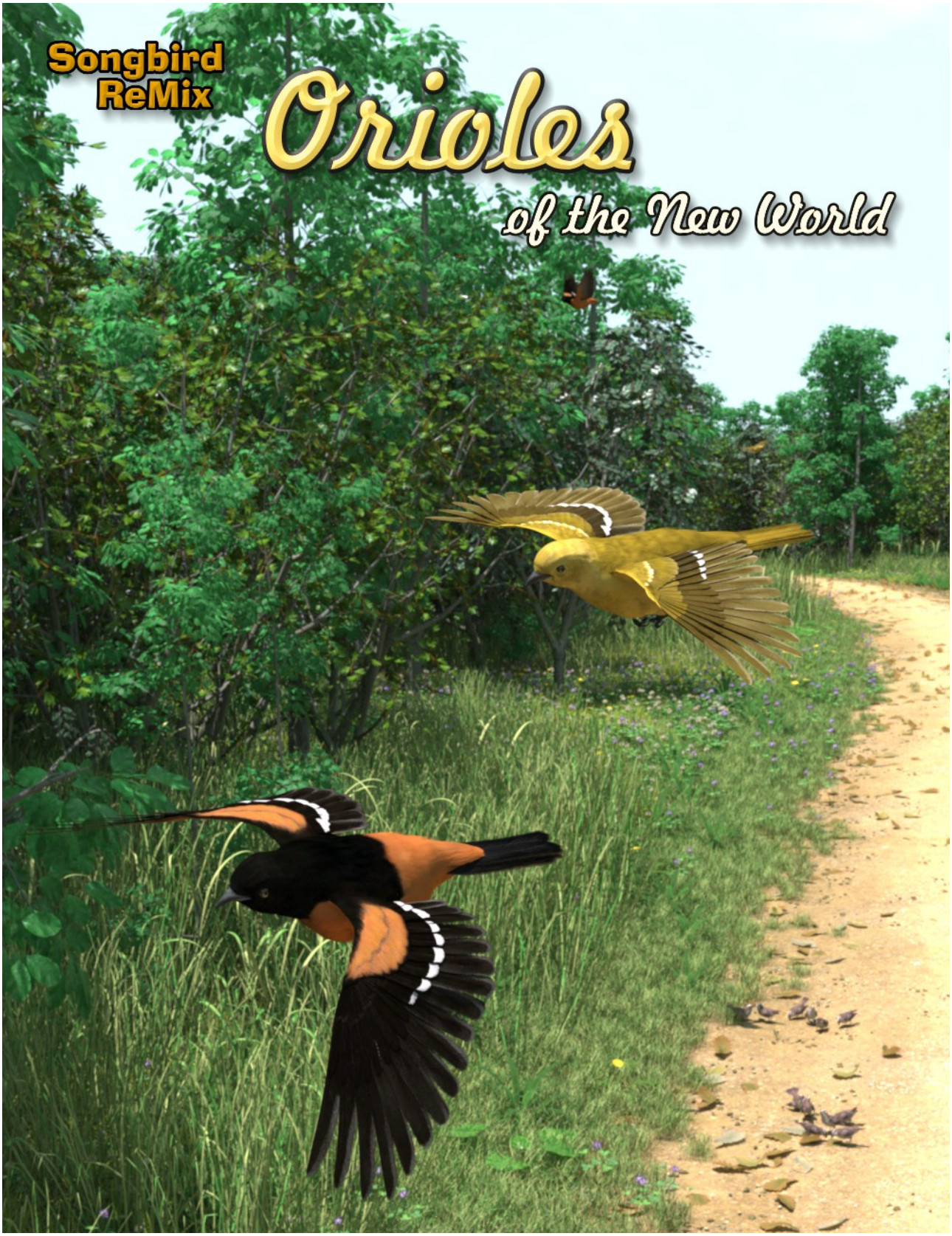


Avian Models for 3D Applications

Characters and Procedural Maps by Ken Gilliland

Songbird ReMix

Orioles of the New World

Manual

Field Guide

Songbird ReMix

Orioles of the New World

Introduction

From small orioles to the mighty oropendolas, *Icteridae* spans a broad variation in body size, nesting ecology, and mating systems. Across this broad range, a remarkable number of species share distinctive liquid whistle notes in their songs. Some have the greatest sexual size dimorphism of any passerine and an aggression-based harem mating system to match. These birds have a well-developed ability to open their sharp-tipped bills strongly, allowing them to stab and gape to pry off bark or open up soft fruits. They live in a wide variety of habitats, ranging from boreal forest and bogs at the northern limits of their range to tropical rainforest, grasslands, arid shrubland, savanna, and marshes.

This set focuses on the *Icterus* family; orioles found in North and South America. It features many common birds such as the Orchard, Bullock's, and Scott's Orioles, as well as, rarities such as the endangered Bahama and the Montserrat Orioles. It also features some of the flashiest birds such as the Venezuelan Troupial and the Streak-backed Oriole. As with all Songbird ReMix models. The product uses an arsenal of morphs to help mimic all the behavior its real-life counterparts would have from flight, to feeding, to sleeping.

There are two versions of this set for native support in Poser and DAZ Studio. Materials have been tuned to support Iray, 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):
  - **Perching Birds (Order Passeriformes)**
    - **Orioles, Blackbirds & their Allies**
- **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.

One Folder to Rule Them All

When I reworked the entire Songbird ReMix library starting in 2018, I decided to abandon the way the birds were sorted (by product name) and choose an Ornithological approach. All birds are found in the Bird Library folder and are arranged by type of bird. This approach is hopefully easier for most to find what bird they are looking for. Admittedly, it will take some getting use to for some longtime users, but I've always approached the Songbird ReMix series as a learning tool as well as a graphics tool, so hopefully some knowledge will rub off by seeing how birds are grouped.

Probably the most deceiving subfolder in the **Bird Library** is **"Perching Birds (Order Passeriformes)".** This is folder you probably will end up "favoriting" because this one folder (Passeriformes) **holds more than 50% of all birds.** Perching birds range from cardinals and jays to chickadees, crow and swallows.

Finding the bird you want within the **"Perching Birds (Order Passeriformes)"** folder can be daunting, even for an experienced birder (such as myself), so I've included an online reference tool within this folder that helps to make your search easier. Click the **"Perching Birds Finder"** icon and when loaded, look at the first column and search for the type of bird you want. For example, I want a "manakin" (a bird common to Central and South America). Scroll down the first column alphabetically and stop on "manakin". Looking across to the second column, you will now know that manakins can be found in the "Tyrant Flycatchers & their Allies" subfolder.

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.

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.

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. IK doesn't work that well in Studio, so I suggest selecting the character in the Scene tab and simply deleting the two IK body parts to remove IK.

Where to find your Birds and Poses

Type Folder	For what species?
Perching Birds (Order Passeriformes) Orioles, NW Blackbirds & their Allies	Hispaniolan Oriole Cuban Oriole Bahama Oriole Montserrat Oriole Black-vented Oriole Black-cowled Oriole Orchard Oriole Yellow-backed Oriole Orange-crowned Oriole White-edged Oriole Venezuelan Troupial Streak-backed Oriole Bullock's Oriole Scott's Oriole

Other Orioles in Songbird ReMix Format:

Here are other "New World" Orioles which are available in other Songbird ReMix sets (non-included in this set):

- Baltimore Oriole (found in Songbird ReMix Cool & Unusual Birds v1)
- Hooded Oriole (found in Songbird ReMix Cool & Unusual Birds v2)
- Orange Oriole (found in Songbird ReMix Yucatan)

Songbird ReMix

Orioles of the New World

Hispaniolan Oriole
Cuban Oriole
Bahama Oriole
Montserrat Oriole
Black-vented Oriole
Black-cowled Oriole
Orchard Oriole
Yellow-backed Oriole
Orange-crowned Oriole
White-edged Oriole
Venezuelan Troupial
Streak-backed Oriole
Bullock's Oriole
Scott's Oriole

Common Name: Hispaniolan Oriole
Scientific Name: *Icterus dominicensis*

Size: 7.9-8.7 inches (20–22 cm)

Habitat: North America; endemic to the island of Hispaniola (Haiti and Dominican Republic) and outlying islands (Tortue, Gonâve, Î-à-Vache and Saona).

It prefers broadleaf forests with palms and shade coffee plantations with palms. While rarer, it can also to be found in xeric woodlands, scrub, and gardens.

Status: Least Concern. **Global Population:** Unknown number of mature individuals with a decreasing population. Fairly common and widespread throughout range. Population may suffer some decline owing to brood parasitism by recently arrived Shiny cowbird (*Molothrus bonariensis)*.

Diet: Omnivorous; arthropods, nectar and fruit. Nectar taken from flowers of *Erythrina*, also those of cultivated plants such as oranges and agaves (*Agave*). Fruit eaten includes bananas and annonas (*Annona*). Chicks fed mostly with insects and spiders (Araneae), also some fruit pulp.

Usually forages in family groups; at times found in flocks of up to 50 individuals.

Breeding: Sexes are alike, although the females tend to be duller in color. Its head to its back and down to its belly and upper flanks are black. The rump and upper tail-coverts are yellow. The upper wing and tail are black, the lesser and median upper coverts are yellow and there is a yellow patch at bend of wing. The under-parts rearwards from its lower belly, thigh and rear flanks are yellow. The iris is brow. The bill is black and the legs dark are blue-gray. The immature has a dark olive-green head to its breast and upper-parts, including tail. There is a chestnut tinge in its forehead and breast. The wing is blackish, and most of the feathers have greenish-olive edges. The median upper wing-coverts are broadly tipped yellow, and the under-parts (below the breast) are greenish-yellow.

Breeding season occurs from March to June. The nest is a loosely hanging bag of plant fibers (mostly palm fibers), lined with cotton-like materials, attached to underside of palm frond or banana leaf, or to leaves in tree. The clutch size is 3–4 eggs.

Cool Facts: In 1760, the French zoologist Mathurin Jacques Brisson included a description of the Hispaniolan oriole in his Ornithologie based on a specimen collected on the French colony of Saint-Domingue on the Caribbean island of Hispaniola. He used the French name “Le carouge de S. Domingue” and the Latin name *Xanthornus dominicensis*. Although Brisson coined Latin names, these do not conform to the binomial system and are not recognized by the International Commission on Zoological Nomenclature.[3] When the Swedish naturalist Carl Linnaeus updated his Systema Naturae for the twelfth edition in 1766, he added 240 species that had been previously described by Brisson, with one of them being the “Hispaniolan Oriole”. Linnaeus included a brief description, coined the binomial name *Oriolus dominicensis* and cited Brisson's work. This species is now placed in the genus *Icterus* that was also introduced by Brisson.

Common Name: Cuban Oriole
Scientific Name: *Icterus melanopsis*

Size: 7.9 inches (20 cm)

Habitat: North America; endemic to the island of Cuba and the neighboring Isla de la Juventud.

They are able to survive in a wide variety of habitat conditions present throughout Cuba. These include plantations, dense forests, and human settlements. The birds are frequently observed foraging in coral trees for insects and nectar, and tend to attach nests to the underside of palm tree leaves.

Status: Least Concern. **Global Population:** Unknown number of mature individuals with a decreasing population. It is a host for the brood parasite Shiny Cowbird, which leave their eggs in the nests of tropical orioles to be raised by the orioles, thus diminishing the orioles' populations.

Diet: Omnivorous; they frequently feed on nectar (including from *Hibiscus*, *Erythrina*, agave, banana, and *Citrus*) and from a variety of soft fruits (including

bananas and anon (*Anona squamosa*)). It also consumes arthropods, but the only insect specifically noted in the diet is sphinx moth.

Breeding: Sexes are alike. Adult Cuban orioles are black with a blue grey patch on the lower mandible and yellow patches on the coverts, rump, and upper thighs.

Like many other orioles such as Bahama and the orchard orioles, Cuban orioles show delayed plumage maturation. This means that their juvenile plumage is not the same as their sexually mature adult plumage. When leaving the nest, the juvenile plumage of Cuban orioles is mostly olive. Yearling plumage is similar to the fledgling plumage but with black feathers around the throat and beak.

They are monogamous and may pair with a single mate for the rest of their lives. From February to July, they build hanging nests similar to baskets out of material from palm and banana tree leaves. Clutch sizes are typically three greenish-white eggs with gray or olive spots and scrawl. Similar to most tropical orioles, Cuban oriole pairs may maintain a year-round territory and will defend their nest from predators.

Cool Facts: In 1890, Allen documented Cuban, Bahama, Hispaniolan, and Puerto Rican orioles as four distinct species. In 1936, James Bond classified the four orioles as one species, the Greater Antillean oriole, in his most famous and influential book "Birds of the West Indies." Though the book became very popular among birders and ornithologists alike, Bond's grouping of Greater Antillean orioles was reverted in 2010 when the American Ornithologist's Union once again split them up into 4 species. This reversal of Bond's longstanding claim came in light of new evidence which displayed significant DNA, plumage, and song differences between the 4 birds. This DNA evidence also led to the additional conclusion that the Cuban oriole and Bahama oriole were close sister taxa.

Common Name: Bahama Oriole
Scientific Name: *Icterus northropi*

Size: 7.9-8.7 inches (20–22 cm)

Habitat: North America; it is restricted to Andros Island in the Bahamas, but formerly also occurred on both Andros and Abaco.

It utilizes a range of native habitats including Caribbean pine (*Pinus caribaea*) forests, broadleaved coppice, and some wetlands. Populations are also found in developed residential and coastal areas, especially if non-native coconut palm (*Cocos nucifera*) is present.

Status: Endangered. **Global Population:** <300 mature individuals with a decreasing population. It faces many potential threats including loss of native habitat from human development, forest damage due to hurricane winds and saltwater inundation, loss of nesting trees due to lethal yellowing disease impacting non-native coconut palms), brood parasitism by Shiny Cowbird (*Molothrus bonariensis*), and predation by introduced mammalian predators

Diet: Omnivorous; they have been seen foraging on a variety of arthropods, including many orthopterans (especially large katydids). They also eat fruit and nectar, and they frequently come to nectar feeders in towns.

Breeding: Sexes are alike. It is mostly black with large yellow wing coverts, rump, and lower breast, and belly. The Bahama Oriole adults differ from all of these taxa in their more extensively yellow under-parts, with black being limited to the throat and breast.

Nesting behavior has been documented from March through August, with peak breeding likely from May–July. The nest is an enclosed basket constructed of plant fibers and frequently suspended from palm fronds. The typical clutch is 3 eggs and are incubated for 12-14 days by the female. The young fledge after about 12-14 days.

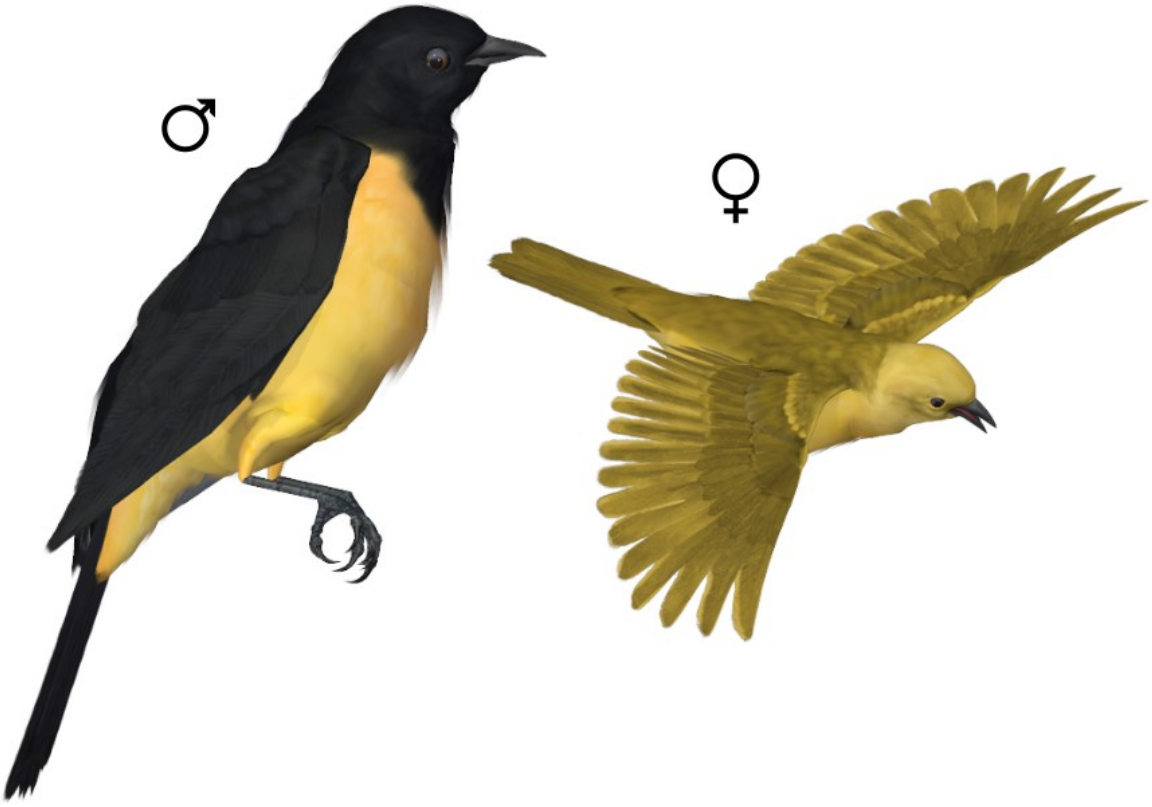
Cool Facts: It is among the rarest birds in the Bahamas and is in danger of extinction if the population declines further. There are a variety of factors that threaten this species including brood parasitism by Shiny Cowbird (Molothrus bonariensis), death of coconut trees due to the introduction of lethal yellowing disease, and predation by introduced mammals. Although the potential impacts of climate change have not been studied in detail, the Bahama Oriole is certainly highly vulnerable given its small population size. For example, an increase in the frequency of tropical storms like Hurricane Dorian, which devastated the Bahamas in summer 2019, could threaten the Bahama Oriole and other native biota. Recent hurricanes, including Irma, Matthew, and Dorian, did not seem to have major impacts on the Bahama Oriole, although the storm surge from Hurricane Matthew did kill hundreds of hectares of native pine forest due to saltwater inundation.

Common Name: Montserrat Oriole
Scientific Name: *Icterus oberi*

Size: 9.3–11.4 inches (24–27 cm)

Habitat: North America; it is endemic to the island of Montserrat at the northern end of the Lesser Antilles in the eastern Caribbean Sea.

On Montserrat, the distribution of the species is governed by the distribution of suitable forest habitat. Due to historic deforestation and recent volcanic activity, only two suitable forest remnants exist on Montserrat that are inhabited by the Montserrat Oriole. The Centre Hills area consists of an extinct volcanic cone with several steep-sided valleys in the center of the island, rising to an elevation of 740 m above sea level. The second forest remnant lies south of the active Soufriere Hills volcano and comprises a single mountain rising to 800 m above sea level that is separated from the Soufriere Hills volcano by an active pyroclastic flow.



Status: Vulnerable. **Global Population:** 1,000-3,000 mature individuals with a stable population. The small island of Montserrat in the Lesser Antilles has been under the spell of the Soufriere Hills volcano since 1995, when the volcano became active and lava flows and ashfall destroyed the southern half of this beautiful island. The gravest threats to the continued existence of the species are

forest loss, volcanic ashfall, and non-native mammals that destroy nests and the forest.

Diet: Omnivorous; arthropods (insects, spiders), snails, and to a lesser extent fruits, and possibly nectar and flowers.

Foraging occurs frequently in flowers, and it is likely that both nectar and associated arthropods are being consumed. The larvae of aquatic and semi-aquatic invertebrates that are found in water-filled *Heliconia* floral bracts presumably are an important diet item.

Breeding: Sexes are dimorphic. The male is black above, on the head and breast and tawny-orange on the lower breast and belly as well as the rump and lower back. The female is dull greenish above, and yellowish tawny below.

The social system of Montserrat Oriole is characterized by social monogamy and high mate fidelity. Pairs occur in breeding territories year-round, and show strong fidelity to the nesting territory in successive years. Their hanging nest is a shallow basket that is woven below the leaf of a forest *Heliconia*. Eggs are laid in daily intervals, and incubation commences once the clutch is complete. Only the female incubates. The male remains generally within sight of the nest and responds aggressively to both intra- and interspecific intrusion into the nest's vicinity throughout the incubation period which lasts about 14 days. Both parents feed nestlings and the chicks fledge after another 14 days.

Cool Facts: Among the Caribbean members of the genus *Icterus*, Montserrat Oriole is the only one that shows substantial sexual dimorphism in plumage coloration.

Common Name: Black-vented Oriole
Scientific Name: *Icterus wagleri*

Size: 9.3–11.4 inches (20.5–23 cm)

Habitat: North America; it is fairly widespread in Middle America, between western and central Mexico south to Nicaragua. It undertakes some altitudinal movement, also local movements dependent on flowering season of trees. In the southern United States, the nominate race is a rare sighting in Texas and Race *castaneopectus* is sometimes seen in Arizona.

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

Status: Least Concern. **Global Population:** 500,000 - 4,999,999 mature individuals with a decreasing population. The species is undergoing a small decline due to habitat destruction.

Diet: Omnivorous; insects and other arthropods, also it feeds on fruits and nectar.

It gleans arthropods from foliage and takes nectar from flowering trees of shaving-brush tree or Coquito *(Pseudobombax ellipticum)* and Coral Tree

(*Erythrina oliviae)*, and from brush-like inflorescences of the Orange Flame vine (*Combretum fruticosum)*. It is also a frequent visitor to flowers of maguey (*Agave salmiana*) in Mexico.

It is usually seen in pairs or family groups. It is dominant over both, the Bullock's Oriole (*I. bullockiorum)* and the Streak-backed Oriole (*I. pustulatus)* at flowering trees.

Breeding: Sexes are alike, although females are slightly smaller and duller. The male of the nominate race has its head, throat, upper breast, mantle and upper back all black/ Its upper tail-coverts, lowermost belly and under tail-coverts are also black. The rest of its body is an orange-yellow with a faint chestnut tinge just below its black breast. The upper-wing is black, with an orange-yellow epaulet (lesser and median coverts). The tail is black, as well as the bill. The base of lower mandible is a bluish-gray. The iris is brown and the legs are a dark bluish-gray. The juvenile is duller than the adult, with its crown and upper parts an olive-buff. The superciliary line, the face and a faint supercilium are yellowish. The median and greater upper wing-coverts are tipped buff and the under parts a dull yellow. The immature resembles the juvenile, but its crown and upper parts are an olive-gray, with a variable amount of black in the face (lores, throat) and the upper breast and tail are blackish-brown.

Breeding Season occurs in June and July in southern Mexico (Oaxaca) and May through July in El Salvador. It is monogamous and nests solitarily. The nest is a shallow hammock-shaped nest, made from plant fibers that is suspended low or medium range in tree. It is sometimes stitched to the underside of palm or banana leaves. A clutch 3–4 eggs is laid. The combined incubation and nestling periods is about 34 days. Nests sometimes parasitized by the Bronzed Cowbird (*Molothrus aeneus*).

Cool Facts: There are two subspecies:

- *I. w. cataneopectus.* This race is found in northwestern Mexico in interior Sonora and Sinaloa and adjacent western Chihuahua. It is very much like the nominate race, but the chestnut coloration below breast is more extensive.
- *I. w. wagleri.* The nominate race is endemic to southern and central Mexico (from Durango, Coahuila and Nuevo León) southward across central Guatemala, northern El Salvador and southwestern Honduras to western Nicaragua.

Common Name: Black-cowled Oriole
Scientific Name: *Icterus prosthemelas*

Size: 7.3–8.3 inches (18.5-21 cm)

Habitat: North America; it is found over the Caribbean slope of Middle America, from southern Mexico to western Panama.

It occupies humid forest edges, riparian forest, old second-growth forest, banana plantations, and palm groves in open country. The nominate race mostly found in lowlands up to 700 m, rarely to 1000 m.

Status: Least Concern. **Global Population:** Unknown number of mature individuals with a decreasing population.

Diet: Omnivorous; insects and other arthropods, fruits and nectar. It feeds on fruits of *Cecropia*, *Ehretia tinifolia* and *Talisia olivaeformis*; takes nectar from flowers of *Erythrina* and *Inga* trees, also from the epiphyte *Columnea*.

It finds animal prey by gleaning and probing in foliage, often hanging upside-down. It forages singly and in pairs, sometimes in small groups. Joins migratory

orioles such as the Orchard oriole (*I. spurius*) and at roosts also joins the Baltimore Oriole (*I. galbula*).

Breeding: Sexes are dimorphic. The sexes differ in plumage, with males being largely black above and over the head and neck, other than the yellow rump and lesser wing coverts, while the belly and ventral underparts are also yellow. In contrast, females are black only over the face and fore-neck, and on the wings, being olive-green over the mantle to tail, with indistinct yellow epaulets, and largely yellow underparts.

Breeding season occurs from March to July in Costa Rica. The nest a short basket-shaped structure, with the external depth of 8 cm, made from dark and light fibers and rootlets, lined with brownish plant down, and stitched to the underside of a palm leaf, or to leaves of banana plant or similar. The clutch is usually 3 eggs. Both sexes feed chicks and both defend the nest.

Cool Facts: This oriole was formerly considered conspecific with all of the four species that were briefly considered to form part of the Greater Antillean Oriole (*Icterus dominicensis*), on the Bahamas, Cuba, Hispaniola, and Puerto Rico.

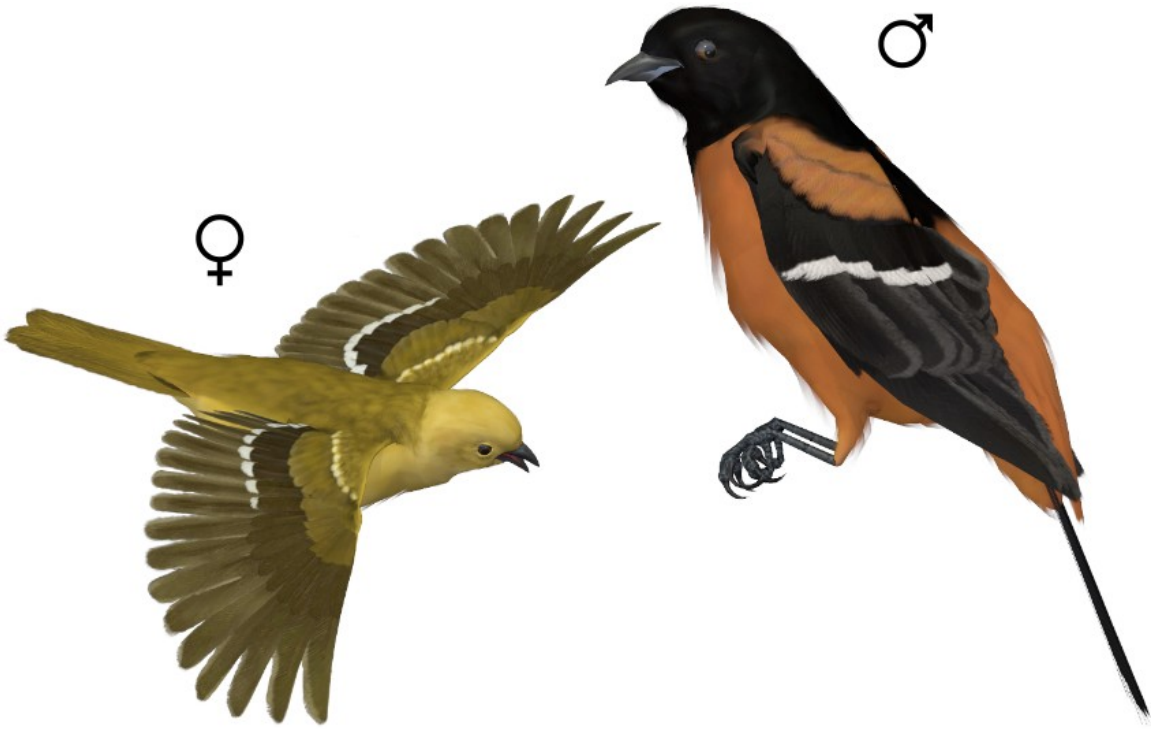
There are two subspecies:

- *I.p. prosthemelas.* The nominate race is found in SE Mexico (from Veracruz E to Yucatán and Quintana Roo) and Caribbean lowlands from Belize, N Guatemala and N Honduras S to C Costa Rica.
- *I.p. praecox.* This race is endemic to SE Costa Rica (Limón) and W Panama (Bocas del Toro to Coclé). Race *praecox* is virtually identical to the nominate race as adult, but juvenile has black of throat extending to lower breast.

Common Name: Orchard Oriole
Scientific Name: *Icterus spurius*

Size: 5.9-7 inches (15–18 cm)

Habitat: North America; its breeding range goes from extreme southeastern Saskatchewan and southwestern Manitoba, southern and western Minnesota, southern Wisconsin, southern Michigan, southernmost Ontario (Carolinian Forest zone), southern and central New York (except Adirondack Mountains), western and southern Vermont, southern New Hampshire, and southern Maine, south along the Atlantic Coast to northern Florida (to Citrus, Orange, and Flagler counties), the northern Gulf Coast, extreme southeastern Texas, extreme



northern Tamaulipas, southern Sonora, and Mexican plateau from eastern Chihuahua and Coahuila south to Michoacán and west to eastern New Mexico, western Texas, eastern Colorado, eastern Wyoming, and eastern Montana. Casual west of the Rocky Mountains during breeding period, and not reported nesting in Oregon, Washington, northern Idaho, and Arizona.

Subspecies *fuertesi* breeds in eastern Mexico, from southern Tamaulipas and eastern San Luis Potosí south to southern Veracruz and irregularly in eastern Sonora.

Overwinters from central Mexico (central Sinaloa, on Pacific slope, and southern Veracruz, on Atlantic slope) and the northern Yucatan Peninsula south through

Central America to Panama (where most numerous on central Pacific slope and western highlands). In mainland areas of Belize, common overwinter resident. In Nicaragua, common on Pacific and Caribbean slopes, but uncommon in Northern Highlands to 1,400 m. In Honduras, common overwinter resident on Pacific and Caribbean slopes to 2,000 m, but most common below 900 m. In Costa Rica, uncommon overwinter resident in lowlands to 1,500 m. It is uncommon in northwestern Colombia (south to Valle del Cauca), late August to early May, and rare in northwestern Venezuela (Zulia and Aragua), September to March. It is also rare in coastal California and southern Arizona, southern Texas, and Gulf coast states and occasional overwintering records from Florida (November–February).

Subspecies f*uertesi* is partially migratory; overwintering range imperfectly known, but recorded in southern Mexico from the Río Balsas basin south through Guerrero to Chiapas.

It is associated with open woodlands, orchards, shrublands, shade trees in agricultural and suburban areas, wooded riparian areas, lakeshores, and marshes, and forest edges. It often nests in shade trees, seeming to thrive in habitats with low human density, including farms and parklands.

It overwinters in shrubby second-growth, open woodland, forest edge, clearings with scattered trees, and cultivated areas from central Mexico to Panama.

Status: Least Concern. **Global Population:** 12,000,000 mature individuals with a decreasing population. Between 1970 and 2014, data from the North American Breeding Bird Survey indicated that the population in the United States and Canada decreased by an estimated 23%. Loss and degradation of riparian habitats (key habitat for this species) is the main problem.

Diet: Omnivorous. During the northward migration and breeding period, feeds on insects and spiders gleaned from foliage. This changes to ripe fruit with choke cherry (*Prunus virginiana*), wild grapes (*Vitis*), and mulberry (*Morus*) being favorites for both juveniles and adults. Nectar is eaten when available. During southward migration and overwintering periods consumes fruit, nectar, and insects.

The Orchard Oriole is an agile species, moving by wing-assisted, short hops in trees and forbs while foraging. Family groups may be seen on or near the ground when foraging on flowers or on insects on sweet clover. In Panama, it has been seen foraging in grasses 1–2.5 m high

Breeding: Sexes are dimorphic. A small, short-tailed oriole with short bill. The adult male in Definitive Basic plumage (nominate subspecies) has an entirely black head and tail, with dark chestnut breast, belly, rump, and lesser wing coverts. The wings are mostly black with a narrow white wingbar and white

edging on remiges, broadest on the tertials. The female and most juvenile males are bright greenish yellow below and olive-green above. The wings are brownish with two narrow white wingbars. Adults of each sex are similar in plumage during spring and fall, although the feathering of males can be fringed greenish when fresh. The male exhibits delayed plumage maturation: juvenile males in May–July or August are similar to females; males in Formative plumage in September–July (usually beginning on overwintering grounds and including the first breeding season) are like females except with a black throat patch and occasional chestnut feathers in body plumage. Many, but not all juvenile males and females, can be separated by measurements. Females in Formative plumage can be separated from adult females by molt limits among wing feathers and (often) rectrices.

Pair bonds are typically not maintained between years. Nests are completed in about 6 days and built primarily by the female. They are woven of long blades of grass and usually suspended from forked terminal twig. The bottom of the nest cup is woven so loosely that it is possible to see through the bottom of nest. The clutch size is usually 4-6 eggs and incubation last 12-14 days. The young fledge from the nest at about 2 weeks of age.

Cool Facts: It is the smallest species in the *Icterus* family. Baltimores and Orchard orioles have the same colors in their plumage, but the shades are different. Baltimore orioles appear brighter, orchard orioles appear darker.

There are two subspecies:

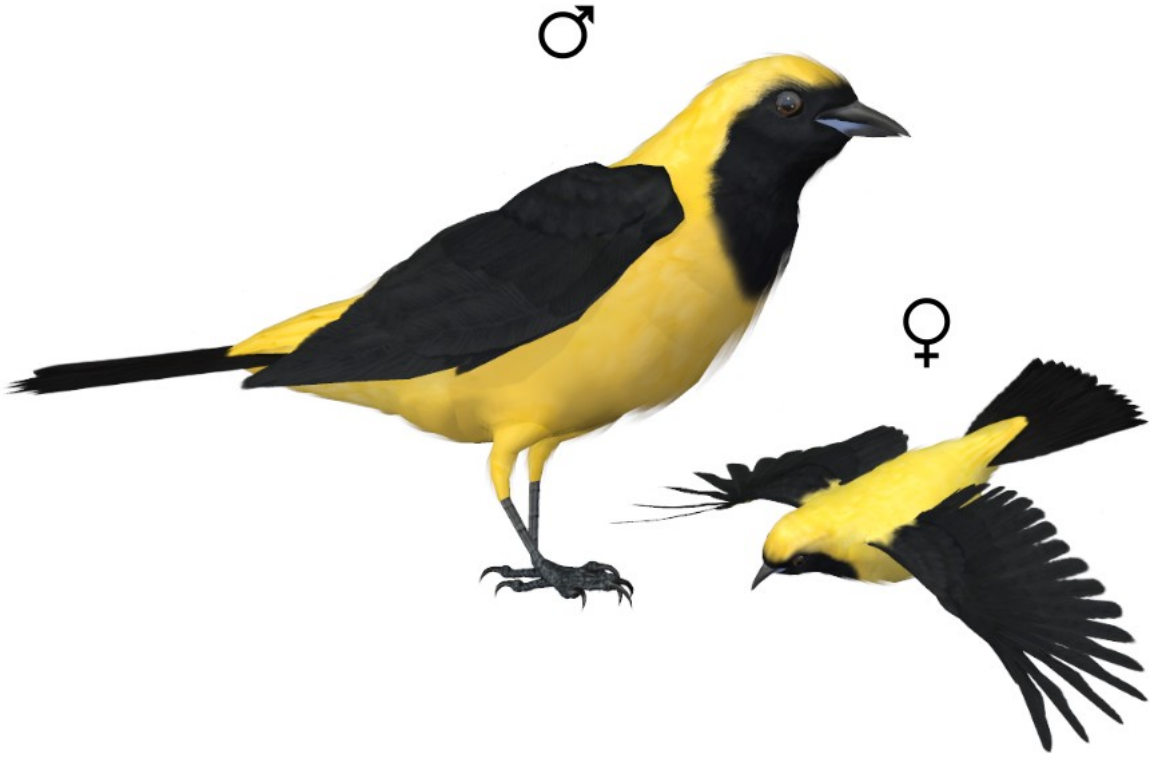
- *I. s. spurius.* First reported by Linnaeus in 1766. The nominate race breeds in much of the eastern United States, extending north to southern New England, southeastern Ontario, central Wisconsin, and southern Manitoba, west (locally) to southeastern Saskatchewan, eastern Montana, eastern Colorado, and easternmost New Mexico, and south in Mexico to Jalisco, Michoacán and Hidalgo; overwinters from western and eastern Mexico, south to northern Colombia and (rarely) northwestern Venezuela. Adult male is deep chestnut; juvenile has olive to yellow-green head, back, rump, and tail; size varies clinally, larger birds being in the north.
- *I. s. fuertesi.* First reported by Chapman in 1911. This race breeds in eastern Mexico, from southern Tamaulipas and eastern San Luis Potosí south to southern Veracruz. It is partially migratory with its overwintering range in southern Mexico from the Río Balsas basin south through Guerrero to Chiapas. The adult male of this race is distinctive, with ochraceous buff replacing chestnut in the nominate race. There is a tendency for nominate females to be paler below, though females and immature (formative) male are virtually indistinguishable from the nominate. This race averages slightly smaller, but the overlap is considerable, especially with southern populations of the nominate race.

Common Name: Yellow-backed Oriole
Scientific Name: *Icterus chrysater*

Size: 8.3–9.4 inches (21–24 cm)

Habitat: North and South America; its range goes from the central and southern Yucatán Peninsula southward to northern Venezuela.

It is found in varied habitats, including native pine woodlands in Mexico, Belize and Nicaragua, montane oak woodlands in Mexico, Guatemala and El Salvador, and dry thorn-woodland and scrub in the northern Yucatán (Mexico). In Panama, it occurs at the edges of primary and secondary forests, and in northern Colombia (Santa Marta), it is found mostly at coffee plantations, clearings and cultivated land with patches of forest.



Status: Least Concern. **Global Population:** 500,000 - 4,999,99 mature individuals with a decreasing population. Uncommon to locally fairly common within its range. It tolerates, and even thrives, in modified habitats.

Diet: Omnivorous; insects, other arthropods, fruits and nectar.

It feeds on the flowers of balsa trees. It also feeds on wild and cultivated fruits, including bananas, fruits of the native tree, *Talisia olivaeformis*, using its bill and legs to extract the inner pulp. In Panama, it takes nectar from forest-edge shrubs

Aphelandra sinclairiana and *Heliconia*. It usually forages in pairs, in family groups and in small flocks of up to ten individuals; sometimes in mixed-species foraging flocks with jays.

Breeding: Sexes are dimorphic. The male nominate race is golden-yellow, with contrasting black forehead to throat and upper breast, and solidly black wing and tail. Its iris is dark brown. Its bill is black with a bluish-gray base on lower mandible. Its legs are gray. The female is similar to male but slightly duller, with olivaceous wash on crown and back. The juvenile lacks the black on the head and breast, and rest of the plumage is duller than adult. The immature is an olivaceous yellow, less contrasted, and with variable amount of the black on the head.

Breeding season occurs February through May in Panama, and egg-laying in January in Colombia. It is seasonally monogamous and a solitary breeder. The nest is made from dry grass, resistant but translucent, suspended 5-7 m above ground from a forked branch of tree (or palm). The clutch size is 2–3 eggs.

Cool Facts: There are three subspecies:

- *I. c. chrysater.* The nominate race is found on the central and southern Yucatán Peninsula (southward to Belize) and southern Mexico (inland southern Veracruz, extreme eastern Oaxaca and Chiapas) southward to northern Nicaragua.
- *I. c. mayensis.* This race is endemic to the northern Yucatán Peninsula (southeastern Mexico). This race is like the nominate race but smaller.
- *I. c. giraudii.* This race is endemic to Panama (west to Veraguas) to northern and western Colombia and northern Venezuela. Race ; *giraudii* is slightly smaller than the nominate race, black on face often more extensive, sexes alike in plumage

Common Name: Orange-crowned Oriole
Scientific Name: *Icterus auricapillus*

Size: 7 inches (18 cm)

Habitat: North and South America; It is found in eastern Panama (east from Panamá Province and Darién) eastward across northern Colombia (south to Huila and northern Meta) and Venezuela (east to Sucre and Monagas, south to northern Bolívar).

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

Status: Least Concern. **Global Population:** 50,000 - 499,999 mature individuals with a stable population. Fairly common to uncommon. Common in Panama; rarer or local in Venezuela. It is found in Cueva del Guácharo National Park, in Venezuela.

Diet: Omnivorous; insects and other arthropods, also fruits and nectar.

It visits blooming trees of *Erythrina poepiggiana*, also flowers of *Bauhinia*. It usually forages in canopy. It is usually seen in pairs or in small family groups. It will join other orioles, such as the Baltimore Oriole (*I. galbula*) in Colombia.

Breeding: Sexes are similar. The forehead, area around eye, lores, throat and breast are black with the crown, nape and side of the head an orange-red. The mantle and upper back are black while the lower back and rump are yellow. The rear-most upper tail-coverts are black with a narrow yellow terminal edge. The tail is black as well as the upper wing. The lesser and median coverts are yellow. The under-parts below breast are also yellow. The iris is brown, the bill black and the legs gray. The juvenile is paler than the adult with its face an orange-yellow, the crown and upper parts are olive, the rump is washed yellow, the wings and tail dusky and the greater upper wing-coverts tipped yellowish (a pale wingbar). The throat and under parts are pale yellow and the breast washed greenish. The immature is like adult, but duller.

Breeding season is April through June in northern Colombia (Santa Marta) and September in eastern Venezuela (North Bolívar). The nests are woven mostly from palm fibers, uniform in appearance, all stitched to underside of and partially covered by palm frond, some loose fibers hanging from nest bottom like drapery. The clutch size is typically 2 eggs.

Cool Facts: It is most likely to be confused with the Yellow-backed Oriole (*Icterus chrysater*), which lacks any orange on the head and has a yellow mantle, and the Yellow-tailed Oriole (*Icterus mesomelas*), which also lacks orange on the crown and nape, and has broad yellow tail sides, and an extensive yellow patch in the wings.

Common Name: White-edged Oriole
Scientific Name: *Icterus graceannae*

Size: 7–7.9 inches (19–20 cm)

Habitat: South America; it is endemic to the Tumbesian region of southwestern Ecuador and northwest Peru.

Its natural habitats are subtropical or tropical dry forests and subtropical or tropical moist lowland forests. It is primarily a canopy dweller.

Status: Least Concern. **Global Population:** Unknown number of mature individuals with a stable population. Due to its reasonably broad distribution and the diversity of its suitable habitat, most experts consider the threat of significant population decline to be minimal. The global population sizes and population changes have yet to be quantitatively measured.

Diet: Omnivorous; eating a wide range of insects, earthworms, berries, and fruits.

Breeding: Sexes are alike. The plumage is mostly orange-yellow, with black lores (mask), throat to upper breast and back. The wing mostly black, lesser and median coverts pale yellow (medians palest), innermost secondaries and tertials broadly edged white basally (prominent patch on closed wing). The tail is black, outermost feather edged white, sometimes up to three adjacent rectrices with white tips. The iris is dark brown, the bill is black with the base of lower mandible gray. The legs grayish-blue. The juvenile is duller and greener-looking than adult, with back feathers tipped olive, the lesser and median coverts are dull blackish with yellow tips, white on the tertials and the inner secondaries less striking.

Cool Facts: *Icterus graceannae* was named in 1867 by naturalist John Cassin in honor of his protege, pioneer American female ornithologist Graceanna Lewis. His description of the species first appeared in print in the Proceedings of the Academy of Natural Sciences, published in Philadelphia in 1867.

Common Name: Venezuelan Troupial
Scientific Name: *Icterus icterus*

Size: 9–10.6 inches (23–27 cm)

Habitat: South America; it occurs along the coast from Cartagena, Colombia, east through the Guajira Peninsula and into Venezuela, through Paraguana Peninsula, east of Falcon, and southeastern Lara, to Isla de Margarita. In Venezuela, it also occurs to the east of the Andes, from Carabobo and western Apure east to Sucre and Monagas, and on the southern bank of the Orinoco River, from Caicara east to Ciudad Bolivar in northern Bolivar. It also occurs in southern Apure, from Paragüito into the adjacent northeastern Colombia, between the east of Cordillera Oriental and Rio Meta.

It inhabits desert shrubs, dry woodlands, gallery forests, xerophytic vegetation, secondary forests, and farmlands with scattered trees. On the Venezuelan coast, the subspecies *ridgwayi* occurs in xerophytic woodland and groups of arborescent cacti. The subspecies *icterus* (nominate race) inhabits gallery forest edges, dry forest, farmlands with gathering trees, and gardens. The *metae* subspecies primarily inhabits pastures, savannas, and dry or seasonal woodlands in Venezuela and Colombia. In Aruba, the subspecies *ridgwayi* occurs in gardens and along roadsides, and occasionally in mangroves. In Curaçao, the subspecies *ridgwayi* is mainly found in fruit plantations, particularly of mango and sapodilla, less frequently in mangroves. In Puerto Rico, where the species is introduced, it is most common in the drier southwestern corner, and is found in gardens and urban areas

Status: Least Concern. **Global Population:** Unknown number of mature individuals with a stable population. It can be found in disturbed habitats, including secondary forests, plantations, suburban, and urban areas, and as such, it may not suffer significantly from habitat loss and degradation. This species is valued as a caged bird and is often sold in local markets across Venezuela and Colombia. In Venezuela, despite being illegal, these birds are sold on roadsides and in pet stores. It occurs in several protected areas in Venezuela, Colombia, Aruba, and Curaçao.

Diet: Omnivorous; highly frugivorous and nectar feeder, also eating small and medium-sized arthropods, small vertebrates, and the eggs and young of small birds.

Troupials drive their long and pointed bill into dead twigs and branches or underneath pieces of loose bark and open it powerfully against resistance, exposing whatever arthropod or any other animal is concealed there. It is found in pairs or family groups. It is sedentary, strongly territorial, and aggressive. It frequently perches and sings atop tall columnar cacti.

Breeding: The sexes appear similar in appearance. The nominate races has a black head, upper nape, and mantle. The lower nape and rump, extending to the upper tail coverts, are an orange-yellow coloration. The upper wing is black, with orange lesser coverts and white median and inner greater coverts. The tertials and inner secondaries have broad white outer edges, forming a distinctive white patch that extends from the epaulet to the rear tertials on the closed wing. The upper breast is black with a ragged lower border, while the under-parts below the breast are orange-yellow. Its long, slightly graduated tail is black. Adult birds have yellow irides and a conspicuous area of bright blue bare skin around the eye. The bill is black with a straight culmen and gonys, and the basal half of the lower mandible is gray. The legs are bluish-gray. Juveniles are similar to adults but are duller, more yellowish with brownish-black coloring, and have a smaller, grayer bare ocular patch.

It is socially monogamous. Breeding occurs during both wet and dry seasons in semiarid scrubs of coastal Venezuela, Margarita Island, and northern Colombia, and probably in all months in Aruba and Curaçao. It is a habitual nest usurper, frequently appropriates abandoned or active nests of other bird species. This species appears to prefer the enclosed nests made of dead sticks by Furnariidae, such as the Rufous-fronted Thornbird (*Phacellodomus rufifrons*), the Pale-breasted Spinetail (*Synallaxis albescens*), and Grey-crested Cacholote (*Pseudoseisura unirufa*). Nests constructed by the Venezuelan Troupial consist of a deep open pouch woven from cactus and other plant fibers and grasses, most frequently placed in crotches of the giant columnar cactus (*Stenocereus griseus)*, a dominant plant in undisturbed areas of coastal Venezuela and the Netherlands Antilles. Nests are lined with fibrous materials. The clutch is usually 3 eggs and the female incubates the eggs for about 15 days. The nestling period is 21–23 days. After fledging young travel with the adults as a family party. Both

of the parents share the task of feeding the young, both in and out of the nest. Nestlings are often heavily parasitized by bot flies and nests themselves are heavily parasitized by the Shiny Cowbird (*Molothrus bonariensis*).

Cool Facts: It is the only *Icteridae* known to sleep in dormitories rather than amid vegetation.

There are 3 subspecies:

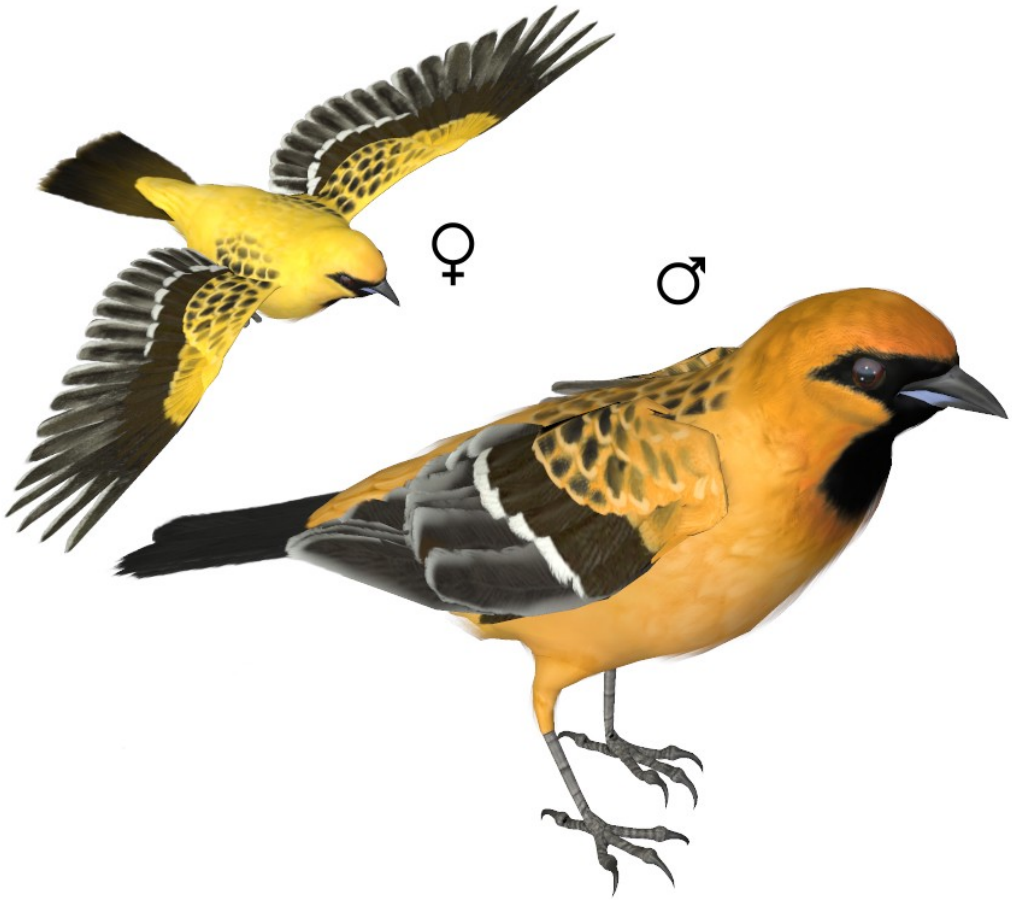
- *I. i. ridgwayi.* First reported by Hartert in 1902. This race is from the extreme of northeast Colombia (Guajira and northern Cesar) through northwestern Venezuela, east to Sucre and Margarita Island, and in Aruba and Curaçao. It has been introduced in Puerto Rico Island, St Thomas and Bonaire. It is similar to nominate race but larger, with a longer and stouter bill and stronger legs than nominate and *metae* races. This race is more uniformly orange below, and the white band on its wing is wider than in the nominate subspecies.
- *I. i. icterus.* First reported by Linnaeus in 1766. The nominate race is found in northern and central Venezuela, from Carabobo and western Apure east to southern Monagas and northern Bolívar.
- I. i. metae. First reported by Phelps and Aveledo in 1966. This race is found from northeastern Colombia (Arauca, Vichada) through southwestern Venezuela to Paragüito, Apure. It differs from the other subspecies in having an orange posterior crown and nape, not black. The black band on the back is narrower. The white in the wings is less prominent or variable, usually with black greater coverts dividing the white band in two parts: a white patch on the lesser and median coverts and a second on the secondaries and tertiaries. It is similar in size to the nominate subspecies but smaller than race *ridgwayi*.

Common Name: Streak-backed Oriole
Scientific Name: *Icterus pustulatus*

Size: 7.5–8.3 inches (19–21 cm)

Habitat: North America; it is a widespread oriole found from northern Mexico southward through Central America, although largely restricted to the Pacific Slope. It has bred on occasion in Arizona, and vagrants have made it well to the north.

It occupies canopy and edges of deciduous forest, swamps with palo verde shrubs, thorny woodland and scrub, savannas, and trees at roadsides and villages. It occurs from lowlands up to about 500 m elevations.



Status: Least Concern. **Global Population:** Unknown number of mature individuals with a decreasing population. It is considered fairly common to common and locally rather abundant.

Diet: Omnivorous; insects and other arthropods, also nectar and fruits. It feeds on several fruits and arils of native plants. It takes nectar from flowers of the trees

Erythrina breviflora, *Erythrina oliviae* and *Pseudobombax ellipticum* in Mexico, also from brush-like inflorescences of the vine *Combretum fruticosum* (individuals captured near the vine had pollen in plumage). Also catches bees (Apoidea) near flowers.

It gleans insects from foliage, and extracts larvae of beetles from rotten wood. It forages mostly in pairs and in family parties, occasionally in larger groups.

Breeding: Sexes are sexually dimorphic. The male nominate race has its head and chest deep orange, contrasting black lores and chin to the upper breast. Its upper parts are orange, with heavy black streaks on its mantle and back. Its tail is black and the tail feathers have whitish tips, the outer edge of outermost rectrix is white. The lesser upper wing-coverts are orange, while the rest of the upper wing is black, the median coverts are broadly tipped white (making a prominent wingbar), the greater coverts edged and tipped whitish (making a pale panel), and the flight-feathers edged and the bill is black with the basal half of lower mandible being a bluish-gray. The legs are also bluish-gray. The female is similar to male, but slightly less richly colored and more yellow than orange. The juvenile resembles a dull female, but no black on the lores and chin to its breast. The crown is olive-tinged, its back grayer and almost unstreaked. There is less white in wing, and a dirty yellowish below. The immature is similar to female.

Breeding season May through July (later in the north and at higher elevations). It is largely monogamous, but polygyny has been recorded. It is a solitary breeder. The nest a loosely hanging bag made from plant fibers and fungal rhizomorphs and placed high up in bush or tree. Its preference is in a thorny tree, including acacia species that harbor aggressive stinging ants. The clutch is 3–4 eggs that are incubated by the female for 12–14 days. The chicks are fed by both sexes, and the nestling period lasts for about 14 days. Nests are regularly parasitized by the Bronzed Cowbird (*Molothrus aeneus*).

Cool Facts: The most unusual and intriguing aspect of this oriole's biology is that in the north of the range the males are superbly bright, and the females reasonably dull. However as one proceeds southwards, the females become more and more male like until at the south end of the distribution the two sexes are nearly alike! Also male like females are more apt to help in territorial defense. The ecological difference appears to be that in the south they are year-round territorial, requiring a greater effort by the female to help in territorial matters than in the north where they are territorial only during the breeding season and also partly migratory. It is also interesting that monomorphic plumage in all orioles tends to occur when the female looks bright and male like, not as in many other birds where monomorphic species are both dull colored. The northern population of the Streak-backed Oriole has males which are very salmon to reddish orange on the head; at one point they were given the name Flame-headed Oriole. This very reddish coloration is not common in orioles, nor is the streaked back of this species; other orioles have either black backs or orange to yellow backs.

Races differ mainly in intensity of bright coloration, amount of streaking on back, and size.

West Mexican Group

- *I. p. microstictus*. This race is endemic to western Mexico from Sonora and western Chihuahua southward to Jalisco. It is like the nominate race, but is brighter, the head and chest orange-yellow to fiery orange-red, the black streaks above are smaller. The female is sometimes duller and greener than the male.
- *I. p. yaegeri*. This race is found in the coastal lowlands of west Mexico (southern Sinaloa to southern Nayarit)
- *I. p. pustulatus.* The nominate race is endemic to southern Mexico from Colima south to Puebla and northern Oaxaca.

Streak-backed Group

- *I. p. dickermani.* It is found in western Mexico (the lowlands of southwestern Jalisco and Colima to southern Guerrero).
- *I. p. formosus.* This race is found in southern Mexico (south Oaxaca and Chiapas) southward to northwestern Guatemala. It resembles race *sclateri*, but is smaller, and the streaks above are in form of tear-shaped black spots.
- *I. p. sclateri*. This is is found on the Pacific coast from El Salvador south to northwestern Costa Rica. This race in smaller size and has a deep orange head.
- *I. p. alticola.* This race is endemic to Guatemala and western Honduras. It has an orange-yellow head and its back is so heavily streaked it may look solidly black.

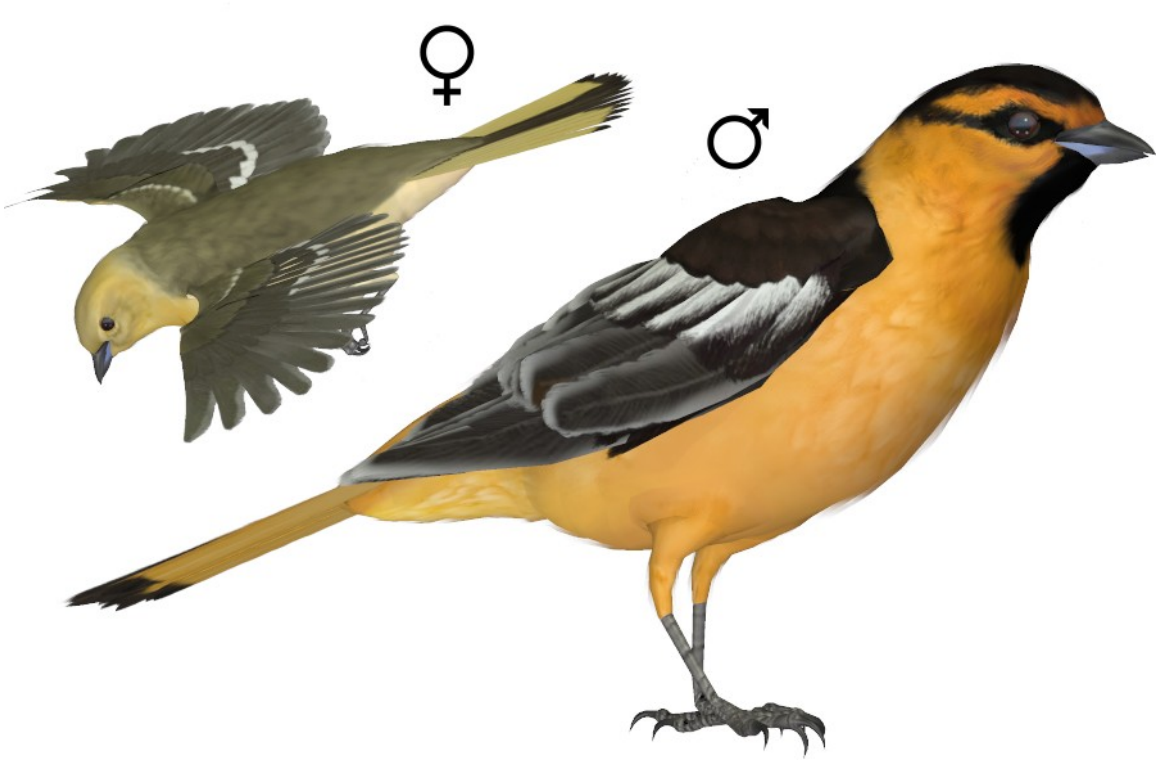
Tres Marias Island Group

- *I. p. graysonii.* This race is endemic to Tres Marías Island, off the western coast of Mexico (Nayarit). It has an orange-yellow head and fewer black streaks on back.

Common Name: Bullock's Oriole
Scientific Name: *Icterus bullockii*

Size: 6.8–7.6 inches (17.2–19.3 cm)

Habitat: North America; this species is migratory breeding across much of southernmost British Columbia, from Vancouver Island east to mountains in Kootenay region in Canada. In the United States, it breeds in Washington State, throughout areas east of the Cascades, and along eastern Puget Sound and northeastern Olympic Peninsula; in Oregon, throughout areas east of Cascades and throughout intermountain valleys west of the Cascades (especially along major rivers), but absent from the coast; in California, found throughout except at higher elevations of larger mountain ranges and in eastern desert ranges; and



eastward throughout Montana, southwestern North Dakota (Billings County), extreme northwestern South Dakota (Harding and Perkins counties, and southern Black Hills area, western Nebraska, southwestern and extreme western Kansas, the Oklahoma Panhandle, the western two-thirds of Texas (although largely absent from southern coastal plain) and the deserts of southwestern Arizona. It also breeds in northern Baja California.

The wintering range includes Mexico from Sinaloa on Pacific slope (less commonly from southern Sonora), central Mexico (southern San Luis Potosí) and

southern Tamaulipas on the Atlantic slope, south throughout Mexico to central Chiapas and highlands of west-central Guatemala.

The preferred habitat in breeding season is riparian and oak woodlands, especially where trees are large and well-spaced or in isolated clumps. Sycamores, cottonwoods, willows, and deciduous oaks seem to be especially favored for nesting, but live oaks, orchard trees, and occasionally conifers are used.

Status: Least Concern. **Global Population:** 7,000,000 mature individuals with a decreasing population. The species seems to be declining in parts of its range, while increasing in others. Depletion of groundwater for irrigation is leading to widespread destruction of its habitat in western Kansas and eastern Colorado. Intensive urbanization has reduced the number of Bullock's Orioles breeding in various areas throughout its range. Brown-headed Cowbirds were uncommon or rare in eastern Washington prior to the 1950s, but now are abundant and frequently parasitize Bullock’s Oriole nests.

Diet: Omnivorous; mostly insects, especially butterfly and moth larvae and pupae; grasshoppers and crickets, beetles, flying ants and other insects in the order *Hymenoptera*, true bugs, including stinkbugs, and especially scale insects, leafhoppers and treehoppers. Nectar and fruit are main plant foods. It will often feed at hummingbird feeders.

It makes short hops, often assisted by wings, when foraging in trees. It can hang upside down when foraging or building nest, using its strong feet to cling to vegetation for extended periods of time. It often flies to ground to pick up insects.

Breeding: Sexes are sexually dimorphic. The male has its crown, nape, back, and scapulars black. The remainder of its head and under parts are orange-yellow, interrupted by a black eye-line and black on the chin and center of the throat. The rump is orange-yellow to yellow. The middle rectrices are black while the lateral rectrices are yellow, tipped with a dusky black or dark black. The remiges are black, edged with white. The median and greater coverts are mostly white, forming a white patch on the wing. The plumage similar throughout year. Males exhibit delayed plumage maturation. Juvenile males (July–September) resemble adult females, but are generally brighter yellow below, and usually lack black feathers (only some—presumably older, although the ages of most individuals examined are not known—females have black throats). After the first prebasic molt, immature males (October–September) acquire limited black feathering on the throat and lores. The adult female has pale gray-brown to yellowish upper parts, with indistinct dark streaking, but without black, and yellowish or dull greenish gray under parts, becoming paler on the belly. The throat often with some black. The wings are gray-brown, with 1 or 2 indistinct wing bars. The juvenile female similar to juvenile male. The immature female is

similar to adult female, but duller overall, and lacking the black on throat or streaking on the upper parts.

Nesting begins 1–2 weeks after arrival on the breeding grounds. In Kansas, this occurs in April; in Colorado, May; in Texas, April through July; in California, April to mid-may; and in British Columbia, May through July. Nests are commonly placed in isolated trees, at edges of woodlands, along wooded watercourses (sometimes hanging over water), in shelterbelts, and in urban parks. The nest a loosely hanging bag made from plant fibers and placed high up in bush or tree. The clutch is usually 5 eggs with the incubation period lasting about 11 days. The fledging period in usually about 14 days. Bullock's Orioles are infrequently parasitized by Brown-headed Cowbird.

Cool Facts: Bullock's Oriole was described and named by William Swainson in 1827 on the basis of material collected by William Bullock and his son, also William. In his description, Swainson wrote, "This, the most beautiful of the group yet discovered in Mexico, will record the name of those ornithologists who have thrown so much light on the birds of that country".

Bullock's Oriole hybridizes frequently with the Baltimore Oriole (*Icterus galbula*) in the Great Plains region at the eastern limit of its distribution, even though these 2 species differ markedly in appearance, behavior, molt cycles, and vocalizations, and somewhat in size. Because of this hybridization, these 2 species were at one time considered a single species, the Northern Oriole (*I. galbula*). Most of the interbreeding occurs in the Great Plains, however, even in areas where hybrids are frequent, many individuals are of the parental phenotypes.

There are two subspecies:

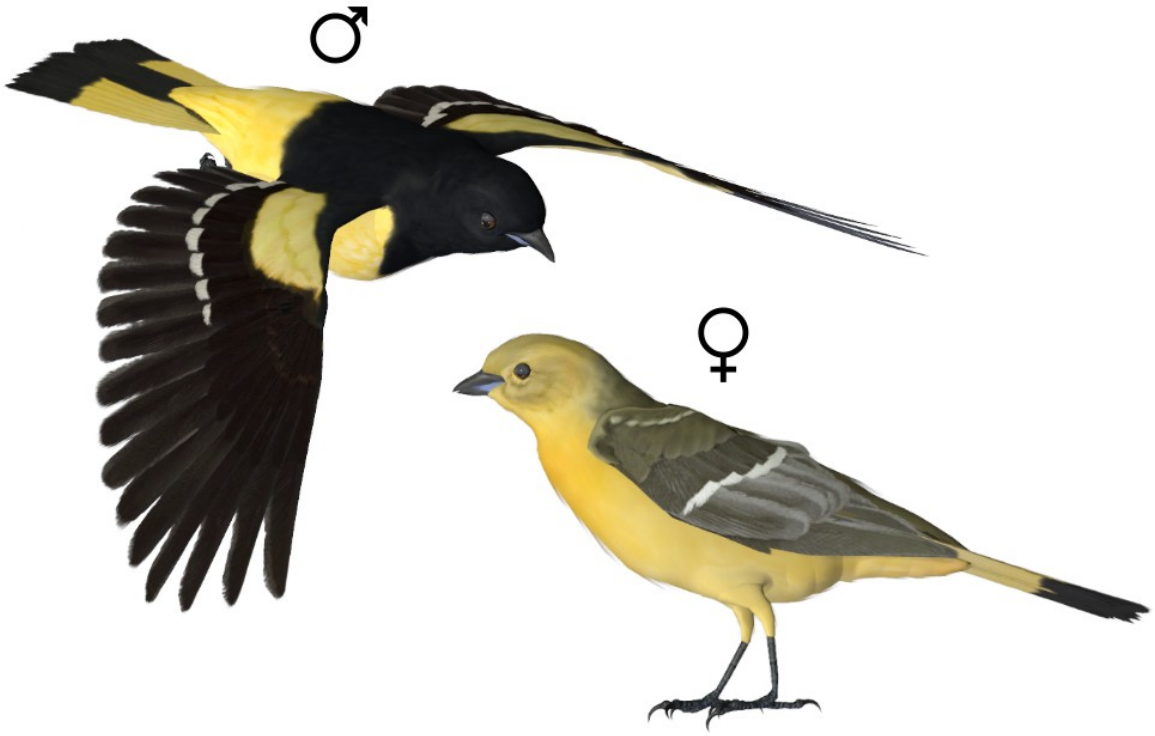
- *I. b. bullockii.* The nominate race is found in southwestern Canada (from southern British Columbia and southern Alberta) southwards in the western United States (except central California south to western Arizona) to northern Mexico (Sonora, Chihuahua and Coahuila). It winters in central Mexico southward to central Guatemala.
- *I. b. parvus.* This race is found in the southwestern United States (from central California, southern Nevada and western Arizona) southward to northwestern Mexico (extreme northern Baja California and extreme northwestern Sonora). Its winter range is unknown. Its appearance is similar to the nominate race but duller in color.

Common Name: Scott's Oriole
Scientific Name: *Icterus parisorum*

Size: 9.1 inches (23 cm)

Habitat: North America; it is primarily found in the southwestern United States and south to Baja California Sur and central Mexico. The bird is an infrequent wanderer to eastern North America, with records from New York, Pennsylvania, Virginia, Kentucky, Tennessee, North Carolina, South Carolina, Georgia, and Ontario.

It is found most commonly in relatively elevated, arid habitats, particularly the desert-facing slopes of mountains, or semiarid plains between mountain ranges. It seems well adapted to hot, dry environments and typically nests in tree species associated with desert habitats: arboreal yuccas, desert palms, junipers and piñon pines.



Status: Least Concern. **Global Population:** 4,000,000 mature individuals with a decreasing population. It is considered "moderately threatened" on its both breeding and wintering grounds because it faces "moderate" habitat loss (11–25% of habitat), it has somewhat specialized ecological requirements, and is not particularly widespread in its distribution. However, this threat is currently not considered urgent.

Diet: Omnivorous; both breeding and wintering grounds mainly insects, supplemented by fruit and nectar. It takes adult and larval insects, including butterflies and moths, grasshoppers, crickets, bees, wasps, beetles, spiders and small lizards. Fruits favored are cacti and its flowers nectar. It often seeks out hummingbird feeders.

When foraging in trees and bushes, moves on and among limbs by climbing rather than using wings.

Breeding: Sexes are sexually dimorphic. The male has a black hood, breast, and back which contrasts with its lemon-colored body. The wings are black with a white wing-bar and a yellow epaulet bordered in white. All the rectrices have yellow bases, with the central 2–4 being predominantly black (the outer 8–10 rectrices are yellow for roughly two-thirds of their length with the extent of the yellow variable), ending in black tips. The female has some black spots or streaks on its head, back, and throat, with an olive-gray back and yellow to yellowish-olive on its under parts. The wings are brownish black, with 2 whitish wing-bars (lower wider than upper). The tail generally olive, but yellowish in roughly the same areas that are yellow in male. The female can be highly variable in appearance, due mainly to amount of black on head, back, and throat. The juvenile plumage of both sexes is dull olive and unpatterned.

It is seasonally monogamous. It begins to arrive on in its United States breeding grounds in late March and stays through July or August. Many pairs raise 2 broods. Scott's nests are built lower to the ground and are more cup-shaped than the less accessible, baglike nests of the familiar Baltimore (*I. galbula*) and Bullock's (*I. bullockii*) orioles. Like these species, however, it seems to defend nesting-only territories.

Cool Facts: The species was first scientifically described by French ornithologist Charles Lucien Bonaparte in 1838. He named the bird *parisorum* after the Paris brothers, powerful French financiers of the early 1700s. The English name was given by American soldier and naturalist Darius N. Couch in honor of General Winfield Scott, without knowing that the bird had previously been described by Bonaparte. There have been proposals to rename this species the “Yucca Oriole” to reflect its preferred habitat.

Special Thanks to…

...my beta team

Alisa and FlintHawk

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)


Songbird ReMix
Merchandise
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