

= Turkey vulture =

The turkey vulture (*Cathartes aura*), also known in some North American regions as the turkey buzzard (or just buzzard), and in some areas of the Caribbean as the John crow or carrion crow , is a vulture that is the most widespread of the New World vultures . One of three species in the genus *Cathartes* of the family *Cathartidae* , the turkey vulture ranges from southern Canada to the southernmost tip of South America . It inhabits a variety of open and semi @-@ open areas , including subtropical forests , shrublands , pastures , and deserts .

Like all New World vultures , it is not closely related to the Old World vultures of Europe , Africa , and Asia . The two groups strongly resemble each other because of convergent evolution ; natural selection often leads to similar body plans in animals that adapt independently to the same conditions .

The turkey vulture is a scavenger and feeds almost exclusively on carrion . It finds its food using its keen eyes and sense of smell , flying low enough to detect the gases produced by the beginnings of the process of decay in dead animals . In flight , it uses thermals to move through the air , flapping its wings infrequently . It roosts in large community groups . Lacking a syrinx ? the vocal organ of birds ? its only vocalizations are grunts or low hisses . It nests in caves , hollow trees , or thickets . Each year it generally raises two chicks , which it feeds by regurgitation . It has very few natural predators . In the United States , the vulture receives legal protection under the Migratory Bird Treaty Act of 1918 .

= = Taxonomy = =

The turkey vulture received its common name from the resemblance of the adult 's bald red head and its dark plumage to that of the male wild turkey , while the name " vulture " is derived from the Latin word *vultur* , meaning " tearer , " and is a reference to its feeding habits . The word buzzard is used by North Americans to refer to this bird , yet in the Old World that term refers to members of the genus *Buteo* . The generic term *Cathartes* means " purifier " and is the Latinized form from the Greek *kathartēs* / ????????? . The turkey vulture was first formally described by Linnaeus as *Vultur aura* in his *Systema Naturae* in 1758 , and characterised as *V. fuscogriseus* , *remigibus nigris* , *rostrum albo* (" brown @-@ gray vulture , with black wings and a white beak ") . It is a member of the family *Cathartidae* , along with the other six species of New World vultures , and included in the genus *Cathartes* , along with the greater yellow @-@ headed vulture and the lesser yellow @-@ headed vulture . Like other New World vultures , the turkey vulture has a diploid chromosome number of 80 .

The taxonomic placement of the turkey vulture and the remaining six species of New World vultures has been in flux . Though both are similar in appearance and have similar ecological roles , the New World and Old World vultures evolved from different ancestors in different parts of the world . Some earlier authorities suggested that the New World vultures were more closely related to storks . More recent authorities maintained their overall position in the order *Falconiformes* along with the Old World vultures or place them in their own order , *Cathartiformes* .

However , recent genetic studies have made it clear that neither New World or Old World vultures are close to falcons , nor are New World vultures close to storks . Both are basal members of the clade *Afroaves* , with Old World vultures comprising several groups within the family *Accipitridae* , also containing eagles , kites , and hawks , while New World vultures in *Cathartiformes* are a sister group to *Accipitriformes* (containing the osprey and secretarybird along with *Accipitridae*) .

There are five subspecies of turkey vulture :

C. a. aura is the nominate subspecies . It is found from Mexico south through South America and the Greater Antilles . This subspecies occasionally overlaps its range with other subspecies . It is the smallest of the subspecies but is nearly indistinguishable from *C. a. meridionalis* in color .

C. a. jota , the Chilean turkey vulture , is larger , browner , and slightly paler than *C. a. ruficollis* . The secondary feathers and wing coverts may have gray margins .

C. a. meridionalis , the western turkey vulture , is a synonym for *C. a. teter* . *C. a. teter* was

identified as a subspecies by Friedman in 1933 , but in 1964 Alexander Wetmore separated the western birds , which took the name *meridionalis* , which was applied earlier to a migrant from South America . It breeds from southern Manitoba , southern British Columbia , central Alberta and Saskatchewan south to Baja California , south @-@ central Arizona , southeast New Mexico , and south @-@ central Texas . It is the most migratory subspecies , migrating as far as South America , where it overlaps the range of the smaller *C. a. aura* . It differs from the eastern turkey vulture in color , as the edges of the lesser wing coverts are darker brown and narrower .

C. a. ruficollis is found in Panama south through Uruguay and Argentina . It is also found on the island of Trinidad . It is darker and more black than *C. a. aura* , with brown wing edgings which are narrower or absent altogether . The head and neck are dull red with yellow @-@ white or green @-@ white markings . Adults generally have a pale yellow patch on the crown of the head .

C. a. septentrionalis is known as the eastern turkey vulture . The eastern and western turkey vultures differ in tail and wing proportions . It ranges from southeastern Canada south through the eastern United States . It is less migratory than *C. a. meridionalis* and rarely migrates to areas south of the United States .

= = Description = =

A large bird , it has a wingspan of 160 ? 183 cm (63 ? 72 in) , a length of 62 ? 81 cm (24 ? 32 in) , and weight of 0 @.@ 8 to 2 @.@ 3 kg (1 @.@ 8 to 5 @.@ 1 lb) . Birds in the northern limit of the species ' range average larger in size than the vulture from the neotropics . 124 birds from Florida averaged 2 kg (4 @.@ 4 lb) while 65 and 130 birds from Venezuela were found to average 1 @.@ 22 and 1 @.@ 45 kg (2 @.@ 7 and 3 @.@ 2 lb) , respectively . It displays minimal sexual dimorphism ; sexes are identical in plumage and in coloration , although the female is slightly larger . The body feathers are mostly brownish @-@ black , but the flight feathers on the wings appear to be silvery @-@ gray beneath , contrasting with the darker wing linings . The adult 's head is small in proportion to its body and is red in color with few to no feathers . It also has a relatively short , hooked , ivory @-@ colored beak . The irises of the eyes are gray @-@ brown ; legs and feet are pink @-@ skinned , although typically stained white . The eye has a single incomplete row of eyelashes on the upper lid and two rows on the lower lid .

The two front toes of the foot are long and have small webs at their bases . Tracks are large , between 9 @.@ 5 and 14 cm (3 @.@ 7 and 5 @.@ 5 in) in length and 8 @.@ 2 and 10 @.@ 2 cm (3 @.@ 2 and 4 @.@ 0 in) in width , both measurements including claw marks . Toes are arranged in the classic , anisodactyl pattern . The feet are flat , relatively weak , and poorly adapted to grasping ; the talons are also not designed for grasping , as they are relatively blunt . In flight , the tail is long and slim . The black vulture is relatively shorter @-@ tailed and shorter @-@ winged , which makes it appear rather smaller in flight than the turkey vulture , although the body masses of the two species are roughly the same . The nostrils are not divided by a septum , but rather are perforate ; from the side one can see through the beak . It undergoes a molt in late winter to early spring . It is a gradual molt , which lasts until early autumn . The immature bird has a gray head with a black beak tip ; the colors change to those of the adult as the bird matures . Captive longevity is not well known . As of 2015 there are two captive birds over 40 years old : the Gabbert Raptor Center on the University of Minnesota campus is home to a turkey vulture named Nero with a confirmed hatch year of 1974 , and another female bird , named Richard , lives at the Lindsay Wildlife Museum in Walnut Creek , CA . Richard hatched in 1974 and arrived at the museum later that year . The oldest wild captured banded bird was 16 years old .

Leucistic (sometimes mistakenly called " albino ") turkey vultures are sometimes seen .

The turkey vulture , like most other vultures , has very few vocalization capabilities . Because it lacks a syrinx , it can only utter hisses and grunts . It usually hisses when it feels threatened , or when fighting with other vultures over a carcass . Grunts are commonly heard from hungry young and from adults in their courtship display .

= = Distribution and habitat = =

The turkey vulture has a large range , with an estimated global occurrence of 28 @,@ 000 @,@ 000 km2 (11 @,@ 000 @,@ 000 sq mi) . It is the most abundant vulture in the Americas . Its global population is estimated to be 4 @,@ 500 @,@ 000 individuals . It is found in open and semi @-@ open areas throughout the Americas from southern Canada to Cape Horn . It is a permanent resident in the southern United States , though northern birds may migrate as far south as South America . The turkey vulture is widespread over open country , subtropical forests , shrublands , deserts , and foothills . It is also found in pastures , grasslands , and wetlands . It is most commonly found in relatively open areas which provide nearby woods for nesting and it generally avoids heavily forested areas .

This bird with its crow @-@ like aspect gave foot to the naming of the Quebrada de los Cuervos (Crows Ravine) in Uruguay , where they dwell together with the lesser yellow @-@ headed vulture and the black vulture .

= = Ecology and behavior = =

The turkey vulture is gregarious and roosts in large community groups , breaking away to forage independently during the day . Several hundred vultures may roost communally in groups which sometimes even include black vultures . It roosts on dead , leafless trees , and will also roost on man @-@ made structures such as water or microwave towers . Though it nests in caves , it does not enter them except during the breeding season . The turkey vulture lowers its night @-@ time body temperature by about 6 degrees Celsius to 34 ° C (93 ° F) , becoming slightly hypothermic .

This vulture is often seen standing in a spread @-@ winged stance . The stance is believed to serve multiple functions : drying the wings , warming the body , and baking off bacteria . It is practiced more often following damp or rainy nights . This same behavior is displayed by other New World vultures , by Old World vultures , and by storks . Like storks , the turkey vulture often defecates on its own legs , using the evaporation of the water in the feces and / or urine to cool itself , a process known as urohidrosis . It cools the blood vessels in the unfeathered tarsi and feet , and causes white uric acid to streak the legs . The turkey vulture has few natural predators . Adult , immature and fledging vultures may fall prey to great horned owls , red @-@ tailed hawks , golden eagles and bald eagles , while eggs and nestlings may be preyed on by mammals such as raccoons and opossums . Foxes can occasionally ambush an adult but species that can climb are more likely to breach and predate nests than adults . Its primary form of defense is regurgitating semi @-@ digested meat , a foul @-@ smelling substance which deters most creatures intent on raiding a vulture nest . It will also sting if the predator is close enough to get the vomit in its face or eyes . In some cases , the vulture must rid its crop of a heavy , undigested meal in order to take flight to flee from a potential predator . Its life expectancy in the wild ranges upward of 16 years , with a captive life span of over 30 years being possible .

The turkey vulture is awkward on the ground with an ungainly , hopping walk . It requires a great deal of effort to take flight , flapping its wings while pushing off the ground and hopping with its feet . While soaring , the turkey vulture holds its wings in a shallow V @-@ shape and often tips from side to side , frequently causing the gray flight feathers to appear silvery as they catch the light . The flight of the turkey vulture is an example of static soaring flight , in which it flaps its wings very infrequently , and takes advantage of rising thermals to stay soaring .

= = = Diet = = =

The turkey vulture feeds primarily on a wide variety of carrion , from small mammals to large grazers , preferring those recently dead , and avoiding carcasses that have reached the point of putrefaction . They may rarely feed on plant matter , shoreline vegetation , pumpkin , coconut and other crops , live insects and other invertebrates . In South America , turkey vultures have been photographed feeding on the fruits of the introduced oil palm . They rarely , if ever , kill prey themselves . The turkey vulture can often be seen along roadsides feeding on roadkill , or near

bodies of water , feeding on washed @-@ up fish . They also will feed on fish or insects which have become stranded in shallow water . Like other vultures , it plays an important role in the ecosystem by disposing of carrion which would otherwise be a breeding ground for disease .

The turkey vulture forages by smell , an ability that is uncommon in the avian world , often flying low to the ground to pick up the scent of ethyl mercaptan , a gas produced by the beginnings of decay in dead animals . The olfactory lobe of its brain , responsible for processing smells , is particularly large compared to that of other animals . This heightened ability to detect odors allows it to search for carrion below the forest canopy . King vultures , black vultures , and condors , which lack the ability to smell carrion , follow the turkey vulture to carcasses . The turkey vulture arrives first at the carcass , or with greater yellow @-@ headed vultures or lesser yellow @-@ headed vultures , which also share the ability to smell carrion . It displaces the yellow @-@ headed vultures from carcasses due to its larger size , but is displaced in turn by the king vulture and both types of condor , which make the first cut into the skin of the dead animal . This allows the smaller , weaker @-@ billed turkey vulture access to food , because it cannot tear the tough hides of larger animals on its own . This is an example of mutual dependence between species .

= = = Reproduction = = =

The breeding season of the turkey vulture varies according to latitude . In the southern United States , it commences in March , peaks in April to May , and continues into June . In more northerly latitudes , the season starts later and extends into August . Courtship rituals of the turkey vulture involve several individuals gathering in a circle , where they perform hopping movements around the perimeter of the circle with wings partially spread . In the air , one bird closely follows another while flapping and diving .

Eggs are generally laid in the nesting site in a protected location such as a cliff , a cave , a rock crevice , a burrow , inside a hollow tree , or in a thicket . There is little or no construction of a nest ; eggs are laid on a bare surface . Females generally lay two eggs , but sometimes one and rarely three . The eggs are cream @-@ colored , with brown or lavender spots around their larger end . Both parents incubate , and the young hatch after 30 to 40 days . Chicks are altricial , or helpless at birth . Both adults feed the chicks by regurgitating food for them , and care for them for 10 to 11 weeks . When adults are threatened while nesting , they may flee , or they may regurgitate on the intruder or feign death . If the chicks are threatened in the nest , they defend themselves by hissing and regurgitating . The young fledge at about nine to ten weeks . Family groups remain together until fall .

= = Relationship with humans = =

The turkey vulture is sometimes accused of carrying anthrax or hog cholera , both livestock diseases , on its feet or bill by cattle ranchers and is therefore occasionally perceived as a threat . However , the virus that causes hog cholera is destroyed when it passes through the turkey vulture 's digestive tract . This species also may be perceived as a threat by farmers due to the similar black vulture 's tendency to attack and kill newborn cattle . The turkey vulture does not kill live animals but will mix with flocks of black vultures and will scavenge what they leave behind . Nonetheless , its appearance at a location where a calf has been killed gives the incorrect impression that the turkey vulture represents a danger to calves . The droppings produced by turkey vultures and other vultures can harm or kill trees and other vegetation . The turkey vulture can be held in captivity , though the Migratory Bird Treaty Act prevents this in the case of uninjured animals or animals capable of returning to the wild . In captivity , it can be fed fresh meat , and younger birds will gorge themselves if given the opportunity .

The turkey vulture species receives special legal protections under the Migratory Bird Treaty Act of 1918 in the United States , by the Convention for the Protection of Migratory Birds in Canada , and by the Convention for the Protection of Migratory Birds and Game Mammals in Mexico . In the US it is illegal to take , kill , or possess turkey vultures , and violation of the law is punishable by a fine of

up to \$ 15 @, @ 000 and imprisonment of up to six months . It is listed as a species of Least Concern by the IUCN Red List . Populations appear to remain stable , and it has not reached the threshold of inclusion as a threatened species , which requires a decline of more than 30 percent in ten years or three generations .