

Harris' or Harris's Hawk (*Parabuteo unicinctus*)

Range: The Harris' Hawk can be found in the southwestern United States (Arizona, New Mexico, and Texas) through Central America and into the drier parts of South America. In Arizona, its range typically extends only as far north as Wickenburg. There is some evidence its range is moving northward in the United States. (Raptor Center) Access to permanent water is a necessity in the Harris' Hawk's range. Generally they are non-migratory.



Harris's Hawk
Parabuteo unicinctus



Habitat: The Harris' Hawk is found in semi-arid areas such as savannas, chaparrals, and mesquite and saguaro deserts and sparse woodlands.

Description: The Harris' Hawk is chocolate brown with distinctive markings of white bands at the rump and end of the tail. Its wings, shoulders and leg feathers are a reddish brown. The Harris' Hawk measures from 18 to 23 inches in length with a 40 to 47 inch wingspan. As with most other raptors, the female will be larger; 2 to 3.5 pounds compared to the male at 1 to 2 pounds. The Harris' Hawk call can be heard at:
http://www.allaboutbirds.org/guide/Harriss_Hawk/sounds

Hunting/Prey: The Harris' Hawk is one of only two hawks known to hunt in a cooperative group manner (The Galapagos Hawk is the other). It is diurnal and mainly a perch hunter but also will engage in aerial hunting. The Harris' Hawk is a highly versatile hunter, shifting its prey as their availability changes. The majority of its prey consists of mammals such as cottontail rabbits, jack rabbits, rats, ground squirrels, and gophers (61%); birds primarily Gambel's quail; and reptiles primarily the desert spiny lizards (11%) (Wheeler)
The Harris's Hawk "displays one of the most advanced group hunting tactics among birds" (Audubon Watch List) Family member groups have been know to number up to 17 hawks, but typically number between 3 and 7. Hunting in groups, the Harris' Hawk has three methods: **Surprise pounce** where several hawks will target exposed prey and attack it from several directions; **Flush and ambush** where one or more hawks will walk into foliage where prey may be hiding and flush it out so that other perched members are able to grab it; and **Relay attack** in which the lead hawk will switch off during long chases.
Cooperative hunting allows the Harris' Hawk to capture larger prey and be more successful in its hunting efforts, increasing the survival rates for the hawks. The food will be shared at the end of the hunt.

The following websites will show the Harris' Hawks hunting as a family.

<http://video.nationalgeographic.com/video/player/kids/animals-pets-kids/birds-kids/hawk-harris-kids.html>

<http://videos.howstuffworks.com/animal-planet/35790-weird-true-and-freaky-harris-hawk-pack-hunters-video.htm>

Breeding/Nesting: In about half the nests, the mating group will consist of two males and one female. Where the nest consisted of two males, one obtained prey and fed the chicks as well as staying near the nest when the female is absent. The other male only caught food and transferred the food to the female or the other male. In this situation, both males mated with the female. Only the Galapagos hawk has been observed to engage in this polyandry. (Wheeler) Breeding occurs throughout the year with some females laying two or three clutches a year. The female usually lays 3 to 4 eggs that are pale blue turning to white, plain or with brown or blue spots. Primarily the female will incubate the eggs. Incubation lasts between 31 and 36 days. Hatching will occur over 2 to 4 days. The young fledge in about 40 days. Fledglings remain in the nesting territory for an additional 2 to 3 months. Nests of sticks and other material are built in or on top of solid structures such as trees, saguaros, electric or telephone poles. As many as 4 nests may be built in the hawk's territory. Groups of 2 to 5 hawks will attack any predator threatening the nest. The alpha male is the most likely to strike a predator while the female protects the nest.

Lifespan: The average life expectancy of the Harris' Hawk has been estimated to be up to 12 years in the wild and twice as long in captivity. The maximum longevity record for Harris' Hawks is 14 years, 11 months. (University of Michigan Museum of Zoology)

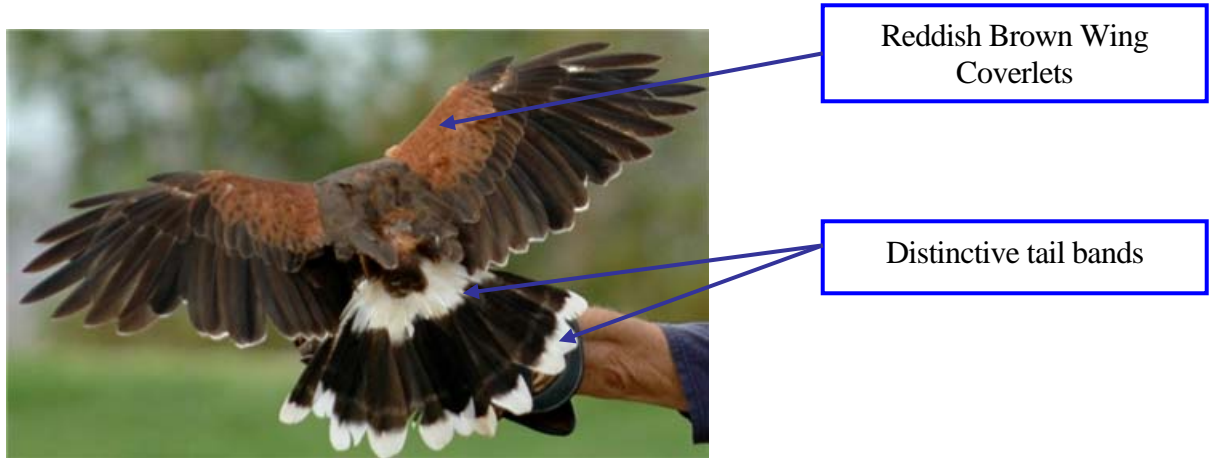
Threats: Some of the main threats are: lost of habitat and range due to urban and gas and oil development, electrocution, disturbance of the nesting area, predation by Great Horned Owls and ravens, illegal shooting and trapping. It has been observed that the Arizona population has been shrinking due to human activity and urban sprawl. It is estimated that the winter population of this hawk is 5,500 or 38% below the 1970 population (Wheeler)

Other Harris' Hawk Facts:

- The Harris' Hawk is also called the Bay-winged hawk.
- Because of they hunt in groups or packs, they have earned the nickname "the wolves of the sky."
- The Latin name *Parabuteo unicinctus* means near or similar (Para) to a soaring hawk (Buteo) with a one stripe or cinch (unicinctus) referring to the band at the base of the tail.
- Audubon named the bird after his friend Colonel Edward Harris.
- "Stacking" or "backstanding," with one hawk perched on the back of another is common in Arizona, uncommon in New Mexico and rare in Texas. Usually stacking occurs on the top of a saguaro cactus, but has also been observed on the ground. It is speculated that this behavior provides the hawk with a higher perch while hunting in desert areas where higher trees are not available.
- The Harris' Hawks unique group hunting style put them at a high risk of electrocution. This social behavior often will result in one or more of the hawks being electrocuted caused by the proximity to each other. In an early study of this problem in Tucson, it was found that nearly 50% of the breeding Harris' Hawks were electrocuted. In a more recent study, on an average

every single Harris' Hawk nest lost at least one member to electrocution in Tucson. Arizona utility companies are working with wildlife agencies to retrofit locations where such electrocutions occur.

- The Harris' Hawk is one of the most popular falconry birds because of their group hunting style.
- The Harris Hawk families have a strict dominance hierarchy with the breeding (alpha) female dominant to all other family members. There may be a second female subordinate to the alpha female but dominant over all the males. The breeding (alpha) male is dominant over all the males.
- Groups of 5 hawks have been found to be the most successful in hunting.
- Some of the young hawks will stay with the family up to 3 years raising the subsequent broods.
- Harris' Hawks do not kite.
- The Texas component of the Harris' Hawk is the largest of any state. (Wheeler)



Lance

Arriving as a nestling at Liberty Wildlife in 2004, Lance was found to have both a leg injury and Trichomoniasis¹, a disease caused by a protozoan that can kill a bird if left untreated. While Lance was being treated for the disease, the tendon in his injured leg slipped from its location, requiring additional surgery. After recovering from both the surgery and the Trichomoniasis, Lance again became sick with that disease requiring further treatment. As a result of his extended stay in the intensive care unit of Liberty's medical facility, Lance became imprinted. Following his recovery, Lance became the star performer in Liberty's fledgling flight program where he flies from one handler to other handlers. Since Lance is in the flighted program, he is generally handled only by handlers associated with the flight program. Lance weighs in at just over 1 pound.

¹ Trichomoniasis or canker is caused by a protozoan parasite that is usually transmitted from infected pigeons or doves. Infection occurs when the raptor eats an infected bird or drinks water contaminated with the protozoan. Untreated the characteristic lesions and nodules block the throat causing the raptor to starve to death or suffocate.



Lance



Trick

Trick arrived at Liberty Wildlife in 1999 suffering from severe infections from Trichomoniasis², also called canker, a disease caused by a protozoan that can kill a bird if left untreated. For weeks, Trick was in the intensive care unit of Liberty's medical facility receiving medicine to treat the disease. It was cured but not before it resulted in the complete loss of vision in one eye and partial loss in the other. With such a limited ability to hunt, release to the wild would have resulted in her death. Trick showed promise as an educator and has been accompanying the education teams for several years despite her disability. She typically weighs about 2.3 pounds.

² Trichomoniasis or canker is caused by a protozoan parasite that is usually transmitted from infected pigeons or doves. Infection occurs when the raptor eats an infected bird or drinks water contaminated with the protozoan. Untreated the characteristic lesions and nodules block the throat causing the raptor to starve to death or suffocate.



Salsa

Salsa was a nestling that was near fledging when she was brought to Liberty Wildlife on June 3, 2008. She had been rescued after being found on the ground in Phoenix (Lincoln and Tatum). During her intake, the medical services staff discovered that Salsa had contracted Trichomoniasis³ or canker that was deeply imbedded in the right side of her lower mouth and mandible. As Salsa's treatment progressed, the tissue on the right side of her mouth sloughed off, leaving considerable scarring. This scarring reduced the size of her mouth opening, consequently limiting the size of food she could swallow and her ability to eat quickly. In the wild, these limitations would result in her starving to death because she could not consume sufficient food fast enough to survive the competition. The disease also caused her beak to be slightly malformed, also hindering her ability to eat quickly. Following her successful treatment, Salsa was evaluated for the education program. She quickly responded to the new protocol and is currently involved in Liberty's flight program.

Sources: *Raptors of Western North America* by Brian Wheeler, The Peregrine Fund, Cornell Lab of Ornithology, University of Minnesota Raptor Center, Carolina Raptor Center, Audubon Watch List, University of Michigan Museum of Zoology

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