

Songbird  
ReMix

# TROGONS



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

## Songbird ReMix

# TROGONS

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## Introduction

Trogons and Quetzals are birds in the order *Trogoniformes*, which contains only one family, the *Trogonidae*. This family contains 46 species in seven genera. The word "trogon" is Greek for "nibbling" and refers to the fact that these birds gnaw holes in trees to make their nests.

Trogons are residents of tropical forests worldwide. The greatest diversity is found in the Neotropics. There are also three African species and twelve species which are found in southeast Asia. They are considered to be "among the most beautiful of birds", yet they tend to be reclusive and seldom seen.

The Songbird ReMix version of these iconic birds includes the standard Songbird ReMix series features, such as working wings and fully articulated body parts.

There are two versions of this set for native support in Poser and DAZ Studio. Materials have been tuned to support Iray, 3Delight, Superfly 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):
  - **Trogons and Quetzals (Order Trogoniformes)**
- **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".

## 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.

## Posing & Shaping Considerations

This volume has various species, 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.

Here are some of the most common alterations you may need to make:

- Birds will not be flat on the zero plane due to leg size and overall scale.
- Because of the numerous beak shapes, closing the beak may range from 0.5 to 1. Usually 0.8 is about right.
- **Raise Upper Beak** (*in Action Controls*): This morph is a "one size fits all" control. Because of the variety of beak shapes. It may not work with all birds.
- **Tongue poke-through** (especially when the beak is open). This can be easily solved by using the **Throat-Fuller1 & 2** morphs (*found in Creation Control/Head Shapes*).

**IK Concerns...** Some poses may go askew when IK is turned on. By default, Poser's IK feature is turned off when loading a bird. To turn it on, select the "Figure" category from the main tool bar and "Use Inverse Kinematics" from the submenu.

By default, DAZ Studio's IK feature is turned on when loading a bird. This will cause the thigh and shin rotations change when the character is moved. The **CTRL K** keypress will turn IK on and off in DAZ Studio. I usually just remove IK when working in DAZ Studio by selecting the character in the **Scene tab** and simply deleting the two IK body parts.

If you want to use IK in DAZ Studio, here's how it works...

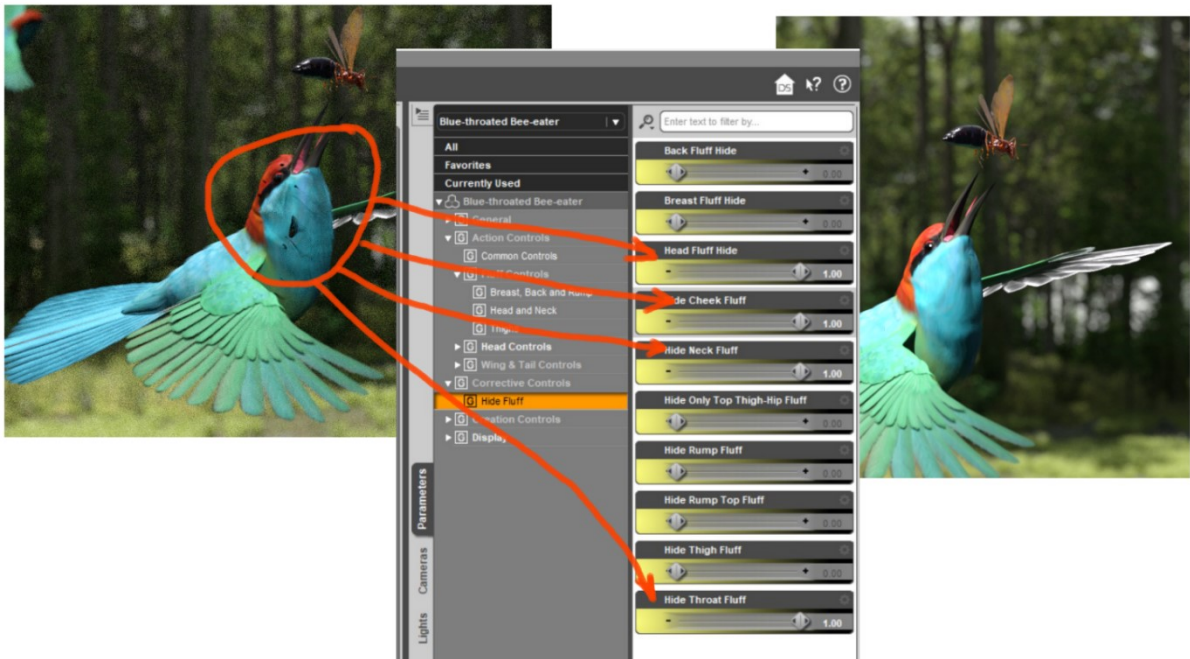
1. First, go to the Scene Tab, and select the "**IK-...: Left (or Right) Leg**".
2. On the "Parameters" Tab, select "Inverse Kinematics".
3. Turn off "Pin Translation" and "Pin Rotation" to pose the feet to a perch and then "ON" when posing the rest of the bird.



## 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. The higher the bounce settings, less chance those will be apparent. This is a known Poser issue and may be addressed in the future. Increasing the SubD may minimize this issue.

A good work around solution for Iray or Superfly artifacts is to **HIDE Fluff areas (Correction Controls)**.



## Where to Find your Birds & Poses

Type Folder	Bird Species
<input type="checkbox"/> Trogons and Quetzals (Order Trogoniformes) <input type="checkbox"/>	All Species and Poses

# TROGONS

## FIELD GUIDE

### **African Trogons**

Bar-tailed Trogon

### **Asian Trogons**

Javan Trogon

Orange-breasted Trogon

Red-naped Trogon

Cinnamon-rumped Trogon

Scarlet-rumped Trogon

### **American Trogons**

Cuban Trogon

Eared Quetzal

Hispaniolan Trogon

Black-headed Trogon

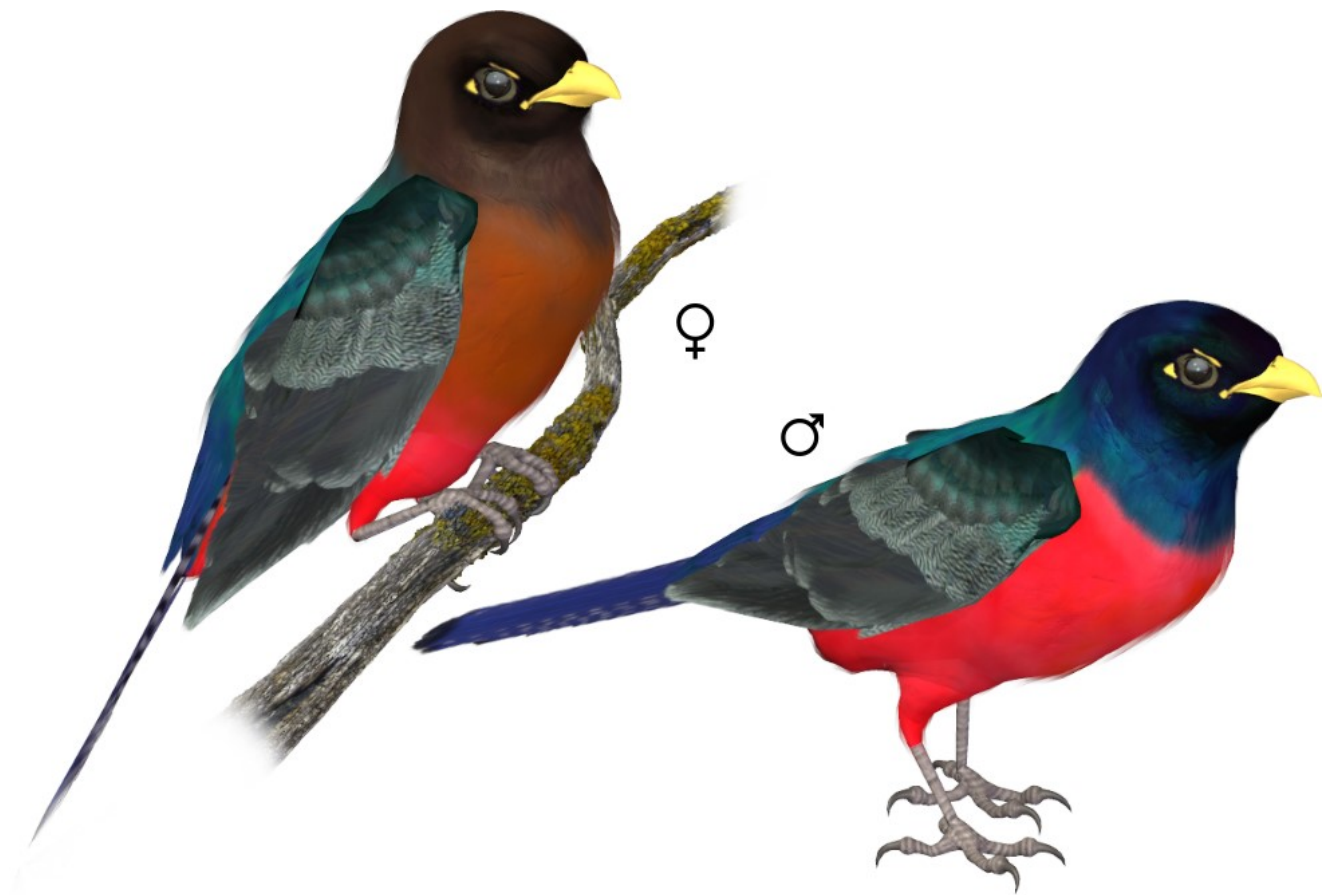
Gartered Trogon

Masked Trogon

**Common Name:** Bar-tailed Trogon  
**Scientific Name:** *Apaloderma vittatum*

**Size:** 11-15.4 inches (28-39 cm)

**Habitat:** Africa; it is found in the mountains in southeastern Nigeria, northwestern Cameroon, Bioko, western Angola (Mt Moco). It is also found in the Albertine Rift in the eastern portion of the Democratic Republic of the Congo, western Uganda, Rwanda and Burundi, and the mountains in Kenya, Tanzania, northeastern Zambia, Malawi and northern Mozambique (Mt Namuli).



**Status:** Least Concern. **Global population:** Unknown amount of adult individuals with a decreasing population trend. It is not uncommon on the Obudu Plateau in Nigeria. In Cameroon, it is locally common on Mt Kupé, less so on five other mountains in the western highlands. It is fairly frequently recorded in Bioko, although shy and difficult to observe, all records coming from primary forest; common at Itombwe, Zaire. It is generally uncommon in eastern Africa and has disappeared in recent years from the forest around Nairobi. It is found in Arusha National Park in Tanzania, and in three national parks in Uganda; in Rwanda, densities in the Nyungwe Forest moderate even in most favorable habitat. In Zambia, density as high as 12 pairs/25 ha under closed canopy in Chowo Forest, Nyika Plateau; where canopy discontinuous, often 2–3 pairs/10 ha. It is possibly extinct at Chiradzulu, Malawi. It was fairly

common on Mt. Namuli, Mozambique, in early 1930's, but there is no recent data.

**Diet:** Canopy insects, mainly smooth caterpillars, also butterflies, moths and beetles. Caterpillars and moths noted as preferred prey in Malawi and caterpillars and grasshoppers recorded in diet in Bioko.

Once observed in mixed-species foraging party.

**Nesting:** Sexes are dimorphic. The male is with a yellow or greenish-yellow bill. There are patches of bare skin below eye that are yellow or orange. Above the eye the patch is yellow or gray. The head and throat are blue-black with a bronzy green gloss. The breast line is violet-blue with the upper-parts being a bright green. The mid-breast to the vent is red. The wing panel is barred black and gray with the upper-tail mainly bluish or purplish-black. The outer 3 feathers are barred black and white and the under-tail is densely barred black and white. The under-wing has a conspicuous white bar. The female differs by having a brown head that fades into a cinnamon-brown breast. The juvenile is white-bellied, with the wing-coverts tipped a buffy-white.

It breeds from November to January in Bioko, and October and December through February in Cameroon. It breeds February through May in Zaire, March in Uganda, November through February in Kenya (in and after short rains), and September and November through February. This species is probably monogamous. They nest in cavities of dying trees, usually about 2 m up. Two-to-three eggs are laid.

### **Cool Facts:**

There are 2 subspecies:

- *A.v. vittatum*. The endemic species is found in Tanzania, Malawi and Mozambique.
- *A.v. camerunensis*. This subspecies is found in Nigeria, Cameroon, and Bioko to Angola, western Democratic Republic of the Congo, and western Uganda.



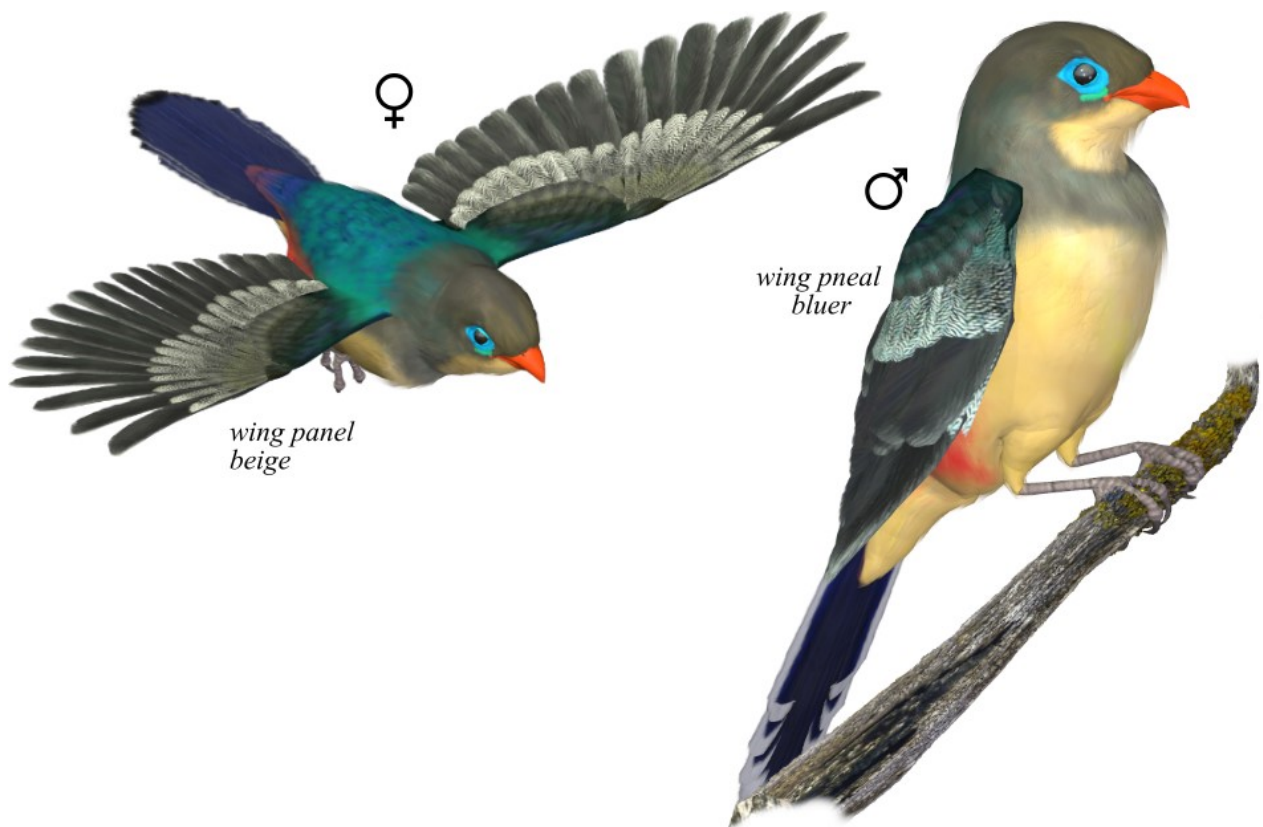
**Common Name:** Javan Trogon  
**Scientific Name:** *Apalharpactes reinwardtii*

**Size:** 13.4 inches (34 cm)

**Habitat:** Asia; it is endemic to the mountains of western Java. Recent records show activity in the Halimun, Salak and Gede-Pangrango Mountains.

It occurs in the lower storey of montane rainforests at altitudes of 900–2,500 m, chiefly on the lower slopes..

**Status:** Vulnerable. **Global population:** 2,500-9,999 adult individuals with a decreasing population trend. It is uncommon within its restricted range. It is known to be uncommon in Gunung Gede-Pangrango National Park. The population was initially estimated to be as low as a few hundred pairs and therefore considered “Endangered”, however, on the basis of available habitat, population now suspected to be significantly larger, triggering reassessment as “Vulnerable” in 2014. Nevertheless, this population still thought to be declining. The main threat is forest loss, degradation and fragmentation, due to widespread agricultural encroachment. It may also be affected by trapping.



**Diet:** Diet consists of beetles (including genus *Aegosoma*) and cicadas (including genus *Platylomia*), which are mostly taken in flight. It also feeds on caterpillars, stick-insects, grasshoppers and bugs. It is commonly seen feeding on fruit, such as figs.

It will occasionally join mixed-species flocks.

**Nesting:** Sexes are dimorphic. The male has a yellowish-green head and bluer green upper-parts with yellow-barred wing panel and a deep metallic blue tail. It has a yellow throat and belly with a pale gray-green breast band. Its bill is red, it has a blue orbital ring and orange feet. The female has its wing panel barred buffier and narrower than the male.

Breeding has been recorded from April to June, August, September, October and December. It lays 1-3 eggs.

**Cool Facts:** It differs from the very similar Sumatran Trogon (*Apalharpactes mackloti*) with its larger size, longer tail, heavier bill, and green rump.

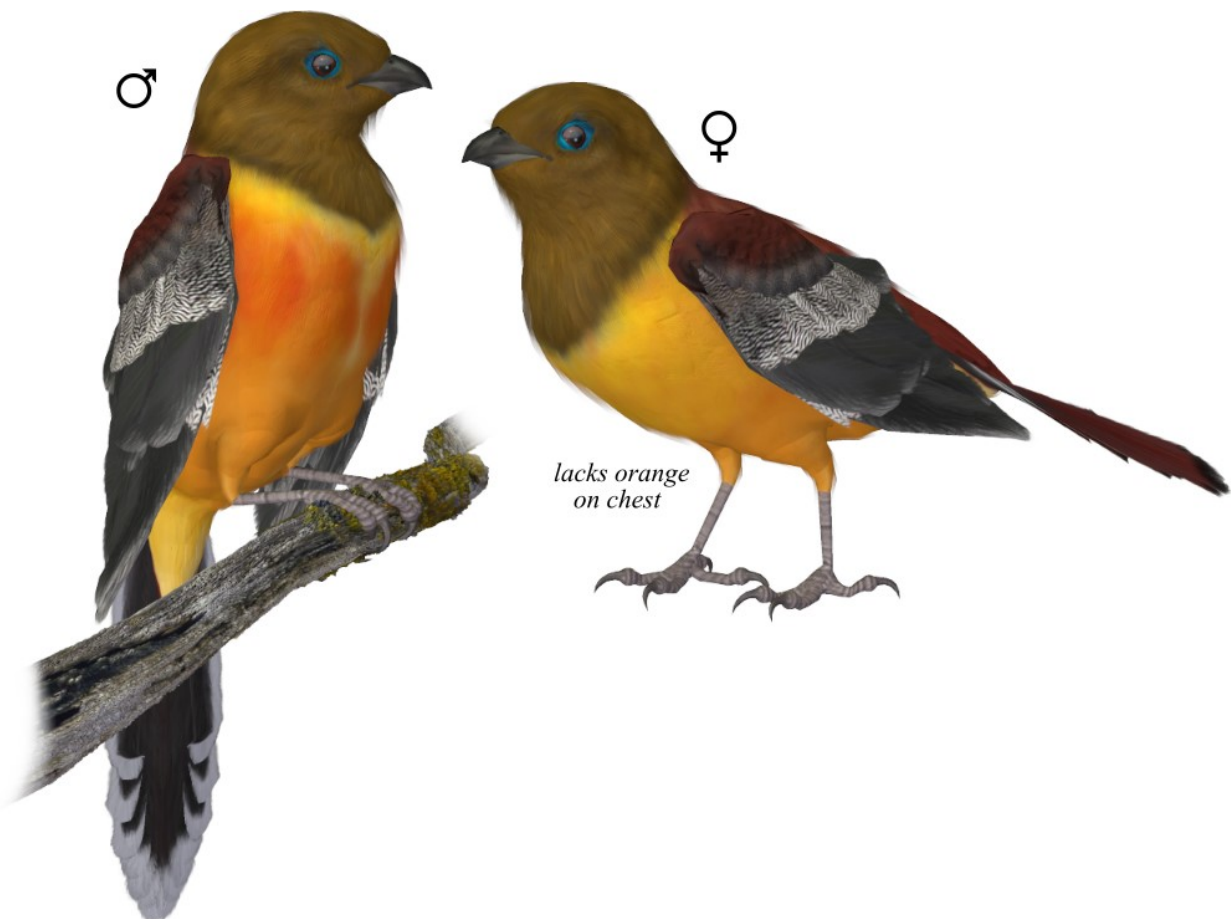
**Common Name:** Orange-breasted Trogon

**Scientific Name:** *Harpactes oreskios*

**Size:** 9.8-12.2 inches (25-31 cm)

**Habitat:** Asia; it is found from southern China to Java.

It inhabits mid-stratum and lower canopy of primary semi-evergreen and lowland and lower montane evergreen forests and swamp-forests, but also disturbed tracts with much bamboo, thin tree jungle, open dry forest, mixed deciduous forest, bamboo forest, and even clumps of trees near forest tracts; occurs in lowlands up to 1100 m in Thailand; up to 1300 m in Peninsular Malaysia; at 300–1500 m (apparently mainly 800–1000 m) in Borneo and Sumatra; and up to 1200 m in Java. It also occurs low down in heavy secondary jungle, often in substage growth, on Nias. Little use of degraded forest in Laos.



**Status:** Least Concern. **Global population:** Unknown amount of adult individuals with a decreasing population trend. The species is tentatively assessed as being in decline due to habitat loss. It is rare in Yunnan; in Myanmar, common in Tenasserim but scarcer elsewhere; common in Thailand, including in Doi Suthep-Pui National Park, and the commonest trogon in the peninsula; moderately common in some areas in Laos, and present in several major existing or proposed “national biodiversity

conservation areas”; present in Nam Bai Cat Tien National Park in Vietnam; fairly common in north and central Peninsular Malaysia. In Borneo, it is not common on Kinabalu but is the most common trogon of the Kelabit uplands above 900 m. It is common at submontane site in Barito Ulu area of Kalimantan in 1989. Only a single record during period (1940–1985) in Sumatra, but in more recent times reported to be present in Bukit Barisan Selatan and Gunung Leuser National Parks; uncommon in Java.

**Diet:** Includes Orthoptera, cicadas, bugs, beetles (including *Tenebrionidae*), ants, stick-insects and their larvae, caterpillars. It has also been seen feeding on spiders, lizards, fruit, and regularly an admixture of vegetable material.

It appears to feed more frequently on the ground than other trogons. It is recorded following mixed-species flocks.

**Nesting:** Sexes are dimorphic. The male of the nominate race has a dull olive-yellowish head with blue orbital ring, rufous-chestnut upper-parts and upper-tail with a paler rump. It has bold broad white bars on the wing panel, yellow (gray-based) on the upper breast with a vague white mid-line. The orange lower breast becomes paler on the vent. There is white on black under-tail. The female has a more gray-brown head and upper-parts shading to pale buffy-brown rump, gray breast, and yellow lower under-parts. The juvenile is similar to the female; the male juvenile with warmer brown upper-parts.

Breeding has been recorded from February through April in Myanmar, January through March in Thailand; January to May in Peninsular Malaysia, and February, May, June and October in Java. Its nest is in a hollow stump, sometimes in dead bamboo, often less than 1 m from ground. It lays two to three eggs and the incubation period is 17–18 days with the nestling period, 12 to at least 14 days. The nest success is just 8% (in a study from Thailand).

**Cool Facts:** There are 5 subspecies:

- *H.o. stellae*. It is found in southern China (Southern Yunnan) and Myanmar to Indochina. It has paler upper parts, has more broadly vermiculated wing-coverts and a longer tail than Race *uniformis*.
- *H.o. uniformis*. It is found in southern Thailand and Malay Peninsula (except the extreme south) to Sumatra. It is similar to the nominate but lacks the paler rump, and has an olive-yellow upper breast (latter grayer in the female).
- *H.o. nias*. It is endemic to Nias Island (off northwestern Sumatra). It has a somewhat darker crown and larger bill than Race *uniformis*.
- *H.o. dultensis*. It is found in central northern Borneo. It looks similar to Race *uniformis* but much smaller, and with a greener breast.
- *H.o. oreskio*. The nominate species is found in Java.

**Common Name:** Red-naped Trogon  
**Scientific Name:** *Harpactes kasumba*

**Size:** 12.6-13.3 inches (32-34 cm)

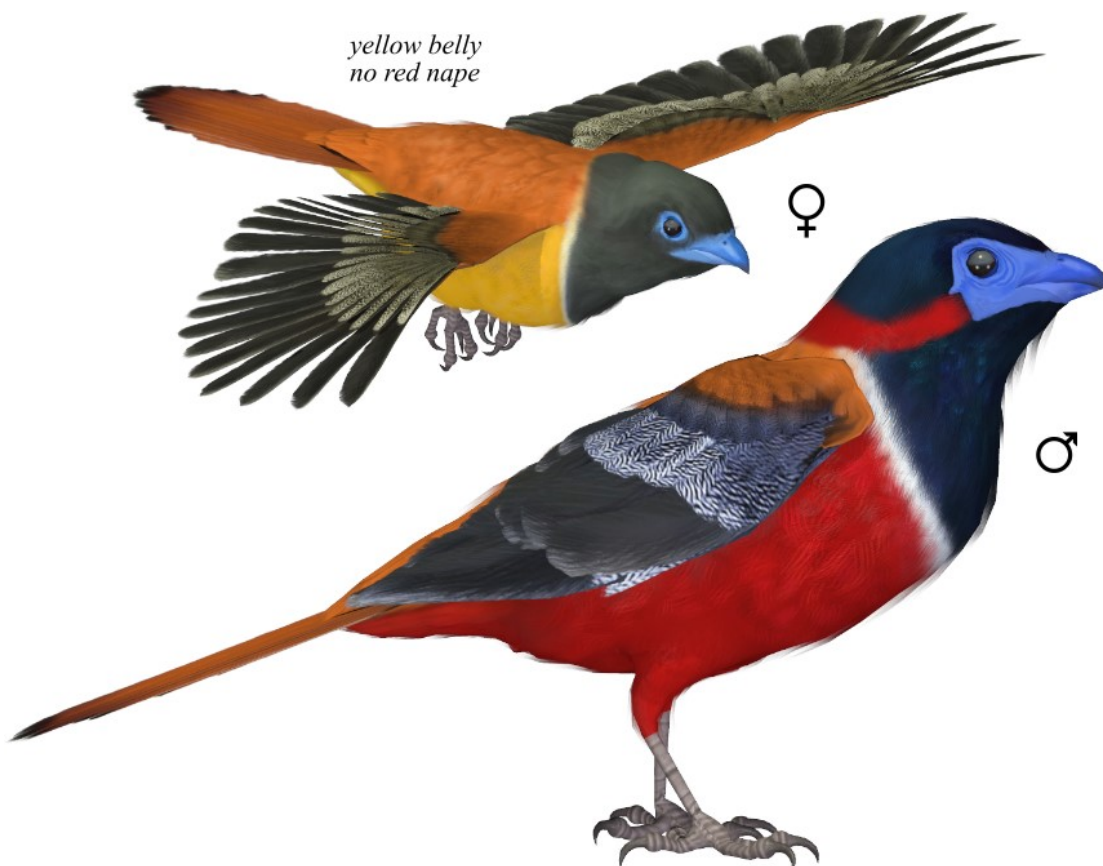
**Habitat:** Asia; it is found in Brunei, Indonesia, Malaysia, and Thailand.

Its natural habitat is subtropical or tropical moist lowland forests..

**Status:** Near Threatened. **Global population:** Unknown amount of adult individuals with a decreasing population trend. High rates of deforestation in the Sundaic lowlands have been extremely rapid, owing to the escalation of illegal logging and land conversion that targets all remaining stands of valuable timber. Another impact has also been forest fires that have had a severely damaging effect.

**Diet:** Mainly insectivorous, feasting on arthropods with a preference for stick insects and spiders. This regime is embellished with small lizards, fruits and seeds.

They are generally inactive outside of their regular feeding patterns. Because of this, birdwatchers and biologists have noted that “apart from their general beauty, they are notorious for their lack of other immediately engaging qualities”. Their lack of activity has been considered a defence against predation. As with other *Trogonidae* species, they have been reported to shift along branches to keep their dull colored backs turned towards observers,





while their heads, which can rotate at 180 degrees like owls, are turned to keep watch on any potential predators. They are preyed upon by hawks and predatory mammals.

**Nesting:** It is a strongly sexually dimorphic species, with the females generally being duller than the males. The male is physically defined by a black head and upper breast, blue bill and eye ring with a bright blue colored face. He has yellow-brown upper-parts and upper tail with black outlines, a white breast-line, bright red under-parts and the under-tail is black and white. The most defining physical characteristic of this species is a band of bright red feathers around the back of the head, which gives the species its name. The females are blander in color than the males, consisting of a gray-brown head and upper breast with yellow under-parts.

It is a territorial and monogamous species. The males repel other members of the same species, and even other nesting species, from around their nesting sites to ensure the safety of the nest. The males attract females by singing. Flocks of 3-12 individuals have been observed prior to, and sometimes during the breeding season, calling and chasing each other, however, the function of these flocks is unknown.

Nests are dug in a cavity of a rotten stump a few meters off the ground. They produce a clutch size of between one and three eggs. The incubation period lasts between 16 and 19 days. Upon hatching, the chicks are altricial, blind and naked, however, they do acquire feathers rapidly. The nesting period generally takes between 16 and 23 days to fledge.

**Cool Facts:** It was discovered in 1822 by Sir Stamford Raffles, a military and British naturalist (1781-1826) best known for having founded Singapore in 1817.

There are 2 subspecies:

- *H.k. kasumba*. The nominate race is found in extreme southern peninsular Thailand, Peninsular Malaysia and Sumatra..
- *H.k. impavidus*. It is found in Borneo.

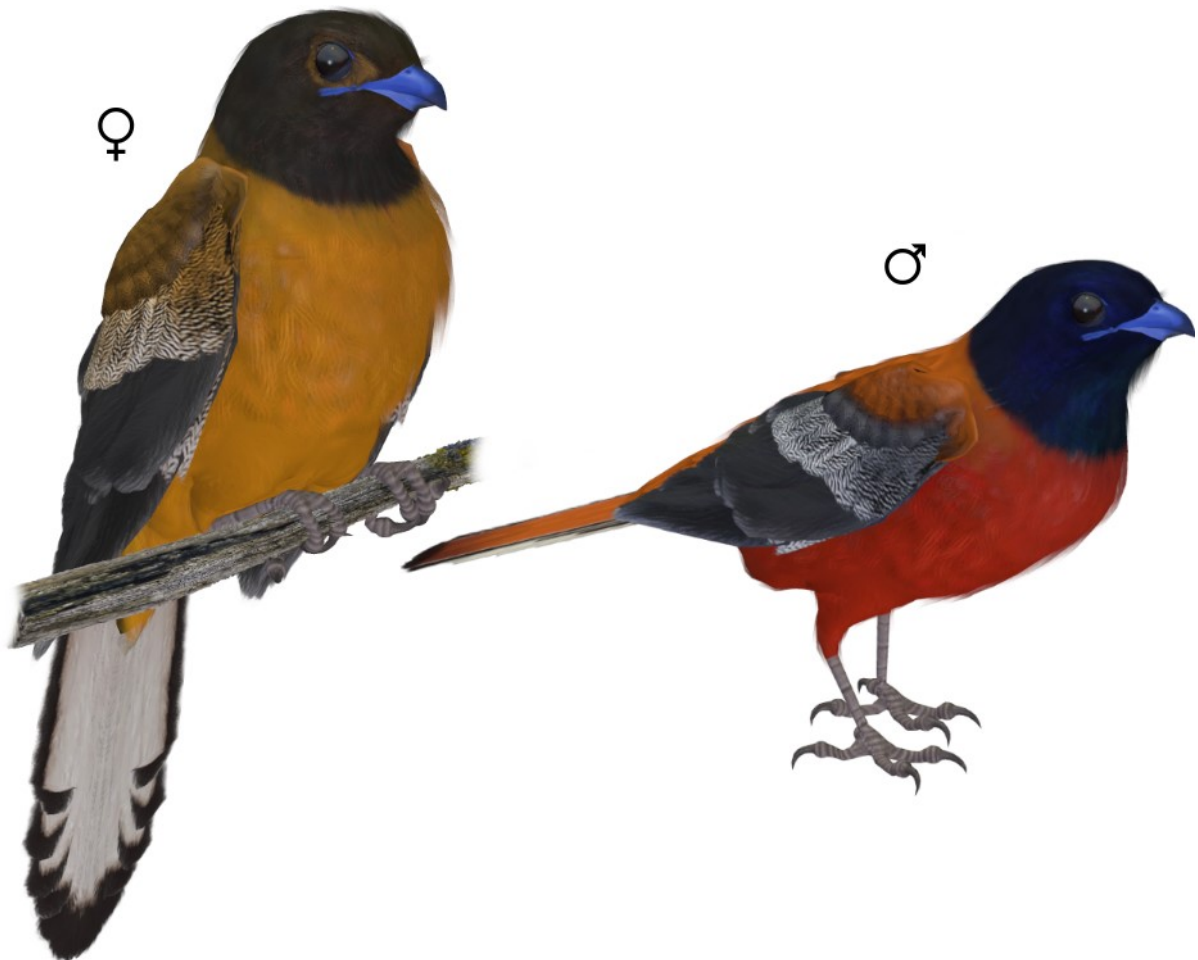
**Common Name:** Cinnamon-rumped Trogon

**Scientific Name:** *Harpactes orrhophaeus*

**Size:** 9.8 inches (25 cm)

**Habitat:** Asia; it is found in Peninsular Thailand, Malaysia and Borneo.

In peninsular Malaysia and Thailand they are often found 2-4m up in the shrubs/trees. In Borneo they have been found to go higher up in the trees, to about 1000-1400m high. In these regions they are primarily in the lowlands and hills favoring forests primarily full of *Dipterocarps*. They can also be found in peat swamp forests normally this would occur in Brunei where they are rarely found. These peat swamp forests tend to be very humid as well as near mangroves. These forests are well known for their large amounts of decaying vegetation.



**Status:** Vulnerable. **Global population:** Unknown amount of adult individuals with a decreasing population trend. In Thailand, their habitats are being threatened and they only have 3 protected regions in which to survive. In Malaysia, this trogon has begun to appear more often in its normal environment. Seeing as these environments are becoming more of a rarity it is assumed that habitat loss will also threaten those found in Malaysia. Until recently this species was protected by its habitats, that provided them with

quite a bit of cover. Unfortunately, this is no longer really the case, deforestation has become rampant in Asia. This species has always been known as rare and therefore the fact that it is near threatened is very concerning and could mean potential extinction unless the proper precautions are taken.

**Diet:** Mostly cicadas and phasmids (walking sticks).

This species will hunt alone but has also been noted to sometimes hunt in smaller groups.

**Nesting:** Sexes are dimorphic. The male of the nominate race has black hood, blue bill, eyebrow and narrow orbital ring, pale brown upper-parts and upper-tail. It has pinkish-red under-parts; the under-tail white with a black border. The female is with dark brown head with chestnut on lores and around eye. The rump and under-parts are a rusty-buff to yellowish-buff. The juvenile resembles the female.

It breeds during the months of March, April and June in Malaysia, although in Borneo this mainly occurs during the month of March. This species of trogon will normally have its nests in the lower parts of rotten trees at about 1–1.5 m high. Here they will create their own holes/cavities to be used as a nesting site. They will normally produce 2 eggs per nesting attempt, these would then be incubated by the parents.

During this season trogons will form calling groups where they will intermingle between sexes and perform their cries to each other. It has been thought that this could be a mating tactic and may also be used in order to find spots for their nests. While they are calling each other they will also engage in a racing performance normally instigated by the males, where they will race both the females and males. Throughout the performance there are normally 3–10 males and fewer females chasing each other from tree to tree while constantly calling.

**Cool Facts:** There are 2 subspecies:

- *H.o. orrhophaeus*. The nominate subspecies is found in Thailand and Malaysia.
- *H.o. vidua*. It is found in the northern and central regions of Borneo. Race *vidua* is barely distinctive, but the barring on the wing panel is less dense, and the breast is buffier. The female is darker above, with more chestnut on the face and throat, and the barring on the wing-panel is stronger.

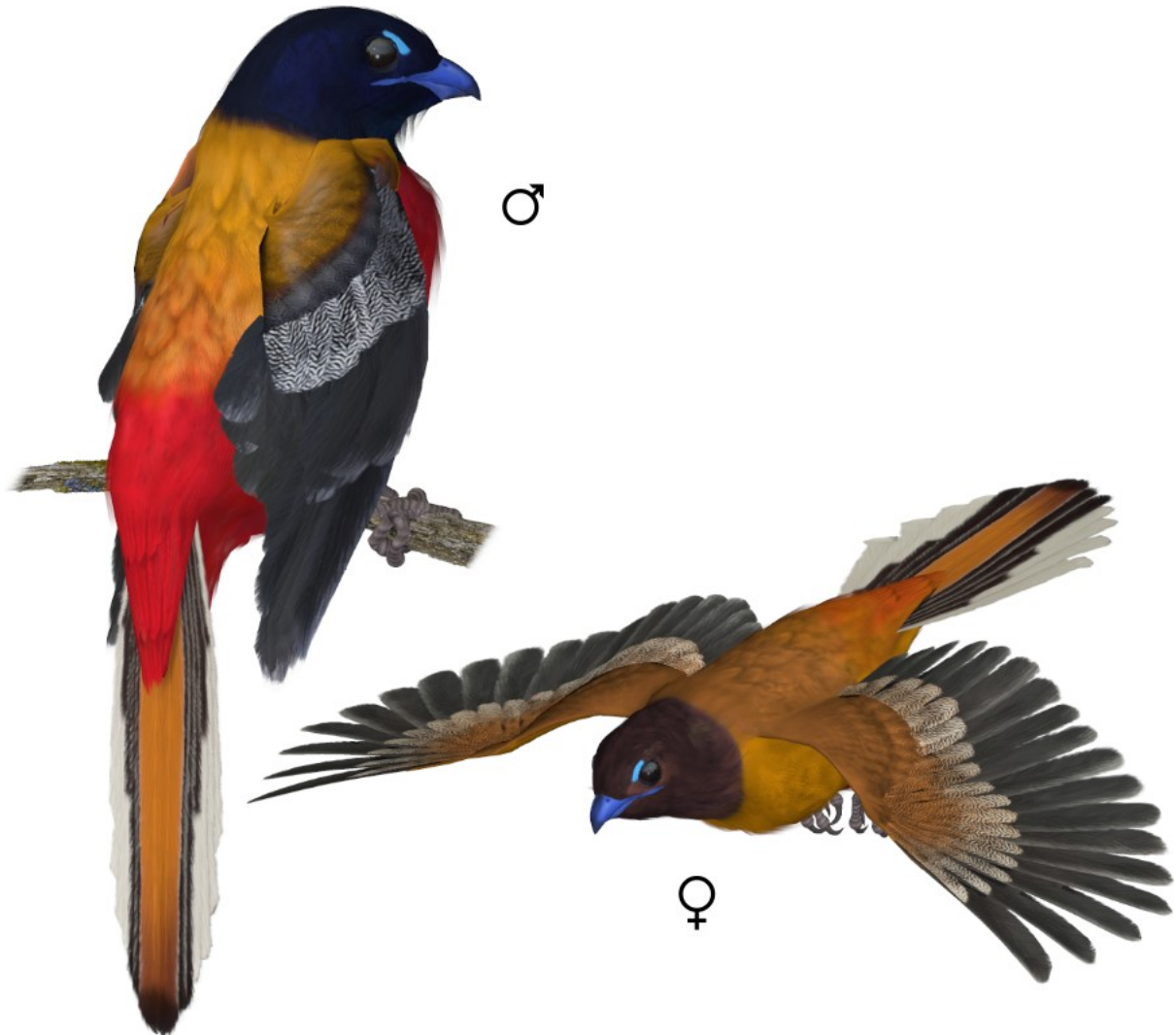
**Common Name:** Scarlet-rumped Trogon

**Scientific Name:** *Harpactes duvaucelii*

**Size:** 9-9.4 inches (23-24 cm)

**Habitat:** Asia; It is found in Brunei, Indonesia, Malaysia, Myanmar, and Thailand.

Its natural habitats are subtropical or tropical moist lowland forest, subtropical or tropical swamps, and subtropical or tropical moist montane forest.



**Status:** Near Threatened. **Global population:** Unknown amount of adult individuals with a decreasing population trend. It is generally uncommon and now threatened by habitat loss in peninsular Thailand, where known from six protected areas. It is fairly common in southern Peninsular Malaysia and common throughout lowland Borneo. It is the commonest trogon in Barito Ulu area of Kalimantan and present in Similajau National Park in Sarawak; uncommon to common in Tanjung Puting National Park in Kalimantan. Considered the most -numerous lowland trogon in Sumatra; present in Berbak

Game Reserve and Bukit Barisan Selatan National Park, and frequent in Way Kambas National Park.

**Diet:** Green Orthoptera, stick-insects, bugs, beetles, moths and caterpillars.

Several observations of bird on edge of a cleared area sallying out over scrub like a shrike. It is often in mixed-species flocks.

**Nesting:** Sexes are dimorphic. The male has a black hood with blue bill, eyebrow and narrow orbital ring with a rich buff to yellowish-brown upper-parts and upper-tail. It is a distinctive scarlet rump, upper-tail-coverts and under-parts. The under-tail is white with black bordering. The female has a dull brown head and throat, paler buffy-brown breast, reddish-pink belly, and pinkish rump and upper-tail-coverts. The juvenile is like the female but without pink tones; the rump and the upper-tail-coverts are more rufous-tinged.

Breeding season is February through June; March and May in Peninsular Malaysia. Its nest is often found in rotten stumps 2·5 m tall. Two eggs are laid.

**Cool Facts:** There are 5 subspecies:

- *H.o. stellae*. It is found in southern China (Southern Yunnan) and Myanmar to Indochina. It has paler upper parts, has more broadly vermiculated wing-coverts and a longer tail than Race *uniformis*.
- *H.o. uniformis*. It is found in southern Thailand and Malay Peninsula (except the extreme south) to Sumatra. It is similar to the nominate but lacks the paler rump, and has an olive-yellow upper breast (latter grayer in the female).
- *H.o. nias*. It is endemic to Nias Island (off northwestern Sumatra). It has a somewhat darker crown and larger bill than Race *uniformis*.
- *H.o. dulitensis*. It is found in central northern Borneo. It looks similar to Race *uniformis* but much smaller, and with a greener breast.
- *H.o. oreskio*. The nominate species is found in Java.

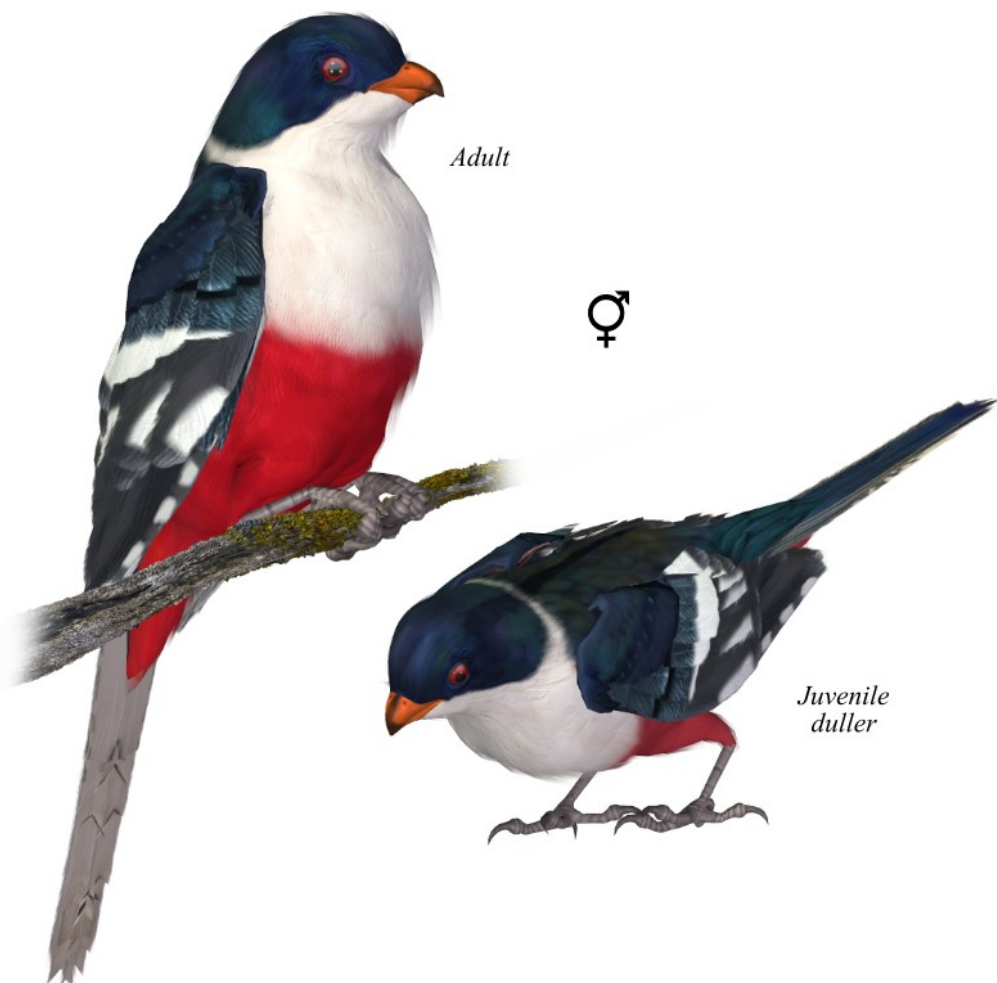


**Common Name:** Cuban Trogon  
**Scientific Name:** *Priotelus temnurus*

**Size:** 9-11 inches (23-28 cm)

**Habitat:** North America; it is endemic to Cuba, Isla de la Juventud (Isle of Pines), and some of the larger cays off the central north coast.

The species inhabits both primary and secondary forest and also shrublands and smaller woodlands near watercourses. It favors humid shady areas within those landscapes and occurs at all elevations but is most common at higher ones.



**Status:** Least Concern. **Global population:** Unknown amount of adult individuals with a decreasing population trend. It is considered common and widespread throughout the main island of Cuba but is rare on the small offshore cays and uncommon of Isla de la Juventud. "Deforestation and habitat fragmentation pose two of the greatest anthropogenic threats to the Cuban trogon."

**Diet:** Mostly insects, fruit, and buds but it also feeds small lizards to young.

It usually forages at the middle level of the forest; it takes food by sallying from a perch or by hovering at foliage or fruit. It is usually found in pairs though sometimes in groups of three or four. They seem "indifferent to human presence in the immediate vicinity."

**Nesting:** It has a reddish-pink bill with a darker culmen. The face is blackish with a reddish iris. Crown and nape are dull violet blue; the malar region and sides of neck and chin are white, while the throat and breast are grayish white, with a red belly and under-tail coverts. The mantle and rump are green. There are large white spots on the coverts and regular white notches on the outer webs of the primaries. The upper surface of the tail is dark greenish blue, the central pair of rectrices with bronze-blue inner webs, tips excised; on the under surface of the tail, the three outer pairs of rectrices are basally blackish with white notches on the outer webs, and distally white with excised tips creating distinctive ragged white 'thorns' down the outer edge. The sexes are similar, but the juvenile typically is duller.

The breeding season is mostly April to July. It nests in natural cavities or abandoned woodpecker holes, usually in trees but sometimes in arboreal termitaria. The clutch size is three or four eggs. The incubation period is about 18 days and fledging occurs about 21 days after hatch

**Cool Facts:** The Cuban Trogon is the national bird of Cuba, its colors echoing those of the national flag. Known locally by the onomatopoeic name, Toco-ro-ro, it is the only member of the family *Trogonidae* that resides in Cuba and is endemic to the Cuban Archipelago.

There are two subspecies:

- *P.t. temnurus*. First reported by Temminck in 1825. The nominate species is found on Cuba, including some large cays north of Camagüey Province (Palma, Caguanes, Guajaba and Sabinal).
- *P.t. vescus*. First reported by Bangs and Zappey in 1905. This subspecies is endemic to the Isla de la Juventud (Isle of Pines), Cuba. It is similar to the nominate but slightly smaller.

**Common Name:** Eared Quetzal  
**Scientific Name:** *Euptilotis neoxenus*

**Size:** 13-14 inches (33-36 cm)

**Habitat:** North America; it is native to streamside pine-oak forests and canyons in the Sierra Madre Occidental of Mexico south to western Michoacán, and southeastern-most Arizona and New Mexico in the United States. This range includes part of the Madrean Sky Islands region of southeastern Arizona, southwestern New Mexico, and northern Sonora.

It is a resident of the middle to upper levels of pine-oak woodlands and oak-conifer forests, frequently along streams.



**Status:** Vulnerable to Threatened. **Global population:** 20,000-49,999 adult individuals with a decreasing population trend. The Eared Quetzal is considered Threatened under Mexican law. It has a “threatened” status, because it is restricted to the pine forests of the Sierra Madre Occidental, and uses a particular habitat (canyons and riversides). Based on determinations of habitat loss, it is estimated that 15-49% of its population has been lost in Mexico during the last century.

**Diet:** Insects, small vertebrates, and fruit, including the warty red fruits of madrone trees. Caterpillars, moths, katydids, cicadas, small lizards, and other prey are fed to the young.

Like other trogons, this quetzal often pluck prey and fruit while hovering.

**Nesting:** Sexes are dimorphic. Both sexes have iridescent green backs, iridescent dark blue central tail feathers, and outer tail feathers that are predominantly white terminally with a band of black at the base (sometimes partially barred black and white in females). The bill is dull gray with a slightly darker band at the tip. The adult male has a blackish head, iridescent green breast, and geranium red belly and under-tail coverts. The adult female has a gray head, breast, and upper belly and less extensive (though equally bright) red on the lower belly. Both sexes bear the wispy hair-like auricular plumes that give the species its name, though these are rarely apparent in the field. Both head and bill appear rather small and narrow in comparison to those of typical trogons.

It nests 16–30 ft high in an unlined shallow tree cavity, usually selecting an old woodpecker hole. Nests have been observed in pine, fir, maple, and aspen trees. Limited excavation of the cavity is accomplished using the bill to dig into the rotten wood of the walls and opening. The incubation and nestling periods are relatively long when compared to other species (28–31 days and 17–21 days, respectively).

**Cool Facts:** The eared quetzal was described and illustrated in 1838 by the English ornithologist and bird artist John Gould in his book, “A Monograph of the Trogonidae, or Family of Trogons based on a specimen collected in Mexico.

A molecular phylogenetic study published in 2005 found that the eared quetzal was sister to a clade containing members of the genus *Pharomachrus*.

Quetzals differ from typical New World trogons in having iridescent wing coverts, less extensive fusion between the two forward-facing toes of their heterodactyl foot, broad tails with distinctly convex (rather than straight or concave) sides, and eggs with pale blue shells. They also average larger in body size than typical trogons, and the eggs and young develop more slowly. The eared quetzal is a seemingly primitive form, lacking the impressively long iridescent upper tail and wing coverts of members of the genus *Pharomachrus* (including the “Resplendent quetzal”).

**Common Name:** Hispaniolan Trogon  
**Scientific Name:** *Priotelus roseigaster*

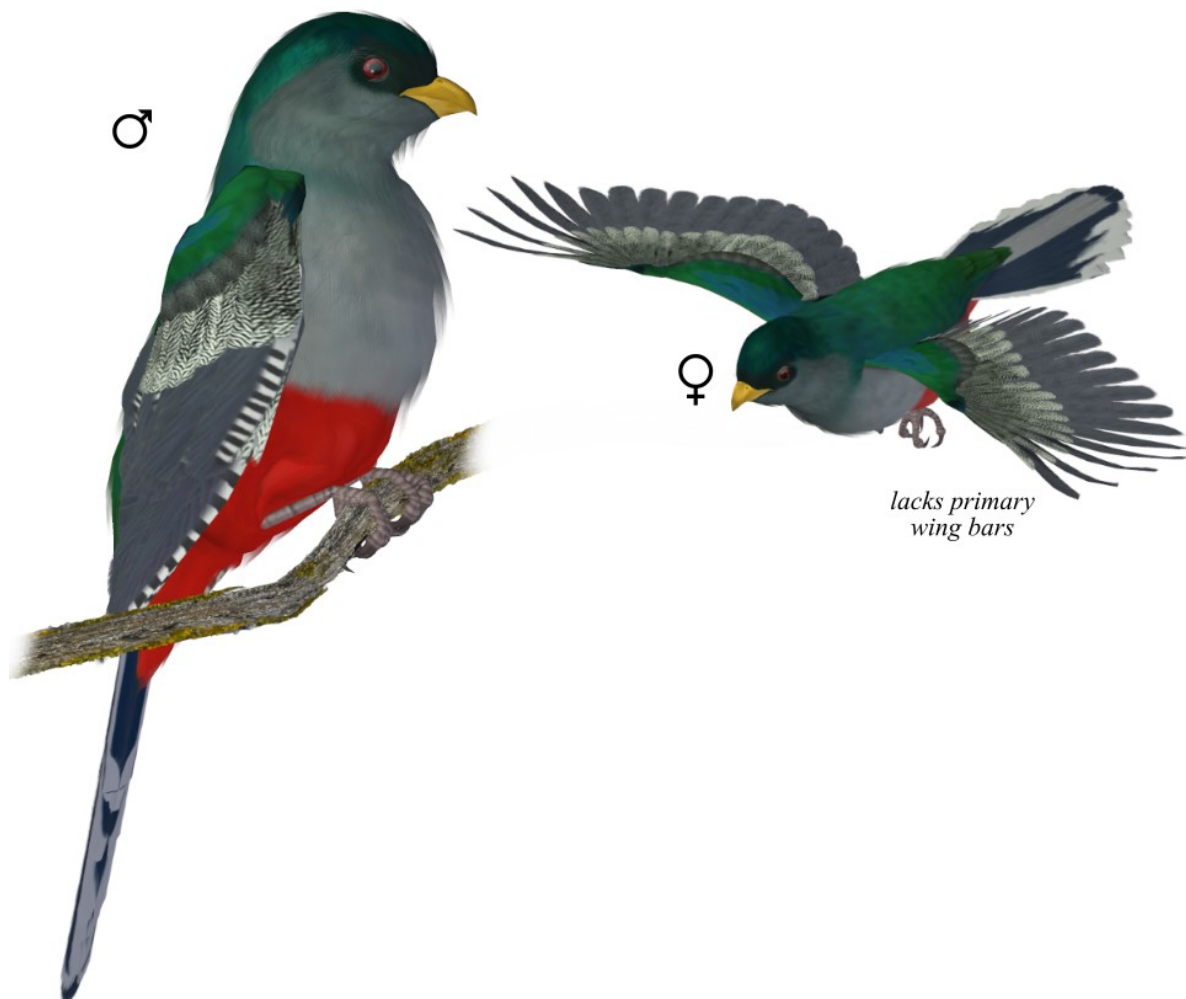
**Size:** 10.6-11 inches (27-28 cm)

**Habitat:** North America; it is endemic to Hispaniola (both Haiti and the Dominican Republic) in the Caribbean. In Haiti, it is restricted to the Massif de la Hotte and Chaîne de la Selle, due to extensive habitat loss. It is still quite common in the Dominican Republic, especially in the relatively undisturbed Sierra de Baoruco, although there has been a moderately rapid population reduction, owing to deforestation.

Its natural habitats are subtropical or tropical moist montane forests, and heavily degraded forest. It inhabits rain, dry, pine and broadleaved deciduous forests. Several early records included mangrove swamps west of Miragoane, but whether these were visitors or a resident population is unknown.

**Status:** Least Concern. **Global population:** Unknown amount of adult individuals with a decreasing population trend. It is threatened by habitat loss. It is mostly confined to a few remaining protected areas.

**Diet:** Mainly eat insects, though it also takes small vertebrates such as anoles and fruits, especially those of the West Indian sumac.





**Nesting:** Sexes are dimorphic. The males crown is a dull metallic bronze-green. Its back, scapulars, anterior lesser wing coverts, and upper rump are brighter bronze-green, shading into a metallic green or slightly bluish green on the lower rump and upper-tail coverts. The outer web of central pair of rectrices are dark metallic blue or greenish blue, with a small subterminal area of grayish bronze; inner web grayish bronze, broadly tipped with a dark metallic blue. Next two pairs of rectrices entirely dark metallic blue or greenish blue. The three outer pairs of rectrices similar but with broad white tips, with a subterminal blue-black spot on the outer web. The primaries are black, the outer webs spotted with white. The rear lesser wing coverts, the median and greater wing coverts, and secondaries are blackish, narrowly barred with white. The lores dusky, shading into slate on the auriculars, malars, chin and upper throat. The lower throat and breast are slate-gray, glossed (especially on breast) with bronze-green or greenish bronze, shading to gray on the lower breast. The belly and under-tail coverts are red.

The female is similar to the male, but the wing coverts and secondaries lack the narrow white bars. The wing coverts are grayish olive margined with metallic bronze-green, and the secondaries slate-gray.

Its breeding season is March to July. The nest is a cavity in a tree, including cavities of the Hispaniolan woodpecker (*Melanerpes striatus*). It lays two eggs; pale green and unmarked.

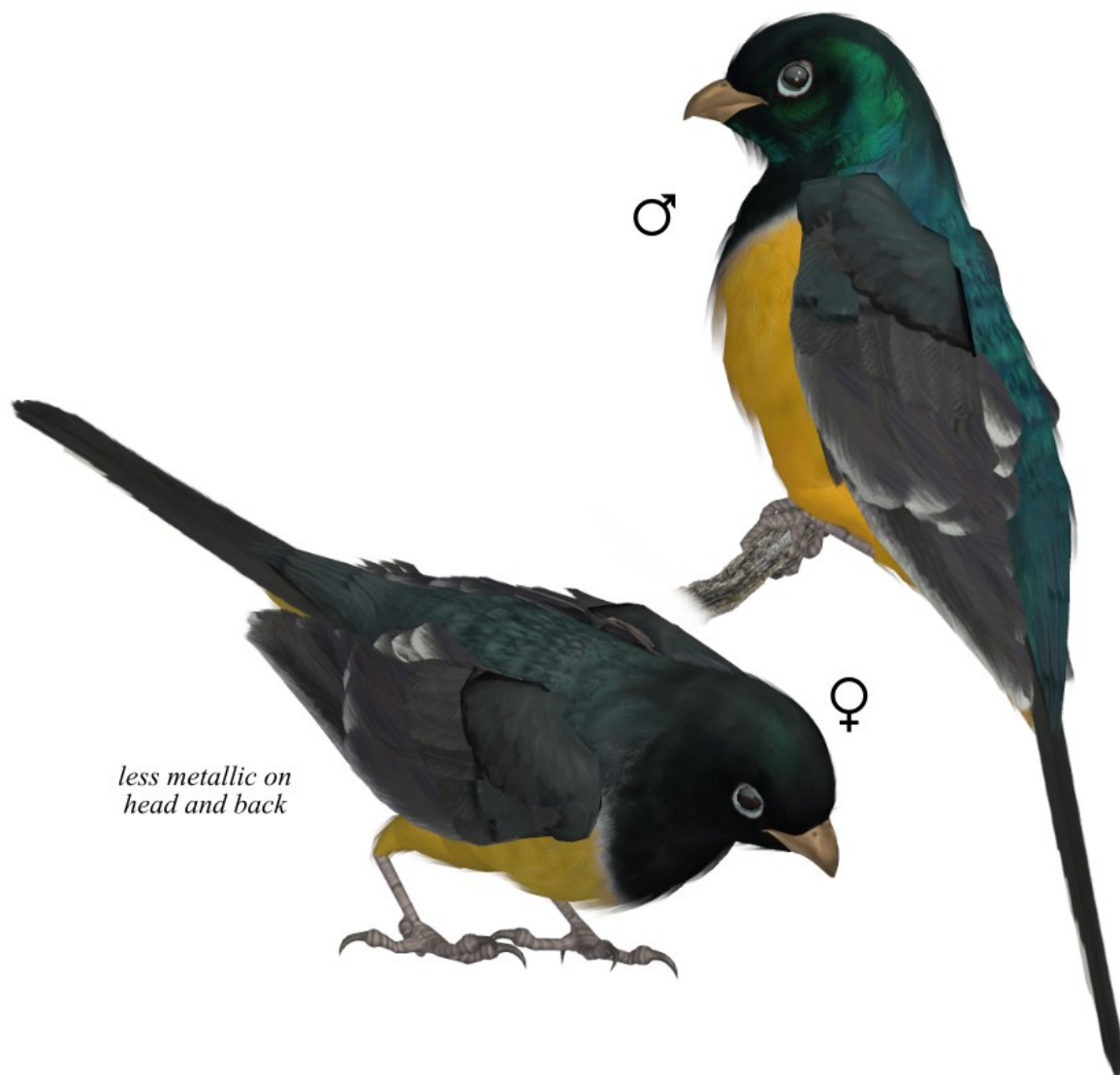
**Cool Facts:** It is one of the only two trogon species found in the Caribbean and is the national bird of Haiti.

**Common Name:** Black-headed Trogon  
**Scientific Name:** *Trogon melanocephalus*

**Size:** 10.6-11 inches (27-28 cm)

**Habitat:** North America; it is endemic to southern Mexico south and east through Central America to northwestern Costa Rica.

Unlike many trogons, it prefers fairly open habitats, including plantations, secondary forest, gallery forest, and seasonally deciduous forests.



**Status:** Least Concern. **Global population:** Unknown amount of adult individuals with a decreasing population trend. It has a large range but its population size is not known and believed to be decreasing. No immediate threats have been identified.

**Diet:** Varied; includes both fruit and arthropods (in particular, caterpillars).

It is less solitary than most other trogons, joining small groups of up to 12 individuals frequently gather during the breeding season to call, forage, and investigate nesting sites together.

**Nesting:** Sexes are dimorphic. The adult males head, neck, and chest uniform black or slate-black. The crown and hind neck sometimes faintly glossed with metallic bluish. The back, scapulars, anterior lesser wing coverts, and upper rump are bright metallic bluish green to golden green, usually more bluish next to black of hind neck and sometimes intermixed with violet-blue. The lower rump and upper tail-coverts rich metallic blue, violet-blue, or bluish violet. The four middle rectrices metallic bronze-green to bluish green (rarely blue or violet-blue), abruptly tipped with black, the inner web of second and third rectrices (from middle) wholly black; three lateral pairs of rectrices black, broadly tipped with white (this about 15-30 mm wide). The wings (except anterior portion of lesser covert area) are slate black, the longer primaries edged basally with white. The sides and flanks blackish slate or sooty slate, the latter more or less tinged or intermixed with orange-yellow. The rest of under-parts are a rich orange-yellow (cadmium or deep chrome) fading into yellowish white anteriorly, where forming a more or less well-defined band against blackish of chest, the feathers of tibia and tarsus sooty blackish.

The adult female is similar but the metallic coloring of upper parts replaced by slate color or blackish slate.

Nesting cavities are carved into large arboreal nest occupied by termites (typically *Nasutitermes*) and consist of a long curved tunnel ending in a circular nesting chamber. Both members of the pair excavate the cavity and participate in incubation, nest defense, and food delivery to the nestlings.

**Cool Facts:** There are 2 subspecies:

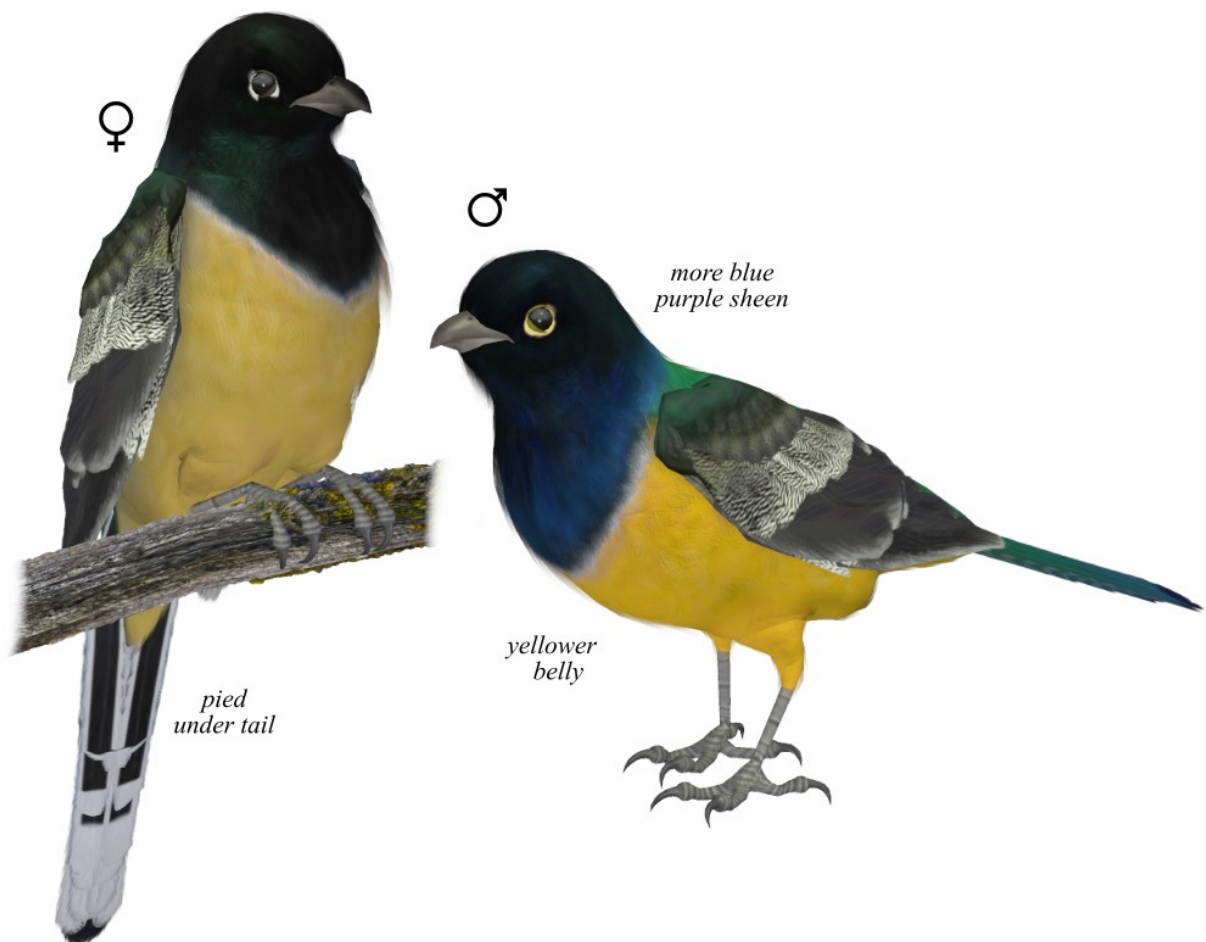
- *T.m. melanocephalus*. The nominate subspecies is found on the Gulf-Caribbean slope of eastern Mexico to northeastern Costa Rica.
- *T.m. illaetabilis*. It is found in western Costa Rica. It is similar to the nominate except that adult male has head, throat, and chest dark gray-slate color to blackish slate, instead of black. Also, the adult female is much paler and grayer than in the nominate. Size averaging slightly larger and the bill slightly heavier.

**Common Name:** Gartered Trogon  
**Scientific Name:** *Trogon caligatus*

**Size:** 8.7-9.8 inches (22-25 cm)

**Habitat:** Central America; it is distributed from central Mexico throughout Central America, Colombia, western Ecuador, northwestern Peru and the Maracaibo basin in Venezuela.

In northern end of range appears to enter primary evergreen forest, heavy and light rainforest (common in such habitat in Oaxaca, Mexico, less so in semi-deciduous and Pacific swamp-forest), but also tall second growth (especially near streams), clearings, open woodland and second growth, edge, plantations and mangroves, occupying middle to upper storeys; where broadly



sympatric with the Amazonian black-throated trogon (*T. rufus*), generally prefers more open forest and second growth, forest borders, thinned woodland and, especially, shaded plantations (cacao, coffee) and openings with shrubs and trees. In Costa Rica, it occupies the canopy in drier areas, but in the wetter areas, it is found in the forest edges, semi-open parts, clearings with scattered tall trees and tall second growth. It is not a forest-interior bird in Panama and Colombia, and only occurring at borders, and in shady and lighter second-growth woodland, and clearings with scattered trees, to at least 1000 m.

**Status:** Least Concern. **Global population:** Unknown amount of adult individuals with a decreasing population trend. It is common to fairly common in Mexico, where abundant in upper tropical zone of Veracruz in 1940's, but not abundant in Yucatán. Common in lower tropical zone of El Salvador in 1930's. Commonest and most widespread trogon in lowland Guatemala; fairly common in the Pacific and Caribbean subtropics and lowlands, less numerous in Petén, but seemingly increasing at Tikal with opening-up of woodland. Moderately common in Belize and Honduras. Uncommon and local in dry northwestern Costa Rica; common in more humid areas, and once considered the most abundant and widespread member of family there, but always commonest in lowlands. Fairly common in Panama. Recently recorded for first time on Pacific slope of southwestern Colombia, whither may have spread from west Ecuador, as a result of continuing deforestation of southwestern Colombia. In Venezuela, the nominate race was formerly widespread in Sierra de Perijá, but appears to be in decline.

**Diet:** Fruit and small invertebrates. It is possibly more frugivorous than other trogons (especially mistletoe berries). It has recorded taking Cecropia fruit, Didymopanax morotoni berries, and oranges opened by Golden-fronted Woodpecker (*Melanerpes aurifrons*). Invertebrate foods include caterpillars, ants, wasps, termites, katydids, locusts, earwigs and spiders.

Nestlings are fed on insects and small fruits. It sallies, hovering to pluck fruits and insects from vegetation; often feeds in low trees on berries and fruit alongside thrushes and tanagers. When taking over a wasp nest, the birds catch and apparently eat the wasps, sustaining the assault for up to 2 weeks. It does join mixed-species flocks..

**Nesting:** Sexes are dimorphic. Males have pale blue-gray bills and pale yellow orbital rings; head to mid-breast violet-blue, with mask and throat black, white breast-band shading into bright yellow on rest of underside; upper-parts metallic green, wing panel indistinctly vermiculated black and white (appearing mid-gray at distance); flight-feathers dark, primaries whitish on outer webs; tail relatively short, violet-blue and tipped black above, finely barred black and white below with broader white tips forming 3 bands. Female has blackish culmen, white eye ring broken above and below eye, lacks violet-blue and green, has its wing panel densely barred black and white, belly duller yellow with gray wash on the flanks, under-tail with black inner webs creating pied and barred effect.

Breeding occurs from March to June in Mexico; inferred May/June in Belize; May–July in El Salvador; February to June in Costa Rica; The nest is found in a very large, turbinate arboreal vespiary (e.g. of *Parachatergus*, composed of silvery-gray paper), mainly 10–15 m up at edge of or outside forest, or in arboreal nest of Azteca ants, or in termitary, rotten trunk, or root-mass of ferns (once possibly *Polypodium crassifolium*) or other epiphytes. Two to three eggs are laid with a nestling period that lasts at least 17 days.



**Cool Facts:** Its populations are separated into 3 subspecies which differ in size and the ratio of black to violet on the head.

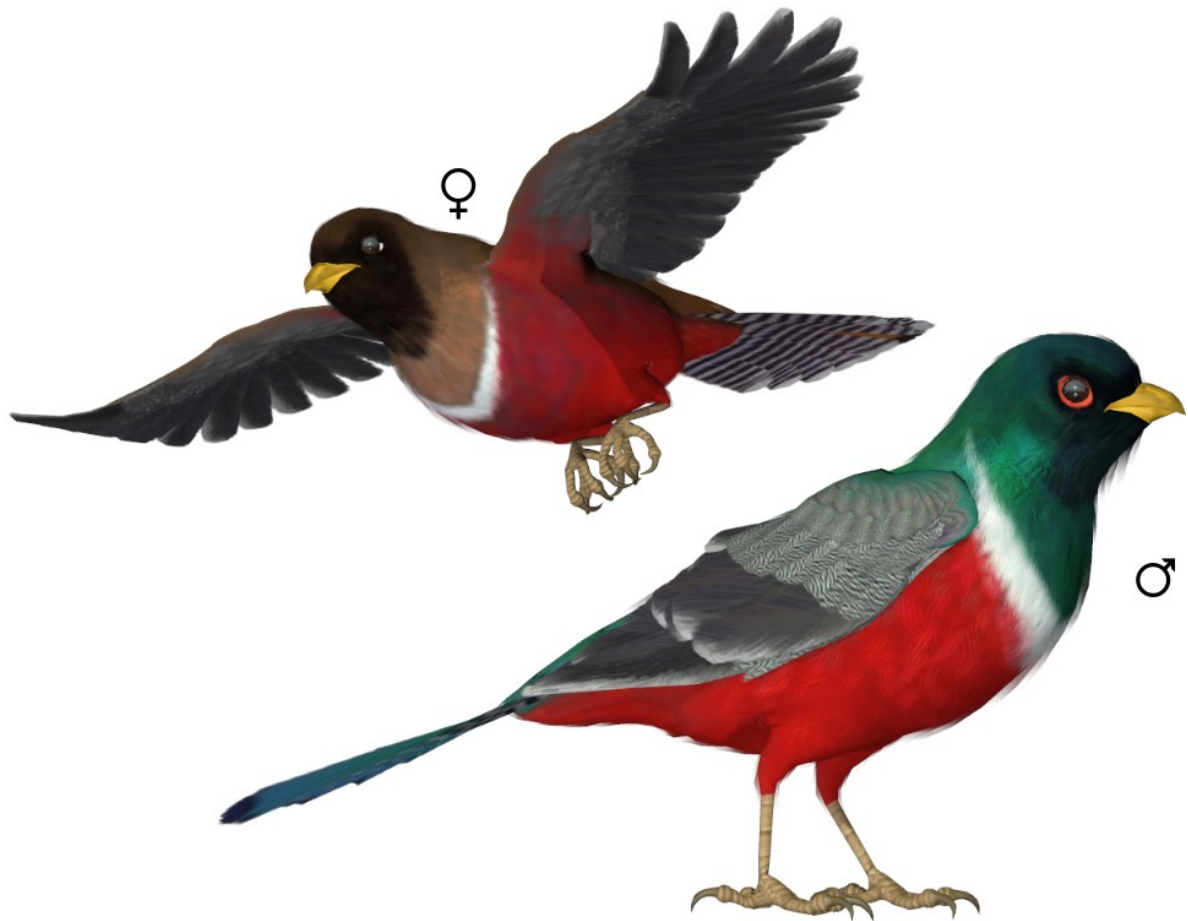
- *T.c. sallaei* . It is found on the Caribbean slope of eastern and southern Mexico, also the Pacific slope of southern Mexico, and Guatemala, Belize, El Salvador and northern Honduras; possibly this race is in Nicaragua as well. It has a blackish head and breast, blue nape and lower edge of the breast, more golden upper-parts, the wing panel densely barred gray and white (appearing pale gray), greener upper-tail.
- *T.c. concinnus*. It is found in Costa Rica, Panama (except Caribbean slope of Darién), western Colombia (Nariño), western Ecuador and northwestern Peru (Tumbes). It is similar to Race *sallaei*, but with bluer upper-parts and upper-tail.
- *T.c. caligatus*. The nominate species is found in northeastern Panama (Caribbean slope of Darién) into northern Colombia and western Venezuela.

**Common Name:** Masked Trogon  
**Scientific Name:** *Trogon personatus*

**Size:** 9.8 inches (25 cm)

**Habitat:** South America; it is found in Columbia, Ecuador, Venezuela, Peru, Bolivar and Northern Brazil.

It is found in the sub-canopy and sapling undergrowth of humid and wet forests, mossy forests and cloud forests, forest edges, and second growth and open woodlands in broken mountainous country.



**Status:** Least Concern. **Global population:** Unknown amount of adult individuals with a decreasing population trend. It is fairly common. In Colombia recorded in Cueva de los Guácharos, Munchique, Los Nevados and Las Orquídeas National Parks, and common in last 2 although hunted in Las Orquídeas by local farmers for its feathers as house ornaments. In Ecuador found in Podocarpus National Park; widespread in Andes and tepuis of Venezuela. It is seen frequently in humid temperate and subtropical zones in Peru, but uncommon lower in humid upper tropical zone; present in Bolivia in Amboró National Park and recently found to be common in the Vallegrande area of Chuquisaca.

**Diet:** Fruits of various *Clusiaceae* and *Piperaceae*, and insects, all taken in flight.

**Nesting:** Sexes are dimorphic. Males are bronze to green on the head, chest, and upper-parts, with red belly separated from the chest by a white band, black tail with broad white tips to the graduated rectrices, orange to red eye ring, and yellow bill. Females are brownish above with a white eye ring.

Birds in breeding condition in April through August in Colombia. The nest is a hole carved into half-rotten wood, usually about 3 m from ground. Two eggs are laid.

**Cool Facts:** The species has an interesting highland distribution: it is present along the Andes from Venezuela south to Bolivia, and also in the disjunct tepuis of Venezuela, Guyana, and northern Brazil. There are eight subspecies of Masked Trogon described which vary in plumage and bare parts coloration.

- *T.p. sanctaemartae*. It is found in northern Colombia (Santa Marta massif). It looks like the nominate but with stronger pale markings on wing panel.
- *T.p. ptaritepui*. It is found in southeastern Bolívar on Ptaritepui and other tepuis. It is similar to Race *roraimae* but the female is with a pectoral band that is more olivaceous.
- *T.p. personatus*. The nominate is found in subtropical montane zones of northern Colombia and western Venezuela, and the central and eastern Andes of Colombia southward to eastern Peru.
- *T.p. assimilis*. It is endemic to the western Andes of Colombia, western Ecuador and northwestern Peru. It is midway between nominate and Race *temperatus* in bill size, the upper-tail color and under-tail pattern, have finer wing panel markings than either subspecies.
- *T.p. temperatus*. It is found in the humid temperate zone of the central and eastern Andes of Colombia and Ecuador. It has a small bill, the bars on outer tail feathers are narrow and indistinct, the crown and breast are bluer, and the female has white (not brown) lines on the wing panel.
- *T.p. heliothrix*. This species is endemic to the temperate zone of northern and central Peru (eastern slope). It has a rather small bill, slightly more bluish-green central tail than Races *personatus* or *assimilis*. The outer three rectrices more strongly barred than in Races *assimilis* or *temperatus* but less than in the nominate.
- *T.p. submontanus*. This species is endemic to the Andes of southeastern Peru (Puno) and Bolivia (including Chuquisaca). It is like Race *temperatus* but larger-billed. The male is generally paler, and the female duller.
- *T.p. duidae*. This species is endemic to south-central Venezuela (tepuis of Amazonas and northwestern Bolívar). It is like Race *roraimae*, but the outer three tail feathers are more narrowly marked with white.
- *T.p. roraimae*. This species is found in southeastern Bolívar on various cerros, and the Roraima part of southwestern Guyana and extreme northern Brazil. It is like the nominate but smaller. The central tail feathers are deep coppery-bronze, the crown, back and breast are brassier, with broader white bars on the tail.

## Special Thanks to my Beta-Testing Team...

*Alisa & FlintHawk*

## Species Accuracy and Reference Materials

The author 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.

## Field Guide Sources:

- **Handbook of the Birds of the World** <https://www.hbw.com/>
- **Wikipedia** [https://en.wikipedia.org/wiki/Main\\_Page](https://en.wikipedia.org/wiki/Main_Page)
- **BirdLife International** <https://www.birdlife.org/>

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