

Liberty Wildlife Rehabilitation Foundation



Liberty Wildlife

Education Program's Natural History



**APLOMADO
FALCON**



Aplomado Falcon (*Falco femoralis*)

Range: The Aplomado Falcon can be found in desert grasslands and savannas of Latin America, and formerly inhabited desert grasslands and prairies of New Mexico and southeastern Arizona and the coastal prairies of Texas. The falcon ranges throughout most of South America, from Tierra del Fuego to Ecuador and Venezuela, and from near sea level to above 13,000 feet in the Andes.



Once considered common in its range within the U.S., populations declined rapidly after the 1930s. By the late 1950s, the northern Aplomado falcon was considered extirpated in the U.S. and was designated an endangered species in 1986. Determination of past and current status in the United States is complicated by inconsistent sampling efforts and ongoing, rapid establishment of captive-reared individuals in Texas and northern Mexico. Reliable specimen records document past nesting activity at 6 general localities in southeastern Arizona, south-central New Mexico, western Texas, and the lower Texas coast. They are not migratory and spend most of the year in their established territory.

Habitat: The Aplomado Falcon generally prefers open habitats where songbirds and insects abound and shrubs or trees are present for nesting. In its U. S. states, this includes grasslands with scattered yuccas and mesquites that are available. In the remainder of its range, its habitat can vary from oak and pine savannas, open grasslands, coastal deserts, to riparian woodlands in desert grassland and sometimes even marshes. It avoids the dense forest of central South America.

Description: The Northern Aplomado Falcon *Falco femoralis septentrionalis* is a colorful, medium sized falcon similar in size to the Cooper's hawk or American Crow. With their black-and-white-striped heads, orange underbelly, dark cummerbund and lead-colored backs, Aplomado Falcons are among the most beautiful and unique-looking falcons in the world. It has long legs, a relatively long black-and-white banded tail and long narrow wings when compared to other North American Falcons. The sexes are similar in appearance with the male typically having more white streaking in his dark belly band while the female will have little streaking in her belly band. This falcon subspecies measures 14 to 18 inches in length with a 31 to 40 inch wingspan. Females are at least 45% heavier than males weighing in between 14 to 15 ounces and the males between 9 and 10 ounces.

The Peruvian Aplomado Falcon is similar in size to the Northern Aplomado Falcon, with dark upper-parts which are usually duskier, especially the crown, than the Northern subspecies with a deep tawny abdominal area and narrow and usually incomplete belly-band.

Hunting/Prey: The Aplomado Falcon's primary prey are medium-sized birds and insects but may also include bats, small rodents and lizards. In one study, birds comprised 94% of the prey items while the remaining 6% was insects (Hector, 1985). Avian prey will include Grackles



Mourning Doves, White-winged Doves, Bobwhites, Meadowlarks, Northern Mockingbirds, Common Nighthawks, Cowbirds, Cactus Wrens, and Pyrrhuloxias.

They often hunt for prey well before sunrise and well after sunset using observation posts in trees, or while soaring, or while flying at fast pace just above or through dense shrubs and trees. Typically they will hunt avian prey in the mornings and spend the later day hunting insects. At dusk or later, they may hunt insects at street lights.

Mated pairs frequently hunt cooperatively when pursuing avian prey. In such hunts, both falcons usually chased the same bird, even when attacking flocks. They assume somewhat separate roles, with the male usually hovering over hidden prey while the female flushes prey from cover (Hector 1986a). A call from one falcon summons participation by the second falcon in cooperative hunts, even to the extent that incubating females left eggs to assist hunting males pursuing prey near nests. This cooperative hunting resulted in capturing larger prey and greater success than solitary-hunting males.

The Aplomado Falcon has been observed to hover above birds trapped within the crowns of trees or on the ground, then dive into the cover or attack as the birds take flight.

The Aplomado Falcon will also pirate food from Harriers, American Kestrels and Kites and other birds that share its range. They will chase after the raptor and dive at it and harass it until it drops its prey. It can then deftly catch the falling prey from the sky.

The Aplomado Falcon routinely caches uneaten bird carcasses on larger horizontal tree branches, smaller clusters of branches, low shrubs, tufts of grass, palm fronds, old stick nests, and bare ground. When feedings are interrupted by predators, the falcon will abandon the carcass to attack intruders and then return to finish feedings. It will aggressively defend cached carcasses and even empty cache sites, diving on intruders, and even approaching closely on foot when humans climb too close to cache sites in trees. It will feed dependent young from a succession of 2 or 3 cached-prey carcasses during lulls in hunting activity.

Breeding/Nesting: Like most falcons, the Aplomado Falcons do not build nests. They will use abandoned stick nests other of raptors, particularly Ravens, but also Kites, Hawks and Caracara. Nests are primarily in yucca, mesquite or low bushes. Nests will also be established on human-made platforms and utility poles. Nesting pairs are often in loosely assembled colonies. Breeding does not usually occur until 2 or 3 years of age. Mated falcon pairs remain together year-round.

Generally the female may will lay 2 or 3 eggs between February and May. Incubation is usually about 31 to 32 days undertaken by both adults. The youngsters fledge at about 35 days and leave in about 65 days. Parents may make 25 to 30 hunting attempts per day to feed their young. Chicks are fed six or more times a day.

During nesting season, Aplomado fly quickly after hawks, kites, vultures, or any other animal that poses a threat to their nest and young. They often dive at the intruders, who are usually much larger than they.

Lifespan: Nothing is known about the life span of the Aplomado Falcon in the wild. One in captivity lived for 12 years.



Threats: The primary cause for decline of this subspecies has been habitat degradation caused by control of range fires, intense overgrazing, and agricultural development. Intensive cattle grazing caused massive erosion. These factors led to widespread shrub encroachment by woody plants such as creosote bush and mesquite that invaded the open grassland habitats used by the falcon.

Pesticide exposure was likely a significant cause of the subspecies' extirpation from the U.S.; the initiation of widespread DDT use after World War II coincided with the falcon's disappearance. Severe egg shell thinning was observed beginning in 1957 through 1977. Collection of falcons and eggs may have also been detrimental to the subspecies in some localities. (U.S. Department of Defense and U.S. Fish & Wildlife Service *Northern Aplomado Falcon* Fact Sheet 2007)

Recovery Plans: With the Northern Aplomado Falcon's designation as Endangered, the U. S. Fish & Wildlife Service developed the 1990 Aplomado Falcon Recovery Plan to ensure that the falcon was no longer threatened by habitat loss, pesticide contamination, or human persecution. Criterion to reclassify the falcon from endangered to threatened status was tentatively identified as a minimum self-sustaining population of 60 pairs in the U.S. The plan recommended that an attempt should be made to re-establish populations in the U.S.

The Peregrine Fund began experimenting with breeding captive Aplomado Falcons and releasing them to the wild in the 1980s. The Peregrine Fund's captive breeding program for this species is located in Boise and is home to 25 pairs of Aplomado Falcons. Here, pairs are held in individual chambers, where they are fed daily. They are intensively observed via video monitors and their actions, such as courtship displays and food exchanges, are recorded. Each year, depending upon numbers required at release sites, 50-135 chicks are produced annually and most are released back into the wild in Texas or New Mexico.

Raptor experts at The Peregrine Fund began experimental releases of these stunning falcons on Laguna Atascosa National Wildlife Refuge in Los Fresnos, Texas, starting in 1985. Since then more than 1,500 young Aplomado Falcons have been released in South Texas. According to Peregrine Fund biologists Paul Juergens and Brian Mutch, the 2016 nesting season produced some of the highest number of territorial pairs and individual falcons to date along the South Texas coastal landscape. A total of 37 territorial pairs and 93 individual falcons were documented this year. This is approaching the target of 60 self-sustaining pairs, the goal needed to down list the species from Endangered to Threatened. While wind farms and local development may become new threats, it is encouraging to realize that this lovely falcon has essentially been restored to its former South Texas range.

The young birds are released to the wild using a method called "hacking," a falconry term for a process that allows birds of prey to become accustomed to their surroundings naturally right before they are ready to fly. Typically, the hack site consists of a platform on a pole or other tall structure and a box that protects the youngsters from predators. Biologists will feed the young birds for the week or so that they remain inside the hack box, then it is time to open the door and let the falcons go free.

During this time, the young birds as they learn to fly, hunt and avoid predators. A field crew will continue to provide the falcons with food and monitor them daily to ensure their safety. After only a month or two, the falcons will become independent and disperse, or move away



from the hack site. More than 1,500 chicks have been released to the wild. As a result, there is now once again a breeding population in the United States.

Apart from the captive breeding and release efforts, The Peregrine Fund has sought creative solutions to problems associated with the restoration of this species. In South Texas, biologists place artificial nest structures in Aplomado Falcon habitat. The specially adapted structures have protective bars across the open front that allow the falcons in but keep out nest predators, like caracaras or raccoons. They have proven to be popular among the falcons, with most pairs choosing to nest in one of these structures rather than a bush, tree, or power pole.

Other Aplomado Falcon Facts:

- In Spanish *aplomado* means “gray” or “lead colored” referring to the dark blue-gray of the back of this falcon.
- The last breeding pair of Aplomado Falcons in the U.S. was seen in New Mexico in 1952
- The Aplomado Falcon was placed on the Endangered Species List in 1986 and is the last falcon in the United States currently on this list.
- Although classified as Endangered in the U.S. and Mexico, the Aplomado Falcon is viewed globally as “Not Threatened” because of its broad geographical distribution and flexible habitat preference.
- There are three weakly differentiated recognized subspecies of the Aplomado Falcon distinguished by differences in size and the completeness of their abdominal bands (cummerbunds).
 - *Falco femoralis septentrionalis* – It is commonly called the Northern Aplomado Falcon and is the only subspecies found in the U.S. from southern Arizona east to southern Texas south locally through Mexico.
 - *Falco femoralis femoralis* – This subspecies is found in Central and South America from eastern Panama south through lowland South America east of Andes.
 - *Falco femoralis pichincae* – This subspecies is found in Western South America including the temperate zone of Andes and southwest Colombia, Ecuador, Peru, and Chile.





Cuzco

Like Cuzco himself, his arrival date at Liberty Wildlife was unique: 11-11-11.

As with many of our education animals, his history has had a number of twist and turns before joining Liberty. A Peruvian Aplomado (*pichincha* subspecies), he had been hatched in captivity in 2004 by a falconry breeder in California. He was frail and small and found to have a congenital eye defect which precluded him from the breeding program. He was purchased by a falconer who hoped to use him for hunting. Again, the depth perception issues with his left eye made him unsuitable for hunting. The falconer transferred him in 2008 to a rehabilitation/education center in Washington State. Faced with on-going financial difficulties, the facility's director reluctantly transferred him to Liberty where she felt he would be well cared for. He quickly has become a unique and prized addition to Liberty's education program.

Cuzco was named after the ancient Inca capital city (Cusco). With his warning call or bark, he quickly has become a unique and prized addition to Liberty's education program.

Compiled by Max Bessler

Photos courtesy of Barb Del'Ve

Sources: Cornell Lab of Ornithology, [Hawks, Eagles & Falcons of North America](#) by Paul A Johnsgard, [Raptors of Western North America](#) by Brian K. Wheeler, The Peregrine Fund, Defenders of Wildlife, Minnesota Raptor Center, U.S. Fish & Wildlife Aplomado Falcon Recovery Plan. U.S. Fish & Wildlife "Open Spaces," June 23, 2016

