

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

Songbird ReMix Gamebirds2

Contents

Manual

Introduction	3
Overview and Use	3
Creating a Songbird ReMix Bird with Poser and DAZ Studio	3
Physical-based Rendering Considerations	4
Gamebirds2 Model Quick Reference Chart	4
Posing Considerations	5

Field Guide

List of Species	6
White-breasted Guineafowl	7
Black Guineafowl	9
Sickle-winged Guan	11
Great Currassow	13
Himalayan Monal	16
Bornean Crestless Fireback	18
Little Chachalaca	20
Rufous-bellied Chachalaca	22
Band-tailed Guan	24
White-browed Guan	26
Hainan Peacock-Pheasant	28
Koklass Pheasant	30
Resources, Credits and Thanks	33

Copyrighted 2019 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.

Songbird ReMix Gamebirds2

Introduction

Gamebirds2 introduces several types of chicken-like birds that are often found in dense forested and jungle settings. From the African Guinea fowl to the South American Guans and Chachalacas to the Himalayan Monals, these unique birds are jewels in their respective habitats.

Songbird ReMix Gamebirds2 recreates these wondrous birds for use in DAZ Studio and Poser and supports Iray, Superfly, 3Delight and Firefly renderers.

Overview and Use

The set is located within the **Animals : Songbird ReMix** folder. Here is where you will find a number of folders, such as **Bird Library**, **Manuals** and **Resources**. Let's look at what is contained in these folders:

- **Bird Library:** This folder holds the actual species and poses for the "premade" birds. Birds are placed into a "type" folder (such as "Birds of Prey (Order Falconiformes)" which for example would hold falcons, hawks and eagles). The birds for this set can be found in the following folder(s):
 - **Gamebirds (Order Galliformes)**
- **Manuals:** Contains a link to the online manual for the set.
- **Props:** Contains any props that might be included in the set
- **Resources:** Items in this folder are for creating and customizing your birds
 - **Bird Base Models:** This folder has the blank, untextured model(s) used in this set. These models are primarily for users who wish to experiment with poses or customize their own species of bird. When using physical renderers such as Iray and Superfly, SubD should be turned to at least "3". For DAZ Studios 3Delight renders, the SubD must be turned from the "High Resolution" setting to the "Base" setting (otherwise some areas will render incorrectly transparent).

Poser Use

Select **Figures** in the **Runtime** Folder and go to the **Animals : Songbird ReMix** folder. Select the bird from the renderer *Firefly or Superfly*) folder you want and simply click it to load. Some birds in the Songbird ReMix series may load with attached parts (*Conformers*) such as tail or crest extensions. Some of these parts have specific morphs.

You will need to click on the attached part to access those controls. Associated poses can be found in the same folder- **Bird Library : (Type) : Poses**.

DAZ Studio Use

Go to the **Animals : Songbird ReMix** folder. Select the bird from the renderer (*3Delight or Iray*) folder you want and simply click it to load. Some birds in the Songbird ReMix series may load with attached parts (*Conformers*) such as tail or crest extensions. Some of these parts have specific morphs. You will need to click on the attached part to access those controls. Associated poses can be found in the same folder- **Bird Library : (Type) : Poses**. **Note:** Using the "Apply this Character to the currently selected Figure(s)" option **will not** properly apply the correct scaling to the bird selected. It is better to delete the existing character first and load the one you want to use.

Physical-based Rendering

Iray and **Superfly** requires more CPU and memory horsepower than the legacy renderers because of ray-trace bounces and higher resolution meshes needed for displacement. Poser's **Superfly** renderer will require that the "Min Transparent Bounces" be set to **at least 16** and that the "Max Transparent Bounces" be set to **at least 32** in render settings. Superfly renders may show artifacts in the head area. This is a known Poser issue and may be addressed in the future. Increasing the SubD may minimize this issue.

Where to find your birds

Type Folder	Bird Species
Gamebirds (Order Galliformes)	All Gamebirds

Where to find your poses

Type Folder	For what species?
Gamebirds (Order Galliformes)	All Gamebirds (use poses with the GF prefix)

Posing Considerations

This volume has various species of “Jungle chickens”, with both male and female versions, so when using generic poses not every pose will work perfectly with every bird. You may find that some minor alteration on the stock poses may be warranted.

Birds will not be flat on the zero plane for those who use the "Smaller Legs and Feet" control.

Neck Bends and Neck Scaling...

To prevent distortions, when the "Neck Retract" Control is used EZ-Pose Neck and other neck joint bending will be more limited (especially the neck pieces closer to the hip). It is better to use smaller bends on the neck pieces closer to the hip when the neck is retracted and make up for the small bends in the upper neck regions close to the head.

To Display or Not Display...

Males "display" and females sometimes do (depending on the species). This involves opening their train/tail feathers into a huge, upright fan. The Display controls (which are a combination of morphs and xyz bends) may not work properly when additional xyz bends are applied. Adding additional bends should be used with care.

Crest Displays...

With a generic model supporting numerous species, using crest displays can be tricky knowing which crest display goes with what species. Here's a guide to help you:

There are two basic places you'll look for Crest display morphs; in the **Crest Plume & Tail Displays** section and in the **Fluff Feathers / Crest Plume** section. Some Gamebirds don't have crest plumes so obviously these sections won't do anything with those species.

Crest Plume & Tail Displays

- **Currasow Crest Display.** This works exclusively with the Great Currasows and changes their curly mop-top crest plume into a fan-shaped display. This display occurs during mating season.

Fluff Feathers / Crest Plume

- **Congo Crest Plume Fwd-Back, etc...** There is obvious references to specific species in this menu. Using them outside of their specific use might have untended results. For example several species have completely different placements for their crest plume, thus stretching and geometric distortions might occur. Use caution when playing with these controls.

Songbird ReMix Gamebirds2

Field Guide

White-breasted Guineafowl

Black Guineafowl

Sickle-winged Guan

Great Curassow

Himalayan Monal

Bornean Crestless Fireback

Little Chachalaca

Rufous-bellied Chachalaca

Band-tailed Guan

White-browed Guan

Hainan Peacock-Pheasant

Koklass Pheasant

Common Name: White-breasted Guineafowl
Scientific Name: *Agelastes meleagrides*

Size: 16-17.7 inches (40-45 cm)

Habitat: Africa; distributed in subtropical West African forests of Côte d'Ivoire, Ghana, Guinea, Liberia, and Sierra Leone.

It is found in dense primary rain forests, with apparent preference for drier areas. It has been found in nearby patches of selectively logged forest, especially older regrowth, but presence of a primary forest appears essential.

Status: Vulnerable. **Global population:** Total population estimated at 85,000 birds. This is one of most threatened species in Africa; it formerly treated as Endangered. It has been undergoing a major decline due to destruction and fragmentation of habitat, coupled with excessive hunting pressure. The species probably occurred in southern Guinea in past, and reported from Ziama Massif by hunters in the late 1980s, but no longer exists there.



It is highly susceptible to pressure of hunting and deforestation. It disappears from logged areas, or at best occurs at much lower densities. Its presence in secondary growth may require close proximity of undisturbed primary forest.

It has been suggested that species does not adapt well to dense under-storey of secondary forests.

Diet: Insects, mostly termites, ants, crickets, millipedes, worms, beetle larvae (*Chrysomelidae*), spiders and small mollusks. It has been seen feeding on berries and seeds that have fallen off of forest trees. This species takes up to 60% of each day spent feeding.

It forages on the ground, walking slowly along and stopping frequently to scratch amongst soil and leaf-litter with feet. It joins groups of sooty mangabeys (*Cercocebus atys*) and other terrestrial mammals to forage. When one bird finds abundant source of food, often summons other flock members (up to 15–30) to join in, but intra-group aggression is frequent.

Nesting: It has a black plumage with a small, bare, red head, white breast, long, black tail, greenish-brown bill, and greyish feet. The sexes are similar, although the female is slightly smaller than the male and lack spurs.

Breeding season goes from October to May, perhaps peaking at end of wet season, in November through January. Downy chicks appear in November to May and sub-adults in February, May and November. The nest is reported to be sited on the ground within dense undergrowth. The clutch usually 12 eggs, reddish buff with white pores. Chicks have greyish-brown down patterned with pale ochre, and dark sepia on head and neck.

Cool Facts: A deep “*kok-kok*” given by flock members in contact. Females utter descending whistled calls when flock reassembles after being scattered by appearance of a potential predator.

Common Name: Black Guinea fowl
Scientific Name: *Agelastes niger*

Size: 17 inches (42 cm)

Habitat: Africa; endemic to West Central Africa south of the Sahara. Its range includes Nigeria, Cameroon, Equatorial Guinea, Gabon, Angola, the Central African Republic, the Republic of the Congo, and the Democratic Republic of the Congo.

It is found on the forest floor in primary and secondary tropical rainforest, especially with thick undergrowth, and in nearby cultivated croplands.



Status: Least Concern.
Global population: 100,000-500,000 individuals. The population trend for the black guinea fowl seems to be downward, because it is hunted for food, possibly unsustainably, and may suffer from degradation of its habitat. The alarming rapidity with which forest is destroyed in some parts of Africa suggests that before too long a detailed study of ecological requirements of species would be highly desirable, with a view to establishing additional suitable protected areas within its range. An effective control of hunting seems necessary, at any rate in parts of range, in combination with campaigns of environmental education.

Diet: Invertebrates such as ants, termites, millipedes, and beetles, and also small frogs, seeds, berries, and shoots.

It is usually found in pairs or small groups, and is a shy, elusive bird of the forest floor. It occurs in primary and secondary growth woodland, favoring parts with thick undergrowth, but sometimes venturing out onto adjacent cultivated lands.

Nesting: The head and upper neck of an adult black guineafowl are unfeathered, revealing the pink skin. A crest of short downy feathers is on the forehead and crown, and the throat and lower neck have a scattering of downy feathers. The body and tail feathers are black with some paler speckled markings on the belly. Males have one to three spurs on their legs, while females either have none or a single short spur. Juveniles are similar, but have buff tips to the feathers on their upper parts, a speckled breast, and white belly. They are also spur-less. The beak is greenish gray and the legs greyish brown. Males are usually slightly larger than females.

They are probably monogamous. In the northeastern edge of the Democratic Republic of Congo, they breed in almost any month, but mainly during drier period of between December and February. Elsewhere, very little is known, and birds captured December–February in Congo, and September in Angola were not in breeding condition.

The nest is probably a scrape (ground based). The eggs are pale reddish brown in color, sometimes tinged yellow or violet. Chicks are mainly dark rufous and black above.

Cool Facts: Black guineafowl are resistant to various diseases that affect poultry, including Ehrlichia ruminantium, which causes heartwater, but the mechanism for this resistance is not currently known to researchers. The black guineafowl's genome includes a toll-like receptor (TLR1) which plays an important role in the bird's immune system. This gene has been studied and includes 2,115 nucleotides, encoding 705 amino acids. TLR1 is associated with infections caused by bacteria in both humans and mice, and this gene is of interest to researchers because genetic variation in it is associated with increased Gram-positive bacterial infections, organ failure, and death.

Common Name: Sickle-winged Guan
Scientific Name: *Chamaepetes goudotii*

Size: 20-25.6 inches (50-65 cm)

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

Found in humid and wet forests and forest borders of subtropical and, to lesser extent, lower temperate zones, on both slopes of Andes. In Colombia, mainly between 1100 m and 2500 m, but locally as high as 3000 m, e.g. in Santa Marta Mountains, or as low as 500 m on Pacific slope. In Peru, it usually occurs between 1450 m and 2500 m, but there are records at 900 m in Amazonas and at 3000m in Puno. The newly discovered Bolivian population found at an unusually high altitude of 2500–3500 m. It is found generally on steep hills with difficult access, mainly in zones of very high precipitation. It prefers tall forests, but occasionally also recorded in second growth and lighter open woodland, like coffee plantations, at lower altitudes.



Status: Least Concern. **Global population:** 2,530,000 individuals with a decreasing population trend. Currently suspected to be locally fairly common, and in Colombia is one of the few guans that can still be seen near or alongside roads in several areas. Race *sanctaemarthae* considered abundant in parts of the Santa Marta Mountains in 1923; has declined and in 1990 classed as Indeterminate, probably at least Vulnerable, by BirdLife/IUCN. Habitat frequently altered in lower part of its altitudinal range, but is more secure at higher altitudes, due to inaccessibility.

Diet: Mainly fruits and occasionally seeds, flowers and leaves.

Nesting: An unmistakable combination of a bright chestnut belly, pale blue facial skin and red eyes. It has bright red legs. Juveniles are similar to adults, but duller and has incompletely feathered throat.

Mating season varies depending on location and subspecies. The breeding season very loosely is January through June. The nest is a platform (30–35 cm wide by up to 25 cm deep) constructed of moss, dead vegetation, green leaves and slender branches, placed either on a bromeliad or in tree fork, 2 to 6 m above ground. The clutch is 2–3 white eggs (noinate and *fagani*), sometimes stained brown or red-brown (at least in *fagani*), and is probably incubated by the female alone. Chicks are chocolate-brown above, with creamy stripes on back, a rufescent or cinnamon head and underparts, becoming whiter on belly, and blackish supercilia, red legs and dull white periocular skin

Cool Facts: It is most vocal at dawn and dusk, when also gives wing-whirring display that lasts 2 seconds and is given during 20 m, downward flight. There are 3–6 flights given per display period (which can last up to five minutes), usually between same two trees each time.

Five subspecies are recognized:

- *C. g. sanctaemarthae*, Discovered by Chapman in 1912. Found in the Santa Marta Mountains, in Northern Colombia. Its upper breast, throat and cheeks partially mixed rufous, and is perhaps darker (more maroon) on ventral region and thighs.
- *C. g. goudotii*. Discovered by Lesson in 1828. Found in the Andes of West & Central Colombia from Antioquia and Santander South to Nariño. This is the nominate race.
- *C. g. fagani*. Discovered by C. Chubb in 1917. Found on the Western slope of the west Andes in Southwestern Colombia (Nariño) and Ecuador (South to El Oro). The head and upper-parts are much darker than *sanctaemarthae* and nominate, and more chestnut-colored under-parts.
- *C. g. tschudii*. Discovered by Taczanowski in 1886. Found on the Eastern slope of the east Andes in South Colombia, Ecuador and North Peru (South to San Martín). This race is most like *fagani*, but is duller, more olive-brown above, and chestnut underparts are less dark and this color extends further towards neck.
- *C. g. rufiventris*. Discovered by Tschudi in 1843. Found on the Eastern slope of Andes in Central Peru (from Huánuco South to Junín), possibly also this subspecies to South Peru and in North & Central Bolivia (where found in La Paz and recently in Cochabamba). This race has gray margins on neck feathers, producing scaly appearance, which is more conspicuous than in any other race, being also paler above (more olive) and more rufous (less chestnut) below.

Common Name: Great Currasow
Scientific Name: *Crax rubra*

Size: 30.7–39.4 inches (78-100 cm)

Habitat: Central America; its range extends from eastern Mexico, through Central America to western Colombia and northwestern Ecuador.

It prefers heavy rain forests in tropical and lower subtropical zones. It is usually occurs in lowlands, but can also be found in the foothills up to altitudes of 1200 m, sometimes even higher. In Yucatán, Cozumel Island and parts of Costa Rica, it also occurs in seasonally drier forests. On Cozumel Island, occurrences are closely tied to the presence of two trees, *Manilkara zapota* and *Mastichodendron foetidissimum* (Sapotaceae). Occasionally, they venture into ravines, and, if unmolested, into partially cleared areas or even plantations.



Status: Vulnerable. **Global population:** 40,000 individuals with a decreasing population trend. Human activity is very destructive for Great Curassow. Curassows are heavily hunted for food throughout their range and their habitat is being destroyed at a very fast rate. The primary sources of this habitat

destruction are logging of mature forests, and habitat conversion for agriculture and livestock production.

Populations rapidly disappear wherever logging roads are built into previously inaccessible forests; thus it has been extirpated from much of Veracruz, Mexico. On the other hand, its range recently revealed to be more widespread than previously known in Mexican Yucatán and to encompass additional protected areas in the region. In Guatemala, it still reported to be fairly common in the eastern Caribbean lowlands, northern Quiché and remote areas of Petén, but much reduced and threatened on Pacific slope, occurring in fragmented populations. In El Salvador, the species survives in El Imposible National Park, where population of at least 120 individuals in 1999. It maintains stable populations throughout vast areas in Nicaragua. In Costa Rica, it is now mostly scarce and local, but can persist in secondary forest in absence of hunting, with good populations persisting mainly in some national parks, including Santa Rosa, Rincón de la Vieja and Corcovado. In Panama, it remains only in remote, uninhabited areas, where still apparently fairly common, but disappears quickly, as settlement progresses. It is more widespread on Caribbean slope, while on Pacific slope perhaps limited to southern Veraguas, western Azuero Peninsula, Darién (e.g. Serranía de Majé), and parts of Canal Zone, where very rare, In 1979, there were good numbers that still occurred in Barro Colorado Island Biological Reserve, where it was well protected, but apparently extirpated from Chiriquí region. In Colombia, persists only in remoter areas and along Pacific coast, but never near roads. In 1986, species was feared completely eradicated from Ecuador, although it was still present in Guayas in 1970s, but today the species clings on only in far northwest, in Esmeraldas and may number < 100 individuals. It is still legally hunted in some countries. Race *griscomi* once feared extinct; in 1965, said to survive, although sometimes hunted; a male was seen around 1990 by a researcher after months of searching, but mid-1990s surveys suggest that population might still number c. 300 birds, with another estimate of 372 ± 155 individuals, before two hurricanes hit Cozumel in 2005. It has been suggested that a ban on hunting, eradication of feral fauna, particularly dogs, and implementation of a captive-breeding programme to supplement the wild population are needed to ensure this race's survival. The nominate race quite common in captivity, where frequently bred. In Guatemala, small breeding program initiated with aim of reintroducing species to areas where now extinct.

Diet: Mainly fruits, figs and arthropods. Small vertebrates may supplement the diet on occasion, including small mammals (such as rodents). Unlike other cracids, such as guans, they feed largely on fallen fruit rather than pluck fruit directly from the trees. In Tamaulipas, it feeds largely on the fruit *Spondias mombin*. Elsewhere, it may prefer the red berries of Chione trees.

The Great Currasow spends much of its time on the ground, but nests and roosts in trees. This species is gregarious, occurring in groupings of up to a dozen birds, though occasionally birds can be seen alone.

Nesting: This species is sexually dimorphic and males are significantly larger than females. The males are black with white under parts while the females vary in coloration across their range from barred, rufous and black. Both males and females have a well-developed crest, strongly rounded and concave wings, long and strong legs, and a tail that is long and wide. Both have eyes with a dark brown iris. Their bill is similar to a chicken's bill but thicker and with differences in males and females. The males have a gray bill with a bright yellow inflated knob on the cere and hemi that enlarges during matting season. The female does not have the knob.

It is a monogamous species. On approaching the breeding season, they form family groups of adults and juveniles. The breeding display is a sophisticated ceremony on the ground, and includes the beating of wings and other series of movements including head bobs.

The male is the primary nest builder, which it constructs in a tree not far from the forest floor. The nest ranges from 10 to 20 feet (3-6 meters) above the ground. The nest is not impressive and consists of a few sticks, leaves and vines. The nest measures 16 to 27 cm high, 8 to 13 cm deep and is 26 - 46 cm in diameter.

It lays two large white spherical eggs. The chicks are precocial and nourished by the females. The incubation time is 32 days and when they hatch, the chicks are a "grayish buff with black and chestnut markings above, whitish below." They are cared for approximately for 8 months. They live for many years, up to 24 years, and will breed almost their entire lives.

Cool Facts: The Great Curassow emits a variety of calls. There are five main calls that vary between males and females. The calls consist of yips, barks, snarls, descending whistles and booms. The male's guttural call is a low, rumbling, almost subliminal *mm uhmm-ump*, *hummm*, or *oomh* known as the boom call. Other calls include a sharp and thin *wheep!* known as the yip call or bark.

There is much geographic variation within the species *Crax rubra* and within its sub species, especially *Crax rubra griscomi* found on Cozumel Island. Within *Crax rubra*, the females have much variation in color but the males have little to none.

Subspecies and Distribution

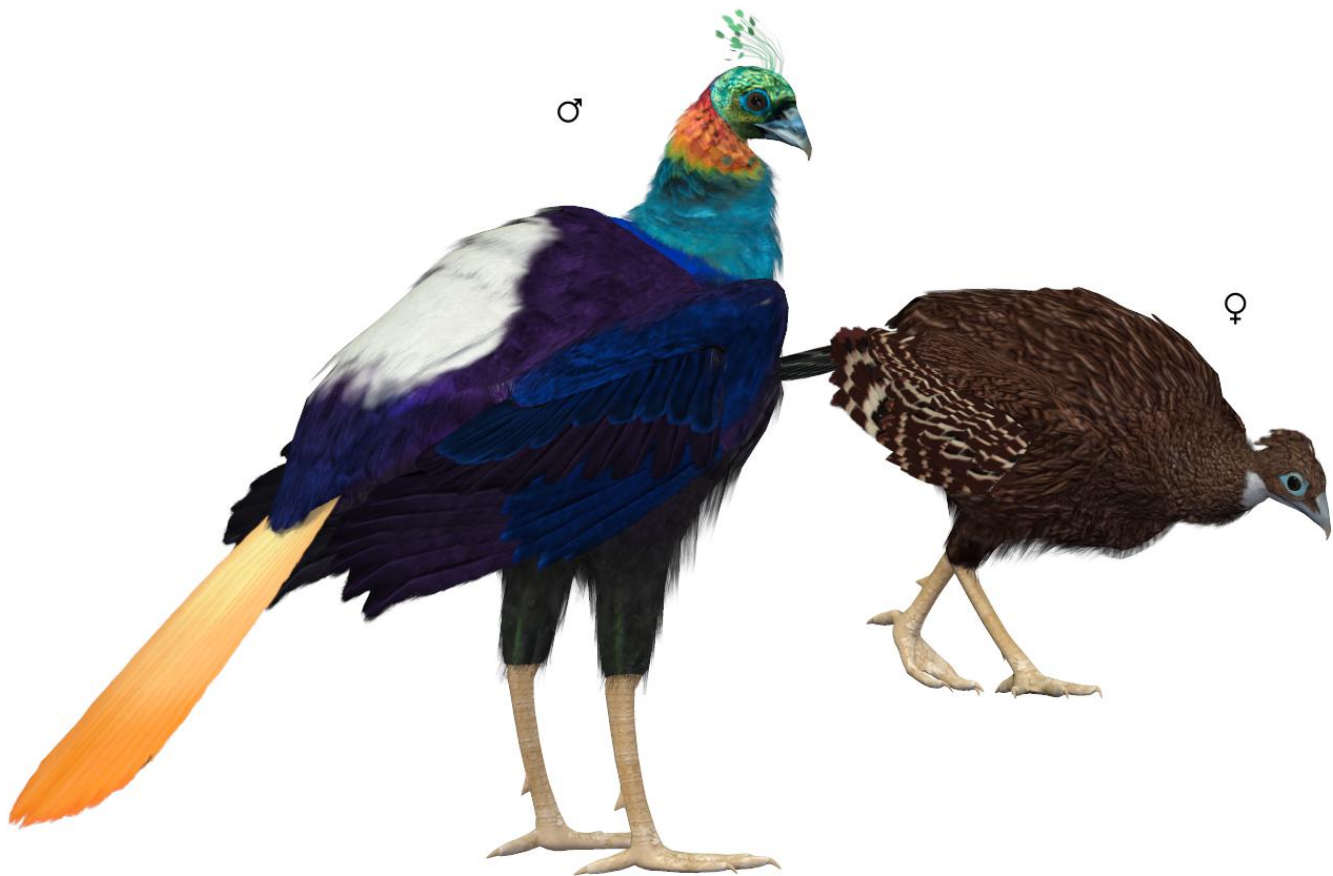
- *C. r. rubra*. Discovered by Linnaeus in 1758. It is found in Eastern Mexico, (Southern Tamaulipas) South through Central America to Western Colombia and Western Ecuador (formerly South to Guayas, but now seemingly restricted to Esmeraldas).
- *C. r. griscomi*. Discovered by Nelson in 1926. It is found on Cozumel Island, off Yucatán coast of Southeastern Mexico.

Common Name: Himalayan Monal
Scientific Name: *Lophophorus impejanus*

Size: 28–28.3 inches (70-72 cm)

Habitat: Asia; its range extends from Afghanistan and Pakistan through the Himalayas in India, Nepal, southern Tibet, and Bhutan.

It lives in upper temperate oak-conifer forests interspersed with open grassy slopes, cliffs and alpine meadows between 2400 and 4500 meters, where it is most common between 2700 and 3700 meters. It descends to 2,000 m (6,600 ft) in the winter. It tolerates snow and digs through it to obtain plant roots and invertebrate prey.



Status: Not threatened. **Global population:** 40,000 individuals with a decreasing population trend. In some areas, the species is threatened due to poaching and other human activity factors. In the western Himalayas, the local monal population responded negatively to human disturbance involving hydroelectric power development. The male monal was under hunting pressure in Himachal

Pradesh, where the crest feather was used to decorate men's hats, until 1982, when hunting was banned in the state.

Diet: Varies according to locality, but includes seeds, tubers, shoots, berries (e.g. *Cotoneaster microphylla*) and insects.

Nesting: The adult male has multicolored plumage throughout, while the female is more subdued in color. Notable features in the male include a long, metallic green crest, coppery feathers on the back and neck, and a prominent white rump that is most visible when the bird is in flight. The tail feathers of the male are uniformly rufous, becoming darker towards the tips, whereas the lower tail coverts of females are white, barred with black and red. The female has a prominent white patch on the throat and a white strip on the tail. The first-year male and the juvenile resemble the female, but the first-year male is larger and the juvenile is less distinctly marked.

The breeding season is April through August, and they generally form pairs at this time. In winter they congregate in large coveys and roost communally.

Cool Facts: It is the national bird of Nepal, where it is known as the danphe, and state bird of Uttarakhand, India, where it is known as the monal. It was also the state bird of Himachal Pradesh until 2007.

Common Name: Bornean Crestless Fireback
Scientific Name: *Lophura pyronota*

Size: 16.5–20 inches (42–51 cm)

Habitat: Asia; endemic to Borneo.

It is found in the lowland forest, including primary and well-regenerated, closed-canopy evergreen forests. Although it appears to be a peat-swamp specialist, it extends also into plains and riverine lowland mixed dipterocarp forests, as well as heath forests.

Status: Vulnerable. **Global population:** 10,000 -20,000 individuals with a decreasing population trend. The main threats are loss, degradation and fragmentation of habitat caused by large-scale commercial logging, even within protected areas, and widespread clearance for plantations of rubber and oil palm (*Elaeis guineensis*). The continuing loss of lowland peat-swamp forest across



most of this species' range has led to a rapid decline in its numbers, this exacerbated by probably high hunting pressure. The rate of forest loss in Sundaic lowlands has accelerated enormously as a result of several factors, including escalation of illegal logging and land conversion.

Diet: Animal and plant material in approximately equal amounts. It has been most regularly observed singly or in pairs.

Nesting: Males are larger than females. The male is mainly blackish to grayish-black with purplish-blue gloss. The neck is somewhat paler and dull, with narrow white streaking from the hind neck to mantle and from the fore neck to central belly. The rump is dark reddish with the upper tail-coverts deep blue and elongated. The tail is yellow-ochre. The iris is reddish-brown and there is extensive bare facial skin which is bright scarlet. Its bill is whitish-green with the base blackish. The legs are bluish-gray. The female is blackish all over, with dark greenish-blue to purple-blue gloss on the body, browner on the head, a paler throat, and a generally dull un glossed tail, lower underparts and flight-feathers. The iris is brown with a black bill with a paler base. The legs are bluish-gray. The juvenile resembles the female, but has body feathers tipped rusty-buff.

It has been reported to raise breast feathers in display. It is presumably monogamous, given the regular observation of pairs. Egg laying has been recorded in mid to late January and early March. It nests on ground and probably lays 3–6 eggs.

Cool Facts: It gives a low “*tak-takrau*”, vibrating “*purr*”, and loud “*kak*” when alarmed. It gives out a low clucking during foraging.

Common Name: Little Chachalaca

Scientific Name: *Ortalis motmot*

Size: 16.9-21.3 inches (43-54 cm)

Habitat: South America; its range extends to northern Brazil, French Guiana, Suriname, Guyana and Venezuela. It may also be found in the far eastern regions of Colombia.

It is found patches of forest with dense undergrowth along rivers or in clearings in more extensive woodlands. It is also found in thick tangled coastal brush and dense second growth, including abandoned pastures and other anthropogenic environments. It avoids dense forests. It is found in lowlands up to 1700 m. In French Guiana, it prefers interface between savanna and forest, and secondary forest near settled areas.



Status: Not threatened. **Global population:** 2,630,000 individuals with a decreasing population trend. It is considered common within its range and is quite common in captivity, where frequently bred.

Diet: Mainly berries and fruits (including *Cecropia*); also leaves of *Carica papaya* (*Caricaceae*).

It usually forages in pairs or small flocks, in trees or on the ground.

Nesting: It has a chestnut colored head, grayish body and grayish-brown primaries.

The nest is a fairly small cup, constructed of small roots, with flattened leaves and sticks, and lined with leaves. Records of egg laying in May, September and December in Surinam; November–December, at beginning of rains, in French Guiana; chicks in early November in Brazil. The clutch is three white eggs. Chicks has largely dark upper parts, except for a rufous head and tips to wing-coverts, and mainly buffy underparts.

Cool Facts: It is also known as the Variable Chachalaca. The song (given by duet-ting pair during breeding season, but by groups of three individuals at other times of year) is a loud, rollicking duet, a repeated “*WATCH-a-lak*”.

Subspecies and Distribution:

- *O. m. motmot*. Discovered by Linnaeus in 1766. It is found in Southern and Eastern Venezuela, the Guianas and Northern Brazil; North of the lower Amazon and speculated to occur in neighboring Southeastern Colombia. The nominate species is smaller and darker than *O. m. ruficeps*.
- *O. m. ruficeps*. Discovered by Wagler in 1830. It is found in North-central Brazil; South of the Amazon between Tapajós (Pará) and Araguaia (Tocantins).

Common Name: Rufous-bellied Chachalaca
Scientific Name: *Ortalis wagleri*

Size: 24.4-26.3 inches (62-67 cm)

Habitat: Central America; a Mexican endemic found from southern Sonora to northwest Jalisco.

Found in tropical deciduous and semi-deciduous forests and thorn forests in lowlands. It is also sometimes found in palm plantations and dense mangroves along coast. It is present in areas with drier vegetation as long as they are near water.

Status: Not Threatened. **Global population:** 146,000 individuals with a decreasing population trend. It occurs in a variety of habitats, including some severely altered by man, and therefore not considered of immediate conservation concern; is generally common or fairly common.



Diet: Berries and other fruits. It forages in groups of up to 10 individuals.

Nesting: The most richly colored of the chachalaca species, the Rufous-bellied Chachalaca has bright chestnut on the belly and under tail coverts and a bare red skin patch around its eyes. Juveniles are duller and lack the well-defined chestnut tail tips.

The peak of nesting period is June in southern Sinaloa, with egg laying lasting from May to July. Nests are found about a meter above ground in a small trees and shrubs; on average 3-5 m tall. Usually it lays three white eggs. Chicks are variegated rich brown and buffy white with blackish-brown coronal stripe, paler below, with whitish throat and bell.

Cool Facts: Its call is a loud, rhythmic, 4–5-syllable, chorus “*kirr-i-i-kr*”, “*chrr-i-k-rr*” or “*chrr-uh-uh-rr*”, sometimes with longer but still loud cackling, whistling or growling notes.

It is closely related to *Ortalis poliocephala* (*West Mexican Chachalaca*), of which formerly considered a race. A few cases of hybridization between the two in Northwestern Jalisco were interpreted as proof of a narrow zone of intergradation in West Jalisco and East Colima (where intermediates were even considered a different race, *lajuetae*), but hybridization may have resulted from escapes of imported *O. poliocephala*. There is no other indication of contact between the two taxa, and existing evidence deemed insufficient for treating them as conspecific. A somewhat paler population of Sonora sometimes treated as race *griseiceps*, but probably the product of the gradual change in certain characteristics exhibited by members of a series of adjacent populations of organisms of the same species.

Common Name: Band-tailed Guan
Scientific Name: *Penelope argyrotis*

Size: 19.7–24 inches (50-61 cm)

Habitat: South America; endemic to Venezuela and Columbia.

Found in dense forests in subtropical and upper tropical zones. It prefers wet, virgin forests, but at times can venture into tall second growth, shade-coffee plantations and upper edges of drier forest. It is often found in rugged, mountainous terrain such as in Santa Marta Mountains where it occurs at 550–2000 m.



Status: Not Threatened. **Global population:** 523,000 individuals with a decreasing population trend. Uncommon to fairly common, but infrequently seen, in Colombia, where threatened by deforestation in several areas. In 1990, the status in Colombia classed as indeterminate, but probably at least Vulnerable, particularly race *colombiana* endemic to Santa Marta Mountains, a critical region for conservation. The nominate race in Venezuela is known from a reasonable number of protected areas, among them Guatopo, Henri Pittier, Terepaima and Yacambú National Parks, but is also a frequent target of poachers.

Diet: Fruits, particularly pulpy ones (e.g. those of laurel and guarumo (*Cecropia*) trees). The hard seeds are regurgitated. Occasionally, it comes to ground to take fallen fruit, but usually feeds in mid-story in trees. It drinks water caught in bromeliad leaf bracts, or in flowers of heliconias. It rarely drinks on the ground.

It usually feeds in small groups of 3–6 birds, but more may gather at a fruit-laden tree.

Nesting: A relatively typical blackish-brown cracid, becoming dark rufous over the back and olive-brown glossed darker on the breast, and takes its vernacular name from the broad chestnut tips to the rectrices.

In Venezuela, groups begin to break up, and territories to be established, in January. It nests in February to May, with torrential rains coming at end of season. Breeding on average earlier on drier southern side of Coastal Cordillera than on the northern slope. Chicks appear in April through June in Santa Marta Mountains while in Colombia, juveniles are often seen in March. Nests are a loosely constructed, unwoven structure made of plant matter which is usually placed 1–8 m above ground in trees of *Rubraceae*. Chicks are uniform dark brown above, buffy brown and dull white below.

Cool Facts: It is generally considered to be rather silent, except in February through April during territory establishment when performs wing-rattling display.

There are three subspecies:

- *P. a. albicauda*. Discovered by Phelps, Sr & Gilliard in 1940. It is found in Sierra de Perijá, in Northern Colombia and Northwestern Venezuela. Race *albicauda* generally similar to nominate but has buffy-white tail tips
- *P. a. argyrotis*. Discovered by Bonaparte in 1856. It is found in the East Andes in Northern Colombia and Western Venezuela, and Coastal Range of Venezuela (East as far as North Monagas). This is the nominate species.
- *P. a. colombiana*. Discovered by Todd in 1912. It is found in the Santa Marta Mountains in Northern Colombia. Race *colombiana* has crown feathers edged white and more pointed than in nominate, and has less white on supercilium.

Common Name: White-browed Guan
Scientific Name: *Penelope jacucaca*

Size: 25.6–27.6 inches (65-70 cm)

Habitat: South America; It is endemic to the Caatinga in north-eastern Brazil.

It inhabits dry areas of stunted semi-deciduous forest, angical (open woodland largely comprising *Anadenanthera macrocarpa*, *Fabaceae*) and taller *caatinga*, usually no lower than 3–4 m high. It persists in selectively logged and otherwise degraded areas, including those close to dwellings, but seems to be especially numerous close to temporary rivers.



Status: Vulnerable. **Global population:** 2,500-9,999 individuals with a rapid decreasing population trend. North-eastern Brazil is the poorest region in the country and has a strong hunting culture. This large and attractive species is considered either locally extinct or very rare over much of its distribution and is under intensive pressure from hunting even in protected areas. Additionally, both Raso da Catarina and Serra Negra are intensively exploited by Indian groups, who have also cut much of the latter forest. Degradation of dry forests and arboreal caatinga, apparently its favoured habitats, has also been intensive.

Diet: Mainly fruit, berries and seeds (particularly *Rhamnaceae*, *Copaifera langsdorfii* and *Eugenia cearensis*).

It regularly forages on ground, presumably taking a range of fallen fruits, seeds and small quantities of insects. It has been seen in groups of up to seven individuals (presumably family parties).

Nesting: A conspicuous white supercilium (eyebrow) with a narrow black line below, separating it from bare skin on sides of face. The sexes may differ in color of irises, being more reddish in males and brown in females. The white streaks on upper-wing elongated and prominent. Juveniles are similar, but has a yellowish fore-neck (without characteristic red dewlap), yellowish orbital skin around eye and whitish stripes on wings, breast and flanks are less pronounced.

There is very little data available on breeding. It lays 2–3 white eggs in a nest of sticks and lined with dry leaves, in trees or palms (*Cyagrus coronata*). Juveniles have been observed in mid August.

Cool Facts: Recent records from a number of protected areas including Raso da Catarina Ecological Station (Bahia), Serra da Capivara National Park (Piauí), Serra das Confusões National Park, Sete Cidades National Park, Parque Ambiental de Teresina and Pernambuco (Serra Negra Biological Reserve, Mauricio Dantas Private Reserve). In Ceará state, it has recently been found at a site in Itapagé municipality where a private reserve is being created (P. Develey in 2007). An action plan being developed by IBAMA for Cracidae will include this species.

Common Name: Hainan Peacock-Pheasant
Scientific Name: *Polyplectron katsumatae*

Size: 31–39 inches (55-65 cm)

Habitat: Asia; It is endemic to the island of Hainan, China.

Found in dense evergreen and semi-evergreen forests; also secondary forests, but probably capable of surviving only in mature secondary habitats. It has never been found in plantations or close to developed areas.



Status: Endangered. **Global population:** 250–1000 individuals with a decreasing population trend. This species is known from total of 18 localities. Believed to have declined severely since 1990, when it was thought to number 2700 individuals. Habitat loss and hunting have been the main causes of this species' decline since mid-20th century, and these factors remain the primary threats to its survival. It occurs in nine reserves (Bawangling, Jianfengling and Diaoluoshan National Nature Reserves, and Baomei, Ganshiling, Houmiling, Huishan, Jiaxi, Limushan and Yinggeling Provincial Nature Reserves), although these are may be insufficient to ensure its long-term protection, given that hunting still occurs in many of these. It has been reported by local people to also been found in the Datianeldi Deer Reserve.

Diet: Presumably feeds mostly on seeds and berries, supplemented with some small invertebrates.

Nesting: The male has head and neck that is dark brown with narrow light buff barring, elongated forecrown feathers usually fanned over bill to produce forward-pointing bushy crest. Its chin and throat are whitish, while the rest of plumage is dark brown to blackish with buff vermiculations and speckles. The feathers of upper parts, including wing-coverts and tertials, have on each a prominent white-bordered black-edged blue or green ocellus near tip; elongated upper tail coverts with similar ocellus on each web. The iris is light gray and there is bare facial skin colored red. The bill is gray, as are the legs. Females are smaller and somewhat duller than male. Juveniles are poorly known but probably resemble the female.

Breeding season is reported to start in March through April, although nests have been found between late February and second week of June, with nestlings recorded as early as February. Nests are sited on ground and constructed of dead leaves and sometimes, grass. There is a clutch of 1–2 white eggs. No further information is available, although predation rates of the nests are apparently high.

Cool Facts: This is the rarest species in the order *Galliformes* (Game birds) in China.

Due to lack of detailed taxonomic studies, whether it was truly a subspecies (*Polyplectron bicalcaratum katsumatae*) or a full species remained unclear. Scientists used molecular markers, including the complete mitochondrial cytochrome b gene and intron G of the nuclear ovomucoid gene, to reevaluate the taxonomy of the Hainan peacock-pheasant. The results showed *phylogeographic monophyly* and large genetic distance between the Hainan peacock-pheasant and the Gray peacock-pheasant. Sequence differences corroborated the species-level distinction between these two peacock-pheasants, which were inferred to have diverged about 1.4 ± 0.3 million years ago, near the time Hainan Island became separated from mainland China.

Common Name: Koklass Pheasant
Scientific Name: *Pucrasia macrolopha*

Size: 20.4–25.2 inches (52-64 cm)

Habitat: Asia; Pakistan, India, Nepal, Tibet and eastward to mainland China.

It is found in coniferous and mixed forests

With steep terrain, down to 1600 m in winter (in Pakistan), and as high as treeline at 3000–4000 m in spring, although at the latter season it is recorded as low as 1350 m in Hubei (China). It favors areas with dense bamboo and under-story, e.g. of rhododendron, although it has been recorded in forests heavily grazed by goats. It prefers to roost in trees.



Status: Not threatened. **Global population:** 6,600,000 individuals with a decreasing population trend. Some subspecies may be considered “Vulnerable” such as Races *joretiana*, *darwini*, *meyeri*, *ruficollis* and *xanthospila*. The races are probably still widespread (range estimated at 1,380,000 km²), but habitat increasingly destroyed and fragmented, resulting in many small populations,

often at low densities in Santel, Pipar, and West-central Nepal. It seems to prefer forest with heavy under-story, and this is being degraded by overgrazing and collection of wood for fuel, and by other forms of disturbance (agricultural encroachment, logging, etc.); all of these factors are problems in Ayubia (Pakistan), Great Himalyan and Nanda Devi (India), and Khaptad National Parks (Nepal), as well as Pipar (Nepal) and Fanjingshan and Mazong (China) reserves. Hunting is also probably a threat in some areas, e.g. it is among the most widely hunted gamebirds in Uttaranchal (India). Local extinctions have perhaps occurred in Southeastern Tibet, Northwestern Fujian and Northern Guangdong (China) and Afghanistan. There are no specific conservation initiatives, but the species occurs in several protected areas. Two subspecies clusters may warrant conservation attention: Races *joretiana* and *darwini*, which have a combined range of less than 50,000 km² in SE China, and for which only anecdotal information exists; and Races *meyeri*, *ruficollis* and *xanthospila*, which comprise central block of races, and which are similarly little known. Baseline surveys to assess status and distribution of birds and habitat are first step.

Diet: A variety of seeds, including acorns, berries and buds; also insects and worms.

Nesting: A medium sized pheasant with a fully feathered face in both sexes. A full crest and lanceolated plumage of male are characteristic. The female is brown, marked with black, with pale gray to rufous tinge according to race. The crest is very short and pale. Juveniles, including first-year males, are similar to adult female. The races vary mainly in extent of chestnut, black and yellowish in plumage of males.

Cool Facts: Koklass pheasant is a monotypic species of genus *Pucrasia* with nine subspecies recognized so far. These are:

- *P. m. biddulphi*. Discovered by G. F. L. Marshall in 1879. It is found in Northern Pakistan and Northern India (to West Himachal Pradesh). Race *biddulphi* is somewhat intermediate between other members of the “Himalayan” group in having a maroon hind neck and under-parts, often with a gray mantle and brownish tail, while female is darker than nominate.
- *P. m. castanea*. Discovered by Gould in 1855. It is found in Eastern Afghanistan; east to adjacent Pakistan (Chitral). Race *castanea* is darker with more maroon underparts and a blacker tail than nominate race, while female is also darker with a blackish tail.
- *P. m. darwini*. Discovered by Swinhoe in 1872. It is found in Central and East China (Hubei and Southeastern Sichuan Eastwards to Zhejiang and Fujian); extinct in Northwestern Fujian and North Guangdong. Race *darwini* has two morphs in parts of range, based on presence or absence of chestnut band on underparts; intermediate birds occur.
- *P. m. joretiana*. Discovered by Heude, 1883 – It is found in Central-eastern China (Southwest Anhui). Race *joretiana* has a densely-feathered, blunt-

tipped crest, rich chestnut central neck and breast, and greyish-centred upperparts and flanks, with two black streaks on each feather on these tracts.

- *P. m. macrolopha*. Discovered by Lesson in 1829. It is found in the Western Himalayas, from Central Himachal Pradesh eastward to Western Nepal. The nominate race has reddish-chestnut neck and under-parts.
- *P. m. meyeri*. Discovered by Madarász in 1886 It is found in South-central China (West and southwestern Sichuan eastwards to Northwestern Yunnan); extinct in Southeastern Tibet. Race *meyeri* has rufous tail
- *P. m. nipalensis*. Discovered by Gould in 1855. It is found in West-central Nepal. Race *nipalensis* is very dark, rich chestnut and black overall, with gray-fringed wing-coverts.
- *P. m. ruficollis*. Discovered by David & Oustalet in 1877. It is found in Central China (South Gansu, South Shaanxi and West Sichuan). Race *ruficollis* is very dark, with an almost orange neck, maroon underparts becoming blackish on under tail-coverts, and black and gray tail.
- *P. m. xanthospila*. Discovered by G. R. Gray in 1864. It is found in Northeastern China (Shaanxi Northeast through Western Hebei and Southeastern Inner Mongolia to Southwestern Manchuria). Race *xanthospila* is paler and duller than the previous race, with a golden collar, reddish under tail-coverts and gray and black tail with rufous fringes.

Special Thanks to...

....my beta testers (FlintHawk and Szark) and a huge thank-you to Paul Lessard and Chuck Taylor from their invaluable help on my DAZ Studio and Poser rigging issues.

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>)
- **Birdlife International** (<http://www.birdlife.org>)
- **Handbook of the Birds of the World Alive** (<https://www.hbw.com>)
- **Neotropical Birds** (<https://neotropical.birds.cornell.edu>)

Other Resources:

- **Songbird ReMix Central** (<http://www.songbirdremix.com>)
- **Songbird ReMix on Facebook**
(<http://www.facebook.com/pages/Songbird-ReMix/208762869171101>)

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

