

# BLACK-BELLIED WHISTLING DUCK - DENDROCYGNA AUTUMNALIS

**Taxonomy:** Kingdom: Animalia, Phylum: Chordata, Class: Aves, Order: Anseriformes, Family: Anatidae, Genus: Dendrocygna, Species: D. autumnalis

## **Habitat:**

**Biomes:** Ponds, fresh marshes. Favors shallow freshwater lakes; may come to those in open country, but seems to favor ponds surrounded by trees. Will nest on ground or in tree cavities. When foraging, often in dry fields, also in irrigated land.

Black-bellied Whistling Ducks nest in thickets or stands of mesquite, hackberry, willow, live oak, and other trees. They forage in fields, lawns, and shallow, freshwater ponds that often contain water hyacinth, water lilies, and cattails. In the tropics, they also use mangroves, rivers, and lagoons.

**Elevation Ranges:** Sea level to 1,500 meters of elevation

**Temperature:** 65 °F to 75 °F in the summer and 35 °F to 45 °F in the winter

**Precipitation Levels:** Around 3.63 inches of rain per-month.

## **Distribution:**

**In US:** breeds from the southernmost United States and tropical Central to south-central South America. In the USA, it can be found year-round in peninsular Florida, parts of southeast Texas, and seasonally in southeast Arizona, and Louisiana's Gulf Coast. It is a rare breeder in such disparate locations as Arkansas, Georgia, Tennessee, and South Carolina, though it is now a common breeder in parts of central Florida. There is a large population of several hundred that winter each year in Audubon Park in uptown New Orleans, Louisiana.

**In Other Countries:** In the resident ranges, the bird also inhabits the Brazilian region of South America. This species also wanders rarely throughout the West Indies, except in Cuba, where small numbers have become resident, and on Barbados. Occasional records in the southwestern and eastern United States and Ontario may involve both wild and escaped birds. See text for details.

**Holistic Description:** The black-bellied whistling-duck (*Dendrocygna autumnalis*), formerly called the black-bellied tree duck, is a whistling duck that breeds from the southernmost United States and tropical Central to south-central South America. In the USA, it can be found year-round in peninsular Florida, parts of southeast Texas, and seasonally in southeast Arizona, and Louisiana's Gulf Coast. It is a rare breeder in such disparate locations as Arkansas, Georgia, Tennessee, and South Carolina, though it is now a common breeder in parts of central Florida. There is a large population of several hundred that winter each year in Audubon Park in uptown New Orleans, Louisiana. Since it is one of only two whistling-duck species native to North America, it is occasionally just known as the "whistling duck" or "Mexican squealer" in the southern USA.

## **Evolution and Systematics:**

**Evolution and Systematics:** Whistling ducks were first described by Carl Linnaeus in the 10th edition of *Systema Naturae* in 1758: the black-bellied whistling duck (then *Anas autumnalis*) and the West Indian whistling duck (then *Anas arborea*). In 1837, William John Swainson named the genus *Dendrocygna* to distinguish whistling ducks from the other waterfowl. The type species was listed as the wandering whistling duck (*D. arcuata*), formerly named by Thomas Horsfield as *Anas arcuata*. Whistling duck taxonomy, including that of the entire infraorder Anseriformes, is complicated and disputed. Under a traditional classification proposed by ornithologist Jean Théodore Delacour based on morphological and behavioral traits, whistling ducks belong to the tribe Dendrocygnini under the family Anatidae and subfamily Anserinae. Following the revisions by ornithologist Paul Johnsgard, Dendrocygnini includes the genus *Thalassornis* (the white-backed duck) under this system. In 1997, Bradley C. Livezey proposed that *Dendrocygna* were a separate lineage from Anserinae, placing it and its tribe in its own subfamily, Dendrocygninae. Alternatively Charles Sibley and Jon Edward Ahlquist recommended placing *Dendrocygna* in its own family, Dendrocygna, which includes the genus *Thalassornis*.

**Number of Species:** 2 [subspecies]

**Number of Genera:** [species]

## **Physical Characteristics:**

**Size and Length:** 47-56 cm or 19-22 in

**Weight:** 23.0-36.0 oz (652-1020 g)

**Wingspan:** 76-94 cm or 30-37 in

**Coloration:** It has a long red bill, long head and longish legs, pale gray head and mostly gray-brown plumage. The belly and tail are black, and the body plumage, back of the neck and cap are a rich chestnut brown. The face and upper neck are gray, and they sport a thin but distinct white eye-ring. The extensive white in the wings is obvious in flight, less so on the ground; it is formed by the secondary remiges while the primaries are black; the wing-coverts are brown. Black-bellied Whistling-Ducks are dark overall: a chestnut breast and black belly are set off by a bright-pink bill and legs, grayish face, and

broad white wing stripe, also visible in flight. Immatures are duller than adults, with a dark bill, pale breast, and mottled black belly.

General Body Features: The Black-bellied Whistling-Duck is a large, gooselike duck with a long neck, long legs, and short tail. In flight, look for their broad wings, long neck, and hunched back.

Special Features of the Body: The wing bar is unique among whistling-ducks. When on the ground, it may be hard to discern the light flanks present in many of these waterfowl. The fulvous whistling duck (*D. bicolor*) is the only sympatric whistling-duck that shows such a whitish flank stripe, and it differs from the black-bellied by having dark wings and a lighter belly rather than the other way around.

Special Features of the Head and Sensory Organs: NONE

Dentition: NONE

Special Features of the Limbs and Digits: The bird has palmate feet which means that the front toes are webbed and united.

Any Special Internal Anatomy: NONE

Sexual Dimorphisms: They look most like ducks, but their lack of sexual dimorphism, relatively long-term pair bonds, and lack of complex pair-forming behavior more resembles geese and swans.

Differences Between Juvenile Stage and Adult: Juveniles are browner than adults, with a black bill and flesh colored legs, but without the black belly. Juvenile *D. autumnalis* are quite similar to young of the white-faced whistling duck (*D. viduata*), which have a darker bill and no white wing patch; even when sitting they never seem to show white along the sides, as their thin white vertical barring on the black flanks is very indistinct.

### **Behavior:**

Diurnal, Nocturnal, or Crepuscular: Black-bellied whistling ducks are both diurnal and nocturnal. They are usually non-migratory; except those in the northern regions such as Texas and Louisiana migrate to the south during winter. They usually sleep standing on one leg with the head tucked backwards. When asleep the black-bellied whistling duck continuously opens its eyes every few seconds to observe its environment. Black-bellied whistling ducks are involved in self-maintenance behaviour as they are observed to thrust their head and body below the water in a manner to clean themselves

Activity: Black-bellied Whistling-Ducks have long legs and spend more time than other ducks walking on land or perching in trees. You may see them perched on fences, telephone lines, or in Spanish moss. They are gregarious year-round, forming flocks of up to 1,000 birds. They form lifelong pair bonds and breed in their first year of life. Males spar by chasing or nipping at each other, or with a threat display that involves stretching their neck forward and opening their bill. Pairs form in winter; courtship includes birds stretching their necks out horizontally, dipping their bill, and flicking water over the back. Females often lay eggs in the nests of other whistling-ducks—a behavior known as egg-dumping. Individuals are attracted to areas where corn and rice are grown and can cause damage to crops. Nest predators include raccoons, rat snakes, and bull snakes; ducklings may be killed by fire ants, bass, catfish, and gar. Great Horned Owls sometimes take adults.

Locomotion: NONE

Hibernation: NONE

Communication and Perception: Noisy birds with a clear whistling waa-chooo call.

Home Range: [SEE DISTRIBUTION]

Degree of Sociality: Highly social and can be found in large flocks in areas where they are common.

Level of Aggression: Extremely Aggressive

Migration: The black-bellied whistling duck is mainly non-migratory. Birds in the extreme northern portions of their range (Arizona, Louisiana, and parts of Texas) move south in winter. At the heart of their range, there is a tendency to travel in flocks over the winter months, though this behavior is not a true long-range migration but rather local dispersal. 7 adults and 8 ducklings were observed on west side of Lake Apopka, Central Florida, 7-24-15. They have been in this area for more than a year. Since 2009, this species has now become a common breeder in Lake County, Florida, with adult pairs with offspring seen by lakes and in wetlands near Eustis, Tavares, Leesburg, and other municipalities; large wintering flocks of 30+ birds can be seen throughout the county, even up to Lake Norris in the NE central portion of the county (Ralph Risch, Biologist II, Florida Forest Service, Lake Forestry Station; personal observation). There has been a large flock noted for about two years in the River Plantation area of Parrish in Manatee County, Florida. A large flock was observed and photographed by a local resident in Audubon Park, New Orleans, Louisiana in February 2016. Over 100 of the whistling ducks have resided in the Gum Slough of Sumter County, Florida for over 2 years. Recent spike in leesburg to ocklawaha region with many nightly flights averaging 10 per flight.

**Predators:**

**Predators:** Raccoons, rat snakes, and bull snakes; ducklings may be killed by fire ants, bass, catfish, and gar. Great Horned Owls sometimes take adults.

**Anti-Predator Defenses:** *D. autumnalis* ducklings' predators usually include rat snakes, racoons and opossums while the adult predators are alligators, foxes and bob cats. Blackbellied whistling ducks are extremely aggressive in would make loud hissing noising when defending territory. The ducks would attack predators using their beaks and feet as shown in Fig. 5. They would also puff up their breast as a defensive strategy. If the duck is attacked it would start to kick its feet and use its wing to fly away.

**Parasites:**

**Diet and Nutrition:**

**Adult Diet:** The adults' diet is mainly vegetarian which includes corn, rice, millets, several types of weed and other grasses. Other types of food include snails, tadpoles, molluscs, insects and small terrestrial spider

**Juvenile Diet:** Ducklings consume similar foods as adults however the percentage of animal intake food is almost equal to that of the plant intake food

**Special Adaptations for Getting Prey:** Black-bellied whistling ducks usually feed during night; they are adapted to this due their increased rods per unit area which has allowed increased vision at night compared to other ducks. Black-bellied whistling ducks are adapted to foraging in upland areas. When foraging in water the blackbellied whistling ducks rarely dive for food instead they would usually forage in water no deeper than their legs and this allows them to stand and forage. The ducklings forage by mostly plunging and dabbling.

**Reproduction:**

**Mating System:** The black-bellied whistling duck is quite unique among ducks in their strong monogamous pair-bond. Its pairs often stay together for many years, a trait more often associated with geese and swans. They mate for life.

**Mating Season:** December to March

**Courtship:** NONE

**Mating:** NONE

**Pheromones Involved:** NONE

**Nesting:** Usually nests in tree hollows where a limb has broken or the trunk has rotted away. They also use nest boxes and sometimes nest on the ground. Both sexes help select the nest site. Whether nesting in natural cavities or nest boxes, Black-bellied Whistling-Ducks typically don't build a nest; they lay their eggs directly on whatever debris has collected there. Cavity openings range from 5–12 inches across. When nesting on the ground, they make a scrape or a shallow bowl of grasses, with thick vegetation overhead, such as willow, mesquite, or cactus.

**Egg-Laying:** Clutch size of 9-18 eggs, brood size of 1-2, egg length of 1.8-2.4 in (4.5-6.2 cm), egg width of 1.2-1.6 in (3-4.2 cm).

**Hatching and Incubation/Gestation:** 25-30 days incubation period. When the birds hatch, they are almost independent at hatching. Covered with black-and-yellow down, eyes open, has a nestling period of 10-13 days with a white egg.

**Development:** Both parents share all tasks associated with the raising of young, from incubation to the rearing of ducklings. The ducks, primarily cavity nesters, prefer the confines of a hollow tree, but will nest on the ground when necessary. They also make use of chimneys, abandoned buildings, or nest boxes, the latter having been increasingly provided to them over recent decades, especially in southeast Texas and Mexico. Ducklings leap from nest cavities within two days of hatching, can feed themselves immediately, and stay with the parents for up to eight weeks.

**Parental Care:** UP

**Lifespan:** 8 years in the wild

**Conservation:**

**Official Federal Status:** Least Concern

**Special Statuses in Individual States:** NONE

**Threats:** NONE

**Conservation Efforts:** Black-bellied Whistling-Ducks have been expanding their range in the southern U.S., and the North American Breeding Bird Survey shows strong population growth, estimated at over 6% per year from 1966–2014. They are not on the 2014 State of the Birds Watch List. Although it's legal to hunt whistling-ducks in season, they are only rarely targeted by hunters. Like all aquatic species, Black-bellied Whistling-Ducks are vulnerable to poor water quality—in the 1980s birds in Mexico were reported with high levels of DDT, dieldrin, and other persistent organic compounds. Degradation or clearing of wetlands for can reduce habitat availability; however, in general Black-bellied Whistling-Ducks seem to be doing well around human development.

**Extra Facts:** Black-bellied whistling duck can reach 18.5 to 20.1 inches in length and 23 to 36 ounces of weight.

Black-bellied whistling duck is reddish brown colored. It has grey face and upper part of the neck, black belly and tail and large white patch on the wings. Males and females look alike.

Black-bellied whistling duck has orange-red bill, medium-sized, erect body and long neck and legs.

Black-bellied whistling duck is nocturnal animal (active during the night).

Black-bellied whistling duck is an omnivore (it eats both plants and meat). Its diet is based on seed, grass, sedges, corn, rice, wheat, insects, spiders and snails.

Black-bellied whistling ducks live in large flocks of around 1.000 birds. They produce whistle-like calls, hence the name "whistling ducks".

Unlike other ducks, black-bellied whistling duck spends a lot of time on the ground and on the trees.

Northern populations of black-bellied whistling ducks migrate toward the Mexico and southern parts of Texas in the autumn.

Natural enemies of black-bellied whistling ducks are great horned owls, raccoons, snakes, bass and catfish (all, except owls, feed on eggs and ducklings).

Males compete for the attention of females. They chase each other with wide open bills and stretched necks.

Black-bellied whistling ducks form monogamous pairs (they mate for a lifetime) during the winter. They produce one or two broods per season.

Black-bellied whistling ducks nest in the cavities of trees, in the nest boxes or on the ground, using little nesting material.

Female lays 9 to 18 eggs (13 on average) from May to June. Eggs hatch after 25 to 30 days. Both parents participate in the incubation of eggs and rearing of chicks.

Females occasionally lay eggs in the nest of other black-bellied whistling ducks. This behavior is known as "egg-dumping".

Ducklings are covered with black and white down at birth. They are ready to leave the nest and enter the water (or walk on the solid ground) one or two days after hatching. Black-bellied whistling ducks learn to fly at the age of 8 weeks, but they stay with their parents until the age of 6 months. They reach sexual maturity at the age of one year.

Black-bellied whistling duck can survive 8 years in the wild

**Pet Information:** NONE

**Notable Species:**

Northern black-bellied whistling duck, *D. a. fulgens* – Southern USA to Western Panama.

Larger, with a brown breast and upper back.

Southern black-bellied whistling duck, *D. a. autumnalis* – Eastern Panama to Paraguay and adjacent regions.

Smaller, with gray breast and upper back.