Liberty Wildlife Rehabilitation Foundation



Education Program's Natural History



Zone-tailed Hawk (Buteo albonotatus)

Range: The Zone-tailed hawk is a dark tropical hawk that ranges from the southwestern United States (Arizona, New Mexico and Texas) through Mexico, Central America to central South America. In the southwest, its range appears to be expanding. (Cornell) Although adapted to a variety of habitats in this range, it is uncommon and not widely distributed. Its typical arrival-departure migration dates in Arizona are March and September/October.

Habitat: The Zone-tailed Hawk habitat varies from riparian woodland and humid forests to semiarid desert uplands and mixed conifer forest. In this habitat, they are most commonly found in areas with tall trees near streams. The largest number of this species of hawk in the U.S. will be found in Arizona (estimated at 250 pairs). (Wheeler) Although adapted to a variety of habitats, this hawk is uncommon and unevenly distributed for reasons that are not known. In Arizona, most Zonetailed Hawks were found at elevations of 3600 feet where the mountains aid in soaring and hunting. (Johnsgard)

Description: The Zone-tailed Hawk is a midsized Buteo with overall slate black with brownish tint plumage. The tail, which is moderately long, has 2 or 5 light tail bands that look white from below; gray from above. The underwing is two-toned with black wing linings



and light gray barred flight feathers. In flight, it has rounded wingtips with five distinct extended "fingers." It measures 19 to 21 inches in length with a wingspan of 48 to 55 inches and weighs 1.3 to 2 pounds. The female is approximately 1.4 times larger in weight than the male and 10% larger in most other measurements. (Cornell) The tail bands differ for male and female with the male having 1 wide and 1 narrow band and the female having 1 wide and 3 to 4 narrow bands. (Wheeler) The Zone-tailed hawk is often mistakenly identified as a Turkey Vulture or Common Black Hawk or dark morph Red-Tailed Hawk. The Zone-tailed Hawk is the only North American Buteo that has only a dark-colored plumage for all ages – there is no light morph. (Wheeler) Its most common call is *Kreeeee*, a single, drawn out note given when disturbed. (Cornell)

Hunting/Prey: The Zone-tailed Hawk is a highly aerial hawk spending most of the time in flight. An aerial hunter. In hunting, it soars and circles like a vulture, and thus may be ignored by smaller animals below. When it spots prey, it continues to circle as before, but gradually moves off to side and lower; as soon as it is screened from the prey animal by some kind of cover, the hawk turns and makes a direct, powerful attack, taking the prey by surprise. Sometimes makes steeper direct dives without this kind of stealthy approach. Prey birds may be taken while perched on outer branches. Its most common prey consists of birds up to the size of quail (47%), large lizards and other lower vertebrates (33%) and small rodents such as ground squirrels and chipmunks (20%). (Johnsgard)

Since the Zone-tailed Hawk mimics the Turkey Vulture in appearance and flight (high dihedral and side to side motion in flight) and often flies with and perches with the Turkey Vulture, there is some research that speculates this behavior is active mimicry of the Turkey Vulture to deceive prey and gain a hunting advantage. By resembling the Turkey Vulture, these researchers speculate that the Zone-tailed Hawk is able to approach its prey closer since the prey does not recognize the Turkey Vulture as a predator. Other researchers speculate that the flight pattern is due to energy-efficient aerodynamics, especially useful to such an aerial bird of prey. A recent study seems to indicate that some mimicry has been observed in southern Arizona, but is probably a localized phenomenon. (Wheeler)

Breeding/Nesting: Breeding begins in the U.S. in mid-March to April. The courtship displays include spectacular aerial loops, dives and rolls by both the male and female. Nest sites are usually in trees, but some (Texas) have been observed on north-facing cliffs. Regardless of their locations, the nests will be placed to provide protected, shaded canopy. In Arizona, nests sites are in tall trees along main rivers and canyons. The stick nests will often be used year after year with nests measuring 24 inches in diameter. The female will lay 1 to 3 eggs with the typical clutch consisting of 2 eggs from March to June. Incubation is mainly by the female for 35 days. The young fledge in 42-49 days.

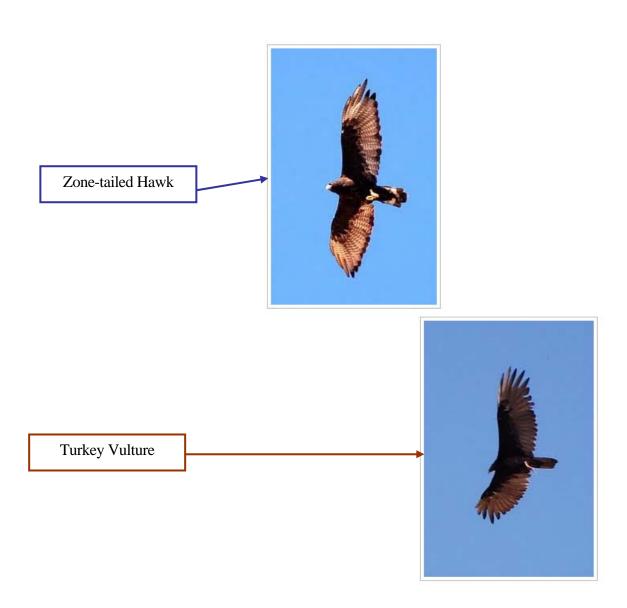
Lifespan: Because the Zone-tailed Hawk is so uncommon in the U.S., little research is available in general. No information is available on the lifespan.

Threats: Illegal shooting as a "chicken hawk," loss/degradation of habitat through agriculture and rural development, nest and roost disturbance by humans are the greatest threats. Although uncommon in the U.S., the Zone-tailed Hawk is not considered threatened or endangered except in Texas, but often is considered a sensitive species due to its dwindling habitat. (Cornell)

Other Zone-tailed Hawk Facts:

- The Zone-tailed Hawk is one of the least know birds of prey in North America and remains relatively unstudied. (Cornell)
- The Zone-tailed Hawk is aggressive in the defense of its nesting territory, attacking animals as large as Golden Eagles and even humans.
- The Zone-tailed Hawk has also been called the Band-tailed Hawk.
- Typically the South American Zone-tailed Hawks average slightly smaller than those found in Mexico and the U.S.

Sources: <u>Raptors of Western North America</u> by Brian Wheeler, <u>Hawks, Eagles, and Falcons of North America</u> by Paul Johnsgard, Cornell Lab of Ornithology, The Peregrine Fund.







Rio

Rio arrived from Payson at Liberty Wildlife on August 13, 2007 as older nestling. He was found at the foot of a tree after having fallen from a nest and broken his left leg and injured his cere, the fleshy area where the nares are located. The person who cared for him fed him a diet consisting solely of egg yolks and vitamins which lacked the calcium needed for proper growth. As a result, his injuries were complicated by the development of folding fractures in his wings.

Once at Liberty, Rio was administered an appropriate diet, but the damage to his wings could not be corrected. In order to straighten his injured leg, the medical staff had to rebreak it in order have it heal properly. For several weeks, he had an external fixature attached to the leg which resulted in it healing well. The large gash in his cere could not be corrected. As a result, he has difficulty breathing and often breaths through his mouth.





Willow

Willow was found on the ground by a rescuer and brought to Liberty Wildlife in August 2014. During her examination, she was found to have fractures to her right wing so near the joint that surgery was precluded. Once her wing was completely healed, she was unable to extend it sufficiently to gain full flight. Consequently, she could not be released and became an exciting addition to the Education team.

Compiled by Max Bessler

Photos courtesy of Barb Del'Ve

Sources: <u>Raptors of Western North America</u> by Brian Wheeler, Cornell Lab of Ornithology, Animal Diversity Web - University of Michigan Museum of Zoology, University of Michigan, Hawkwatch International.