

# COMMON GROUND-DOVE - COLUMBINA PASSERINA

**Taxonomy:** Kingdom: Animalia Phylum: Chordata Class: Aves Order: Columbiformes Family: Columbidae Genus: Columbina Species: C. passerina

## **Habitat:**

**Biomes:** Common Ground-Doves live in arid, open woodlands in the early stages of forest development, including pine woods, hammocks, lake shores, forest edges, coastal dunes, mesquite flats, river bottom woodlands, deserts, desert scrublands, oak scrublands, and savannas. They are also found in human landscapes, especially irrigated farm fields and residential neighborhoods.

## **Distribution:**

**In US:** It is found in the southern tip of the United States, most of Mexico, parts of Central America, the Caribbean islands and the northern tip of South America. The common ground dove does not migrate and is a year-long resident in the areas they are found.

**In Other Countries:** NONE

**Holistic Description:** A dove the size of a sparrow, the Common Ground-Dove forages in dusty open areas, sometimes overshadowed by the grass clumps it is feeding beneath. Its dusty plumage is easy to overlook until the bird springs into flight with a soft rattling of feathers and a flash of reddish-brown in the wings. These small, attractive doves are common across the southernmost parts of the U.S. from California to Florida.

**Species Richness:** 15 SUBSPECIES

**Population Dynamic:** CHECK THREATS

## **Evolution and Systematics:**

**Evolution:** None known from outside extant range. Fossils collected and catalogued from West Indies (Haiti, Dominican Republic, Puerto Rico) and from Brazil.

**Systematics:** Geographic variation in color and size is weakly clinal or chaotic, especially unclear in n. Caribbean. Plumage coloration of both sexes varies, with differences sometimes most apparent in one sex or the other. Bill color varies apart from differences due to age and sex; some populations have all dark bills while others have largely pale bills basally. . Birds in se. U.S. from se. Texas east darker (brownier) on upperparts and richer rufous with deeper vinaceous coloration on underparts compared with paler and grayer western populations south through Guatemala, south of which birds become darker again. Northern populations from s. U.S. and Mexico largest, those southward and in Caribbean generally smaller.

**Number of Species:** 15 SUBSPECIES

**Number of Genera:** 15 SUBSPECIES

## **Physical Characteristics:**

**Size and Length:** Length: 5.9-7.1 in (15-18 cm) Weight: 1.0-1.4 oz (28-40 g)

**Wingspan:** 27 cm (11 in)

**Coloration:** Common Ground-Doves are sandy brown overall, with large, dark spots on the wing coverts. In flight the wings show rich rufous patches. Males have a pinkish wash on the head, neck, and chest, and bluish crowns; females are duller. Both sexes have fine, dark scaling on the neck and chest, and pinkish-red bills with a dark tip.

**General Body Features:** Common Ground-Doves are tiny doves with short, round wings, short tails, and short, thin bills. They are stocky, with short legs, and they shuffle as they walk.

**Special Features of the Body:** Columbidae have unique body feathers, with the shaft being generally broad, strong, and flattened, tapering to a fine point, abruptly. In general, the aftershaft is absent; however, small ones on some tail and wing feathers may be present. Body feathers have very dense, fluffy bases, are attached loosely into the skin, and drop out easily. Possibly serving as a predator avoidance mechanism, large numbers of feathers fall out in the attacker's mouth if the bird is snatched, facilitating the bird's escape.

**Special Features of the Head and Sensory Organs:** In a series of experiments in 1975 by Dr. Mark B. Friedman, using doves, their characteristic head bobbing was shown to be due to their natural desire to keep their vision constant. Columbidae are excellent fliers due to the lift provided by their large wings, which results in low wing loading; They are highly maneuverable in flight and have a low aspect ratio due to the width of their wings, allowing for quick flight launches and ability to escape from predators, but at a high energy cost.

**Dentition:** BEAK/LAMELLAE/GIZZARD

**Special Features of the Limbs and Digits:** NONE

*Any Special Internal Anatomy:* Overall, the Columbidae tend to have short legs, short bills with a fleshy cere, and small heads on large, compact bodies. Like some other birds, the Columbidae have no gall bladders. In fact, however, they do have bile (as Aristotle had earlier realized), which is secreted directly into the gut.

*Sexual Dimorphisms:* The males have slate gray feathers on the top of their heads and pink-gray colouration on their belly. Females on the other hand are more gray than their male counterparts and are more evenly coloured. Female plumage grayer overall and breast scaling less distinct, but may extend farther ventrally. Nape and hindcrown of female grayish brown, but bluish in male. Juveniles of both sexes resemble adult female, but scaling is less distinct. Female lacks rosy color to head and neck; in general, paler underneath than male. Male only slightly larger than female, but not consistent for all measurements or all locales.

*Differences Between Juvenile Stage and Adult:* Juveniles of both sexes resemble adult female, but scaling is less distinct.

#### **Behavior:**

*Diurnal, Nocturnal, or Crepuscular:* Diurnal

*Activity:* During the day Common Ground-Doves spend time on the ground searching for seeds and roosting. They may also roost in trees or shrubs at any hour of the day or night. They nod their heads as they walk, often holding their tails slightly elevated, and they usually make short, low, and direct flights. When startled they can quickly burst into nearby cover, but they are not a very anxious bird—allowing humans to get very close without appearing bothered. Common Ground-Doves gather in flocks of their own kind and with other dove species, particularly Inca Doves where their ranges overlap in Texas and the Southwest. When males compete for food or mates they may make sharp cooing calls and raise one or both wings, revealing chestnut wing-patches. A courting male follows the female and keeps doing this, sometimes flying after her to stay near. Eventually the female accepts regurgitated food from the male, and the pair bond is cemented; pairs stay together for several years. Before mating, the male bows to the female with puffed feathers, flicking his wings and giving a guttural call.

*Locomotion:* Decidedly terrestrial. Walks quickly, often with a nodding motion of the head and a slightly elevated tail. Flight is usually short, low, and direct.

*Communication and Perception:* Both males and females make a repeated, high-pitched coo, heard year-round at all hours of the day. Each sequence of coos contains 1–13 rising notes, and a sequence may be repeated 4–5 times per minute for many minutes on end. Ground-doves use variations of this song while courting, while waiting for a mate to return, and when flushing from a nest.

*Home Range:* An area of exclusive use is maintained throughout the breeding season, and likely throughout the year, by aggression of the territorial male; however, relatively little known about the size and degree of territoriality or territory requirements. Territorial boundaries are rarely well defined; described as “inconspicuously territorial”

*Degree of Sociality:* Little known. Usually found singly or in pairs. May form relatively large groups at water holes, but usually arrive and depart in pairs. Small (6–20) winter aggregations observed feeding in agricultural fields. May nest in relatively dense aggregations. Unmated birds may form short-term associations with pairs or singles; only social behavior prior to mating.

*Level of Aggression:* As in many other columbids and members of this genus, wings relatively important in displays of aggression, anxiety, or courtship. During competition, either for food or mates, male may raise 1 or both wings above back, revealing chestnut wing-patches as warning signal; may utter sharp woot woot notes during interaction. During courtship, competing males may rush one another with raised wings and vocalizing. Wing- and tail-flicks are common during territorial interactions and as an anxiety display.

*Migration:* Year-round resident and occasional short-distance migrant. Northern individuals may move slightly farther south in the winter, while high-elevation individuals may move to lower elevations.

#### **Predators:**

*Predators:* Bobcat, Opossum, Raccoon, Striped Skunk, Gray and Red Foxes, Domestic Dogs, Cats, Snakes, Black Racers, Indigo Snake, Eastern Coachwhip, Crows, Jays, Blackbirds, Owls, Hawks, Falcon, Shrikes, Coati, Tayra.

*Anti-Predator Defenses:* May rely on concealment provided by plumage and vegetation cover to reduce risk of detection by predators. At nests, males respond to predators by ruffling feathers, raising wings, emitting a harsh nasal note and sometimes striking with wings. Off the nest, both males and females perform distraction display, feigning wing injury to lead predators away from nest; effective only if predator has not already found nest. Also may rush, with raised wings, some avian nest predators or strike with upraised wing descended forcibly.

#### **Diet and Nutrition:**

*Adult Diet:* Common Ground-Doves make their living by gleaning small seeds from wild grasses and weeds. They are also common visitors to bird feeders. They may specialize on certain seeds during the summer, when food is abundant, but eat a

variety of seeds during winter. Ground-doves also feed on small berries and insects. In spring and summer they may eat snail shells, possibly to replenish the calcium devoted to eggs and crop-milk during nesting.

Juvenile Diet: ^^^^^

Special Adaptations for Getting Prey: Ground gleaner, tending to move about as it feeds, wandering erratically, tail cocked in the air, making rapid jabs with its bill at food on the ground.

### **Reproduction:**

Mode of Reproduction: Apparent monogamy; pair bond persistent throughout and between years.

Mating System: ^^^^^

Mating Season: April to June

Courtship: Courtship likely a species-specific variant of the typical bow-coo display of closely related columbids. Because of precocial sexual behavior, some likely to form pairs early in life (6–8 mo), but usually with an older, more experienced bird. Pair-maintenance and precopulatory displays well described, usually consisting of head-bobbing and the bow-coo display. Male bows facing female with puffed feathers, body at a 30° angle from horizontal, flicking wings, and giving a guttural broww call. May repeat several times during a single bout; female frequently moves and male follows, continuing to face female and giving the bow-coo each time they stop. Also lateral or direct movements toward one another until nearly touching bills, with rapid, shallow, single (not both wings together) wing-flicks, mostly by male but some by female. May take short flights in pursuit of female, often 2 or 3 males will chase (drive) a female, but presumably this occurs during pair formation rather than pair-bond maintenance.

Territoriality: HOME RANGE and variation in response to territorial trespass from immediate aggression to delayed to no apparent response. Rarely responds aggressively to human imitation or tape recording of territorial call. However, territorial aggression much stronger during peak of breeding season. **During territorial aggression, territorial male lowers body parallel to ground, wing-flicks, and gives a 2-syllable call towah, followed by an aerial chase. Intruders usually flee with first chase, but sequence of display and chase may be repeated 3 or more times. Actual physical contact rare. Intruders often wing-flick and pump tail in response to territorial display. A more aggressive defensive display includes assuming a similar horizontal posture and raising 1 or both wings stiffly vertical. Raising both wings may be indicative of a greater willingness to fight.**

Mating: Precopulatory display often preceded by food solicitation by female and regurgitation feeding of female by male. No elaborate courtship flights. Copulations may take place on low branches, not on the ground, but in California may copulate on ground during visits to water.

Nesting: Common Ground-Doves typically build nests on the ground in fields, and they may also use above-ground sites including bushes, low horizontal tree branches, stumps, fence posts, vines, cornstalks, palm fronds, mangroves, mesquite thickets, and prickly pear cacti. Ground-doves invest minimal time in building their nests, but both sexes share the labor. When nesting on the ground they dig a slight depression in the earth and line it with a few grasses, weeds, rootlets, palm fibers, or pine needles. For above-ground nests they build flimsy structures of twigs or pine needles lined with rootlets and grasses. Each nest is up to 3 inches across but less than half an inch deep, meaning that the eggs are usually visible above the rim of the nest.

Egg-Laying: Clutch Size: 1-3 eggs Number of Broods: 1-4 broods Egg Length: 0.8-0.9 in (2-2.4 cm) Egg Width: 0.6-0.7 in (1.5-1.7 cm) Incubation Period: 12-14 days Nestling Period: 11-14 days Egg Description: Uniformly white and smooth.

Hatching and Incubation/Gestation: Eyes closed and body covered with sparse gray down.

Development: Altricial; eyes closed, covered with sparse, hairlike gray down. Mass approximately 4–6 g. Depending on timing of hatching, may be considerable size asymmetry between siblings.

Parental Care: Both adults brood; follow similar pattern of daily nest exchanges as during incubation. Time brooding declines as nestlings age. Night-brooding discontinued when young 8–9 d of age. Young fed by regurgitation. Both parents feed young. First feeding may occur within 2–3 h of hatching. May initiate feeding by grasping young's bill. Young insert soft bill, singly or together, into buccal cavity of adult. Adults make vigorous pumping motions, indicative of forcibly regurgitating food, with periodic interruptions while young swallow.

Lifespan: Can live up to 7.2 years.

### **Conservation:**

Official Federal Status: Least Concern

Special Statuses in Individual States: NONE

Threats: Common Ground-Doves are widespread and common throughout their range, and their numbers were stable between 1966 and 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates the global breeding population at 13 million, with 18% living in the U.S., and 21% in Mexico. They rate a 9 out of 20 on the

Continental Concern Score and are not on the 2014 State of the Birds Watch List. More than 85% of scrub habitats have been lost to agriculture and residential development in the last half-century, with fire suppression degrading much of the remaining habitat. Since these doves lay their eggs on the ground, people can unwittingly disturb their nests during daily activities. Common Ground-Doves are often killed by colliding with vehicles and human structures. Other major causes of death include predation (often by domestic cats) and hunting.

Conservation Efforts: ^^^^

**Extra Facts:**

1. It's estimated that a Common Ground-Dove has to eat more than 2,500 seeds every day to meet its energetic demands. It can store hundreds of seeds in its two-lobed crop, an enlarged pocket of the esophagus.
2. Ground-doves may breed opportunistically after rainfall or fire to take advantage of the extra abundance of seeds. Both parents use a secretion from the esophagus, known as crop milk, to feed nestlings. Since they do not have to rely on specific food items for their chicks, ground-doves can have a long breeding season with multiple broods.
3. Like other doves and pigeons, Common Ground-Doves can suck up and swallow water without raising their heads.
4. The Common Ground-Dove is about the same size as a Song Sparrow, making it one of the smallest doves in North America. Its diminutive size is reflected in both the genus name *Columbina*, which means little dove, and in the species name *passerina*, which means sparrow.
5. In the rural South, the Common Ground-Dove is sometimes called the "moaning dove" for its repetitive call or the "tobacco dove" for making its home near farm fields.
6. In flight ground-doves make a whirring sound, probably produced by a notch in the seventh primary feather on each wing.
7. Because it nests and feeds on the ground, the Common Ground-Dove lives in constant danger of predation from terrestrial animals like bobcats, opossums, raccoons, skunks, foxes, dogs, cats, and snakes. Birds hunt it too, including crows, jays, blackbirds, owls, hawks, falcons, and shrikes. The ground-dove's main weapon against predators is concealment: hiding in vegetation or simply blending into the dusty ground.
8. The oldest Common Ground-Dove on record was a female, and at least 7 years, 2 months old. She was banded in Texas and found in Mexico.

**Notable Species:**

1. *C. p. pallescens* (Baird, 1860): Found in the southwest of the United States to central Texas and down through Mexico to Honduras. Males are considered to be paler and females have more white on their underbelly.
2. *C. p. socorroensis* (Ridgway, 1887): Found on Socorro Island near Mexico. They are darker brown than *C. p. pallescens* and have shorter wings as well.
3. *C. p. neglecta* (Carraker, 1910): From Central America specifically south Honduras to western Panama. They have darker feathers than *C. p. pallescens*.
4. *C. p. passerina* (Linnaeus, 1758): Found in the southeastern United States specifically southeast Texas to northern North Carolina. This is the typical common ground dove described above.
5. *C. p. bahamensis* (Maynard, 1887): Found in Bermuda and in the Bahamas.
6. *C. p. aflavida* (Palmer and Riley, 1902): Can be found in Cuba and the Isle of Pines. These doves are larger than usual with males having darker brown underparts. Also both males and females have darker bills.
7. *C. p. insularis* (Ridgway, 1888): Found on the Cayman Islands and Hispaniola. Both its back and chest are darker than *C. p. bahamensis*.
8. *C. p. jamaicensis* (Maynard, 1899): Found in Jamaica and has a pale beak with males being very dark on the underbelly.
9. *C. p. umbrina* (Buden, 1985): Found on Ile de la Tortue near Haiti. Darker on the back and the bottom part of their beak is darker.
10. *C. p. exigua* (Riley, 1905): Found only on Mona Island near Puerto Rico and Hispaniola.
11. *C. p. portoricensis* (Lowe, 1908): Found on Puerto Rico and the Virgin Islands. Similar to *C. p. nigrirostris* but the lower part of the beak is red.
12. *C. p. nigrirostris* (Danforth, 1935): Found from The north part of the Lesser Antilles, Anguilla, Dominica and on St. Croix.
13. *C. p. trochila* (Bonaparte 1855): Found on St. Lucia and Martinique. These birds have a greyish green colouration on their chest and have chestnut tail feathers.
14. *C. p. antillarum* (Lowe, 1908): Found on St. Vincent Island, the Grenadines, Grenada, Barbados and the south Antilles.