeycreeper Tropical Parula White-collared Manikins Yucatan Jays
 +  + 	<ul style="list-style-type: none"> Black throated Magpie-Jay
 + 	<ul style="list-style-type: none"> Blue-crowned Motmot
 +  + 	<ul style="list-style-type: none"> Resplendent Quetzal
 + 	<ul style="list-style-type: none"> Royal Flycatcher
	<ul style="list-style-type: none"> Military Macaw
	<ul style="list-style-type: none"> Pygmy Kingfisher
	<ul style="list-style-type: none"> Chestnut-colored Woodpecker Elegant Trogon

Creating a Songbird ReMix Bird

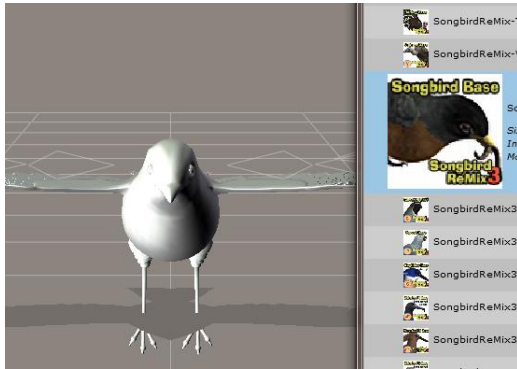
1. Choose what you want to load. For this example, we'll create a Warbler species.
2. Load Poser or DAZ Studio and select **FIGURES** and the Songbird ReMix folder. DAZ Studio users will select the "Poser Formats" → "My Library" → "FIGURES" → "Songbird ReMix".
3. Because all of the Warbler use the "Songbird"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

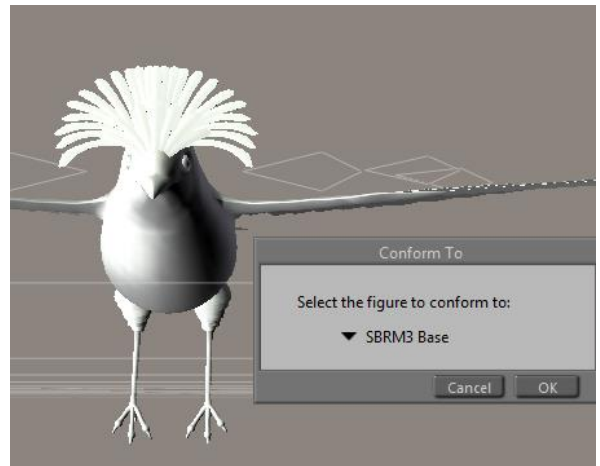
All the birds in this package have to scaled proportionally to DAZ 3D's Victoria and Michael models. The smallest of the included birds **MAY** render with a Square shadow or improper lighting. This is a bug in Poser. Poser can't figure out how to render a shadow for something really small, so it creates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



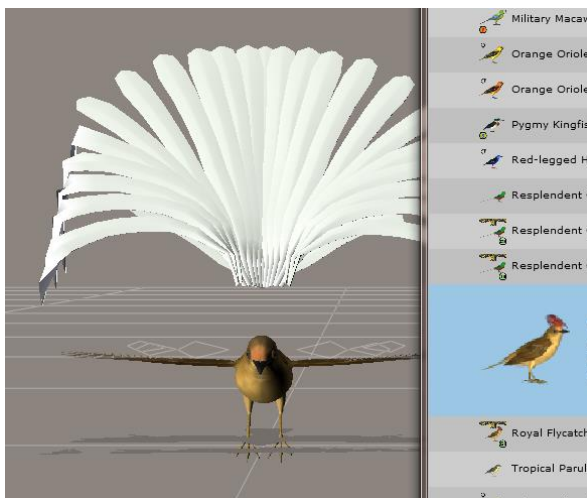
How to build a Songbird ReMix Character with a Conforming Crest in Poser



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...

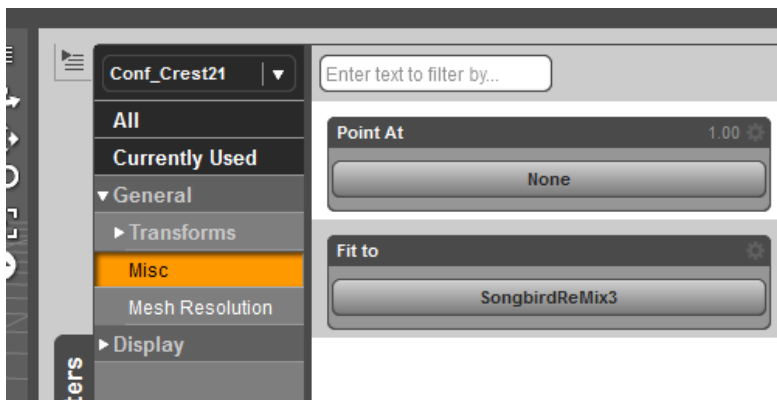
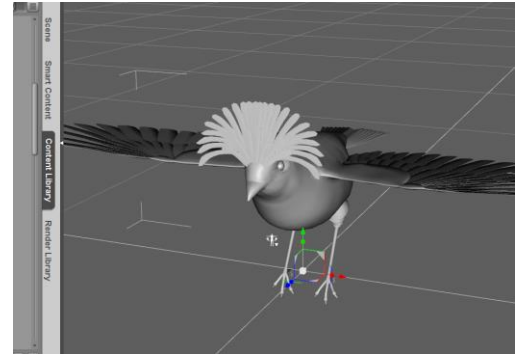


Songbird ReMix.com

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.

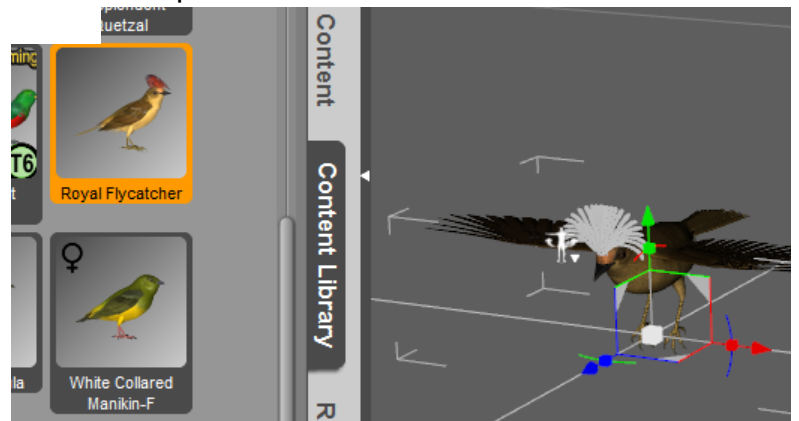
Now, using the “FIT TO” command in the Parameters Tab, Select the Songbird ReMix Model. Go back to the **Scene** Tab and select the Songbird ReMix Model.



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.



Songbird ReMix YUCATAN

Field Guide

Military Macaw
Elegant Trogon
Resplendent Quetzal
Blue-crowned Motmot
American Pygmy Kingfisher
Chestnut-colored Woodpecker
Royal Flycatcher
White-collared Manakin
Mangrove Swallow
Black-throated Magpie Jay
Yucatan Jay
Cozumel Thrasher
Red-Legged Honeycreeper
Tropical Parula
Orange Oriole



Common Name: Military Macaw
Scientific Name: *Ara militaris*

Size: 27½ –31½ inches (70-80 cm)

Habitat: Central and South America. Found in woodlands and subtropical forests.

Status: Vulnerable. **Global Population:** 10,000-19,999 mature individuals. The population and distribution of the Military Macaw has been decreasing over the past fifty years. The abundance of the Military Macaw has now decreased to less than 10,000 globally. This decrease is mostly due to deforestation and the capturing of wild birds for the pet trade industry. Military Macaws are now listed as Vulnerable on the 2006 IUCN Red List Category



Diet: Seeds, fruits, nuts, berries and other vegetation found on treetops.

Nesting: Monogamous and mate for life; 1-2 eggs. They will nest in the tops of trees and more often in cliff-faces over 600 ft. above the ground

Cool Facts: Military Macaws live in large flocks and can live about 50-60 years in the wild.

Macaws are known to eat clay, which is believed to work as an antidote to the poisonous seeds they eat. The chemicals in the clay mix with the poison allowing it to pass through the bird's digestive system without harming the bird.

Though three subspecies, namely *Ara m. militaris*, *Ara m. mexicana* and *Ara m. boliviana* are recognized, the differences are slight and pertain to minor variations in color and size, with the *militaris* subspecies being the smallest and the *mexicana* being the largest.

International trade in Macaws is illegal under the CITES agreement. Only captive born birds may be sold as pets.

Common Name: Elegant Trogon
Scientific Name: *Trogon elegans*

Size: 11-11¾ inches (28- 30 cm)

Habitat: North and Central America. Found from southeastern Arizona (United States) to northwestern Costa Rica in lower levels of semi-arid open woodlands and forests

Status: Least Concern. **Global Population:** 200,000 mature individuals.

Diet: Insects, often taken in flight, and occasionally fruit.

Breeding: The male Elegant Trogon has a metallic deep green head, upper breast and back, black face and throat, and red-orange lower breast and belly. He shows grey upperwing coverts. The female has a metallic bronze head, upper breast, back, upper tail and upperwing coverts. She shows a dull white upper belly, and a small white vertical stripe behind the eye.



Nests are built 2-6 m high in an unlined shallow cavity, usually selecting an old woodpecker hole, with a typical clutch of 2-3 eggs.

Cool Facts: Although a trogon is a fast flier, they are reluctant to fly any distance. They typically perch upright and motionless.

The usual call is a croaking "co-ah co-ah co-ah". The trogon will also include some chattering notes.

Common Name: Resplendent Quetzal
Scientific Name: *Pharomachrus mocinno*



Size: 17½ -18 inches (45 cm)

Habitat: North America; Southern Mexico to Panama. Found in the montane cloud forests

Status: Near Threatened. **Global Population:** 20,000-49,999

Mature individuals. Populations continue to decline, owing largely to widespread deforestation throughout its range. The main problem for the Costa Rican Monteverde population is the fragmentation and destruction of forests to which it descends in the non-breeding season. This is probably applicable to many populations. Some poaching probably still occurs, particularly in south Mexico, but this appears to have diminished. Although it is an important symbol for conservation in Central America, and reserves have been established to facilitate its protection, these tend to be small and include limited representations of critical habitat.

Diet: Fruits, especially wild avocados and laurel fruit, some wasps, ants, larvae and small frogs.

Nesting: Quetzals live alone except during breeding season. Females carve a hole in the rotten tree and built a nest within. She then lays two pale blue eggs and both parents take turns at incubating. Often one sees their

long tail-covert feathers hanging out of the nest cavity. Incubation lasts about 18 days with the male incubating the eggs during the day and the female at night.

Both parents take parts providing food to their young. Female often neglects and sometimes abandons their young before fledging, leaving it up to the male to continue care until the young are ready to survive on their own.

Cool Facts: The Resplendent Quetzal plays an important role in Mesoamerican culture. The Resplendent Quetzal was considered divine and associated with the "feathered serpent god", Quetzalcoatl by Mixtec, Toltec, Aztec, Teotihuacan and Mayan civilizations. In several Mesoamerican languages, the term for *quetzal* means *precious*, *sacred*, or *erected*. Rulers and nobility used Quetzal feathers to adorn their headdresses which symbolically connecting them to Quetzalcoatl. In these cultures, it was a crime punishable by death to kill a quetzal. Birds were captured, their long tail feathers plucked, and then set free.

Mayans: The first sound engineers? In the city of Chichen Itza, the Mayan Temple of Kukulcan contains a series of oddly high, narrow steps. An acoustician, David Lubman, discovered that if you stand in front of the staircase and clap your hands, the returned echoed sound is reminiscent of the descending chirp of the Resplendent Quetzal. Modern day Mayans who are familiar with this echo, often refer to it as "la cola del Quetzal," or the Quetzal's tail. It is not inconceivable that the ancient Maya may have experienced this picket-fence effect from another staircase and refined the spacing of the stairs to match the pitch of the Quetzal, but of course without written evidence, this may forever remain fascinating speculation.

Quetzals are important in Avocado and laurel seed dispersal; the birds swallow the fruit whole before regurgitating the pits, which in turn disperse the seeds for these trees.

Common Name: Blue-crowned Motmot
Scientific Name: *Momotus momota*

Size: 16-18 inches (41-46 cm)

Habitat: Central and South America. Found in the rainforests of Mexico, Central and South America, and Trinidad and Tobago.

Status: Least Concern. **Global Population:** 5,000,000 - 50,000,000 mature individuals.



Diet: Insects, lizards and sometimes fruit.

Nesting: Nests are created by tunneling into river banks, to lay about three or four white eggs.

Cool Facts:
Motmots often sit still and, in their dense forest habitat, can be difficult to see, despite their size. They are most commonly found by their distinctive call, "whoop, whoop....whoop, whoop".

Common Name: American Pygmy Kingfisher
Scientific Name: *Chloroceryle aenea*

Size: 5 inches (13 cm)

Habitat: Central and South America, southern Mexico south through Central America to western Ecuador, and then around the northern Andes cordillera in the east to central Bolivia and central Brazil. The species occupies the entire Amazon Basin and the Tocantins River drainage adjacent in Pará state Brazil. It also occurs on Trinidad. Found in dense forests and mangroves along small streams or rivers with heavily vegetated banks

Status: Least Concern. **Global Population:** 500,000 - 4,999,999 mature individuals.



Diet: Tadpoles, small fish and some insects.

Nesting: Females create an unlined nest in a horizontal tunnel up to 40 cm long made in a river bank, earth heap, or occasionally an arboreal termite nest. The female lays three, sometimes four, white eggs.

Cool Facts: It's the smallest of the kingfishers

and only weighs 18g. Pygmy Kingfishers perch quietly on low branches near the edge of stream banks, patiently waiting for a small fish or tadpole to come by.

Common Name: Chestnut-colored Woodpecker
Scientific Name: *Celeus castaneus*

Size: 8½ -9½ inches (21.5-24 cm)

Habitat: Central America; Belize, Costa Rica, Guatemala, Honduras, Mexico, Nicaragua, and Panama. Found in subtropical or tropical moist lowland forests.

Status: Least Concern. **Global Population:** 20,000 - 49,999 mature individuals.

Diet: Insects and some seeds and berries

Nesting: Nests are constructed in tree cavities.

Cool Facts: Woodpeckers have zygodactyl feet (two toes pointing forward, two backwards). These feet are adapted for clinging to a vertical surface, but can be used for grasping or perching as well.

The woodpecker's tongue, which is often as long as the woodpecker itself, can be darted forward to capture insects. The tongue often ends in a barb so that the woodpecker skewers its prey and draws them out of the tree trunk. A woodpeckers' tongue is not attached to the 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.

Woodpeckers also have extra tissue around their brains that acts as shock-absorbers to counter-act their hammering on wood.



Common Name: Royal Flycatcher

Scientific Name: *Onychorhynchus mexicanus*

Size: 6½-7 inches (16.5-18 cm)

Habitat: Central and South America; Mexico, south through most of Central America, to north-western Colombia and far western Venezuela. Its natural habitat is subtropical or tropical moist lowland forests.

Status: Least Concern.

Global Population: unknown population.

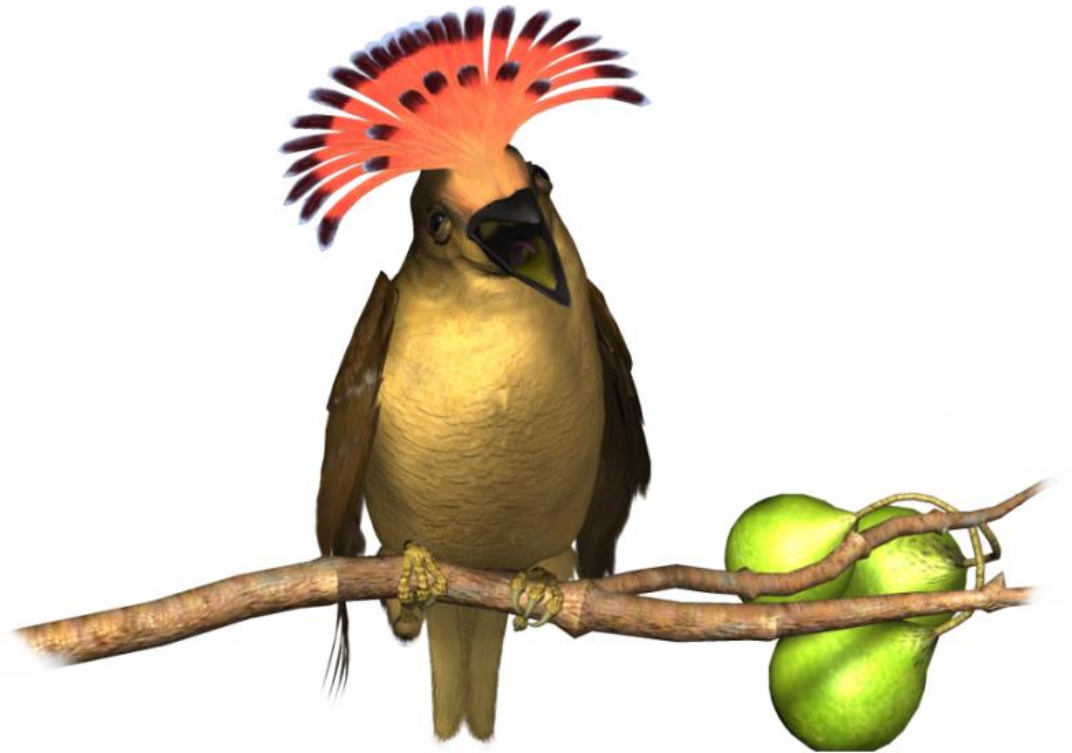
Diet: Flying insects; rarely fruit and seed.

Nesting:

Female royal flycatchers incubate eggs in an enclosed niche, which is entered through a vertical slit in a loosely constructed hanging nest. Males do not incubate eggs or feed the young but continue to defend the nesting territory throughout the nesting period.

Cool Facts: The Northern Royal Flycatcher is usually inconspicuous and quiet, but sometimes gives a repeated sharp clear “pree-o” or “key-up”, sounding rather like a manakin.

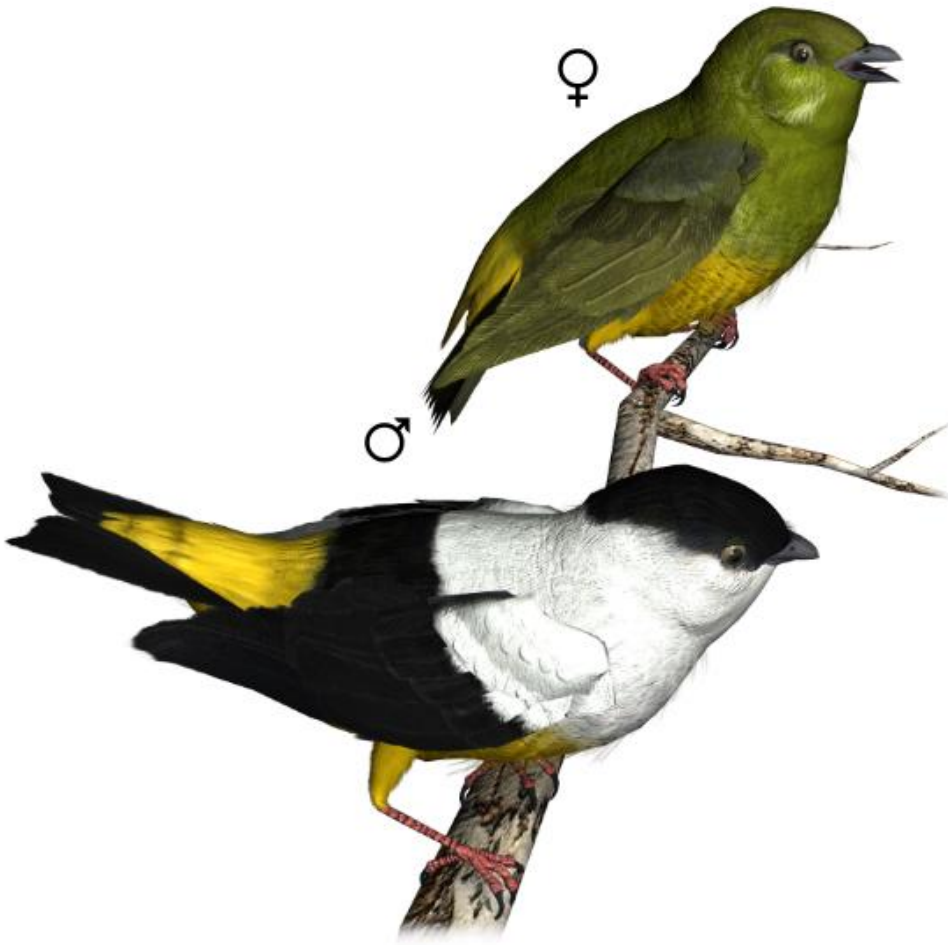
The Royal Flycatcher’s fan-shaped crest is rarely seen. It’s red in the male and yellow-orange in the female species. The crest display so found photographed is used only in last resort intimidation of predators (such as biologist banding the birds) and defending nesting territory.



Common Name: White-collared Manakin
Scientific Name: *Manacus candei*

Size: 4¼ inches (11 cm)

Habitat: Central America; Southeastern Mexico to Costa Rica and the extreme west of Panama. Found in the lowlands and foothills of the Caribbean slope up to 700 m



Status: Least Concern. **Global Population:** 50,000 - 499,999 mature individuals

Diet: Seeds, fruit and some insects.

Nesting: Nests at the edges of moist forest, tall second growth and old cacao plantations. The female lays two brown-speckled white eggs in a shallow cup nest 1-3 m high in a horizontal tree fork. Nest-building, incubation for 18-21 days, and

care of the young are undertaken by the female alone, since manakins do not form stable pairs.

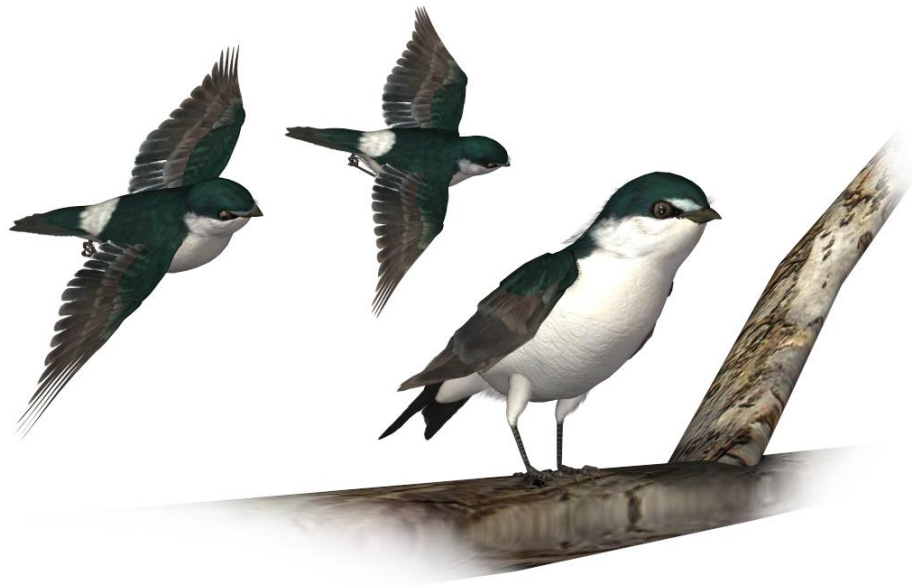
Cool Facts: White-collared Manakins hybridize extensively with the Golden-collared Manakins in a limited area in Bocas del Toro Province, Panama. The hybrids, which show a lemon yellow collar in males, were at one time considered a distinct species, the Almirante Manakin

Common Name: Mangrove Swallow
Scientific Name: *Tachycineta albilinea*

Size: 5 inches (13 cm)

Habitat: Central America; coastal regions from Mexico through Central America to Panama. It is non-migratory, but may make seasonal movements. Found in Mangrove Swamps.

Status: Least Concern. **Global Population:** 500,000 – 4,999,999 mature individuals.



Diet: Flying insects; including dragonflies and bees.

Nesting: The Mangrove Swallow's bulky cup nest is built in natural or artificial cavities near water, usually below 2 m in height. Sites include tree holes and crevices in rock or bridges. The clutch is three to five white eggs which hatch in 17 days. The nestlings are fed by both parents for 23-27 days to fledging. Like the related Tree Swallow, this species is very aggressive to other hirundines when breeding, and nests are several hundred meters apart.

Cool Facts: There is a swallow in coastal Peru that resembles the Mangrove Swallow, but lacks the white head stripe. It is possibly a subspecies, but the geographical separation suggests that this little known form is a distinct species.

The flight of the Mangrove Swallow is typically direct and low over the water. It frequently perches. Its call is a rolled 'jeerrrt'.

Common Name: Black-throated Magpie Jay
Scientific Name: *Calocitta colli*

Size: 23-30 inches (58.5-76.5 cm)

Habitat: Northwest Mexico. Found in pairs or small groups in dry woodland areas and partially open areas on the Pacific Slope of Mexico from southern Sonora south to Jalisco and northwestern Colima.



Status: Least Concern.

Global Population: 50,000 – 499,999 mature individuals. While not threatened, as of 1993 there was some evidence of a significant population decline

Diet: Insects and small fruits.

Nesting: Nests are usually in trees made of a big cup of sticks lined with softer material. The female lays 3 to 7 whitish eggs with brown and gray spots

Cool Facts: This species has been known to hybridize with the White-throated Magpie-jay in Jalisco and Colima

The calls are varied, loud, raucous, and sometimes parrot-like.

Common Name: Yucatan Jay

Scientific Name: *Cyanocorax yucatanicus*

Size: 12½–13½ inches (32–34.5 cm)

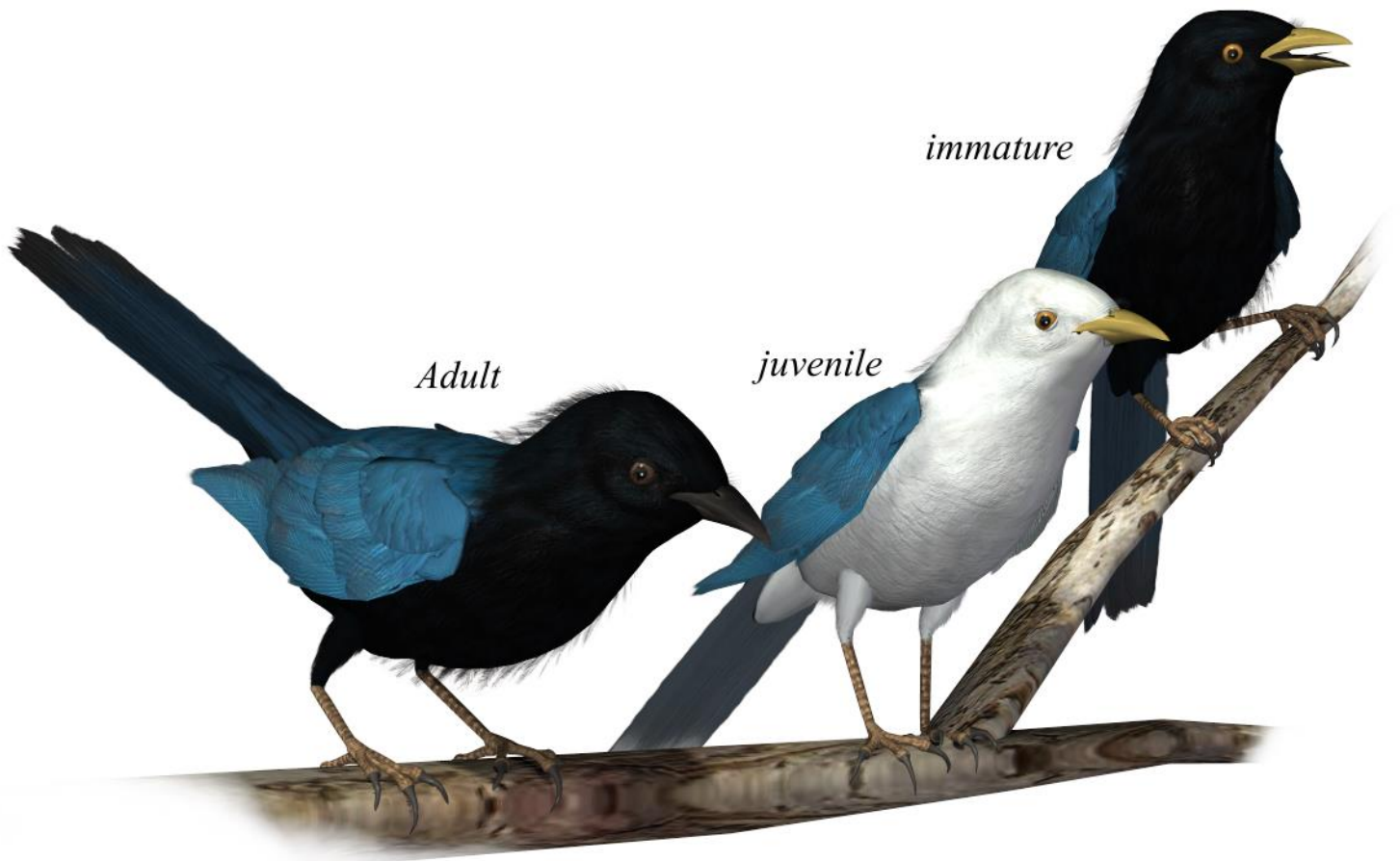
Habitat: Central America; Belize, Guatemala, and southern Mexico. Found in subtropical or tropical dry forests and heavily degraded former forest.

Status: Least Concern. **Global Population:** 50,000 – 499,999 mature individuals.

Diet: Seeds and some insects

Nesting: Juveniles are mostly white in appearance with blue wings. Immature jays have yellow-eye rings and yellowish beaks

Cool Facts: The Yucatan Jay is endemic to the Yucatan peninsula



Common Name: Cozumel Thrasher
Scientific Name: *Pyrrhula murina*

Size: 8½ -9½ inches (21.5-24 cm)

Habitat: Central America; Island of Cozumel. Found in the scrubby woodland areas on by forest edges.

Status: **Critically endangered.** **Global Population:** <50 Mature individuals. The numbers of this bird declined rapidly when Hurricane Gilbert hit this island on September 1988. Until it was sighted in June 2004, this bird had last been seen in 1995, the same year that Hurricane Roxanne hit Cozumel, and it was widely

believed to have become extinct. It is believed to be the most critically endangered species of bird in Mexico. It is still unclear what damage the impact of Hurricanes Emily and Wilma in 2005 caused; apparently, the bird was not found during a survey in December 2006. The last, unconfirmed, sighting was in April 2006, where it was sighted at the Cozumel Golf Club.



Some scientists believe that other factors must have contributed to the bird's decline, because the Cozumel Thrasher likely survived hurricanes for millennia. Introduced species, especially predatory boa constrictors introduced to the island in 1971 and now abundant may also have had a disastrous effect, as well as habitat destruction for the burgeoning tourist trade on the island.

Diet: Seed and some insects.

Nesting: Nesting habits for this bird are unknown.

Cool Facts: Gives a rich, varied warbling-type song, sometimes scratchy with some repetition.

Common Name: Red-Legged Honeycreeper
Scientific Name: *Cyanerpes cyaneus carneipes*

Size: 4¼–4¾ inches (11 - 12 cm)

Habitat: Central America. Found in humid evergreen and semi-deciduous forests.

Status: Least Concern. **Global Population:** 5,000,000 - 50,000,000 mature individuals.



Diet: Flower nectar and some insects.

Nesting: Females and immature birds are mainly green, with paler, faintly streaked under parts. Females build a small cup nest in a tree, and

incubate the clutch of two brown-blotched white eggs for 12-13 days, with a further 14 days to fledging.

Cool Facts: Often seen in pairs or small groups in the forest canopies; especially in flowering trees.

It responds readily to the call of the Ferruginous Pygmy Owl, which is often imitated by various birds.

Common Name: Tropical Parula
Scientific Name: *Parula pitiayumi nigrilora*

Size: 4–4¼ inches (10-11 cm)

Habitat: Mexico and Central America; primarily on the coasts. Found on the humid to semiarid woodland and forest areas, particularly those containing Spanish moss, a key nesting ingredient.

Status: Least Concern. **Global Population:** 20,000,000 mature individuals.

Diet: Insects and spiders; sometimes berries.

Nesting: It nests in clumps of epiphytes in a tree, laying usually two eggs in a scantily lined domed nest. Incubation is 12-14 days, mainly by the female.

Cool Facts: The Tropical Parula has about 14 subspecies, with a wide range of plumage tones. Some (especially insular ones) are considered separate species by various authorities. *Parula pitiayumi nigrilora* is identified by its lack of white markings around the eye, white wing bars, yellow throat and olive patch on its' back.



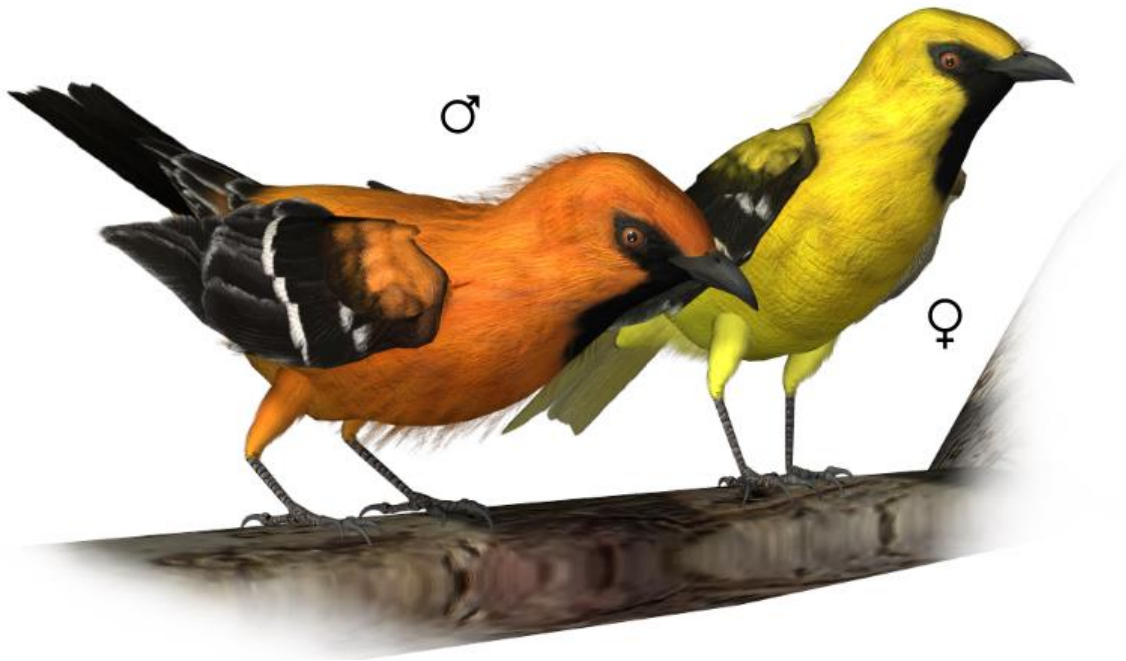
Common Name: Orange Oriole
Scientific Name: *Icterus auratus*

Size: 7-7½ inches (18-19 cm)

Habitat: Central America; endemic to Belize and Mexico. Found in subtropical or tropical dry forests and heavily degraded former forests.

Status: Least Concern. **Global Population:** 20,000-49,999 mature individuals.

Diet: Fruit, flowers and some insects.



Nesting: Males are orange; females are yellow in color as are most orioles. Despite being fairly common, little is known of its breeding biology. It nests in colonies, usually 25-35 nests in a 60-80 x 25-30 meter area. Nests are woven of fine blackish plant fibers and in places are so thin that light passes readily through the walls. Typically, nests are slung between slender branches, often near the top of a tree or bush, at heights of 1-10 m above the ground. Most Orange Oriole nests have been near or over water.

Cool Facts: The orange oriole will often associate itself with other species of orioles. The orange oriole doesn't migrate and is only found in the Yucatan Peninsula.

Special Thanks to...

....**my beta testers** (Bea, Gary, Jan, Kelvin, Nancy, Rhonda and Sandra)

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:

- **"Behavioral Ecology of the Yucatan Jay"** by Ralph J. Raitt and John William Hardy
- **"The Sibley Guide to Birds"** by David Allen Sibley.
- **"A Guide to the Birds of Mexico and Northern Central America"** by Steve N. G. Howell and Sophie Webb

Wikipedia (<http://www.wikipedia.com>)

BirdGuides.com (<http://www.birdguides.com>)

Changes with Songbird ReMix3

This Volume was updated in November 2011 to be compatible with the latest versions of the Songbird Remix models. The conforming Crest 09 and 10 models in older versions of this volume have been incorporated into the base models and are no longer used.

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