

**Songbird
ReMix**

*Threatened,
Endangered,
Extinct*

1



14 birds species on or beyond the brink of extinction

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

Songbird ReMix

Threatened, Endangered, Extinct

Contents

Manual

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

Field Guide

List of Species	9
EXTINCT	
Passenger Pigeon	10
Carolina Parakeet	12
Texas Henlow's Sparrow	13
Bachman's Warbler	14
ENDANGERED	
'Akipola'au	15
Palila	16
Least Bell's Vireo	17
Southwestern Willow Flycatcher	18
Florida Grasshopper Sparrow	19
THREATENED	
California Coastal Gnatcatcher	20
San Clemente Island Sage Sparrow	21
VULNERABLE	
Golden-winged Warbler	22
Purple Martin	23
Loggerhead Shrike	24
Resources, Credits and Thanks	25

Songbird ReMix

Threatened, Endangered, Extinct Manual & Field Guide

Copyrighted 2006-2011 by Ken Gilliland
Songbirdremix.com

Introduction

'Threatened, Endangered, Extinct' is a collection of bird characters for use with the Songbird ReMix packages. It incorporates the new SBRM2+ morphs and textures that improve the accuracy and realism of the birds. It includes the legendary Passenger Pigeon, once the most populous bird on the planet, 5 billion strong. It was said that the day would turn to night when the pigeon flocks flew making a dense cloud 2 to miles wide and 60 miles long. And Within 50 years it went extinct due to hunting.

This particular package has a two-fold purpose; one, to provide high-quality digital birds for the purpose of animation and still imagery and two; to raise awareness for these and other species plights and in doing so, help to turn the tables on possible extinctions. In using these digital birds it is the author's hope that the users will also help to create public awareness through their art.

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 Passenger Pigeon. 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 Carolina Parakeet. All MAT/MOR files with the “P” icon use this model.

- **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

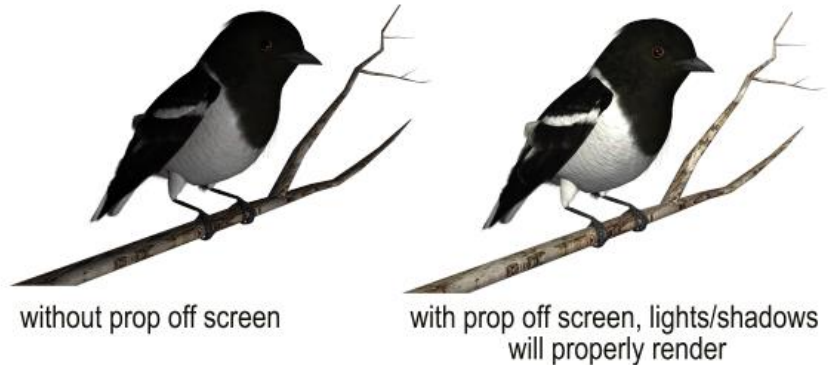
Load Model(s)	To Create... (apply MAT/MOR files)
	<ul style="list-style-type: none"> • ‘Akipola’au • Bachman’s Warbler • California Coastal Gnatcatcher • Florida Grasshopper Sparrow • Golden-winged Warbler • Least Bell’s Vireo • Loggerhead Shrike • Palila • Purple Martin • San Clemente Island Sage Sparrow • Southwestern Willow Flycatcher • Texas Henlow’s Sparrow
	<ul style="list-style-type: none"> • Passenger Pigeon
	<ul style="list-style-type: none"> • Carolina Parakeet

Creating a Songbird ReMix Bird

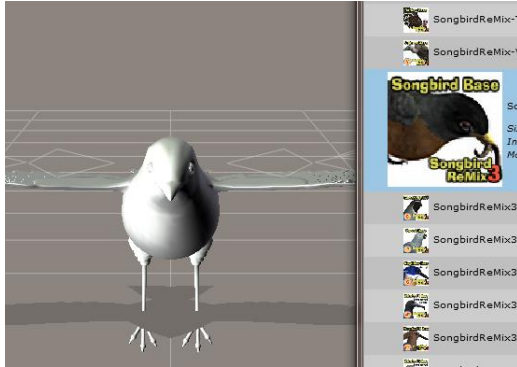
1. Choose what you want to load. For this example, we'll create a Blackbird species.
2. Load Poser or DAZ Studio and select **FIGURES** and the Songbird ReMix folder. DAZ Studio users will select the "Poser Formats" → "My Library" → "FIGURES" → "Songbird ReMix".
3. Because all of the Blackbirds use the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

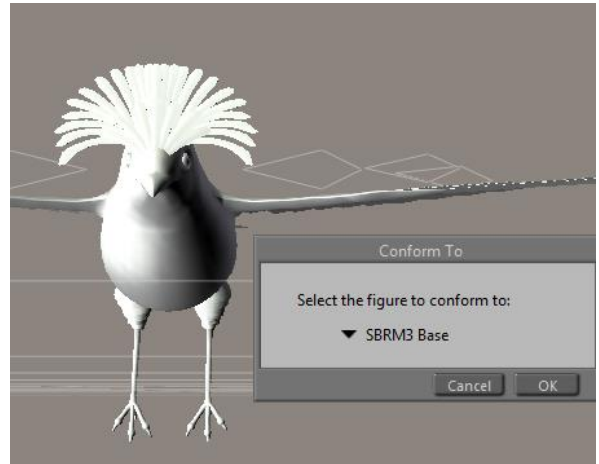
All the birds in this package have to scaled proportionally to DAZ 3D's Victoria and Michael models. The smallest of the included birds **MAY** render with a Square shadow or improper lighting. This is a bug in Poser. Poser can't figure out how to render a shadow for something really small, so it creates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



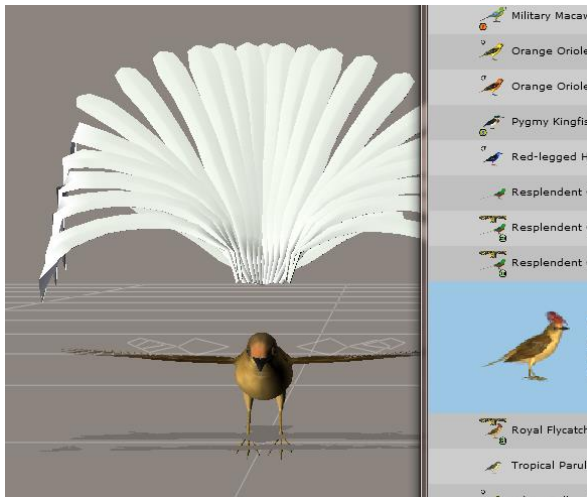
How to build a Songbird ReMix Character with a Conforming Crest in Poser



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.

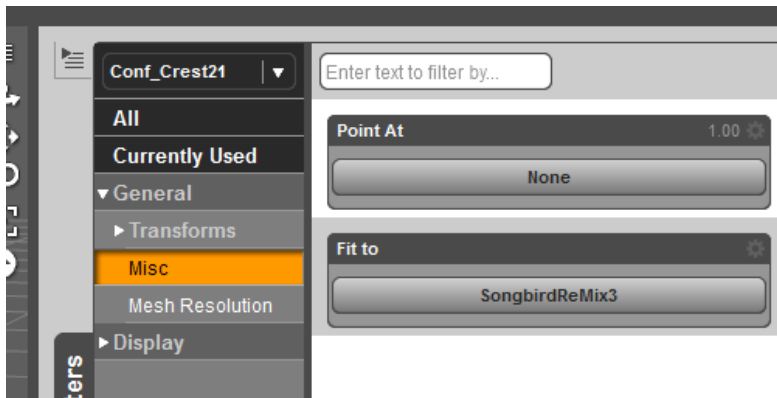
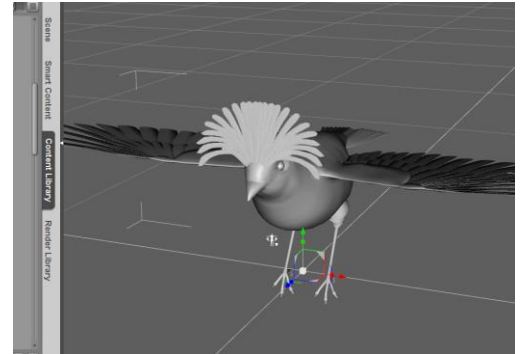
Songbirdremix.com always has the latest updates and additions to existing Songbird ReMix products (often months before they are updated at DAZ), plus the latest digital and real bird news, tutorials, videos, all the Field Guides, free bird characters, props and much more...

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

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

In the **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.

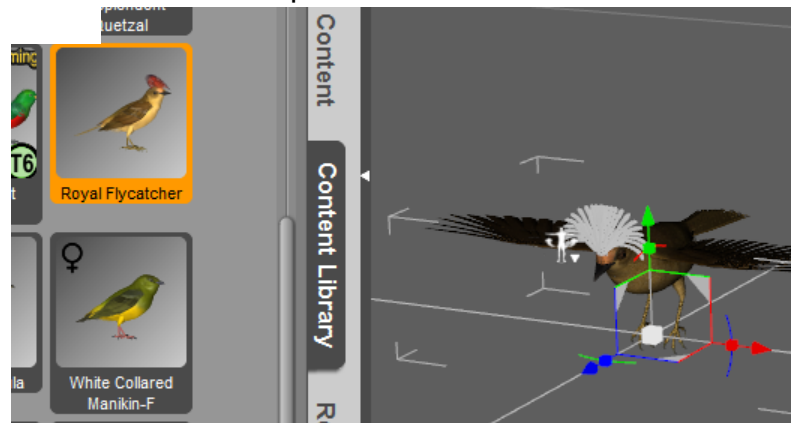
Now, using the "FIT TO" command in the Parameters Tab, Select the Songbird ReMix Model. Go back to the **Scene** Tab and select the Songbird ReMix Model.



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

Threatened, Endangered, Extinct

Field Guide

EXTINCT

Passenger Pigeon
Carolina Parakeet
Texas Henlow's Sparrow
Bachman's Warbler

ENDANGERED

'Akipola'au
Palila
Least Bell's Vireo
Southwestern Willow Flycatcher
Florida Grasshopper Sparrow

THREATENED

California Coastal Gnatcatcher
San Clemente Island Sage Sparrow

VULNERABLE

Golden-winged Warbler
Purple Martin
Loggerhead Shrike

Common Name: Passenger Pigeon
Scientific Name: *Ectopistes migartorus*

Size: 15-16 inches (38-40cm)

Habitat: North America; throughout the United States and Canada; East of the Rockies.



Status: **Extinct.** **Global Population:** 0. Extinction due to loss of habitat and hunting by humans. Reduced colony sizes enabled predation by other species to bring the species to extinction.

Diet: Acorns, various types of nuts, some fruits, berries, grain and small insects

Breeding: Nests were loosely constructed of small sticks and twigs and approximately one foot in diameter. A single, white, elongated egg was laid per nesting. Both parents shared the duties of incubating the egg and feeding the young. The incubation period was from twelve to fourteen days.

Cool Facts: One the most populous bird in the world (estimated 5 billion birds) would within sixty years go extinct, entirely due to human intervention.

In written accounts given by those who actually saw the Passenger Pigeon flocks, “Beech tree limbs sagged as the colony crowded on slender branches. The largest colony that nested in Wisconsin as said to have at least 135 million adults and covered over 850 square miles. When the flock took off, the day would turn to night with a black cloud of birds, two to three miles across and forty miles long flew to its next destination at up to 60 mph.”

They spent their springs and summers in the great deciduous forests of Montana, Southern Ontario and Nova Scotia and migrated to the Deep South (United States) in the winter. The hunters who sold the meat to markets brought on their decline to extinction. In 1878 in Michigan, 50,000 birds per day were killed for nearly five months. Eventually, the taste of Passenger Pigeon became passé and the commercial hunting operations ceased. The pigeon went into final decline because their flocks, weakened in numbers, were easy meals for other predators and factors such as habitat loss. The last Passenger Pigeon, “Martha”, died at the Cincinnati Zoo in 1914.



Common Name: Carolina Parakeet
Scientific Name: *Conuropsis Carolinensis*

Size: 12 inches (30cm)

Habitat: North America; United States from Eastern Nebraska and Southeastern Wisconsin and all the way to the East Coast, from New York to Florida. Found in riparian and deciduous forests and cypress swamps.

Status: **Extinct.** **Global Population:** 0.

Extinction due to habitat loss and being considered an agricultural pest.

Diet: Fruit, nuts and grain

Breeding: Very little is known about breeding. There are accounts from 2-7 eggs be laid. It is believed, they nested in tree cavities made by woodpeckers and up to



50 nests could be in a single tree.

Cool Facts: They nested in riparian and deciduous forests and cypress swamps. Before widespread agriculture took hold in the area, it lived on seeds from grasses and trees. As the areas became developed the parakeet developed tastes for apples, oranges, grapes, dogwood flowers and mulberries. Unfortunately for the bird, most of these tasty treats were found in farms and gardens. Being a member of the parrot family, this parakeet was highly gregarious and traveled commonly in flocks of 30 individuals. Farmers and gardeners began to shoot the parakeets as crops pests. Hunters began to shoot them for “sport” and their feathers. Parakeets being very social birds, would flock around shot and injured members to help them, making them easy targets and adding to the carnage.

By 1900, the Carolina Parakeet was extinct in the wild. A breeding program at the Cincinnati Zoo, kept the parakeet from complete extinction until 1914 when the last individual died.

Common Name: Texas Henslow's Sparrow
Scientific Name: *Ammodrammus henslowii houstonensis*

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

Habitat: North America; A farming area outside Houston, Texas.

Status: **Extinct.** **Global Population:** 0. Extinction was brought on by habitat loss.



Diet: Insects, including slugs and spiders and seeds from grasses and sedges. It found most of its food sources while foraging on the ground.

Breeding: It nested in weedy fields or pastures, preferring

moist areas. It built its nest in tall grass, often with a partial roof, which offers some seclusion. 2-5 eggs were laid.

Cool Facts: The Texas Henslow's Sparrow has been extinct since 1983. It was found only on a 105 acre field near Houston, Texas.

Preservation of the species was complicated by the dispute on whether it was a "true" subspecies of the Henslow's Sparrow which was found 750 miles away in the southern Missouri in 1973. While the debate continued in the court system, the Texas Henslow's sparrow's habitat encroached upon, and it slipped into extinction due to that. After a 10-year legal battle in 1983, the Texas Henslow sparrow was finally declared a "true" subspecies and awarded "Federally Endangered" posthumously.

The question whether the Texas Henslow's Sparrow is a true subspecies is still rages amongst some academics due to its similar characteristics to its parent species.

Today, the Henslow's Sparrow (the parent species), is approaching its chance for Federal protection. Hopefully more care and urgency will be given in saving the parent species.

Common Name: Bachman's Warbler
Scientific Name: *Bombycilla cedrorum*

Size: 4.5 inches (11cm)

Habitat: North America; South-eastern United States and Western Cuba.

Status: **Presumed Extinct.** **Global Population:** unknown. The population declines started around 1900 and large drops by 1950. There have been no confirmed nest sightings since the 1960's although a few sightings were reported in Cuba in the mid-90's. The cause for the possible extinct is unknown, however, the loss of habitat both in the United States and Cuba is strongly suspected.

Diet: Insects and spiders it finds among the foliage and dead leaves.



Breeding: Nesting in low, wet forested areas where a constant supply of water was available.

Cool Facts: Bachman's Warbler is one of the smallest warblers measuring under 4½ inches long and is considered the rarest bird in the United States. The reason for its rarity is that it has not been seen in more than a decade. Unfortunately, it will probably soon be added to the extinct list.

The Bachman's Warbler is a migratory bird that lives in the southeastern United States and winters in western Cuba. Like most warblers, the Bachman's warbler fed on insects such as caterpillars and ants.

In 1891, the warbler was observed in Florida feeding in the dead clustered leaves of hackberry and ends of other tree branches. The feeding appeared slow and deliberate, and with the birds sometimes hanging with the upside down while feeding.

Common Name: 'Akiapola'au
Scientific Name: *Hemignathus munroi*

Size: 6 inches (14cm)

Habitat: Oceania; The Big Island of Hawaii in old growth Koa forests.

Status: Endangered. **Global Population:** 1,200 mature individuals. Its declines started in 1900 with the development of Hawaii. It also suffers from the fate of many native Hawaiian birds; no resistance to avian malaria. Mosquitoes are an introduced insect to the Hawaiian Islands and now virtually none of the native Hawaiian birds live below the 1500' level (the mosquito line).



Preservation efforts have helped slow the rapid decline of this bird. In 1992, the population was estimated at 1500 and has since then dropped below 1200. The Hakalau National Forest Preserve was established to help protect this and other endangered Hawaiian birds.

Diet: Insects and beetle larvae.

Breeding: Older Koa trees are excavated for nesting cavity.

Cool Facts: The 'Akiapola'au is found around the base of Mauna Kea, Hawaii. It lives in ancient Koa tree forests where it's primary nesting areas and food sources are found. Older Koa trees are excavated for nesting cavity. Insects and beetle larvae are the main food source for the bird as it creeps down tree limbs in the forest canopy. It has an unusual bill. The lower bill is shorter than the top—it's a specialized beak that allows the bird to hammer and drill into the wood with the lower "woodpecker-like" bill and then spear insects with the top portion of the beak.

The 'Akiapola'au was also known as Nukupu'u in early Hawaiian literature.

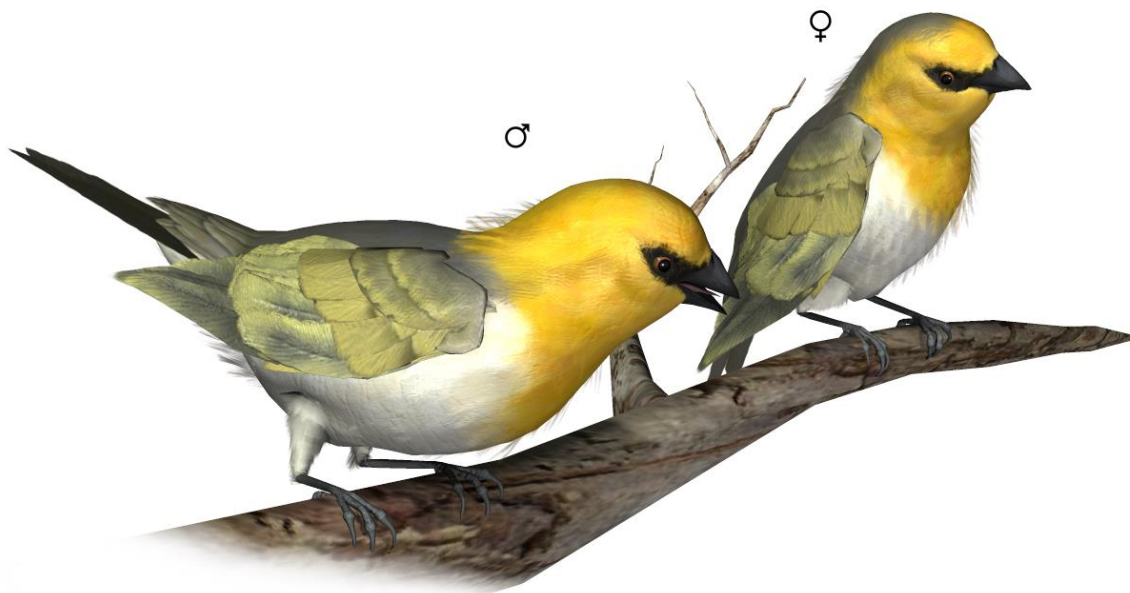
Common Name: Palila

Scientific Name: *Loxioides bailleu*

Size: 7.5 inches (19cm)

Habitat: Oceania; Slopes of Mauna Kea on Hawaii. Found in Mamane forests.

Status: Endangered **Global Population:** 2,512 Mature individuals. It is endangered because its main source of food, the Mamane tree is also threatened. Cattle from nearby ranches trample the root systems of the trees and thereby, killing them. Encroaching development also plays a role. In the mid-90's the remaining Palila population was moved to the base of Mauna Kea where a 100 acre grove of Mamane trees still remained and was fenced off from cattle grazing. Unfortunately, invasive weeds and extremely flammable fountain grass surround the entire area. One wildfire could bring this bird to extinction and this author noted in a recent trip, numerous cigarettes butts were found scattered in the brush of its habitat.



Diet: Mamane Seeds; some insects and naio berries

Breeding: Nest in Mamane trees. The species exhibits low rates of reproduction, laying fewer eggs and

taking longer to raise its young compared with mainland songbirds

Cool Facts: The Palila lives the big Island of Hawaii. It nests and eats the seeds of the Mamane tree which is found on the dormant volcano, Mauna Kea, above the 6,000 foot line. The Palila is the largest of the Hawaiian honeycreepers and is probably the most studied. Although the Palila has been known to eat some insects and naio berries, its primary diet comes from the Mamane tree. It eats seeds from its green pods, the flower petals and even the young leaves. The population numbers for the Palila are in direct proportion with the success of the Mamane's blooming season.

Common Name: Least Bell's Vireo
Scientific Name: *Vireo bellii pusillus*

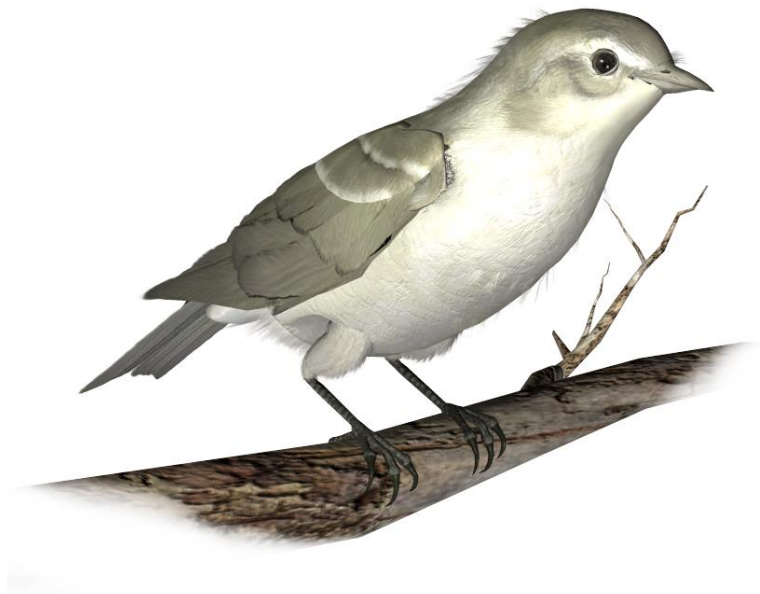
Size: 4-5 inches (11-12cm)

Habitat: North America; found in California and Baja California in riparian areas.

Status: Endangered. **Global Population:** 180-500. In 1978, the total population of Least Bell's Vireo (*Vireo bellii pusillus*) was estimated at 90 pairs. Endangered due to habitat loss, off-road vehicle use and nest predation by cowbirds.

Diet: Insects.

Breeding: During nesting season, most of the foraging occurs in the vicinity of the nest site, which is predominately in willow trees. A dense shrub layer is considered essential for nesting. Nests are constructed about three feet off the ground and are usually made from willows. Most nest sites are located near the edges of thickets and males often reuse the nest in succeeding years.



Cool Facts: Least Bell's Vireo was Red-listed in 1986. Its preferred habitat is dense willow forests in riparian areas with lush understory of vegetation. The Least Bell's vireo is predominately an insect eater. The birds will forage in high and low shrubs and along riparian areas. The most common plant species used for foraging and nesting are the California wild rose and the coastal live oak.

There was an estimated 385 pairs in 1992 and it is threatened because it's critical riparian habitat is quickly vanishing to make way for off-road recreation (vegetation destruction/disturbed areas) and golf courses herbicides, pesticides and loss of natural vegetation). In addition, periodic flooding of riparian areas are essential to the health of these areas. Water control projects hamper and halt this natural cycle. Cowbirds are also threats to the nesting cycle.

Common Name: Southwestern Willow Flycatcher
Scientific Name: *Empidonax traillii extimus*

Size: 5.75 inches (15 cm)

Habitat: North America; Southwestern United States in willow riparian habitats.



Status: Endangered. **Global**

Population: unknown.

Its primary threat to existence comes from cattle ranching. The cattle trampled and graze the riparian woodlands that the flycatcher lives in. The cattle also are accompanied by the dreaded "Cowbird". The cowbirds knock out a few of the flycatchers eggs, lay their own eggs in the flycatcher's nest and take off,... leaving the flycatcher to raise it's nestlings (children). The cowbird nestlings are larger and hungrier and cut down the survival rate of the

flycatcher's true offspring. You'd think the flycatchers would be able to distinguish their offspring from cowbirds, but they don't.

Diet: Flying insects.

Breeding: The nest is built of cattail tufts, shredded bark and grasses, and lined with fine grasses and feathers .It is usually placed in a branch fork in a willow, near water. The eggs are buff with dark spots at one end. The typical clutch of 3-4 eggs is laid in May-June.

Cool Facts: The Southwestern Willow Flycatcher was red-listed in 1996. It closely resembles the parent species, Willow flycatcher. The easiest way to distinguish this flycatcher from other flycatcher species is surprisingly not to rely upon its appearance, but from its distinct "fitzbew" song. The flycatcher, as it's name suggests live off flying insects. It breeds and nests in dense riparian habitats along rivers, streams, or other wetlands. The most likely areas are amongst thick groves of willows and seep willow. Almost all flycatcher-breeding areas are within close proximity of water.

Common Name: Florida Grasshopper Sparrow
Scientific Name: *Ammodramus savannarum floridanus*

Size: 5 inches (13cm)

Habitat: North America; this subspecies is found in Florida. Prefers wetlands and grassy areas.

Status: Endangered. **Global Population:** unknown. The population counts tell the story: 1997 Population: 298, 2002 Population: 162 and the 2003 Population: 17. The majority of remaining sparrows live on a 5,000 acre (not used) parcel on the Avon Park United States Air Force bombing range. . It was once widespread in Florida

however the conversion of its native habitat to pasture lands has had devastating effects. Its nests are often inadvertently mowed down when machinery clears fields. The sparrow, left with no cover, is vulnerable to predators.



Diet: Spiders, grasshoppers, crickets, weevils, moth larvae and sedge seeds.

Breeding: The sparrow builds its nest on the ground with a canopy of grass and leaves. It lays four to five eggs in the spring.

Cool Facts: The Florida Grasshopper Sparrow is a subspecies of the Grasshopper Sparrow and can be identified by its darker, almost black, streaks of its head and darker tail feathers

Common Name: California Coastal Gnatcatcher
Scientific Name: *Polioptila californica californica*

Size: 4.25 -4.5 inches (10.8-11cm)

Habitat: North America; found only in Southern California from Ventura to Baja. Prefers wetlands and grassy areas.

Status: Threatened. **Global Population:** unknown. The California Coastal Gnatcatcher is endangered because of urban sprawl and habitat fragmentation. The remaining birds live on coastal golf courses and housing tracts that haven't been developed yet. Although the population of this bird is less than many on the "Endangered" list and the threat of extinction is very real, it has failed to make the list because of intense and heated debate from real estate developers and government officials

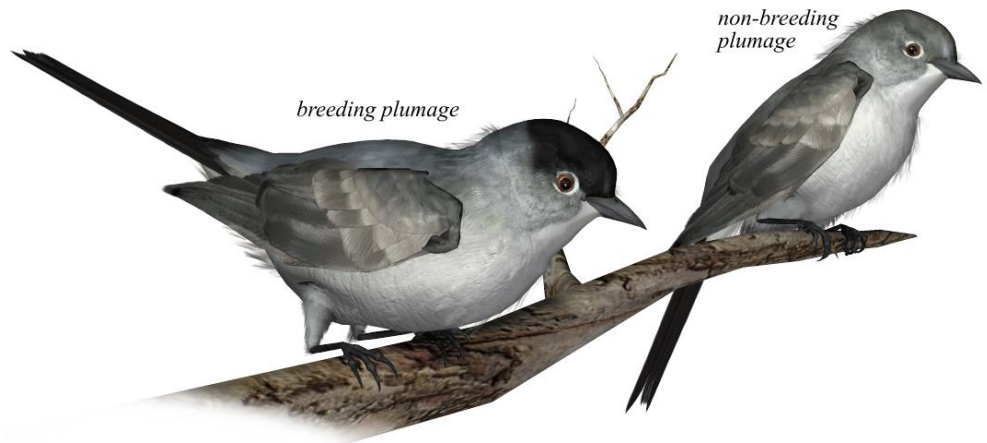
Diet: Insects and spiders.

Breeding: Monogamous pairs tend to stay in the same locale. Both parents build nest, incubate, and care for young. Nest site established by

male who also initiates nest building. The cone-shaped nests are built in shrubs and first-brood eggs (2-5) are laid in late March. With a roughly 120 day breeding season, they may be able to have as many as three broods per season. A high rate of nest predation is compensated by up to ten re-nesting attempts over the long breeding season.

Cool Facts: It was in 1988, that the California Gnatcatcher was found to be a different species than the Black-tailed Gnatcatcher. The California Gnatcatcher lives in lowland coastal sage shrubs from Baja California to Ventura County on the coast of California. It lives primarily on insects and spiders found on twigs and foliage.

The Audubon Society labeled it a species of "special concern" in 1982 when it was still believed it was a subspecies of the Black-tailed Gnatcatcher. The northern California subspecies of the California Gnatcatcher was designated "Endangered" in 1991.



Common Name: San Clemente Island Sage Sparrow
Scientific Name: *Amphispiza belli clementeae*

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

Habitat: North America. San Clemente Island (Part of the Channel Islands off the coast of California)

Status: Threatened.

Global

Population: unknown. The sparrow was listed as threatened in 1977 because of

its limited distribution and habitat destruction by introduced goats and pigs. In addition, feral cats preyed upon the birds and fuel-modification to prevent fires destroyed their habitat. It was also found that human disturbance played a big role in nesting success. The more disturbed the area, the smaller the number of sparrows.

Provisions taken to protect nesting areas as well as the removal of pigs, goats and cats have resulted in a stabilization of the current populations.

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

Breeding: The Sage Sparrow breeds in sagebrush over 90% of the time and is therefore considered an "obligate" species; that is to say, the Sage Sparrow is obliged to breed in this habitat type. It breeds in large patches brush, with a minimum requirement of about 320 acres of continuous habitat. Unlike its mainland relatives that live in sagebrush habitats, the San Clemente Island sage sparrow has adapted to live in boxthorn, cactus, and saltbush. Nests are typically placed low to the ground in a boxthorn shrub and use grasses and leaf litter as a canopy.

Cool Facts: The majority of the sparrows live on the western shore and northern end of the island.



Common Name: Golden-winged Warbler
Scientific Name: *Vermivora chrysoptera*

Size: 4.75 inches (12cm)

Habitat: North and South America; Northeastern United States to the Yucatan Peninsula and South America. Breeds in open deciduous woodland, secondary growth, brushy pastures and bogs, apparently favoring a particular stage in woodland succession. When the habitat passes this stage, birds move on. All kinds of woodland and scrub are used during migration, and birds generally winter in secondary growth forest or forest edge with a good understory.



Status: Near Threatened.

Global Population:

210,000 Mature individuals. Due to the expansion of the Blue-winged Warbler territory, which competes for the same resources as the Golden-winged Warbler, its numbers have declined. Breeding between the species has created a hybridized warbler known as the Brewster's or Lawrence's Warbler.

The habitat of the Golden-winged warbler is also threatened by development and deforestation. There is current pressure from certain sectors and Federal level to open its remaining habitat to surface mines and clear-cut programs. This will ensure that this bird becomes extinct in the next few decades.

Diet: Insects and spiders it finds among the foliage and dead leaves.

Breeding: The well-hidden nest is usually on or close to the ground, and breeding takes place in May and June. It nests in clumps of grass or at the base of trees, making a rough-looking cup of bark and grasses

Cool Facts: The Golden-winged Warbler is found throughout the Northeastern United States in the summers and winters in the Yucatan Peninsula to the northern portions of South America.

Common Name: Purple Martin
Scientific Name: *Progne subis*

Size: 8 inches (20cm)

Habitat: North America; throughout the United States except the west coast.

Status: Least Concern. **Global Population:** 11,000,000 mature individuals. Once listed as “Vulnerable”, the Purple Martin has been down listed to “Least Concern” thanks to “Martin House” projects.



Diet: Mosquitoes and other flying insects.

Breeding: It nests in open country—rural areas and especially around water. It builds its nest from leaves, grass, feathers and mud in small cavities and tree snags. It also favors man-made “Martin Houses” on the Eastern portion of its range.

Cool Facts: The Purple Martin is the largest swallow found in the

Americas. It was at one time found throughout the United States, but now is now rarely found on the west coast. It spends summers in North America and winters in South America.

It eats insects primarily in the air, though has been known to eat ants on the ground. Some towns have actually installed “Martin Houses” as their insect control measures.

Its decline has been due to forestry policies of eliminating standing dead trees (which provide nesting areas). Also, there is competition for nesting sites from two introduced birds, the House Sparrow and the European Starling. Starlings have been especially aggressive. The solution have been “Martin Houses” which are too small for the starlings to enter, allowing the Purple martin to stage a comeback.

Common Name: Loggerhead Shrike
Scientific Name: *Lanius ludovicianus*

Size: 9 inches (23cm)

Habitat: North American; found from Canada to Mexico. It inhabits ecotones, grasslands, and other open habitats and feeds on a variety of invertebrate and vertebrate prey.

Status: Vulnerable. **Global Population:** 4,200,000 Mature individuals. Its decline is attributable to habitat destruction and pesticides. It is “Blue Listed” on the Channel Islands and in California. There have been appreciable drops in population east of the Mississippi River as well. It became “Threatened” in Canada in 1986 and “Endangered” in 1991. It is currently under evaluation of listing in the United States.

Diet: Large insects, but can include small birds and mice.



Breeding: These are monogamous birds and pairs will raise 2-3 broods of 4-8 eggs each during each nesting season. Both the male and female Shrikes into a cup shape construct its nest of woven twigs and strips of bark. The nest is found on a large branch of a tree or shrub from three to thirty feet off the ground.

Cool Facts: The Loggerhead Shrike is found throughout North America. The Shrike’s diet consists mostly of large insects, but can include small birds and mice. It makes its kills by a sharp blow from its beak. This unusual form of attack is because it lacks the sharp talons found on raptors. The food is then cached on barbed wire or thorned shrubs, earning the shrike the nickname “butcher bird”.

Acknowledgments:

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.

I also want to thank Sandy Castle for her Renderosity article and interview which help bring the environmental focus of Songbird ReMix to the public's attention.

Also a special thanks to my reference sources, "The Sibley's Guide to Birds", Cornell Lab of Ornithology website, the National Audubon Society, Wikipedia and various other birding websites.



**Shirts, jerseys, sweatshirts,
prints, cards, posters, pillows,
coffee cups, calendars & more**

