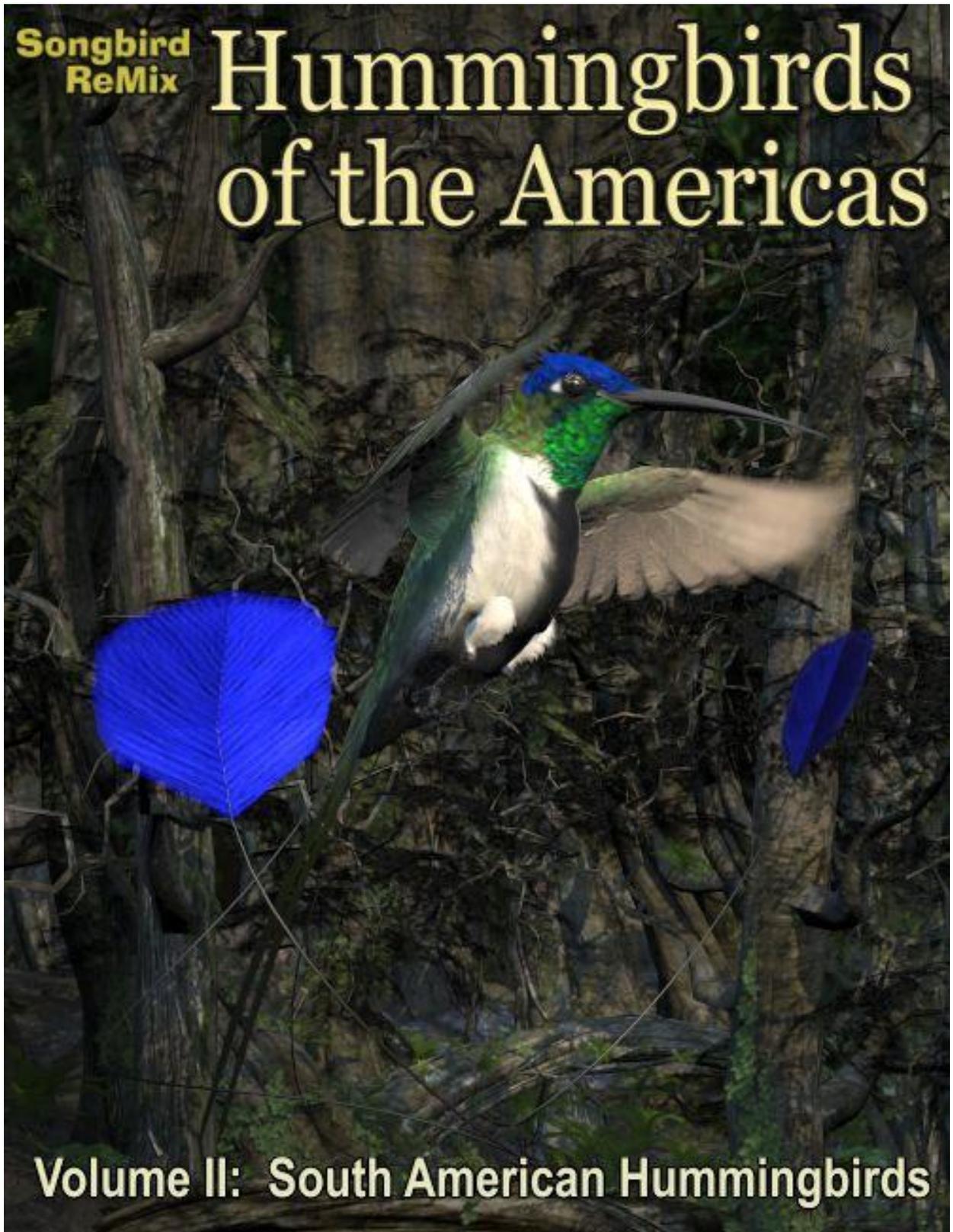


**Songbird
ReMix**

Hummingbirds of the Americas



Volume II: South American Hummingbirds

Avian Models for 3D Applications

by Ken Gilliland

Songbird ReMix
HUMMINGBIRDS OF THE AMERICAS VOLUME II

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 – Hummingbirds of South America

List of Species	9
General Notes about Hummingbirds	10
Lancebills, Barbthroats & Hermits	
Reddish Hermit	12
Sicklebills, Sabrewings & Jacobins	
Buff-tailed Sicklebill	13
Violet Sabrewing	15
Swallow-tailed Hummingbird	16
Topazes & Mangoes	
Ruby Topaz	18
Coquettes & Thorntails	
Frisled Coquette	19
Rufous-crested Coquette	20
Emeralds, Sapphires, Brilliants, Hillstars & Incas	
Sword-billed Hummingbird	21
Black Inca	22
Starfrontlets, Sunangels & Firecrowns	
Royal Sunangel	24
Juan Fernández Firecrown	26
Pufflegs	
Colorful Puffleg	28
Trainbearers, Thornbills, Cornets, Starthroats & Woodstars	
Marvelous Spatuletail	30
Bearded Helmetcrest	32
Resources, Credits and Thanks	33
Wing Motion Blurs Tutorials	34
Scaling Alters Bump/Displacement and Rendering Tips for 3D Applications	38

Copyrighted 2011 by Ken Gilliland songbirdremix.com

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

Songbird ReMix

HUMMINGBIRDS OF THE AMERICAS VOLUME II

Introduction

“Hummingbirds of the Americas” adds the smallest of songbirds to the Songbird ReMix series. While endemic to the Americas, they have been adopted worldwide as one of the most popular and beloved songbirds. Hummingbirds have been a staple in both ancient and modern cultures as a sign of vigor, energy, and skill.

This collection focuses on hummingbirds found throughout South America, from the feeders of the Rio de Janeiro suburbs to the tops of the Andes.

Included is the Sword-billed hummingbird, whose bill is actually longer than the rest of its body and the Bearded Helmetcrest which has one of the smallest bills of the hummingbird family. There are also a few rare and endangered species such as the Juan Fernández Firecrown (endemic to Robinson Crusoe’s island) and the Peruvian Marvelous Spatuletail with its tennis racket looking tail feathers.

Whether you choose to create art with a message or you are simply looking for realistic and attractive birds for your imagery, this package will easily fulfill those needs.

Overview and Use

Select **Figures** in the Runtime folder then go to the folder that contains the **Songbird ReMix**. 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

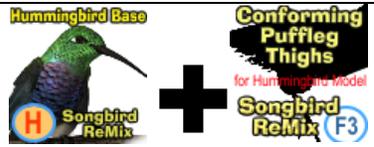
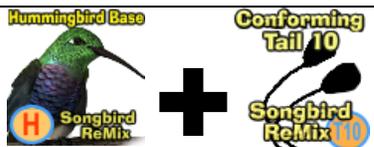
- **Bird Base Models included in this volume:**
 - **Songbird ReMix3 Hummingbird Base** - All bird species included in this volume use this model.
 - **Conforming Parts** (All Conforming Crests have alpha-numeric icons in the lower right corners such as “C02”, “C06” or “T4”. This corresponds with characters 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 Crests 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 “Stretch” you must also set its counterpart in the head

part of the Conforming Crest; “MatchStretch”. So Now let’s look at what’s included in Conforming Parts:

- **Feet 03.** This model is used with the Colorful Puffleg character. There is a morph the **BODY** section and is identified with a “**F03**” icon.
- **Tail 10.** This model is used with the Marvelous Spatuletail character. All control morphs are found in the **BODY** section. It is identified with the “**T10**” icon. **NOTE:** Poser 5-7 Users must apply a fix in the BODY section to straighten tail once it’s conformed due to issues within those versions.
-

Quick Reference Guide

When using Poser or when going the route of using DAZ Studio’s “Create Your Own” Base Models, here’s a chart to help you figure out what model goes with what character. Load the appropriate base model and apply the character settings.

Load Model(s)	To Create... (apply MAT/MOR files)
	<ul style="list-style-type: none"> • Reddish Hermit • Buff-tailed Sicklebill • Violet Sabrewing • Swallow-tailed Hummingbird • Ruby Topaz • Frilled Coquette • Rufous-crested Coquette • Sword-billed Hummingbird • Black Inca • Royal Sunangel • Juan Fernández Firecrown • Bearded Helmetcrest
	<ul style="list-style-type: none"> • Colorful Puffleg
	<ul style="list-style-type: none"> • Marvelous Spatuletail

Creating a Songbird ReMix Bird

Here's a step by step to create a bird:

1. Choose what you want to load. For this example, we'll create an "Hummingbird".
2. Load Poser and select **FIGURES** and the Songbird ReMix folder. Because the "Black Cap" uses the "Hummingbird" base model we'll load that.
3. Go to the **POSES** folder and select the appropriate Songbird Remix library. In this case, we'll select one of the "Hummingbird" species poses and apply it to our loaded Songbird ReMix base model. This pose contains morph and texture settings to turn the generic model into an "Hummingbird". As explained earlier in the Character Base Section, the Alphabet letter appearing on the base of a bird's Icon refers to what model it expects to adhere to. Thus the "Parrot" character is going to want the <P> Parrot Base Songbird ReMix Model. Birds with no icon usually want the Songbird Base.

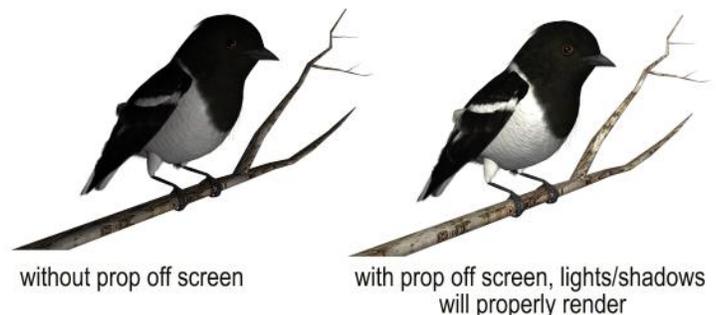
Displacement in Poser 5+

In Poser, several settings will help to bring out the best in this bird set.

Under "Render Settings" (CTRL+Y) make sure you check "**Use Displacement Maps**" and (in some rare cases) the "**Remove Backfacing Polys**" boxes. In some poses, the wing morphs will expose backfacing polygons which tend to render black. Clicking the "Remove Backfacing Polys" fixes this.

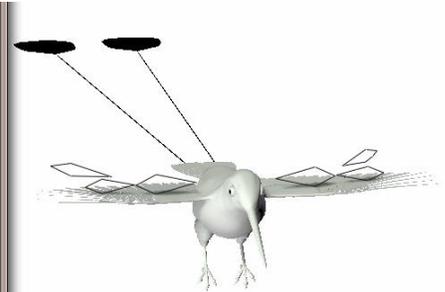
Scaling and Square Shadows in Poser

All the birds in this package have to scaled proportionally to DAZ 3D's Victoria and Michael models. The smallest of the included birds (such as the Robins) **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.

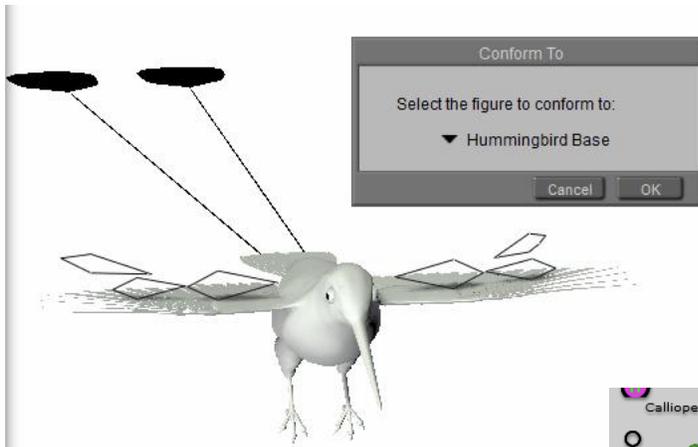


How to build a Songbird ReMix Character with a Conforming Part in Poser

1. In the Figures folder load a Bird base Model. Then load the appropriate conforming part for the bird you're trying to create.

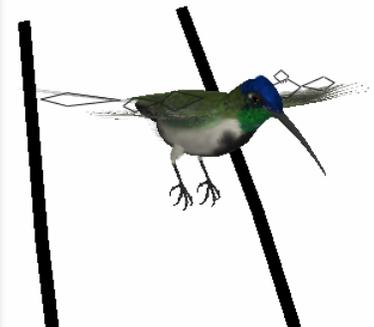
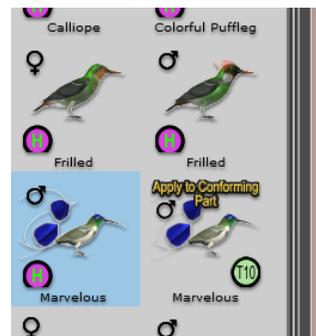


2. **Conform it** to the bird base model.

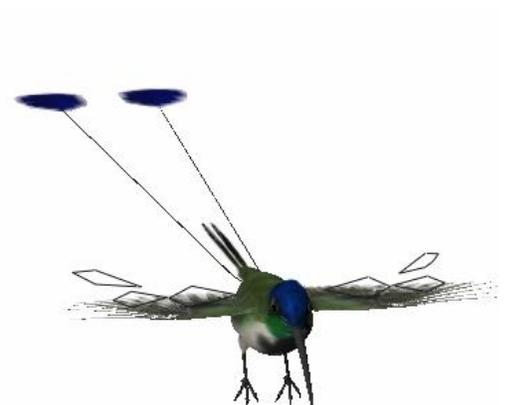


3. Select the **Base Model** and go to the **POSES** folder. Select and apply the appropriate Character/Material pose setting for the bird you're creating.

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)

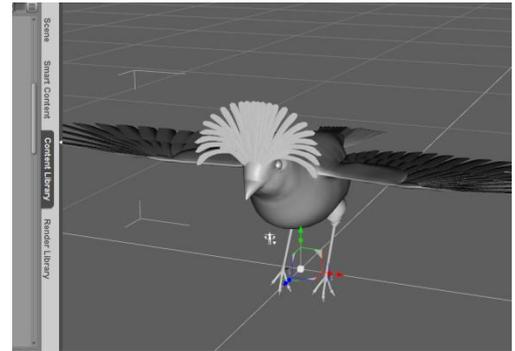


How to build a Songbird ReMix Character with a

Conforming Crest in DAZ Studio

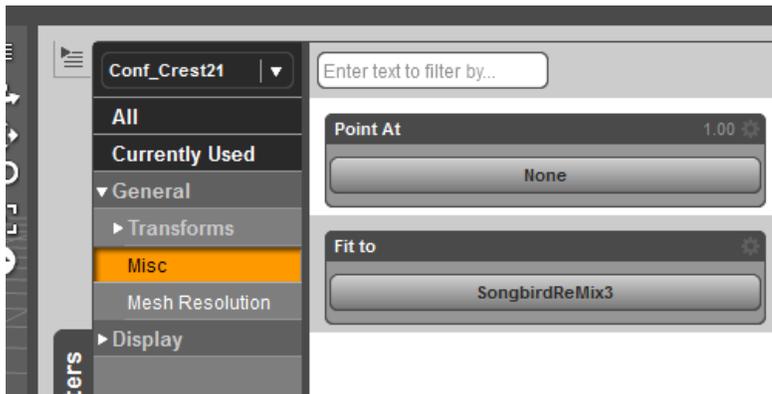
In the **Runtime** folder, select **Figures** and load the Songbird ReMix Model and the appropriate Conforming Crest in Studio. Select the Conforming Crest by selecting on the screen or in the **Scene** Tab.

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.

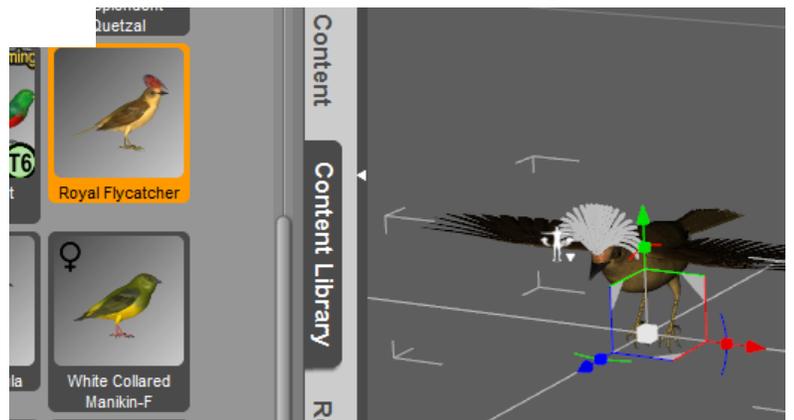
Select the Studio **Content** Folder and go to the **Animals : SBRM : !CreateYour Own : Characters** folder and select the appropriate Songbird Remix library. Apply the Character



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.



Field Guide

South American Hummingbirds

Lancebills, Barbthroats & Hermits

Reddish Hermit

Sicklebills, Sabrewings & Jacobins

Buff-tailed Sicklebill

Violet Sabrewing

Swallow-tailed Hummingbird

Topazes & Mangoes

Ruby Topaz

Coquettes & Thorntails

Frilled Coquette

Rufous-crested Coquette

Emeralds, Sapphires, Brilliants, Hillstars & Incas

Sword-billed Hummingbird

Black Inca

Starfrontlets, Sunangels & Firecrowns

Royal Sunangel

Juan Fernández Firecrown

Pufflegs

Colorful Puffleg

Trainbearers, Thornbills, Cornets, Starthroats & Woodstars

Marvelous Spatuletail

Bearded Helmetcrest

Hummingbird Facts

Hummingbirds comprise the *Phaethornithinae* and *Trochilinae* families. There are 356 species of hummingbird with 51 species currently having an “endangered status”. They are among the smallest of birds, most species measuring in the 3–5 inches (7.5–13 cm) range. The smallest living bird species is the Bee Hummingbird (2 inches (5 cm)).

They can hover in mid-air by rapidly flapping their wings 12–90 times per second (depending on the species and can fly at speeds exceeding 34 mph (54 km/h). Hummingbirds are the only birds in the world that can fly backwards, but most are incapable of walking or hopping.

At rest, their heart beats an average of 480 beats per minute. On cold nights they go into torpor, and the heart rate drops to 45–180 beats per minute. Breathing rate when resting is 245 breaths per minute at 91 degrees Fahrenheit; this rises to 420 breaths per minute when the temperature drops to 55 degrees Fahrenheit. Torpid hummingbirds breathe sporadically.

With most hummingbirds, females average larger than males, and young birds average larger than their parents.

Hummingbirds consume about 1.6 to 1.7 times their body weight in nectar each day. Because hummingbirds sip from so many different flowers on any given day, they are integral to the process of pollination.

Their English name derives from the characteristic humming sound made by their rapid wing beats.

A group of hummingbirds has many collective nouns, including a “bouquet”, “glittering”, “hover”, “shimmer”, and “tune” of hummingbirds.



Hummingbirds play a strong role in Mesoamerican cultures. In Peru, one of the Nazca Lines depicts a hummingbird. The Nazca “drew” several hundred simple but huge curvilinear animal and human figures by this

technique. In total, the earthwork project is huge and complex: the area encompassing the lines is nearly 500 square kilometers (190 sq. mi), and the largest figures can span nearly 270 meters (890 ft.). The lines were made by removing the reddish-brown iron oxide-coated pebbles that cover the surface of the Nazca desert. When the gravel is removed, it leaves a shallow trough

ranging from 10 centimeters (3.9 in) to 15 centimeters (5.9 in) deep and the light-colored earth beneath shows in lines of sharply contrasting color and tone. This sub-layer contains high amounts of lime which with the morning mist hardens forming a protective layer that shields the lines from winds therefore preventing erosion. The extremely dry, windless, and constant climate of the Nazca region has preserved the lines well.

Aztecs wore hummingbird talismans, the talismans being representations as well as actual hummingbird fetishes formed from parts of real hummingbirds: emblematic for their vigor, energy, and propensity to do work along with their sharp beaks that mimic instruments of weaponry, bloodletting, penetration, and intimacy.

The Aztec god Huitzilopochtli is often depicted as a hummingbird. The Nahuatl word huitzil (hummingbird) is an onomatopoeic word derived from the sounds of the hummingbird's wingbeats and zooming flight.

Hummingbirds captured the imagination of European settlers as well and by the middle of the nineteenth century there was a large market for hummingbird skins in Europe. Sadly, hundreds of thousands of hummingbirds were killed in South America and shipped to markets in London and other cities throughout Europe, where they were purchased for collections, to make artificial flowers, and other ornamental uses.

American bird artist, John James Audubon, referred to hummingbirds as "glittering garments of the rainbow." Emily Dickinson, after seeing a Ruby-Throated Hummingbird in her garden, she wrote:

*He never stops, but slackens
Above the Ripest Rose --
Partakes without alighting
And praises as he goes,
Till every spice is tasted.*

What's a Gorget?

A gorget is a patch of colored feathers found on the throat or upper breast of male hummingbirds. Gorgets are typically iridescent. The term is derived from the "gorget" used in military armor to protect the throat.

Feather wear and exposure to the sun can produce changes in the apparent color of iridescent gorget feathers. For example, fresh gorget feathers on the Anna's Hummingbird are rose red; these fade to a coppery bronzy color with age. A number of social functions have been suggested for the gorget. It may aid in mate attraction or in resource defense. It may signal social status or allow species to identify conspecifics. While gorgets are typically found only on male hummingbirds, in rare instances, females may have them; they appear to serve primarily for signaling threats.

Common Name: Reddish Hermit
Scientific Name: *Phaethornis ruber*

Size: 3 inches (7.5 cm)

Habitat: South America; northern and central South America, in the entire Amazon Basin to the foothill drainages of the eastern Andes slope. The Caribbean and Atlantic coasts of the entire Guianas are included in the northeast; in the southeast, the southeastern limit is the eastern banks of the Tocantins River in the Araguaia-Tocantins River system, usually included as part of the Amazon Basin. Found in subtropical or tropical moist lowland forests, subtropical or tropical swamps, and heavily degraded former forest; restricted to the edge and undergrowth of forest, woodland and second growth.

Status: Least Concern.

Global population: Unknown.

Diet: Nectar from flowers and some insects.

Nesting: Hermits usually form leks and congregate on traditional display grounds, where females visit to choose a mate. However, male hermits are less aggressively territorial than other male hummingbirds.



Cool Facts: It is the smallest of the hermits. Hermits do not show the strong sexual dimorphism usually associated with hummingbirds. Male has a greenish band across the throat and is more vibrant than the female.

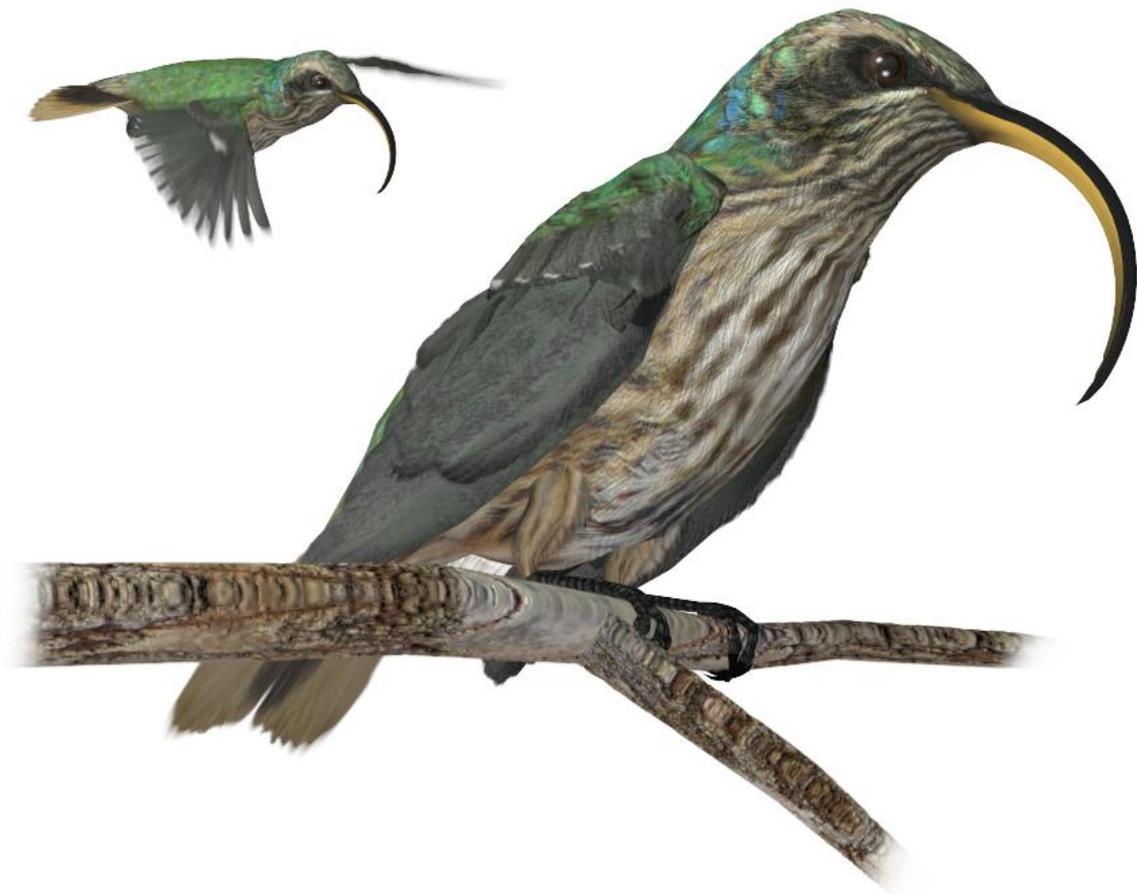
Common Name: Buff-tailed Sicklebill
Scientific Name: *Eutoxeres condamini*

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

Habitat: South America; found in the lower Andes and adjacent west Amazonian lowlands from southern Colombia and northern Ecuador to Peru and Bolivia.

It is restricted to the undergrowth of humid forested and wooded habitats, recorded from 590-10,800 ft. (180-3,300 m). It will tolerate more habitat disturbance than its congener, regularly occurring in plantations, bamboo stands and open habitat where populations are healthy, though it still prefers natural vegetation.

Status: Least Concern. **Global Population:** Unknown amount of mature individuals. The global population size has not been quantified, but this species is described as 'uncommon'.



Diet: Flower nectar, the peculiar bill is a direct adaptation to the shape of certain flowers, namely of the genera *Centropogon* and *Heliconia*. It feeds mainly by trap-lining (the practice of visiting a circuit of specific plants, trees, or other feeding sites, much as trappers check their lines of traps.) In addition to nectar, it will also catch small arthropods by bark gleaning (the practice of hunting /gleaning insects from tree surfaces) in mid-levels of the tree canopy.

Breeding: Its upper parts are iridescent dull greenish, while the under parts are whitish, densely streaked with dusky brown. The neck-side has a relatively faint blue patch. The tips of the rectrices (tail feathers) are white, and there is a naked stripe on top of the head (but this is usually concealed). The most conspicuous features, however, are those the common name refers to: the bill is strongly decurved, and the outer three rectrices on each side are deep buff, best visible from below.

Immature birds have light-tipped remiges (pinions), hardly any blue on the neck, and lack the naked crown stripe. Hatchlings have black skin and grey down. Females are 20% smaller than males.

The two white eggs are laid in a nest which is attached to the underside of a leaf, a few yards/meters above ground. Only the female incubates; the incubation period is 16–18 days and the young fledge 22–24 days after hatching. They start to breed when they are 1–2 years old.

Cool Facts: There are two subspecies which are not very distinct and almost form a continuous cline, with an extensive intergradation zone in northern Peru:

- *Eutoxeres condamini condamini* (Bourcier, 1851) – Northern Buff-tailed Sicklebill from Colombia and Ecuador. Bill longer, lower belly much streaked.
- *Eutoxeres condamini gracilis* (Berlepsch & Stolzmann, 1902) – Southern Buff-tailed Sicklebill Central Peru to Bolivia. Bill shorter, lower belly less streaked.

While females remain silent, males will sing daily 6 months out of the year.

Common Name: Violet Sabrewing

Scientific Name: *Campylopterus hemileucurus*

Size: 5.9 inches (15 cm)

Habitat: Central America; native to southern Mexico and Central America as far south as Costa Rica and western Panama. It is a species of the understory and edges of mountain forests, especially near streams.

Status: Least concern. **Global Population:** 50,000 - 499,999 Mature individuals.

Diet: Flower nectar, taken mainly from undergrowth flowers with Heliconias and bananas as favorites; also some insects.

Breeding: The adult male is deep violet, with a dark green back and wing coverts. The shafts of the male's outer primary flight feathers are thickened and flattened to give the distinctive feature which gives the sabrewings their English and scientific names. The three outer pairs of feathers of the otherwise black tail are white; this gives rise to the scientific species name, *hemileucurus* translating as "half-white tail".



The female Violet Sabrewing lays its two white eggs in a relatively large cup nest on a low horizontal branch, usually over a stream.

Cool Facts: It is the largest hummingbird found outside of South America and the largest sabrewing. The call of the Violet Sabrewing is a sharp twitter, and the song of the male, given at leks of up to ten males, is a high-pitched piercing *cheep tsew cheep tik-tik tsew*.

Common Name: Swallow-tailed Hummingbird

Scientific Name: *Eupetomena macroura*

Size: 6-6.5 inches (15-17 cm); nearly half of this measurement is tail

Habitat: South America; found mainly in east-central South America (the Guianas, Brazil, Paraguay, east Peru and northeast Bolivia).

It occurs in virtually any semi-open habitat; even gardens and parks within major cities such as Rio de Janeiro and São Paulo. It avoids the interior of humid forest, but does occur in openings or along the edge; the Swallow-tailed Hummingbird is most common among savanna-like vegetation. It is generally a species of lowlands, but occurs locally up to 1,500 m (4,900 ft). Not a true migrant, some populations move north or south a

short distance in the dry winter months.

Status:

Vulnerable.

Global

Population:

Unknown amount of mature individuals. The global population size has not been quantified, but this species is described as 'fairly common'

Diet: Flower nectar, also some insects.



Breeding: Its plumage is brilliant iridescent green, with a blue head, upper chest, tail and vent. The tiny white spot behind the eye, common among hummingbirds, is often not visible in this species. The remiges are blackish-brown. It has a slightly decurved medium-long black bill. The sexes are very similar, but females are about one-fourth smaller and slightly duller than males on average. Immature birds appear like females, but their heads are particularly dull and brownish-tinged.

Across its range, it can be found to engage in some behavior related to reproduction almost year-round. In courtship, the male hovers in front of the sitting female, chases her through the air and the two may perform a 'zigzag flight' together; the first activity can be seen throughout the day except in the hottest hours around noon, while courtship chases are most frequent at dusk.

Birds have been seen carrying nesting material between July and September and in December. The nest is a cup-shaped structure lined with soft plant fibers and clad on the outside with lichen and mosses, held together with spider webs. It is placed on a horizontal twig in smallish trees, e.g. *Cochlospermum*, typically below 3 m (10 ft), but occasionally as high as 15 m (50 ft) above the ground. The clutch consist of two white eggs and like in other hummingbirds, only the female takes care of the eggs and young. The chicks hatch after 15–16 days and fledge after 22-24 days.

Cool Facts: There are 5 subspecies currently recognized, the last one of which was described only in 1988. They vary mainly in the hue of the plumage, with the blue sections ranging from green-tinged blue over ultramarine to deep royal blue, and the green sections ranging from golden bronzy-green over deep bottle-green to blue-tinged green. The nominate subspecies and *E. m. simoni* occur over a wide range, while the others are more localized endemics:

- *Eupetomena macroura macroura* (Gmelin, 1788) – Guianas; Amapá, N and S Pará, Mato Grosso, SW Goiás and Minas Gerais, São Paulo, Santa Catarina and Paraná states in Brazil; Paraguay. Intergrades with *E. m. simoni* in Goiás and Minas Gerais states. Blue parts ultramarine, green parts deep bottle-green
- *Eupetomena macroura hirundo* (Gould, 1875) – E Peru. Blue quite dull, tail less deeply forked.
- *Eupetomena macroura simoni* (Hellmayr, 1929) – NE Brazil from S Maranhão, Piauí, Ceará, Pernambuco and Bahia to central Goiás and Minas Gerais. The bluest subspecies; blue parts dark royal blue, green parts blue-tinged.
- *Eupetomena macroura bolivianus* (Zimmer, 1950) – NE Bolivia (Beni Department). The greenest subspecies; head more green than blue, green parts pure bright green.
- *Eupetomena macroura cyanoviridis* (Grantsau, 1988) – Serra do Mar in S São Paulo state. Another very green subspecies; blue parts green-tinged, green parts golden bronzy green.

Common Name: Ruby Topaz

Scientific Name: *Chrysolampis mosquitus*

Size: 3.2 inches (8.1 cm)

Habitat: South America; breeds in the Lesser Antilles and tropical northern South America from Colombia, Venezuela and the Guyanas, south to central Brazil and northern Bolivia; also from Colombia into southern Panama. It is a seasonal migrant.

This hummingbird inhabits open country, gardens and cultivation.

Status: Least Concern. **Global Population:** Unknown amount of mature individuals. The global population size has not been quantified, but this species is described as 'common'.



Diet: Flower nectar, also some insects.

Breeding: The male has green-glossed dark brown upper parts. The crown and nape are glossy red, and the throat and breast are brilliant golden-orange. The rest of the under-parts are brown, and the chestnut tail is tipped black. The male often looks very dark, until he turns and the brilliant colors flash in the sunlight.

The female Ruby-topaz Hummingbird has bronze-green upper parts and pale grey under

parts. The tail is chestnut with a dark subterminal band and a white tip. Females from Trinidad typically have a greenish throat-streak (it may appear dark), but this is not common elsewhere in its range. Juvenile females are similar to adult females, but with a white-tipped dusky-brown tail. Juvenile males resemble the juvenile female, but with a variable amount of iridescent orange to the throat.

The female Ruby-topaz Hummingbird lays two eggs in a tiny cup nest in the fork of a low branch. Incubation takes 16 days, and fledging another 18 or 19.

Cool Facts: It is the only member of the genus *Chrysolampis*. Compared to most other hummingbirds, the almost straight, black bill is relatively short.

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: Rufous-crested Coquette

Scientific Name: *Lophornis delattrei*

Size: 2.75 inches (7 cm)

Habitat: South America; Bolivia, Colombia, Costa Rica, Ecuador, Panama, and Peru.

Its natural habitats are subtropical or tropical moist lowland forests, subtropical or tropical moist montane forests, and heavily degraded former forest.

Status: Least Concern? **Global Population:** Unknown amount of mature individuals. The global population size has not been quantified, but this species is described as 'rare'.

Diet: Flower nectar, also some insects.

Breeding: Only males have the orange Crest.

Nests are small cups made of spider web silk and other materials attached to a small branch.

Cool Facts:

Very little is known about this species. It is believed to be altitudinally migratory.

These coquettes have been observed spending very little time in the forest and instead feed on low flowering plants around shrubby clearings, roadsides, or the forest edge.

Their flight is rather beelike and individuals tend to favor high perches.



Common Name: Sword-billed Hummingbird

Scientific Name: *Ensifera ensifera*

Size: 8.6-11.8 inches (22-30 cm); from base of the bill to the tail tip, this species is 14 cm (5.5 in) long, not counting the 8-16 cm bill.

Habitat: South America; found in Bolivia, Colombia, Ecuador, Peru and Venezuela

Status: Least concern. **Global Population:** Unknown amount of mature individuals. The population is suspected to be stable in the absence of evidence for any declines or substantial threats.

Diet: Flower nectar; also some insects.

Breeding: Male and females are similar; females, as do most hummingbirds, have less iridescent feathers on the throat and head.

Nests are tiny cups of foliage and green moss bound together with cobwebs. Two eggs will be deposited into these nests, which may be situated high or low, in a tree or shrub, and even dangling from an overhead support.

Cool Facts: It is the sole member of the genus *Ensifera* and has the longest bill of any of the hummingbird species. *Ensifera* means “crossed swords”.

It is the only species of bird to have a bill as long as the rest of its body. This adaptation is to feed on flowers with long corollas such as *Passiflora mixta*.

Because of the length of the beak, this hummingbird has to groom itself with its feet. When the sword-billed hummingbird perches, it holds its beak almost vertical, thus reducing the strain on its neck.



Common Name: Black Inca

Scientific Name: *Coeligena prunellei*

Size: 4.5 inches (11 cm)

Habitat: South America; endemic to Colombia where it occurs on the west slope of the East Andes (Santander, Boyacá, Cundinamarca) and on both the western and eastern slopes of Serranía de los Yariguíes.

This is principally a species found in mature humid montane forests, especially areas with a predominance of oak (*Quercus humboldti* and *Trigonobalanus excelsa*). Sometimes found in open parkland and riverine gallery forest but they rely on the



persistence of mature oak forests.

Status: Vulnerable. **Global Population:** 2,500-9,999 mature individuals. The upper Magdalena valley and the Sagamosa drainage have been undergoing habitat loss, fragmentation and alteration since the 17th century. The primary causes are human settlement and urbanization, with associated logging and agricultural land-use including

coffee and, to a lesser extent, plantain and sugarcane plantations and pastures. As a result, tiny remnant forest patches are restricted to steep slopes and along streams, with the significant exception of Guanentá-Alto Río Fonce⁶. However, there are still extensive forests that are poorly known to ornithology in the Serranía de las Quinchas, west Boyacá. It is protected at Guanentá-Alto Río Fonce Fauna and Flora Sanctuary.

Diet: Flower nectar, small insects, and tree sap.

Breeding: Dark hummingbird with long, needle-like bill. Mainly black with conspicuous white patch on each side of chest and postocular spot. Glittering blue shoulders. Small greenish-blue throat patch. White-edged undertail-coverts. Black and forked tail. Long, slender, straight black bill. Rosy-red legs. Female slightly duller overall.

Nesting is done in a small cup made of plant down, bark and cobwebs. The female lays 2 elliptical white eggs, which will incubate for 15-18 days. This hummingbird nests all year round.

Cool Facts: It was formerly classified as Endangered by the IUCN. But new research has shown it to be not as rare as it was believed. Consequently, it was down listed to Vulnerable in 2008.

Common Name: Royal Sunangel
Scientific Name: *Heliangelus regalis*

Size: 4.3-4.7 inches (11-12 cm)

Habitat: South America; Ecuador and Peru. Found in at least four areas in northern Peru (above San José de Lourdes in the Cordillera del Cóndor, Cajamarca; north-east of Jirillo, San Martín; Abra Patricia, San Martín; and north of the village of San Cristobal in the south Cordillera de Colán, Amazonas). It has also recently been reported from the Cordillera Azul, and further surveys may find it on Ecuadorian parts of the Cordillera del Cóndor and elsewhere in the Cordillera de Colán.

The Royal Sunangel inhabits subtropical elfin forest edge and shrubbery, often in areas of regular fire disturbance. They are found at altitudes of 1.450-2.200 m.

Status: Endangered. **Global Population:** 2,500-9,999 mature individuals and decreasing. Timberline habitats in the Andes have been diminishing since the arrival of



humans thousands of years ago, primarily through the use of fire. Regular burning of páramo grassland adjacent to elfin forest (to promote the growth of fresh shoots for livestock) has lowered the treeline by several hundred meters, and continues to destroy large areas of the species' habitat. Even the large areas of relatively undisturbed habitat that remain are increasingly under threat. Most forest in the southern Cordillera de Colán has already gone, with remnants being rapidly cleared for cash-crops, particularly marijuana and coffee. The proximity of cultivated land to the San José de Lourdes site suggests that other types of agriculture represent a potential threat.

Diet: Flower nectar and insects.

Breeding: Strikingly plumaged, sexually dichromatic hummingbird. Male entirely deep blue, with iridescence strongest on forecrown and long, deeply forked tail. Female has dark green upper parts, green-spotted cinnamon under parts with a broad, pale breast-band, and a blue-black, shallow-forked tail.

The Royal Sunangel breeds in July-September. The female lays 2 eggs, which she incubates alone for 16-19 days. Chicks fledge 23-26 days after hatching.

Cool Facts: Different sexes, different tastes... Males seem to feed mostly on *Brachyotum quinquenerve*, and females feed mainly from ericaceous plants.

The Royal Sunangel and other threatened birds are protected at Abra Patricia in the Peruvian Andes, where the American Bird Conservancy and its partner ECOAN are protecting approximately 24,000 acres. This hummingbird is frequently seen near the head of the "Royal Sunangel Trail" close to the Owlet Lodge in the reserve.

Common Name: Juan Fernández Firecrown
Scientific Name: *Sephanoides fernandensis*

Size: 3.9 - 4.7 inches (10-12 cm)

Habitat: South America; endemic to Isla Róbinson Crusoe, one of a three-island archipelago belonging to Chile, and is non-migratory. It inhabits remnant native forests, on which it appears to be completely dependent for breeding (there is a strong negative correlation between the presence of non-native vegetation and the location of nests), but also utilizes non-native plant communities during the non-breeding season, feeding on introduced plants, such as *Eucalyptus globulus* and garden flowers.



Status: Critically Endangered. **Global Population:** 2,500 - 3,000 mature individuals and decreasing. The clearance and degradation of vegetation by humans since the late 16th century and the impacts of herbivorous mammals (especially rabbits introduced in the 1930s) has limited the availability, quantity and quality of food resources. Habitat quality is also being degraded by the

spread and dominance of invasive plants, most prominently by elm-leaf blackberry (*Rubus ulmifolius*), maqui (*Aristotelia chilensis*) and murtilla (*Ugni molinae*). Introduced predators, such as rats, cats and coatis, have been implicated in the mortality of some birds and may be responsible in part for its decline. Cats have been documented killing firecrowns in town during the non-breeding season. As is true with many island species, firecrowns are easily approached, thus rendering them highly susceptible to predation. Additionally, during its nocturnal torpor, this species is presumed to be very vulnerable to predation. Males are able to defend territories with highly productive resources, but the smaller females are possibly being indirectly outcompeted by the smaller Green-

backed Firecrown (*S. sephaniodes*). Preliminary analyses of the population have revealed some genetic variation, but significantly less than in *S. sephaniodes*

Diet: Flower nectar, often taken from the flowers of native Juan Bueno (*Rhaphithamnus venustus*) and *Dendroseris litoralis*. It also feeds on introduced Eucalyptus and Abutilon. Both genders defend their foraging territories. This usage of non-native plants is especially common in the austral autumn and winter when only one native species (*Rhaphithamnus venustus*) flowers. This hummingbird is also insectivorous and will take small insects from leaves or in flight.

Breeding: The male is 12 cm long and weighs 11 g. Its color is mostly cinnamon orange, excepting dark grey wings, black bill, and iridescent green-gold crown.

The female is 10 cm long and weighs 7 g. Its underparts are white with a dappling of very small green and black areas; the crown is iridescent blue, and upper parts are blue-green. The female lays two white eggs in a small cup-shaped nest typically 3–4 m above ground, nearly always in *Luma apiculata*.

The sex ratio is heavily skewed, with three males to every female. It may experience competition with *S. sephaniodes*, especially over access to *Dendroseris litoralis* flowers post-breeding.

Cool Facts: This bird is endemic to the island where Alexander Selkirk was marooned in the early 1700s. His story was later the basis for the novel "Robinson Crusoe" by Daniel Defoe. The Juan Fernández Islands were designated as a national park in 1935 (protected from 1967) and an UNESCO Biosphere Reserve in 1977. The Chilean government began restoring habitat in 1997, and the islands have been nominated for World Heritage listing. Conservation is being led by the Juan Fernández Islands Conservancy, with support from the American Bird Conservancy, Conservation International, the Hummingbird Society, the Jeniam Foundation, and the Royal Society for the Protection of Birds. Key activities which have already taken place are: the hiring of two island residents as project coordinators; control of invasive plants and herbivores (including volunteer programs for island residents to participate in invasive plant removal), which appears to increase nesting success of the species; invasive predator control (including cat control in the town on Robinson Crusoe); habitat restoration in native forest; a community outreach program aimed at engaging local people and including environmental education programs for local schoolchildren; as well as population surveys and monitoring of active nests, phenology and reproductive success.

The call of the male is a loud, raspy staccato of rising and falling pitch.

Common Name: Colorful Puffleg
Scientific Name: *Eriocnemis mirabilis*

Size: 3.1 inches (8 cm)

Habitat: South America; Columbia. This species was until recently only known from Cerro Charguayaco, north-east of Cerro Munchique on the Pacific slope of the west Andes in Cauca, south-west Colombia. It has now been found elsewhere in Munchique National Park, Serrania del Pinche and at El Planchón in the Cordillera Occidental.

Studies suggest that it favors the understory to mid-levels (to c.5 m) of lower montane, wet forest, feeding in the forest interior and edges. It is unclear whether the patchy distribution of both sexes throughout the year is due to seasonal altitudinal movements or the paucity of field studies at the type-locality. It has now been recorded from 2,200-3,000 m at least. It feeds on the nectar of *Burmeistera killipii*, *Burmeistera ceratocarpa*,



Clusia spp. and *Palicourea angustifolia*.

Status: Critically Endangered. **Global Population:** 250-999 Mature individuals with a declining trend. In the 1960s and 1970s, the local economy was based on the fruit crop "lulo", which was grown under the forest canopy, and hence deterred logging. However, a fungal disease and lepidopteran pest destroyed the crop in the 1980s, and logging returned. An old mule-track below their favored forage/nesting area has recently been cleared and widened, and small-scale logging has begun in the immediate vicinity. The Serrania del Pinche and Munchique National Park are threatened by habitat clearance for illegal coca cultivation; fires lit to clear forest at lower elevations spread to higher areas destroying sensitive habitats. Other areas of forest which potentially hold the species are threatened with clearance by slash and burn.

Conservation measures currently underway: The type-locality is in Munchique National Park, but logging occurs within the park boundaries. The replanting of lulo fruits is being encouraged, with workshops targeting local communities located in impact zones. These are designed to involve communities in conservation efforts and enable technology transfers in integrated pest-management practices. Funding from Swarovski Optik allowed the purchase of 5,000 acres of forest which could potentially hold the species. There are plans to extend the reserve by planting key tree species. The Hummingbird Conservancy is supporting research on the ecology and population dynamics of this species both in Munchique and Serrania del Pinche.

Diet: Flower nectar; it feeds on the nectar of many Epiphytes (such as bromeliads). Preferred flowers include those from *Burmeistera killipii*, *Burmeistera ceratocarpa*, *Clusia spp.* and *Palicourea angustifolia*.

Breeding: Spectacular, multi-colored hummingbird. Fairly short, black bill. Pink feet. Male has glittering green frontlet and gorget, otherwise dark shining green. Glittering blue belly and glittering red and coppery-gold undertail-coverts. Enormous white leg-puffs fringed cinnamon. Dark, bronzy, forked uppertail, coppery-gold undertail. Female is very different. Dark shining green above and sides. White median throat and underparts, spotted green with indistinct glittering reddish, golden, and bluish spots on belly, flanks and undertail. Bronze-green tail tipped blackish. Small white leg-puffs.

Because of the rarity of this bird, no studies have been conducted on breeding habits.

Cool Facts: The Colorful Puffleg was once thought extinct, until it was rediscovered in November 1997, when a female Colorful Puffleg was discovered feeding on *Clusia spp.* It wasn't until July 1998 that a male was seen feeding on several *Cavendishia sp.*

Common Name: Marvelous Spatuletail

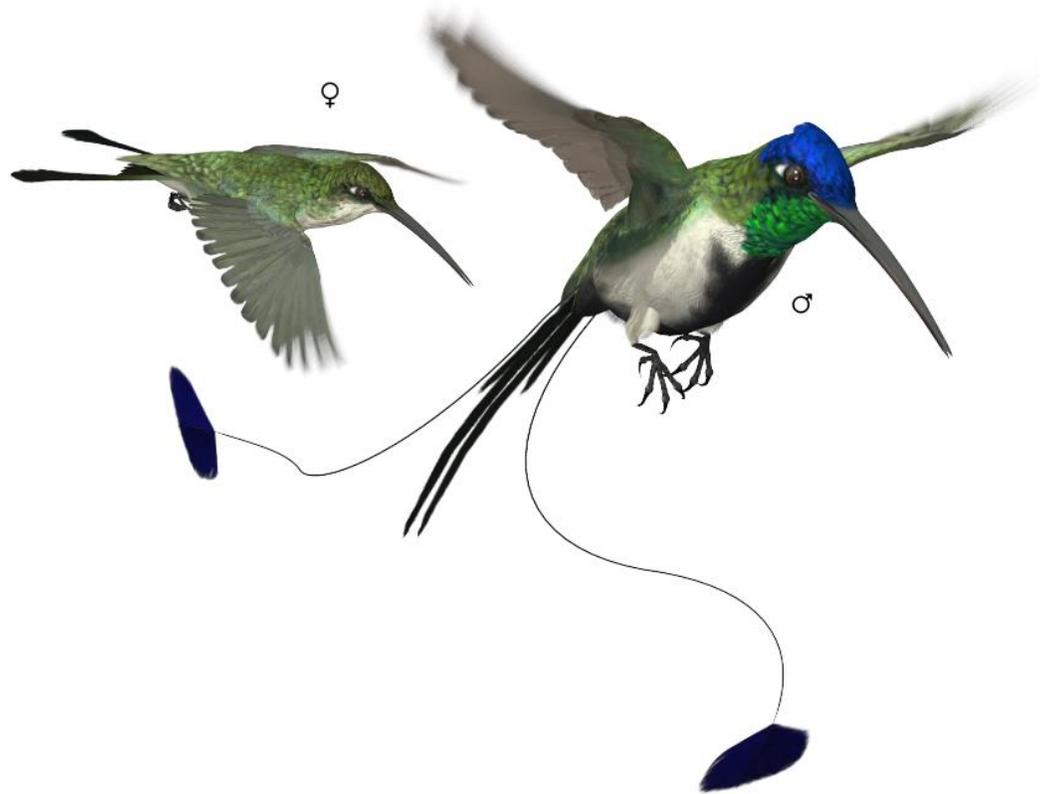
Scientific Name: *Loddigesia mirabilis*

Size: Male: 5.5 inches (14 cm) (plus additional 15 cm for rackets); female: 3.5-4 inches (9-10 cm)

Habitat: South America; Peru. This species is uncommon and restricted to the eastern slopes of the río Utcubamba valley (an affluent on the right bank of the río Marañón) in the Cordillera del Colán, Amazonas, and one locality further east in San Martín, north Peru.

It occurs in forest edge, second growth, montane scrub and, in particular, thorny, impenetrable *Rubus* thickets admixed with *Alnus* trees, at 2,100-2,900 m (occasionally 1,700-3,700 m).

Status: Endangered. **Global Population:** 490-980 mature individuals with a declining trend. Deforestation is widespread on the mountain slopes of the Cordillera del Colán, with much habitat cleared since 1978, and remaining forest under threat of conversion to cash-crops such as marijuana and coffee. However, the species' apparent preference for forest edge and isolated woodlots on steep slopes may reduce its vulnerability to habitat alteration. Interviews with local inhabitants and enquiries in a nearby market town have revealed that dried hearts of the males of this



species are believed to have aphrodisiac properties. Hunting with slingshots for this reason may even explain the skewed sexual ratio

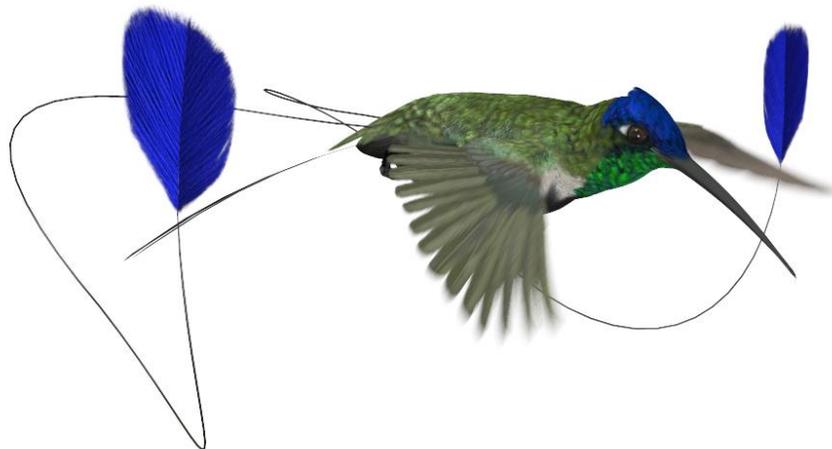
Diet: Flower nectar; its preferred food-plant is the red-flowered lily *Alstroemeria (Bomarea) formosissima*, but it has been observed feeding on at least five species of flowering plant.

Breeding: The breeding season is thought to run from late October to early May. Adult males (which are greatly outnumbered by females and immature males) gather at leks where they display to attract females.

Cool Facts: It was first reported in 1835 by the bird collector Andrew Matthews for George Loddiges. The Marvellous Spatuletail is unique among birds, for it has just four feathers in its tail. Its most remarkable feature is the male's two long racquet-shaped outer tail feathers that cross each other and end in large violet-blue discs or "spatules". He can move them independently. In a mating display, he positions each spatula to the sides of his wings, flashing iridescence blue to attract females.

A protected area was set up under a conservation easement in 2006. Several organizations are currently working in partnership to conduct an education program, survey additional sites and raise funds for land acquisition in the La Florida region. American Bird Conservancy and its Peruvian partner group ECOAN created a community nature reserve, planting thousands of native hummingbird flowers, and developing a sustainable eco-tourism program. Over 30,000 saplings of native trees and bushes have since been planted there.

This conservation easement is the first of its kind in Peru.



Common Name: Bearded Helmetcrest

Scientific Name: *Oxypogon guerinii*

Size: 4.5 inches (11.4 cm)

Habitat: South America; Colombia and Venezuela (found in the Andes, ranging from altitudes of 3600 to 4500 m (12000-15000 ft.) in Venezuela, and 3200 to 5200 m (10500 to 17000 ft.) in Colombia. Its natural habitat is subtropical or tropical high-altitude grassland, known as páramo.

Status: Least Concern. **Global Population:** Unknown amount of mature individuals.

Diet: Flower nectar (specifically Espeletia, Echeveria, Siphocampylus, Castilleja and Draba), small insects, and tree sap. It often perches on boulders and flits between low-flowering shrubs.



Breeding: The adult male has a distinctive pointed black crest and a shaggy white beard. The face and cheeks are blackish, rendering a triangular shape with the white fronted crest and white beard. The underparts are a dull green-grey. The female lacks the beard and crest.

The species breeds during the rainy season, and nests in the daisy (*Espeletia*) or builds a nest made of material from the daisy in a cliff or bank.

Cool Facts: First described by French ornithologist Auguste Boissonneau in 1840, it is the only member of the genus *Oxypogon*. However, a study of mitochondrial DNA of hummingbirds shows it to be most closely related to the Bearded Mountaineer (*Oreonympha nobilis*) and the Rufous-capped Thornbill (*Chalcostigma ruficeps*). Which suggests the genus may be reclassified in the future.

The helmetcrest is usually seen alone at low flowering bushes or herbs. It often perches on large boulders, and sometimes walks on the ground where it makes bounding leaps between ground level flowers. They regularly cling to flowers when feeding and jump (like a little goat-hence the Spanish name) from one clump of flowers to another.

Special Thanks to...

....my beta team (FlintHawk, Linda, Jan, Kelvin, 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.

Sources for this Volume and Field Guide

Books, Magazines and Papers

- **Birds of Venezuela (2nd Edition)** by Steven L. Hilty
- **Ecology and Behavior of the Buff-Tailed Sicklebill** (Paradisaeidae: Epimachus Albertisi) by Bruce M. Beehler, published in *"The Auk"*
- **"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
- **"Birds of Peru"** by Thomas S. Schulenberg, Douglas F. Stotz, Antonio Brack Egg, Daniel F. Lane, John P O'Neill, Theodore A. Parker, III
- **"Birds of the West Indies"** by Herbert Raffaele, James Wiley, Orlando H. Garrido, Allan Keith, and Janis I. Raffaele (Princeton University Press)

Websites

- Wikipedia (<http://www.wikipedia.com>)
- Birds of North America online (<http://bna.birds.cornell.edu>)
- All About Birds (www.allaboutbirds.org/)
- Cornell Lab of Ornithology Neotropical Birds (<http://neotropical.birds.cornell.edu>)
- PBS Nature (<http://www.pbs.org/>)
- What Bird? (<http://www.whatbird.com>)
- Hummingbirds.net (www.hummingbirds.net)
- Boston University (<http://www.bu.edu/>)
- Bahamas National Trust (<http://www.bnt.bs/>)
- Juan Fernández Island Conservancy (<http://www.oikonos.org/projects/firecrown.htm>)

Rendering & Posing Tips

Motion Blurring for Hummingbird Wings

As we all know, it's rare when a bird sits still. In photography, we can capture birds in flight and provided the exposure and f-stop are set correctly, even freeze them in time. We accept this moment captured in time because it is a photograph, and photographs don't lie.

As for non-photographic art, traditional or digital, the bird frozen in time just doesn't look quite right, so the viewer assumes the artist has made a mistake-- because we all know, artists do, in fact, lie...

So, here are the secrets to making a bird in flight believable.

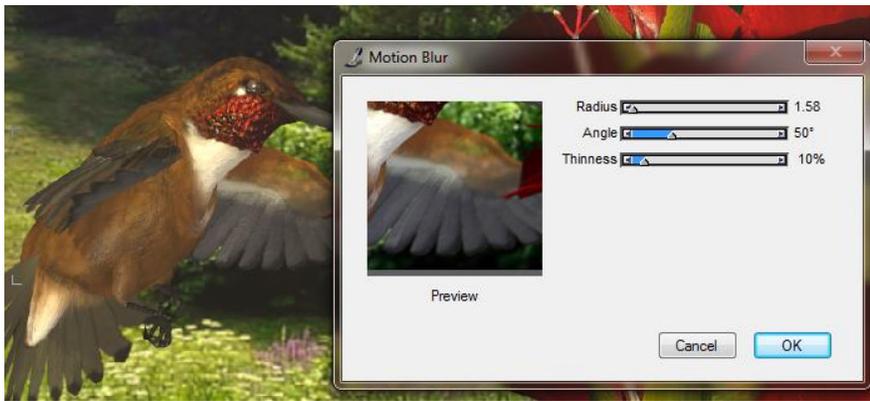
There are two approaches for creating the wing blur hummingbirds make. The first way, and most obvious, is to blur them with post work using smudge tools or motion blur filters. The second way and much easier is to let your 3D application do it using animation (even on a still image). The tutorial included in this manual will provide a step-by-step procedure to do both.

Post work Motion Blur

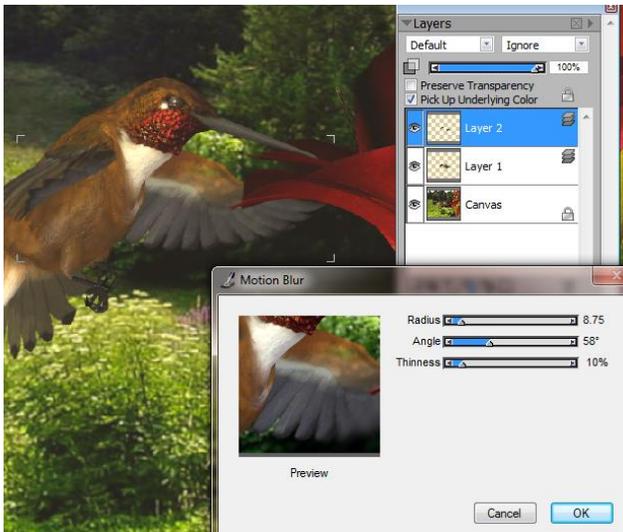
1. Load the picture into your favorite 2D art program. *(For the tutorial, we're using Corel Painter, but Photoshop or Paintshop Pro will work)*
2. Using the freeform SELECT tool, outline the wing area, Copy and Paste it directly over the existing wings and a new layer.



3. Select Motion Blur. It's found under Focus in Painter (or Blur in Paintshop Pro or Filters->Blur->MotionBlur in Photoshop).



4. Set the amount of blur, the angle and thinness (in Painter). Since we've outlined the whole wing, we're barely going to blur it with a setting of 1.58. I've also adjusted the angle to be more in-line with the feather movement.



5. Now freeform SELECT the wing again on the wing layer, but this time only select the outer extremities of the wing. Now Motion Blur it again-- that's why we went easy the first time!

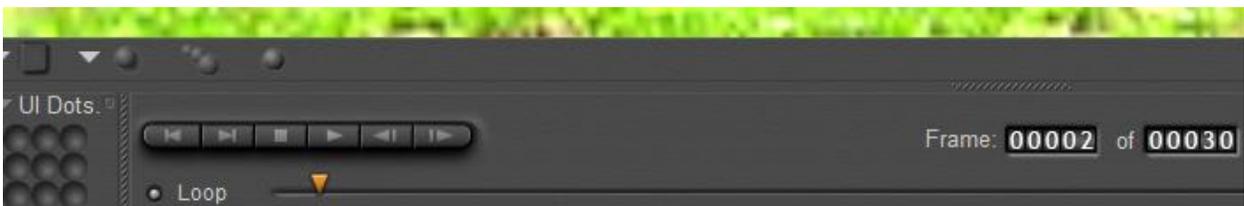
6. You could depending on the result you want repeat the process again with just the wing tips...



Using Motion Blur in Poser

This tutorial will work with any version of Poser or can be adapted to Vue. DAZ Studio does not currently have motion blur capabilities.

1. Load the Hummingbird Base Model and select a species MAT/MOR preset (for this tutorial I'm using the Rufous hummingbird, but any species will work).
2. Create your scene with the hummingbird in flight using a prebuilt pose or adjusting it manually. Go ahead and do everything you normally would do before the final render (tweaking poses, adjusting lights, etc)
3. Now that your scene is set, you will need to decide how much wing blur you want. First, the way we are going to create wing blur is by slightly animating the wings; the more movement you create, the more blur you will get.
4. I'll use a couple different settings and show how much blur you can expect from certain types of wing movements. To show maximum blurring effects, we'll first move the **Animation slider to Frame 2**.



5. Select the Left Wing, add or subtract about 30 from **UpDown** in the parameter dials. Do the same with the Right Wing. **Make sure you do not move any other dials or items in the scene or they will blur too.**
6. Go back to **Frame 1 on the Animation slider**. In Render settings, check the Motion Blur Box and render. As you can see from my example to the right or from your render, the wings are so blurred they almost don't exist. While most hummingbirds beat their wings 40-90 times a second, we don't need that type of movement to create a still image --- in fact, doing the 30 point movement up and down over the



normal 30 frames a second animation will give you a believable animated hummingbird (though it's only going 15 wingbeats a second).

7. For a still image, I'd suggest only making 2-3 point moves up or down. In Frame 1, Copy the Left Wings settings (CTRL+C). Select the Frame 2 and copy the settings (CTRL+V). Now add or subtract 2 or 3 from the **UpDown Dial** in the Parameter Dials. Do the same with the Right Wing. **Make sure you do not move any other dials or items in the scene or they will blur too.**
8. Go back to **Frame 1 on the Animation slider**. In Render settings, check the Motion Blur Box and render. Remember still image motion blur always looks to the next animation frame. If you render on frame 2, the render engine will compare frame 3 with frame 2 for blur information. Since we did nothing to frame 3, there won't be any blur and that's why we need to return to Frame 1 before rendering.



9. You can experiment with moving the tail or moving the entire bird. Just remember a little movement goes a long way in a still motion blur image. One thing I often do is just slightly move the wing parts (+/- 1) and then move the feather controller parts more significantly (+/- 8). This make the wing tips blur significantly but the actual wing much less.

Scaling alters Bump & Displacement Settings

All the hummingbirds in this set are scaled to Poser/DAZ Studio Human figure scale. This makes them very, very small so often there's a desire to scale-up the hummingbird when a human figure isn't used in the scene. **Displacement and bump settings will not scale with the model.** In some cases, the displacement and sometimes bump settings may need to be increased or decrease with scaling. If you scale-up the hummingbird you, will need to tweak the bump and displacement settings in Plumage, RumpTopFeathers, Gorget and possibly other material settings.

Working with Songbird Remix morphs

Because birds in the Songbird ReMix series use generic bird bases and morphs, adding morphs upon morphs more often than not will create undesirable results. Case in point is the Parrot base which defaults with the "Parrot" morph loaded (which is found in the HEAD section (*Creations morphs : Specific Bird morphs*)). Adding the other creation morphs on top of that will be a hit and miss experience. Press **CTRL + E** to clear all the morphs in that section.

The reason why I have chosen to leave non-parrot morphs on for instance the parrot base is for experimentation and creating unique and imaginary species. In some cases, such as with a parakeet, it's better to shape the parakeet head from the standard Songbird ReMix head than the default parrot morphs.

Another example is the BK-Close morph use. When BK-Height or BK-Length morphs are used often the BK-Close will require only a 0.7 or 0.8 setting to close the beak which normally takes a 1.0 setting. When applying a pose to a bird with a thicker or thinner than normal beak, you may need to adjust the BK-Close setting. The same is true with legs with shorten shins or thighs. One size does not fit all with a generic bird model.

In VUE...

Vue has trouble with back-facing polygons which tend to show-up in certain wing and "Fluff" poses. The easiest and fast solution is to limit the amount of bending in the Forearm, Hand and Feather controllers and to hide or limit the 'Fluff' used

Bake it! The better (but much slower solution) is to in "Polygon Mesh Options", **bake the model.** You might also click "Force double-sided baking" as well as playing with the Max smoothing angle and checking Dynamic Subdivison. Put Quality boost into the + area. Then bake it—"baking" will take hours on most computers.

The "Eye" material uses a Poser reflection map; since Vue has a built-in environment, it's better to use the Vue one and cut down the reflection to 20-50% depending on light in the scene.

I also often find it better to also cut down the “Highlight Global Intensity” to 40% and “Highlight Global Size” to 50% on Plumage, Wings and Beak materials in the “Highlights” section.

In Carrara...

Carrara can have multiple issues with Songbird Remix models. The most common are scaling issues; Carrara does not accept internal Propagating Scale (a scale variable tied to the parent that tells all attached children to do the same) so will not import Poser files correctly. Songbird ReMix uses Propagating Scale in the wings, feet and head regions. Most issues seem to be tied to the Foot Scaling. Determine the amount of scaling in the foot and scale the 8 talon parts to match each foot.

The second most common problem is weird shapes or depressions in the rump area. This is because Carrara does not understand how to interrupt the scaling of the thighs. The best and easiest solution is to set each Thigh parts YScale to 100%.

I have seen some issues (primarily with the wings exploding) when importing a Poser scene file (.pz3) into Carrara. This doesn't appear to happen all of the time. I've corrected it by going into the BODY and each WING part and turning off/on the Wing Fold morph and making sure the BODY section's Wing Shapes are all in the default setting.

There is a Carrara Fix package available in the SongbirdReMix.com downloads that provides foot scaling poses.

In DAZ|Studio...

DAZ Studio can have multiple issues with Songbird Remix models when using the Poser Version. **Download and Use the DAZ|Studio version.** I used to provide each bird as a saved scene (.daz) in Studio but unfortunately with each newer version of Studio, the .daz format from previous versions is less stable; something not loading, sometimes mismapping textures. The current approach (described in the “Creating a Bird in DAZ Studio), while less convenient, does load and display the birds correctly with all versions of DAZ Studio (to 4.0.36).

The primary issue with using the Poser version with DAZ|Studio is Scaling; DAZ|Studio does not accept internal Propagating Scale (a scale variable tied to the parent that tells all attached children to do the same) so it will not import Poser files correctly. Songbird ReMix uses Propagating Scale in the wings, feet and head regions. Most issues seem to be tied to the Foot Scaling. Determine the amount of scaling in the foot and scale the 8 talon parts to match each foot.

The second issue is that material setting will be off. The DAZ|Studio version has Material files tuned to DAZ|Studio included. This version also has Character files so it is possible to load the Poser .cr2, then apply the DAZ|Studio character setting which will fix the scaling and material issues. This method can be helped if updated Songbird Remix CR2s are available.

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



www.empken.com/store