

Liberty Wildlife Rehabilitation Foundation



Liberty Wildlife

Education Program's Natural History

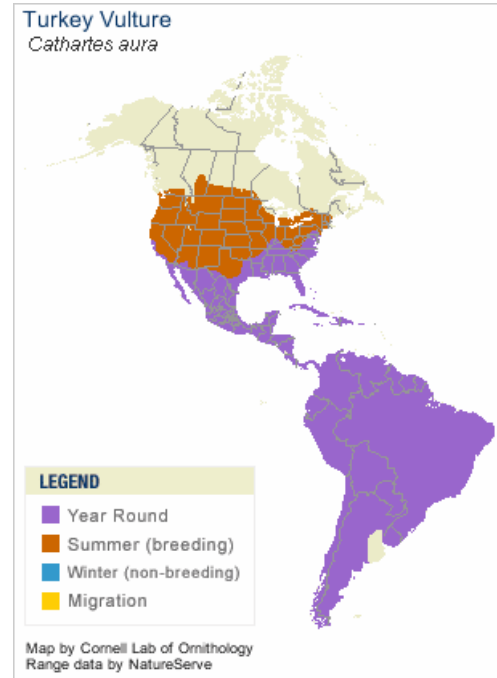


Turkey Vulture



Turkey Vulture (*Cathartes aura*)

Range: Turkey Vultures range as far north as the southern boundary of Canada and south into Central America and South America. The northern populations migrate during the winter with flocks known as “kettles” number in the hundreds or thousands as they travel south. With the warmer climate in North America and an increase in road-kill, the Turkey Vulture has extended its range northward.



Habitat: The Turkey Vulture occupies a wide range of habitats from deserts to tropical forests to open range lands. They can be found anywhere that they can locate carrion. They have adjusted well to human development.

Description: The Turkey Vulture is one of the 7 New World Vultures. Three of the New World Vultures can be found in the United States: the Turkey Vulture, the Black Vulture and the California Condor. The Turkey Vulture is the most abundant vulture in the United States and most wide spread vulture in the New World with an estimated population in excess of 3 million. (Cornell).

The Turkey Vulture has a brown-blackish iridescence plumage with a bare red head and neck, short white hooked bill and see-through naris opening. The trailing undersides of the wings are pale gray or silver sharply contrasting with dark front underwing feathers. The legs and feet are also bare and red, although they may appear white due to vulture’s habit of urinating down its legs. White bumps or tubercles can sometimes be found in front of the eyes and across the forehead. Unlike most raptors, the female is not significantly, if at all, larger than the male (Cornell reports females slightly larger than males; Wheeler in Raptors of Western North America reports males average slightly larger than females) Juvenile Turkey Vultures will have a gray head with black beak with the head becoming red and the beak ivory-colored by first spring. (Cornell)

The Turkey Vulture is between 24 and 31 inches in length and weighs between 3.5 and 5 pounds. Its wingspan measures between 5.5 and 6 feet. Based upon their wing surface and weight ratio, Turkey Vultures have light wing loads, making them more buoyant than other vultures and better able to use the thermals to stay in flight with minimal energy usage. (University of Michigan Museum of Zoology)



In flight, the Turkey Vulture holds its wings in a slight dihedral (v-shape) and teeters from side to side to maximize stability and lift at low altitudes.



Turkey Vulture

- Long two-toned wings
- Long tail
- Holds wings in upward "v" shape when soaring
- Unsteady rocking flight
- Small red skinhead
- Seen throughout the park



Black Vulture

- Short, square tail
- All black with white wingtips
- Black skinhead
- Quick, labored wingbeats
- Usually seen near the river

Hunting/Prey: A scavenger, the Turkey Vulture feeds on a wide range of wild and domestic carrion. Dead mammals ranging from mice to cattle are common foods. When carrion is in short supply, the Turkey Vulture has been observed eating plants including rotten pumpkins and coconuts, grapes and juniper berries. (Cornell, The Turkey Vulture Society) Soaring on thermals, they rely on their keen sense of smell and vision to locate their food. The Turkey Vulture is one of the few birds that has an acute sense of smell. The part of its brain responsible for processing smells is particularly large, compared to other birds. (Cornell) This is highly advantageous to the Turkey Vulture especially in heavily canopied forests where its highly developed sense of smell allows it to locate unseen carrion. Unlike the Black Vulture, the Turkey Vulture generally is a solitary forager, but large numbers may congregate at a carcass. The Turkey Vulture approaches carrion warily. It typically lands away from the find and then walks timidly to it, always poised to fly.

Breeding/Nesting: The Turkey Vulture breeds once a year from March to June. The pair is believed to mate for life. No nest is built. Nesting sites include rock outcrops, fallen trees, cliffs, hollow logs and bushy habitat. The female typically lays 1 to 3 eggs which hatch in 30 to 40 days. Unlike other birds of prey, the Turkey Vulture chicks are altricial (hatched with eyes closed, and incapable of moving on its own) and are fed well digested regurgitated food. The young fledge in 70 to 80 days. [Pictured: Turkey Vulture eggs and young Turkey Vultures]





Lifespan: The average life expectancy of the Turkey Vulture has been estimated to be from anywhere from 10 to 16 years in the wild. A banded Turkey Vulture lived to 17 years. (University of Michigan Museum of Zoology) One study demonstrated that up to one-fifth of all adult turkey vultures die each year. (Palmer, 1988) [Bailey was hatched in 1986.]

Threats: Some of the main threats are: Collision with vehicles and buildings, electrocution, poisoning meant for varmints, lead poisoning from ingested bullet fragments and pellets in carcasses of game animals not retrieved by hunters, and illegal shooting.

Other Turkey Vulture Facts:

- The word "vulture" is derived from the Latin word *vulturus*, meaning "tearer," and is a reference to its feeding habits.
- The Turkey Vulture's Latin name **Cathartes aura** means "cleansing/purifying air" referring to their habit of cleansing the environment.
- Lacking a syrinx—the vocal organ of birds—the Turkey Vulture only vocalizations are grunts or low hisses.
- Because the Turkey Vulture does not kill its food, its feet and talon strength are not very strong. Similarly, it is not able to carry food in its feet.
- The Turkey Vulture is better at locating day-old carrion than fresh kills. Day-old carcasses are preferred in which the hide is easier to open since it is not able to open thick hides. Otherwise it must wait for larger vultures or mammals to open the hide.
- In 1938, the Union Oil Company discovered that natural gas leaks could be traced by injecting a substance that smelled like rotting meat (ethanethiol) into gas lines and patrolling the lines for Turkey Vultures that were attracted to the smell, discovering the leak. (Stager (1964)
- Turkey Vultures have a strong acid in their stomach that helps to kill the bacteria in the dead food they eat. This stomach acid can kill many serious diseases such as anthrax and influenza. Botulism has no effect on the Turkey Vulture at all. These birds are credited with reducing the occurrence of disease because they eat diseased animals and prevent the causative organisms spreading in this way. Their droppings and dry pellets (bolus) are clean and do not carry disease.
- While the New World Vultures have many resemblances to Old World Vultures, the exact taxonomic placement of New World Vultures remains unclear. Though both New World and Old World Vultures are similar in appearance and have similar ecological roles, they are not very closely related, having evolved from different ancestors in different parts of the world. Their exact taxonomy is currently under debate, with some earlier authorities suggesting that the New World vultures are more closely related to storks. More recent authorities prefer to



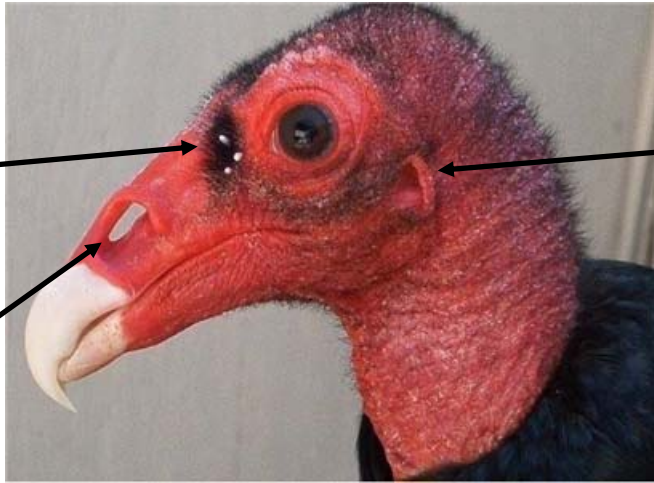
retain their current placement in the order Falconiformes along with the Old World Vultures or to place them in their own order, Cathartiformes.

- Although Turkey Vultures have few natural predators, when threatened they will feign dead or regurgitate semi-digested food which deters most predators due to the smell. Contrary to popular belief, the vulture does not issue projectile vomit. The vomit will also sting if the offending animal is unfortunate enough to get the vomit in its face or eyes.
- New World vultures, including the Turkey Vulture, have the unusual habit of excreting on their legs for evaporative cooling, called urohydrolysis. As this behavior is also present in storks, it is one of the arguments for a close relationship between the two groups. Sibley and Ahlquist (1991) Sibley, Charles G., and Jon E. Ahlquist (1991) *Phylogeny and Classification of Birds: A Study in Molecular Evolution*. Yale University Press. This excrement contains strong acids from the vulture's digestive system, which may kill any bacteria that may remain on the bird's legs from stepping in its meal.
- The head and neck of New World Vultures are featherless as an adaptation for hygiene; there is an important purpose to the vulture's bald head. When the vulture is eating carrion, it often sticks its head inside the carcass to reach the meat. A feathery head would capture unwanted pieces of the vulture's meal, along with all the bacteria it hosts. After mealtime, the turkey vulture perches in the heat of the sun and whatever prey pieces cling to the fuzz on their head will bake off. The Vulture Society; Stone, Lynn M. (1992) *Vultures* Rourke Publishing Group.
- While the Turkey Vulture is often referred to as a "Buzzard," this term generally refers to Old World Buteos or hawks.
- At night, Turkey Vultures will often roost in the same tree. These communal roosts sometimes will contain hundreds of birds. They will also share the same roost with the Black Vulture.
- The Turkey Vulture will conserve energy at night by reducing its body temperature as much as 11 °F to 93°F. (Feduccia, J. Alan (1999). *The Origin and Evolution of Birds*. Yale University Press. pp. 116). In the morning, it will warm up by spreading its wings toward the sun. These processes are called thermoregulation.
- Contrary to popular belief, circling vultures do not necessarily indicate the presence of a dead animal. Circling vultures may be gaining altitude for long flights, searching for food, or playing. Likewise, they do not circle dying animals as portrayed in Westerns.
- The seven New World vultures are:
 - Black Vulture in South America and north to US
 - Turkey Vulture throughout the Americas to southern Canada
 - Lesser Yellow-headed Vulture in South America and north to Mexico
 - Greater Yellow-headed Vulture in the Amazon Basin of tropical South America
 - California Condor in California. Formerly widespread in the mountains of western North America.
 - Andean Condor in the Andes
 - King Vulture from Southern Mexico to northern Argentina
- You can see a Turkey Vulture sunning and preening at the following site:
<http://www.youtube.com/watch?v=ppEiibqRL4U>





Bailey



White bumps or tubercles

See-through naris opening

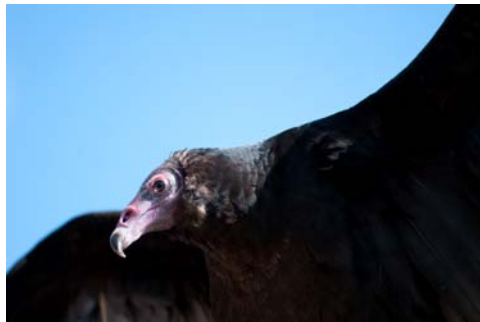
Ear opening





Bailey

Bailey was hatched at the Phoenix Zoo in 1986. He quickly learned that food would be provided by the zoo keepers rather than his parents and followed the food handlers. As a result, Bailey became imprinted. Since the Zoo already had Bailey's parents, the administrators sought to place Bailey. Dr. Orr, founder of Liberty Wildlife and one of the Zoo's veterinarians, agreed to place Bailey at Liberty. He is one of the oldest education birds and one of the final birds that handlers will learn to handle.



Quanah

(Pictured as a juvenile April 2011)

Quanah (Comanche for "fragrance") was a juvenile when he was found injured in Ajo and brought to Liberty Wildlife on September 10, 2010. Preliminary medical examination found that he had a fracture to his right wing and that it could not be repaired surgically. With limited use of his right wing, his flight capabilities were compromised and he was determined to be non-releasable. With that, Quanah became a permanent member of our Education Team. He shares his comfortable quarters with his mentor and our senior Turkey Vulture, Bailey.





Soaring Turkey Vulture – note the silver against the black underwing



Turkey Vultures at Isla Vista Beach feed on a seal carcass

June 8, 2008

Compiled by Max Bessler

Sources: Raptors of Western North America by Brian Wheeler, The Peregrine Fund, Cornell Lab of Ornithology, University of Michigan Museum of Zoology, Snake River Birds of Prey, The Vulture Society, The Raptor Center

