

Black Vulture

Coragyps atratus

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DESCRIPTION. The generic name of the Black Vulture is a combination of two Greek words, *corax* for “raven” and *gyps* for “vulture.” The specific epithet, *atratus*, means “clothed in black” (*ater*) as a token of mourning. The Hispanic name *zopilote*, widespread throughout much of Latin America, is from the Nahuatl *tzopilottl*, “vulture,” derived from the verb *tzopinia*, describing the puncturing action of beak, fangs, or talons (Karttunen 1985).

As the English name implies, the plumage of Black Vultures is solidly black except for the white bases of the primaries, which form a patch under each wing (plate 1). The skin of the head and feet is slate gray, though the legs are usually white with encrusted urates. The head and bill are elongated. A loose gular pouch of bare, warty skin hangs down from the throat and face of adults, becoming thickest at the feather line lower on the throat. The bill itself is sharp and decurved at the tip and olive-gray. The iris is deep chocolate brown.

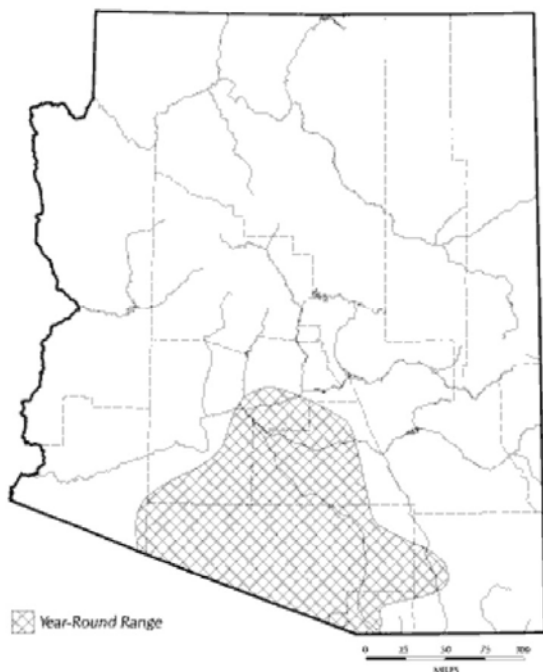
Black Vultures are about 25–28 inches long, have a wingspan of 55–65 inches, and weigh 3.8–5.1 pounds (Wheeler and Clark 1995). The Black Vultures now found in southern Arizona and Sonora appear to be the small tropical race *C. a. brasiliensis* (wing 16.25 inches or less, humerus 5.25 inches or less), which has more extensive and clearer white on the underside of the primaries. The eastern race, *C. a. atratus*, is larger (wing 16.25 inches or more, humerus usually well over 5.25 inches) and has less white in the underwing.

Young Black Vultures have a distinctive appearance for the first year or so of their lives. The most conspicuous feature is the head pattern, in which the feathering comes up over the sides of the face

and the back of the head to the middle of the crown. Young vultures lack the gular pouch.

The Black Vulture is in many ways the antithesis of the more ubiquitous Turkey Vulture. While the solidly funereal plumage of the Black Vulture may not be diagnostic at any great distance, the black head and white patches near the wing tips are signal characters in almost any good binocular view. The flight is also entirely different. Black Vultures alternately flap with very deep wing beats and then glide. When soaring high overhead, the plane of the wings is flat rather than dihedral, as in the Turkey Vulture. Perhaps more conspicuous than any of these characteristics is the distinctive silhouette of the Black Vulture. Unlike the harrier-like Turkey Vulture, with its long wings and narrow tail, the Black Vulture appears rather like a giant moth or bat. Its relatively short, broad wings seem to connect with the short, broad tail, and the long toes often extend a bit beyond the tail. The Black Vulture is quite a long-legged bird, too, with a tarsus 50 percent longer than that of the shorter-legged Turkey Vulture.

DISTRIBUTION. Black Vultures generally occur from the eastern United States and extreme southern Texas and Arizona south through southern South America. The first modern report in Arizona was by ornithologist and Indian reservation teacher M. French Gilman, who saw two in June 1920 near Sells on the Papago (Tohono O’odham) Reservation. Two years later at least a dozen Black Vultures were seen south of Tucson. Within a decade they were increasing in numbers, if not greatly in range. It was nearly half a century before



Black Vulture distribution in Arizona

an Arizona nest was discovered (Monson and Phillips 1981). Between the 1960s and 1990s, the range seems to have stabilized in the southern part of Arizona north to the Gila River and the lower Salt River. Most sightings today are within a radius of 150 miles northwest of Nogales.

HABITAT. Unlike the wary Turkey Vulture, the Black Vulture is largely commensal with humans throughout its tropical and subtropical range. Black Vultures thrive where there are slaughterhouses, garbage dumps, and open markets with refuse. In some parts of the range they are boldly ur-bicolous, competing with pigs, dogs, and chickens for food scraps. In Arizona, where more sanitary conditions are the norm, Black Vultures tend to be more like their cautious cousins and live in open deserts, far from humans.

The Black Vulture is not migratory in the Southwest. It appears to be resident over much of south-

ern Arizona south of the Gila River, but wanders widely within this range. Except in a few favored areas, it cannot be found with any regularity.

LIFE HISTORY. Like the other New World vultures, Black Vultures do not build nests. Only four nesting sites have been reported so far in the state: two in Organ Pipe Cactus National Monument, one north of the Santa Catalina Mountains, and one south of Sonoita, Santa Cruz County (Monson and Phillips 1981; S. H. Levy and G. Monson pers. comm.). The two (sometimes one, rarely three) eggs are laid directly on the ground in a cave or other secluded area. The eggs are very pale gray-green, with a few brownish markings restricted to the larger end. Incubation as short as 28–29 days has been reported (Bent 1957), but 35–39 days is probably more common (Jackson 1985). The hatchlings are covered with a dirty grayish white down and are quite active. After several sequences of down, the characteristic black feathers begin to emerge on the wings, tail, and major body tracts. The young fledge at about 11 weeks but may remain dependent on their parents for an additional five or six months (Jackson 1975).

In contrast to the Turkey Vulture, Black Vultures seem quite content on the ground, often running about in the open where other birds might fly instead. At leisure, the Black Vulture walks with a peculiar gait, the rear bouncing with each step. When more hurried, the bird “gallops,” with the tail angled up, the head lowered, and the body held more horizontally. When moving even faster, especially when chasing another vulture, the bird may extend its wings during the “gallop” before sailing into the air. Sometimes Black Vultures take flight directly from a standstill simply by holding out the wings and springing into the air.

Black Vultures are occasionally seen in very small groups, but they seem most at home in groups of 30–100 or more individuals. When such a large group finds a carcass, a dozen or so dominant birds feed while the rest wait their turn as close by as is safe. Feeding birds may lash out at bystanders wait-

ing to steal a bite. There is considerable jostling for place until a sated bird strolls away, at which time its place is fought over by several hungry birds in waiting. Individuals at these ground assemblages occasionally spring into the air as if in some chaotic, unchoreographed ballet. Scrambles may turn into fights. In addition to rapid thrusting and biting, Black Vultures make effective use of their feet and toes, kicking outward and downward with both feet while simultaneously biting.

Although the entire family is technically voiceless, vultures communicate in many ways, both with sound and with body language. A bird begging for food makes a grunting sound. A disturbed bird may hiss loudly. A well-fed bird displays a distended crop the size of half an orange. A relaxed or unsuspecting vulture may stand hunched, with its dorsal profile in an S-shaped curve; an alarmed Black Vulture stands very erect, its neck extended as far as possible. Flockmates are quick to note alarm signals and begin to look around for the cause of the disturbance. The white primary patches may be signal characters helping this social species maintain flock cohesiveness.

The anatomy of the Black Vulture has evolved for social feeding at larger carcasses. The long legs and toes are poorly adapted for pinning down small rodents or reptiles so that they can be torn up with the bill, a feat at which the Turkey Vulture excels. The Black Vulture, in contrast, is adapted for feeding melees in which the birds thrust, jab, and spring about a large carcass. Even when housed alone in captivity, without competition from other scavengers, a Black Vulture will gobble down its food, filling to repletion in moments. In contrast, a Turkey Vulture will plant itself firmly over its food, holding it down with its short inner toes while eating in leisurely style.

All New World vultures practice urohidrosis, a behavior, shared only with their cousins the storks, in which birds excrete their urine alternately onto

one leg and then the other. As the water evaporates, the legs are cooled. This behavior allows them to dissipate considerable amounts of body heat. As long as vultures have access to food, they can obtain sufficient amounts of water for this cooling. Black Vultures drink water freely, but under experimental conditions Turkey Vultures can continue to urohidrose solely on the water obtained from their food (Hatch 1970; M. P. Kahl 1965). Adult Black Vultures also have a corrugated gular pouch that may play some role in thermoregulation.

When perched in a roost at midday, Black Vultures often face away from the sun and spread their wings, gaping and panting. Although it has not been well investigated anatomically, the spongy gular pouch may contain numerous moist air passages that aid in evaporative cooling. Even in the heat of a midsummer day in southern Arizona, the pouch feels cool to a human hand.

During summer in Sonora, I have observed large flocks of Black Vultures at midday soaring at altitudes almost beyond human sight, a behavior that may take them out of the torrid air temperatures that prevail closer to the ground. Soaring flight demands little energy, so it adds little to the bird's heat load (Mahoney 1983).

STATUS. The Black Vulture does not have any special legislative or regulatory protection other than that afforded under general state wildlife laws (A.R.S. Title 17) and the federal Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-711). The species is infrequently, though regularly, encountered in southern Arizona, but is extremely common locally in Mexico and south into South America.

I know of no management practices that could be employed to increase the number of Black Vultures in Arizona. The Black Vulture here is truly at the fringe of its widespread distribution. In time, perhaps, ecological conditions may shift, and the range of the Black Vulture may change.