

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

Songbird ReMix

Characters

Contents

Manual

Introduction	3
Overview and Use	3
Conforming Crest Quick Reference	4
Creating a Songbird ReMix Bird	5
Using Conforming Crests with Poser	6
Using Conforming Crests with DAZ Studio	8

Field Guide

List of Species	9
American Goldfinch	10
American Crow	11
Cactus Wren	12
Cedar Waxwing	13
House Finch	14
Northern Mockingbird	15
Phainopepla	16
Purple Finch	17
Red-winged Blackbird	18
Tricolored Blackbird	20
Swainson's Thrush	22
Western Bluebird	23
Resources, Credits and Thanks	24

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Songbird ReMix Characters

Manual & Field Guide

Introduction


Songbird ReMix Characters includes many of the most popular and beloved birds in North America. As with all Songbird ReMix birds, one model can fly and perch with wings tucked, with one easy-to-use morph. Many seasonal and color variants have been included. For instance, the American Goldfinch looks different in breeding season than during the Fall and depending on how much good seed a male House Finch eats will determine whether he's red, orange or yellow. Songbird ReMix Characters provides for these subtle nuances.

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 included in this volume:**
 - **Songbird ReMix3 Base** - This model is used with all songbirds.
- **Conforming Parts**
 - **No conforming parts are needed for this volume.** It is possible that with future add-on volumes and/or future free download Birds that they *may* be needed. (All Conforming Crests have alphanumeric icons in the lower right corners such as "**C09**", "**C22**" 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 its counterpart in the head part of the Conforming Crest.

Conforming Crest Quick Reference

Load Model(s)	To Create... (apply MAT/MOR files)
	<ul style="list-style-type: none">• American Goldfinch• American Crow• Cactus Wren• Cedar Waxwing• House Finch• Northern Mockingbird• Phainopepla• Purple Finch• Red-winged Blackbird• Red-winged Blackbird• Tricolored Blackbird• Swainson's Thrush• Western Bluebird

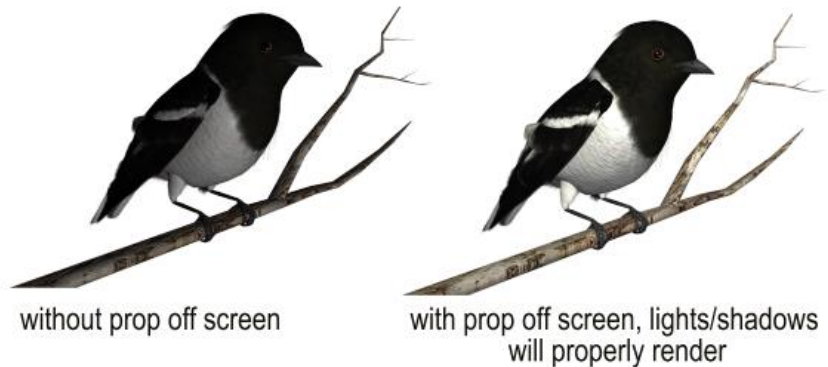


Creating a Songbird ReMix Bird

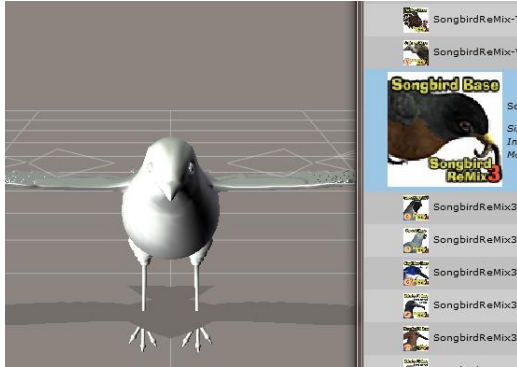
1. Choose what you want to load. For this example, we'll create a Blackbird species.
2. Load Poser or DAZ Studio and select **FIGURES** and the Songbird ReMix folder. DAZ Studio users will select the "Poser Formats" → "My Library" → "FIGURES" → "Songbird ReMix".
3. Because all of the Blackbirds use the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

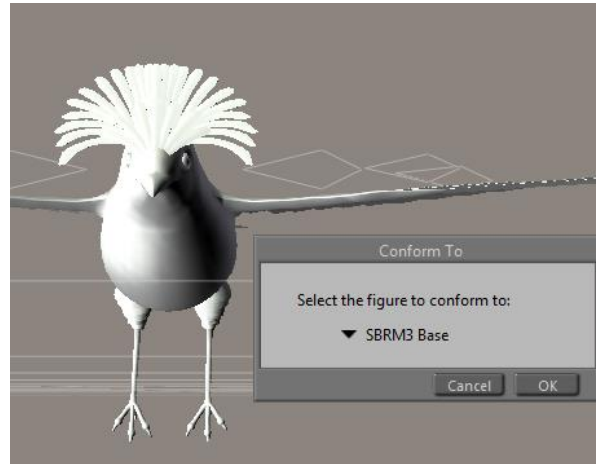


How to build a Songbird ReMix Character with a Conforming Crest in Poser

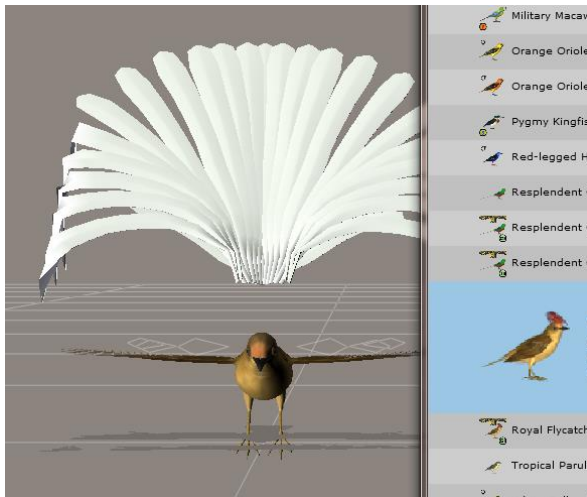


1. In the Figures section, load a Bird base Model. Then load the appropriate conforming part for the bird you're trying to create.
2. **Conform it** to the bird base model.

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.

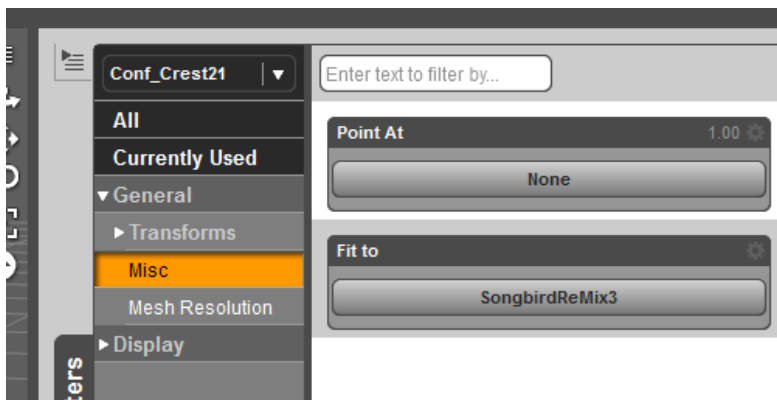
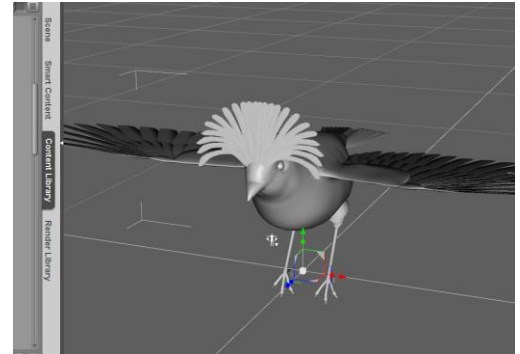
Songbirdremix.com always has the latest updates and additions to existing Songbird ReMix products (often months before they are updated at DAZ), plus the latest digital and real bird news, tutorials, videos, all the Field Guides, free bird characters, props and much more...

[Songbird ReMix.com](http://SongbirdReMix.com)

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

In the Poser Formats **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.

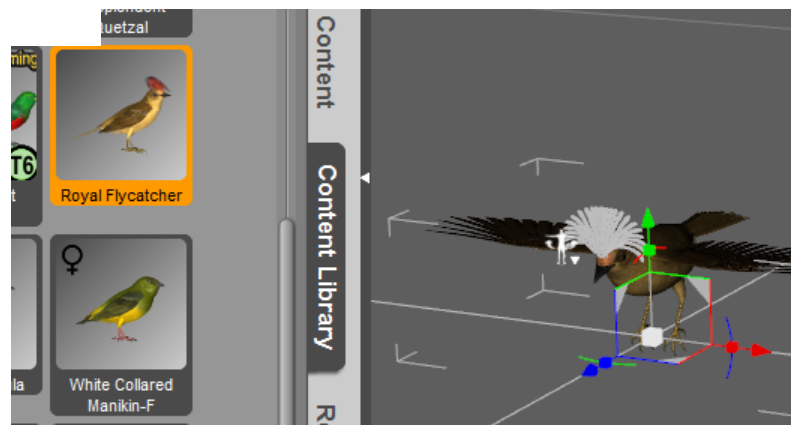
Now, using the “FIT TO” command in the Parameters Tab, Select the Songbird ReMix Model. Go back to the **Scene** Tab and select the Songbird ReMix Model.



In the Poser Formats **Runtime** folder, select the Songbird ReMix folder and select the appropriate Songbird Remix library. Apply the Character setting to the bird modelbase. 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 Characters

Field Guide

American Goldfinch

American Crow

Cactus Wren

Cedar Waxwing

House Finch

Northern Mockingbird

Phainopepla

Purple Finch

Red-winged Blackbird

Red-winged Blackbird

Tricolored Blackbird

Swainson's Thrush

Western Bluebird

Common Name: American Goldfinch
Scientific Name: *Carduelis tristis*

Size: 4-5 inches (11-13cm)

Habitat: North America; throughout the United States, Southern Canada and Northern Mexico. Found in forest edges and urban settings.

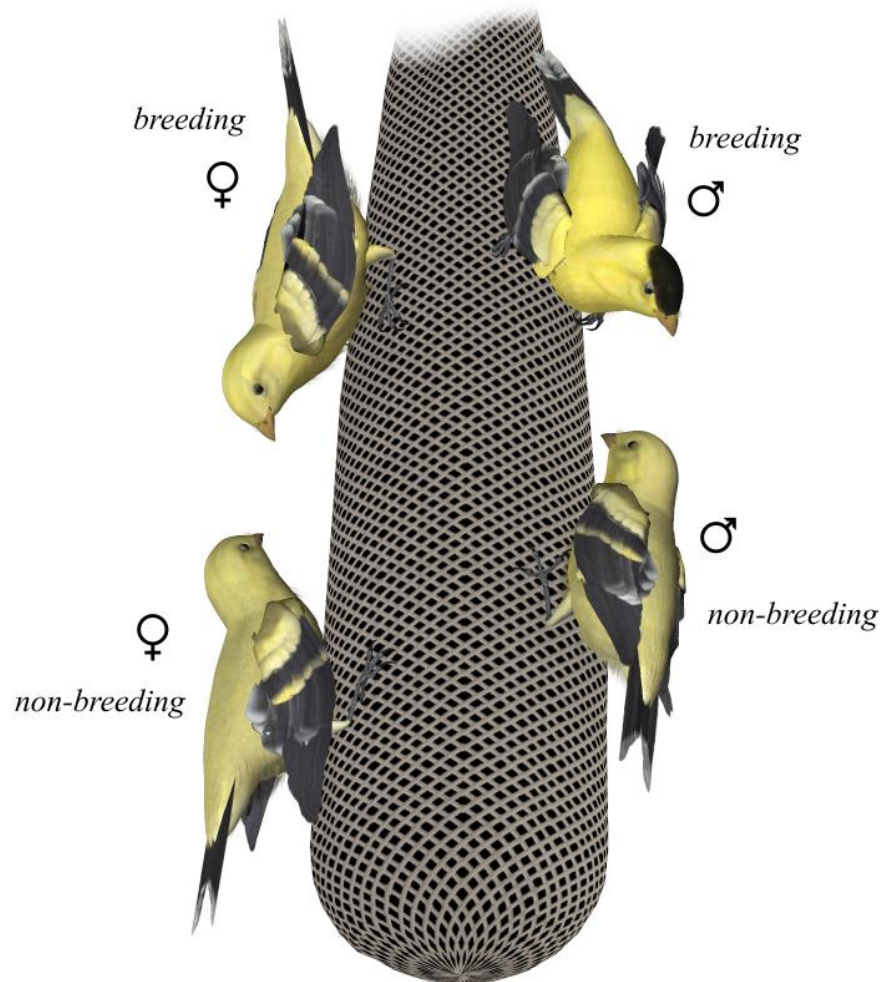
Status: Least Concern.

Global Population: 24,000,000 mature individuals. Common within its habitat and populations are stable.

Diet: Thistle, seeds and insects.

Breeding: Two to seven blue-white eggs with faint brown spots on the large end. Nests are made with plant fibers and sewn together with spider silk. Nesting does not start until July.

Cool Facts: The American Goldfinch changes from winter plumage to breeding plumage with a complete molt of it's' body feathers. The goldfinch is very gregarious throughout the entire year staying in flocks.



It is believed that the late timing of the goldfinches nesting may be related to the availability of suitable nesting materials and seeds for feeding young.

While the American Goldfinch is mostly monogamous, a number of females switch mates after producing a first brood. The first male takes care of the fledglings while the female goes off to start another brood with a different male.

Common Name: American Crow
Scientific Name: *Corvus brachyrhynchos*

Size: 16-21 inches (40-53cm)

Habitat: North America; throughout the United States and Canada with the exception of desert areas. Found in areas of open ground and scattered trees.

Status: Least Concern. **Global Population:** 31,000,000 mature individuals. Populations are common and widespread with a slight increase since 1950. Populations may decrease due to the high susceptibility from West Nile Virus.



Diet: Seed, grain, carrion and trash. Forages on the ground.

Breeding: Large open cup of sticks lined and grass and mud. Three to six pale blue-green eggs with brown markings. While the sexes look the same, male crows are slightly larger than females.

Cool Facts: While crows are carrion eaters they are not specialists at being scavengers. Their bills are not strong enough to break through the skin of road kill mammals; they must wait for others to open up their meal or wait for the carrion to decompose.

American Crows communally roost. Roosting areas are established and often are used for decades. Some are reported to be hundreds of years old. Roosts can be of a few hundred, several thousand, or even up to several million crows.

Crows often lead a double life. They may spend part of the day at home with its family in town and the rest of the day with a flock feeding in the country.

Common Name: Cactus Wren

Scientific Name: *Campylorhynchus brunneicapillus*

Size: 7-9 inches (18-22cm)

Habitat: North America; throughout American Southwest and Mexico. Found in desert areas.

Status: Least Concern. **Global Population:** 8,000,000 mature individuals. Common within its area. Populations are decreasing due to habitat loss.

Diet: Mostly Insects and spiders, some fruit and in rare instances, reptiles. Forages on the ground or in shrubs.

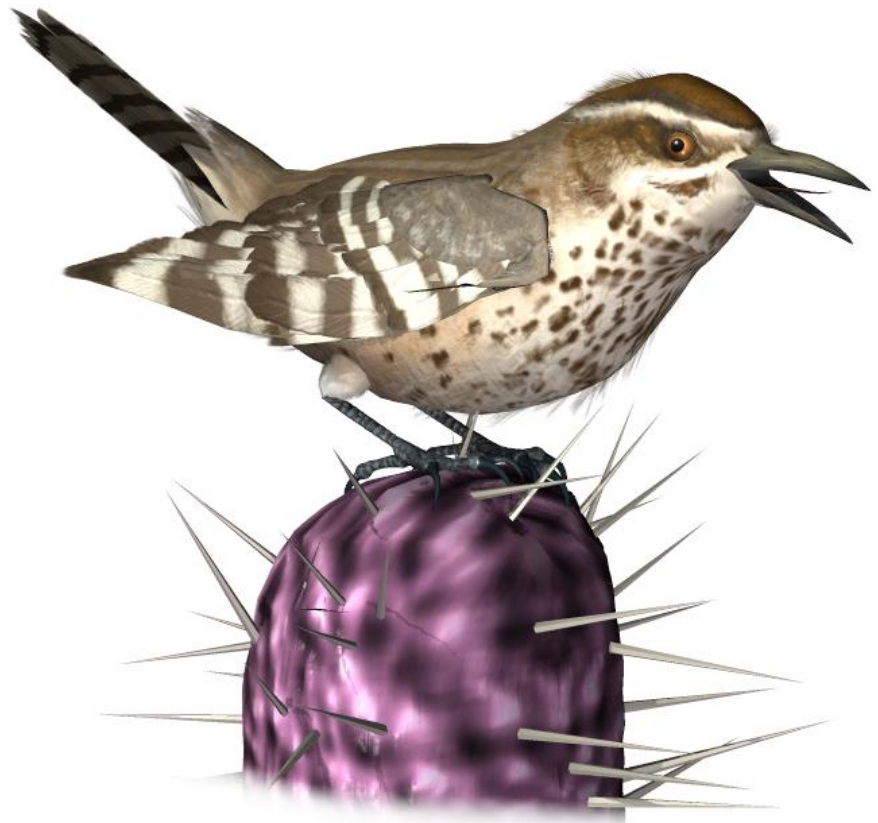
Breeding: A domed nest with a tunnel entrance usually in cactus or a thorny tree. 2-7 pink eggs with small red-brown spots on the larger end.

Cool Facts: The Cactus Wren is the largest wren in North America and can survive without any freestanding water.

Cactus wrens are very aggressive, territorial and bold. They frequently will destroy other birds nests found within their territory. Cactus wrens will mob nest

predators. In one account, "A pair was observed attacking a Yuma antelope squirrel so vigorously that the squirrel became impaled on the thorns of a cactus called the cholla. The wrens continued to peck the squirrel until it was knocked to the ground where it escaped."

The extreme cold of the desert nights has more impact than the heat of the day on a Cactus wren's nesting success.

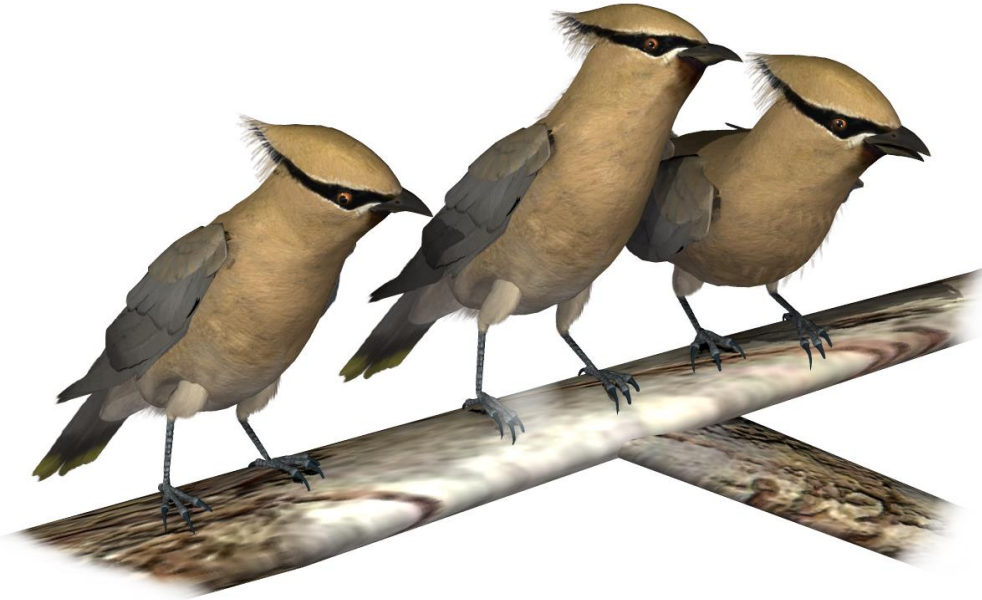


Common Name: Cedar Waxwing

Scientific Name: *Bombycilla cedrorum*

Size: 6-7 inches (14-17cm)

Habitat: North America. Found in open woodlands wherever fruit can be found.



Status: Least Concern. **Global Population:** 15,000,000 mature individuals. Populations are increasing throughout its range.

Diet: Fruit and insects.

Breeding: Four to five eggs in an open cup nest placed in the fork of a tree branch.

Cool Facts: Cedar waxwings lead nomadic lives following the ripening of fruit. Winters are spent in the southern regions of North America and summers in the north.

The name "waxwing" comes from the waxy red areas found in variable numbers on the tips of the secondary feathers of some birds. It is believed that these red areas may be a signaling function in mate selection.

While most Cedar Waxwings have yellow tail tips, ones with orange found in the Northeast began appearing in the 1960's. The coloration is caused by berries from an introduced species of honeysuckle to the area. If a waxwing eats the honeysuckle berries while it is growing a tail feather, the tip of the feather will be orange.

Unlike most birds that regurgitate fruit seeds that they eat, the Cedar waxwing defecates the seeds. Waxwings can live entirely on fruit for several months but are vulnerable to alcohol intoxication and death from eating fermented fruit.

Common Name: House Finch
Scientific Name: *Carpodacus mexicanus*

Size: 5-6 inches (13-14cm)

Habitat: North America; found throughout the United States and Mexico with the exception of the Midwest. Found in forest edges and urban settings.

Status: Least Concern. **Global Population:** 21,000,000 mature individuals. Common and benefiting from human development. Eastern populations have been cut in half due to finch eye disease.

Diet: Seed and, to a lesser extent, fruit. Finches forage on the ground and use feeders extensively.

Breeding: One to six eggs are laid in an open cup nest of grasses and small twigs.

Cool Facts: The house finch is not endemic to the eastern United States. In 1940, a small number of finches were turned loose on Long Island, New York, and within the next 50 years spread across the entire East Coast.

The red or yellow coloring of a male House Finch comes from the food it eats during the molting period. The more pigment contained in the food, the redder the male will become. Coloration plays an important part of the mating cycle. Females look for the reddest males they can find, assuring their nestlings of a good food provider.



Common Name: Northern Mockingbird
Scientific Name: *Mimus polyglottos*

Size: 8-10 inches (21-26cm)

Habitat: North America; found throughout the United States and Mexico. Perhaps open areas and urban settings.

Status: Least Concern. **Global Population:** 45,000,000 mature individuals. Common and widespread. Populations are in decline but also spreading northward.

Diet: Fruit, flowers and insects.

Breeding: Two to six eggs are laid in an open cup nest made with twigs, grasses and leaves. It is built low in trees or shrubs.

Cool Facts: Mockingbirds are notoriously aggressive and attack anything they deem a predator; hawks, crows, cats and even humans.



The Mockingbird is known as the “American Nightingale” and sings loudly all day and into the night. Most nocturnal singers are usually single males and singing at nighttime is more common during the full moon cycle. The Mockingbird throughout its life adds new phrases to its song. While mimicking other birds’ song, mockingbirds also mimic man-made sounds such as telephone rings and car alarms. Studies have found that mockingbirds have two distinct repertoires; one used in Spring/Summer and one used in Fall/Winter. Females also sing though they are quieter than the males and rarely sing in the summer.

Mockingbird frequently gives a "wing flash" display, where it half or fully opens its wings, showing off the big white patches. There’s debate why this is done, some believe it is a territorial display.

Common Name: Phainopepla
Scientific Name: *Phainopepla nitens*

Size: 7-8 inches (18-21cm)

Habitat: North America; found throughout the American Southwest. Found in saguaro cactus forests, chaparral and woodland areas.

Status: Least Concern. **Global**

Population: 4,000,000 mature individuals. Common throughout its range. Size of populations has been decreasing due to habitat loss.

Diet: Berries and flying insects.

Breeding: Two to three eggs are laid in a woven nest of twigs and fiber.

Cool Facts: The name “Phainopepla” comes from the Greek word for “shining robe”. They rarely drink water, getting their moisture from berries instead. Phainopeplas love mistletoe berries and can eat over a thousand berries in a day.

Depending on the habitat, Phainopeplas can be very territorial. In the desert, they perch atop saguaro and ocotillos, fiercely defending their territories. In woodland areas, however, they share nesting areas. Phainopeplas winter in deserts and summer in woodland areas.

Phainopeplas, when pursued by predators or handled by humans, mimics the calls of other birds.



Common Name: Purple Finch
Scientific Name: *Carpodacus purpureus*

Size: 5-6 inches (12-15 cm)

Habitat: North America; Western and Eastern Coasts of the United States. Found in conifer forests and outskirts of urban settings.

Status: Least Concern. **Global Population:** 3,000,000 mature individuals. Populations are declining. On the East Coasts, declines are due to competition with the introduced House Finch and House Sparrow.

Diet: Seed, flowers and occasionally fruit and insect,

Breeding: Four eggs are laid in an open cup nest of grasses and small twigs in branches of a conifer tree.

Cool Facts: It's the attitude, not the size that matters... In aggressive actions, the smaller House Finch beats up the larger Purple Finch... this has led to declines in populations.

Finches feed on flowers by crushing the base to get the nectar and leaving the upper flower undamaged. Similarly, fruit seeds are picked leaving the pulp.



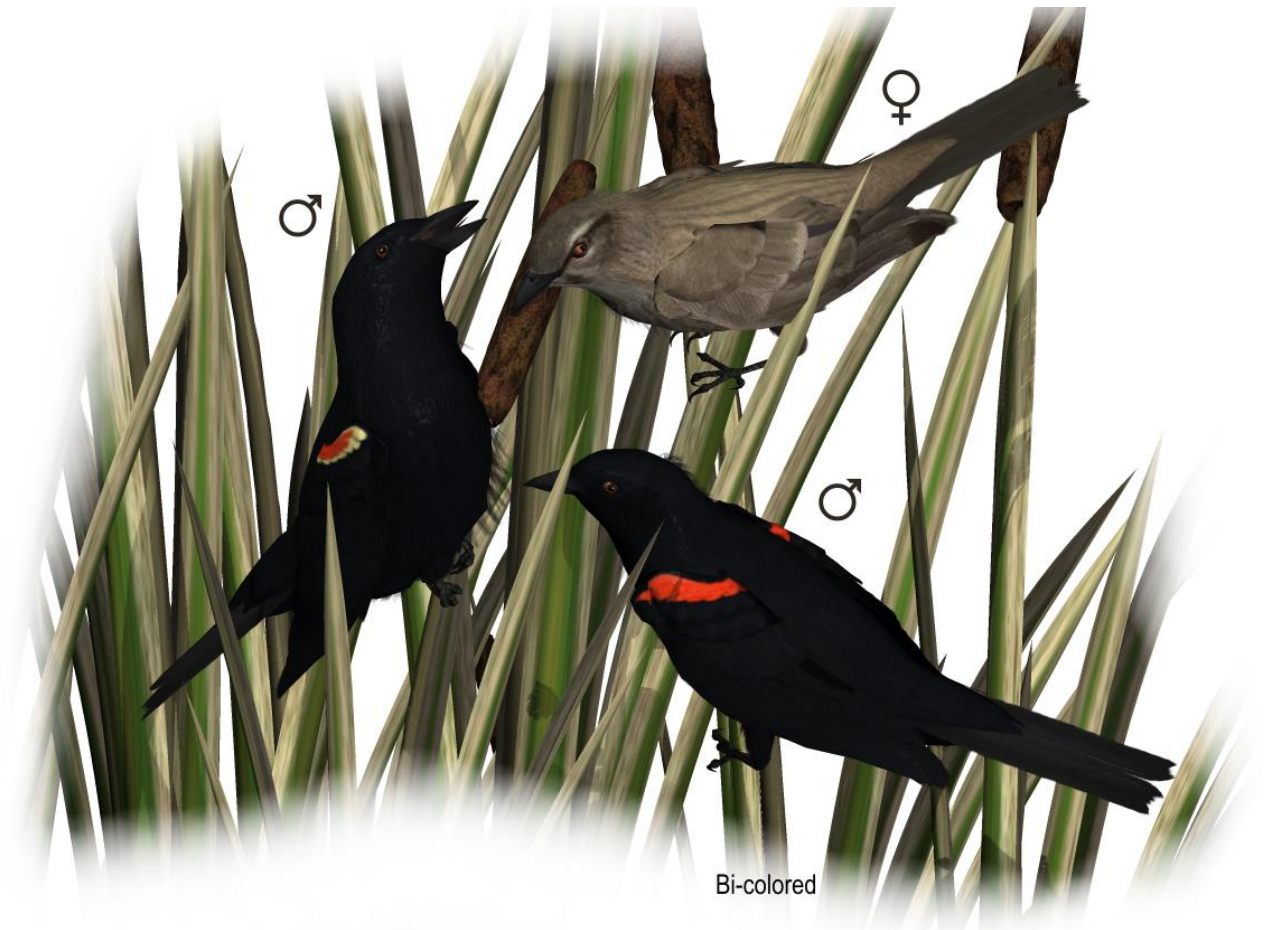
The west coast purple finches have duller colors and have a slightly different wing shape than its east coast cousins. Easy Coasters are a wider variety of song and are more leisurely in sing it.

Common Name: Red-winged Blackbird
Scientific Name: *Agelaius phoeniceus*

Size: 7-9 inches (17-23cm)

Habitat: North America; throughout North America. Prefers wetlands and grassy areas.

Status: Least Concern. **Global Population:** 210,000,000 mature individuals. Perhaps now the most abundant native bird in North America. This species has undergone a small or statistically insignificant decrease over the last 40 years in North America



Diet: Insects, seed and grain.

Breeding: An open cup nest made of woven grasses and mud. Three to four blue-green eggs with dark streaks or blotches.

Cool Facts: There's many different subspecies of Red-winged Blackbirds that vary markedly in size and proportions. A field experiment was conducted that moved nestlings between populations and found that the chicks grew up to resemble their foster parents. The Bi-color morph Red-winged Blackbird is found primarily in Kern County, California.

Males fiercely defend their territory, spending up a the quarter of the daylight hours standing guard. Blackbirds have been known to attack horses and humans in this defense. Red-winged Blackbirds are highly polygynous, with one male can have up to 15 different females making nests in his territory. While a proud blackbird male might brag about his 15 wives and their offspring, often 25% of those offspring are actually sired by neighboring males.

Red-winged Blackbird forms roosting congregations throughout the year. In the summer it will roost in small numbers but in the winter it can form huge congregations of several million birds. It commonly shares its winter roost with other blackbird species and European Starlings.

Red-winged Blackbirds are considered crop pests and made the news several years back when farmers killed off a large number of blackbirds to defend their "bird seed" crop in an ironic twist.

Common Name: Tricolored Blackbird
Scientific Name: *Agelaius tricolor*

Size: 7-9 inches (18-24cm)

Habitat: North America; Found only in California. Prefers wetlands and grassy areas.

Status: Endangered. **Global Population:** 250,000 mature individuals. A very rapid and on-going decline is estimated directly, based on repeated censuses (using the same methods) of the Central Valley population (which comprises the majority of the global population). Loss of upland nesting habitat, combined with low reproductive success in native habitats and complete breeding failure in harvested agricultural fields, are the most likely causes of recent declines.



Additionally, herbicide spraying and contaminated water are suspected to have caused complete breeding failure in several colonies. Historic declines may have occurred because of the loss of native wetlands, loss of grasslands and grasshoppers (a main component of the species' diet), hunting, and large-scale poisoning efforts to control crop depredation that continued until the 1960s. Because breeding success is so poor in native wetlands, protection of these habitats will not reverse population declines in the species - conservation measures must focus on agricultural land and upland habitats as well.

It is currently classified in California as a Species of Special Concern and a Migratory Bird of Management Concern, categories which identify reduced populations but do not include the legal protections offered to species listed as threatened. It is also currently under petition for Federal Endangered Species protection.

Diet: Insects (primarily Grasshoppers), seed and grain.

Breeding: Male is entirely black with dull blue gloss, except for striking epaulets made up of deep red lesser coverts and white median coverts. Female is largely dark blackish-brown with a paler throat and streaked underparts. Juvenile is similar to adult female, but duller and buffier. An open cup nest made of woven grasses and mud. Three to four blue-green eggs with dark streaks or blotches.

Cool Facts: The Tricolored Blackbird can be found at the Audubon Kernville preserve along with the bi-colored Red-winged Blackbird. Due to its dependence of a large colony structure, habitat fragmentation could lead to its demise just as it did with the passenger pigeon.

The Tricolored Blackbird is the bird featured in "[A Field of Birds](#)" produced by Audubon California.

Support for the Tricolored Blackbird has also been the focus of the Songbird ReMix series annual Audubon's birthday sale. The Songbird ReMix Audubon's Birthday Sale has raised over \$5,000 (as of 2010) for Audubon California.

Common Name: Swainson's Thrush
Scientific Name: *Catharus ustulatus*

Size: 6-7 inches (16-19cm)

Habitat: North America; throughout the Americas. Found mostly in woodland habitats.

Status: Least concern. **Global Population:** 100,000,000 mature individuals, populations are declining.

Diet: Insects. Forages near the ground, generally in shrubs.

Breeding: Four white eggs are laid in a open cup nest fairly low to the ground.



Cool Facts: The song of the Swainson's thrush is the only woodland thrush whose song goes up in pitch.

The Pacific coast populations are more reddish plumage than the rest of the birds in the range. The Pacific coasters winter in Central America while the rest winter in South America.

Common Name: Western Bluebird
Scientific Name: *Sialia mexicana*

Size: 6-7 inches (17-19cm)

Habitat: North America; the Pacific Coast, parts of the Eastern Southwest and Mexico. Prefers edges of open forests and fields.

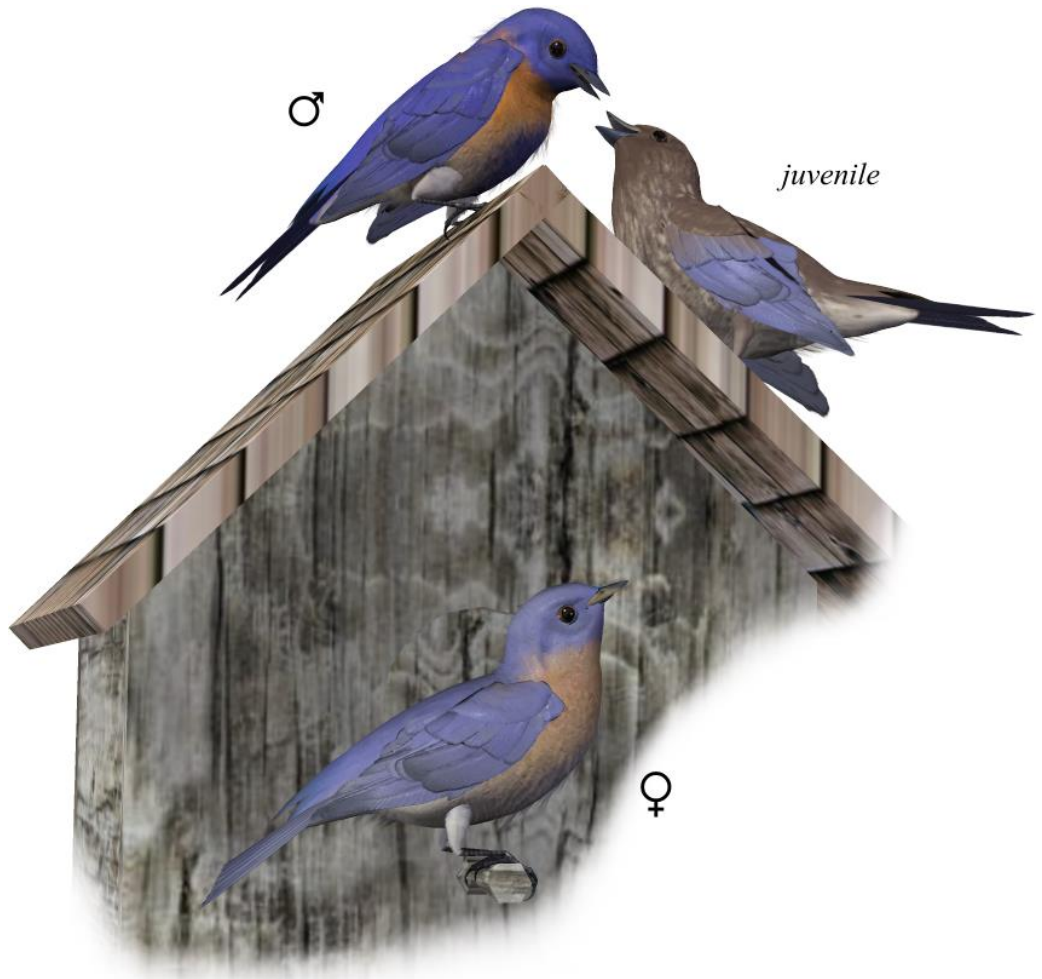
Status: Least Concern. **Global Population:** 1,400,000 mature individuals. This species is declining throughout within its range.

Diet: Insects in summer, fruits and seed in winter. Preferred nesting shrub is poison oak.

Breeding: 5 pale blue eggs are laid in a woven nest found tree cavities, snags and nest boxes.

Cool Facts:
Western

Bluebirds can have help with their nests. Parents of failed nests will help to raise others' young. It has also been reported that violet-green swallows have helped with the feeding and defense of bluebird nests. Paternity is an issue amongst Western Bluebirds; 19% of all the young were fathered outside the pair bond.



Special Thanks to...

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.

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:

"The Sibley Guide to Birds" by David Allen Sibley.

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

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

BirdLife International (<http://www.birdlife.org>)

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