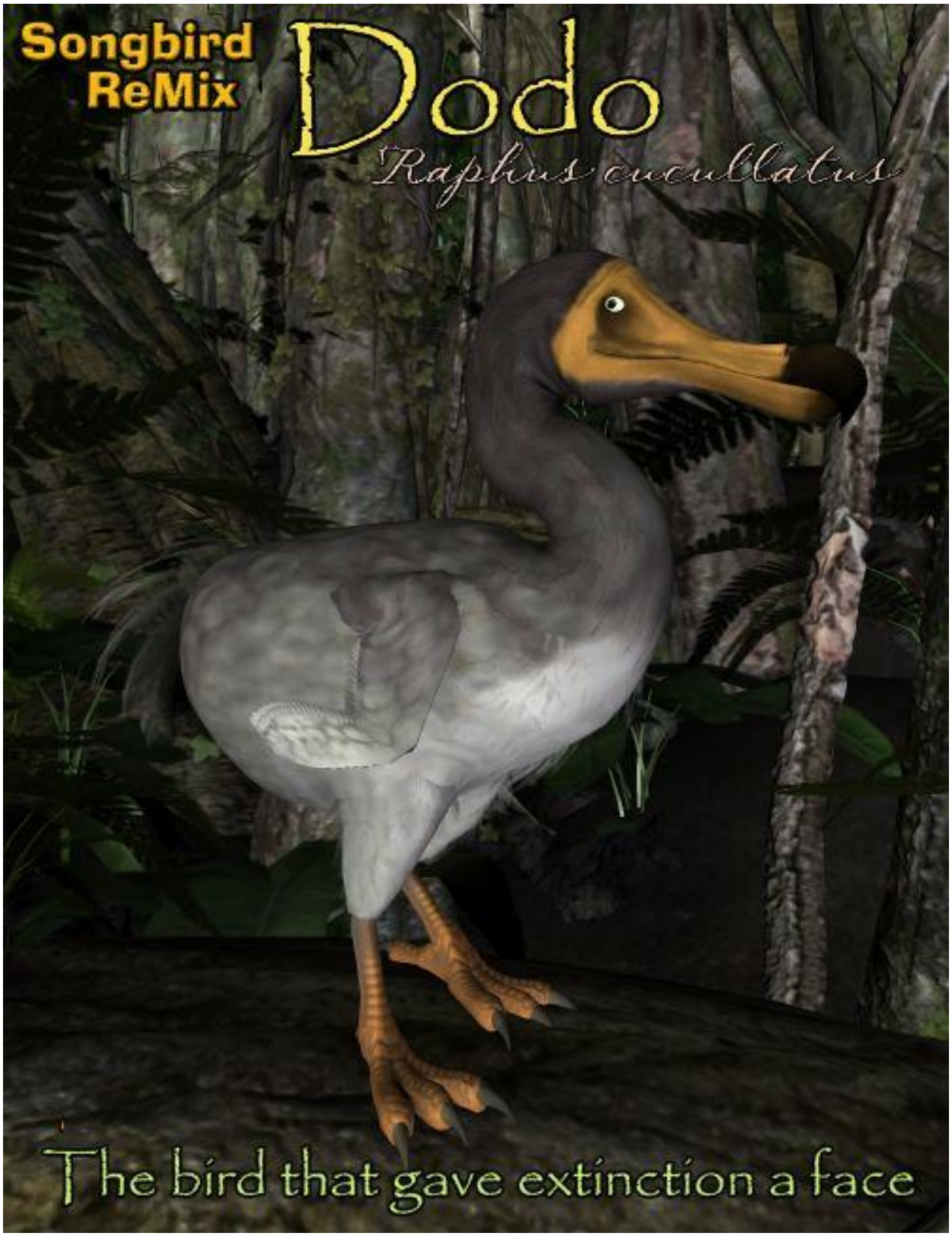

Avian Models for 3D Applications

by Ken Gilliland

Songbird ReMix **Dodo**

THE BIRD THAT GAVE EXTINCTION A FACE

Contents

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THE BIRD THAT GAVE EXTINCTION A FACE

Manual

Introduction

The Dodo from the "Threatened, Endangered, Extinct" series within the Songbird Remix library is more than simply a 3D bird model. It is content with a message and one that enables 3D Artists and Educators to illustrate the struggle and in some case, extinction, of many avian species by creating imagery that not only entertains but educates.

This collection includes the bird that gave a face to the word, extinction, the iconic Dodo. A bird discovered by Dutch traders on the Island of Mauritius in the early 1600s. Within the span of a century, the bird was extinct and until the 19th century was believed a myth.

This 3D dodo modeling was based on 17th century artists' depictions and scientific recreations of the bird. Included are adult and juvenile Dodo models in three color schemes based on artists' depictions.

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

Overview and Use

Select **Figures** in Runtime Folder and go to the **Songbird ReMix** folder. Here you'll find an assortment of files that are easily broken into 2 groups: **Conforming Parts** and **Bird Base models**. Let's look at what they are and how you use them

- **Bird Base Models included in this volume:**
  - **Dodo Base Model** - This model as expected is used to create the Dodo character.

- **Conforming Parts -** No conforming part are included or used in this model currently.

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)
	• Dodo

Creating a Songbird ReMix Bird

Here's a step by step to create a bird in POSER or DAZ Studio:

1. Choose what you want to load. For this example, we'll create a "Dodo".
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". Because the "Dodo" uses the "Dodo" base model we'll load that.
3. 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.
4. In this case, we'll select the "Dodo" pose and apply it to our loaded Songbird ReMix base model. This pose contains morph and texture settings to turn the generic model into a "Dodo". 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.

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

Songbird ReMix
Field Guide

Common Name: Dodo
Scientific Name: *Raphus cucullatus*

Size: 39 inches (100 cm)

Habitat: Africa; Island of Mauritius

Status: Extinct. Global Population: 0. The dodo has been extinct since 1681. Its extinction was caused by humans hunting the bird to near-extinction and then introducing dogs and pigs, which became feral and finished the job. Few took particular notice of the bird immediately after its extinction. By the early 19th century it seemed altogether too strange a creature, and was believed by many to be a myth. In 1848, H. E. Strickland and A. G. Melville published a book titled "*The Dodo and Its Kindred; or the History, Affinities, and Osteology of the Dodo, Solitaire, and Other Extinct Birds of the Islands Mauritius, Rodriguez, and Bourbon*" in which they attempted to separate Dodo myth from reality. With the discovery of the first batch of dodo bones in the Mauritian swamp, the Mare aux Songes, and the reports written about them by George Clarke, government schoolmaster at Mahébourg, from 1865 on, interest in the bird was rekindled.

Diet: Fruit. It is believed that the dodo probably fattened itself on ripe fruits at the end of the wet season to live through the dry season when food was scarce.

Breeding: Breeding habits were never observed prior to its' extinction.

Cool Facts: The dodo is commonly used as the archetype of an extinct species (“go the way of the Dodo”) because its extinction occurred during recorded human history and was directly attributable to human activity.

The first known descriptions of the bird were made by early Dutch travelers. It was known by the name "*walghvogel*" ("wallow bird" or "loathsome bird"). This name was in reference to its taste. Although many later writings say that the meat tasted bad, the early journals only say that the meat was tough but good, though not as good as the abundantly available pigeons.

The Dodo, having been isolated by its island location from contact with humanity, greeted the new visitors with a child-like innocence. The sailors mistook the gentle spirit of the dodo, and its lack of fear of the new predators, as stupidity. They dubbed the bird "dodo" (meaning something similar to a simpleton in the Portuguese tongue).

According to artists' renditions, the dodo had grayish and brownish plumage, a 23-centimeter (9-inch) bill with a hooked point, very small wings, stout yellow legs, and a tuft of curly feathers high on its rear end. Dodos were very large birds, possibly weighing from 23 to 50 pounds (10.6-23 kg). The sternum was insufficient to support flight; these ground-bound birds evolved to take advantage of an island ecosystem with no predators.

The traditional image of the dodo is of a fat, clumsy bird. The general opinion of scientists today is that the old European drawings showed overfed captive specimens. A 17th century painting attributed to the Mughal artist, Ustad Mansur, shows a dodo alongside native Indian birds. It depicts the dodo as a slimmer, brownish bird, and is regarded by scientists to be one of the most accurate depictions of the bird.

Two live specimens were brought to India in the 1600s according to Peter Mundy, and the painted specimen might have been one of these. As Mauritius has marked dry and wet seasons, the dodo probably fattened itself on ripe fruits at the end of the wet season to live through the dry season when food was scarce; contemporary reports speak of the birds' "greedy" appetite. In captivity, with food readily available, the birds became overfed very easily.

There is a plaster cast at the Brighton Museum of a dried head and leg of a dodo specimen which was brought alive to Europe about the year 1600; the originals are housed in the Natural History Museum. Until recently, the most intact remains, currently on display at the Oxford University Museum of Natural History, were one individual's partly skeletal foot and head which contain the only known soft tissue remains of the species. These remains of the last known stuffed dodo had been kept in Oxford's Ashmolean Museum, but in the mid-18th century, the specimen – save the pieces remaining now – had entirely decayed and was ordered to be discarded by the museum's curator or director in or around 1755. The remaining soft tissue has since been severely degraded, as the head was dissected in the late 19th century, and the

foot is in a skeletal state. Until recently, few associated dodo skeletons were known, most of the material consisting of isolated and scattered bones. Dublin's Natural History Museum and the Oxford University Museum of Natural History, among others, have a specimen assembled from these disassociated remains. A dodo egg is on display at the East London museum in South Africa. Manchester Museum has a small collection of dodo bones on display.

In October 2005, part of the Mare aux Songes, the most important site of dodo remains, was excavated by an international team of researchers. Many remains were found, including bones from birds of various stages of maturity, and several bones obviously belonging to the skeleton of one individual bird and preserved in natural position. These findings were made public in December 2005 in the Naturalis in Leiden.

In June 2007, adventurers exploring a cave in Mauritius discovered the most complete and well-preserved dodo skeleton ever.

Why Birds Matter?

Strength in numbers:

- 66 million Americans actively participate in wildlife watching *(USFWS 2001)*
- 46 million Americans are birdwatchers *(conservatively defined as having taken a trip a mile or more from home for the primary purpose of observing and identifying birds or tried to identify birds around the home—USFWS, 2001 survey)*
- Nearly 6 million California consider themselves birders *(Audubon California 2010)*
- Bird watching is the fastest growing form of outdoor recreation-- a 236% increase in participation from 1982 to 2001, from 21 million to 71 million *(National Survey on Recreation and the Environment 2000-01).*

Money Talks:

- For many states within the US, and countries around the world, wildlife tourism is their top economic producer. Damaging environmental protections will damage economies.
- Wildlife watchers spent $38.4 billion in 2001-- resulting in a $95.8 billion contribution to the nation's economy and producing more than one million jobs. Birdwatchers spent $32 billion in 2001 that in turn generated $85 billion in economic benefits, produced $13 billion in tax revenues and 863,406 jobs *(USFWS 2001).*
- Wildlife watchers spend $3.1 billion on food for birds and other wildlife; $733 million on bird houses and feeders; $2.6 billion on cameras and associated photographic equipment; $507 million on binoculars and spotting scopes.
- The net economic value *(willingness to pay above what is actually spent)* for the chance to see wildlife is $134 a person per day within the US *(National Survey on Recreation and the Environment 2000-01).*
- The combined value of 17 different ecosystem services that birds provide - such as pollination and water catchment - is estimated between $16- 54 trillion per year worldwide, which is around twice the entire world's Gross National Product. These services are not traded in markets and carry no price tags to alert society to changes in their supply or to deterioration of the ecosystems which generate them.

Fun Facts:

- The most common symbol found on any form of currency is a type of bird
- In the US, 3 Baseball teams, 5 NFL teams, 4 NHL teams and 1 NBA team are named after birds
- The decline of birds such as the Passenger Pigeon and Carolina Parakeet led the United States to create its' first environmental law
- The Egyptian Pharaoh liked the Sacred Ibis so much that it led him to create the first-ever recorded environmental protection law to protect it.

Scary Facts:

- Domestic cats are considered primarily responsible for the extinction of 33 bird species since the 1600s. (American Bird Conservancy)
- The Passenger Pigeon was the most populous bird (estimated 5 billion) on the planet in 1850. A little over 50 years later it would be extinct thanks entirely to humans.
- Currently, 1 out of 6 species on this planet is on the brink of extinction, thanks in a good part to humans *(UN Council on Bio-diversity, 2010).*
- Unless something changes, it is predicted we will cause 50% or more of the species on our planet to go extinct within the next 30-100 years, which in turn, will probably bring about our extinction.

The Price of Extinction

By Ken Gilliland

The biggest headline of the year—perhaps the biggest of the millennium went largely unnoticed by the press in November 2010. Perhaps they didn't understand the gravity of the news. Perhaps they felt it was too scary, too controversial or too complex for the public to understand. Perhaps Lindsey Lohan or Charlie Sheen's antics they deemed a more important story. Whatever the reason, the headline faded away without fanfare. What didn't fade away was imminent peril as sure as a comet hurling to earth.

What was the headline we all missed? The United Nations Council of Bio-Diversity announced that **one-in-six species on the planet were on the brink of extinction**.

The majority of peer-reviewed biologists stated that we are in the 6th "great extinction of species" that our planet has known. The difference between this extinction and the previous five is that never before has the planet been attacked so severely on all three regions that contain life (air, water and land). The other significant difference is that this extinction is entirely preventable unlike the other 5 in which natural phenomenas were the cause. What is the cause of this mass extinction? A prolific species called "*Homo sapien".*

The news gets worse. It is conservatively estimated that in the 50 years one half of the species will disappear forever from our planet. Losing 50% or more of the species without the thousands of years needed to adapt to change for the remaining species will cause a snowball effect. It will accelerate the extinction of even more species and many more symbiotic chains of shared existence will break down.

What few people realize is how important symbiotic chains are. Imagine no pollinators to make crops produce food. No plant systems to cleanse drinking water. No woodpeckers to keep trees healthy. No trees to balance the air we breathe. Imagine no medicines—because without the natural world—most of the ingredients won't exist.

As sure as if a comet were hurling to earth, the story the press didn't tell is that we're on going to be on that extinction list as well.

What can be done? Can anything help at this point? Yes, it will take tough decisions…the ones that involve sharing our planet with all the other species rather than hoarding it for ourselves and thus, restoring balance. These are decisions that most of our politicians, even the forward thinking ones, don't want to make… ones that many of us don't want to make either. It is our job to let our leaders know the time to act is not in twenty years, not in ten, not after the election, but today. Budgets, taxes and jobs won't matter if there's no clean water to drink, if there's no food to eat, or no air to breathe.

Only after the last tree has been cut down.
Only after the last river has been poisoned.
Only after the last fish has been caught.
Only then will you find that money cannot be eaten.

- Cree Indian Prophecy

Special Thanks to…

….my beta team (Ali, Bea, Jan, Kelvin, Rhonda, Sandra)

Species Accuracy and Reference Materials

Many birds of the same species do vary considerably in color. This package tries to emulate the colors and markings in the most commonly found variants.

The author-artist has tried to make these species as accurate to their real life counterparts as possible. With the use of one generic model to create dozens of unique bird species, some give and take is bound to occur. The texture maps were created in Painter with as much accuracy as possible. Photographic references from photographs from various Internet searches and several field guides were used.

Field Guide Sources:

- **Wikipedia** (http://www.wikipedia.com)
- **All About Birds/Cornell** (http://www.birds.cornell.edu/AllAboutBirds/)
- **Birdlife International** (http://www.birdlife,org)
- **Woodpeckers of Europe** (http://woodpeckersofeurope.info)
- **New Zealand Birds** (http://www.nzbirds.com)
- **The CITES Apprendices** (http://www.cites.org)

Other Resources:

- **Songbird ReMix Central** (http://www.songbirdremix.com)
- **Songbird ReMix "Bird Brains" User Group and Forum** (http://artzone.daz3d.com/groups/songbirdremix)

Environmental Activism Resources:

- **Center for Biological Diversity** (http://www.biologicaldiversity.org/)
- **National Audubon** (http://www.audubon.org/)
- **Cat Inside! Program** (http://www.abcbirds.org/abcprograms/policy/cats/materials.html)

Rendering & Posing Tips

Working with “Creation” 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.

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 which 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 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.


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