

California Wildlife Habitat Relationships System
California Department of Fish and Wildlife
California Interagency Wildlife Task Group

HARRIS' S HAWK

Parabuteo unicinctus

Family: ACCIPITRIDAE
B620

Order: FALCONIFORMES

Class: AVES

Written by: T. Kucera, 1998

Updated by: CWHR Program Staff, August 2005

DISTRIBUTION, ABUNDANCE, SEASONALITY

Historically occurred year-round in the Lower Colorado River Valley from near Needles to the Imperial National Wildlife Refuge, with a small disjunct breeding population at the south end of the Salton Sea (Small 1994, Bednarz 1995). Extirpated in the 1960's. Attempts to reintroduce the Harris's hawk occurred in the 1980's, when nearly 200 birds were released along the lower Colorado River (Walton et al. 1988). A few nests have been found incidentally since (Bednarz 1995). Now is a rare yearlong resident of southern Salton Sea and Imperial valley.

SPECIFIC HABITAT REQUIREMENTS

Feeding: Hunts from perches on small trees or saguaro cactuses (Bednarz and Ligon 1988). Feeds on hares and rabbits, birds, and lizards. Exhibits the most sophisticated cooperative hunting tactics documented in birds, involving up to six individuals (Ellis et al. 1993).

Cover: Inhabits semiopen desert scrub, desert wash, and desert riparian habitats for nesting and foraging. Needs scattered small trees or saguaro cactuses for hunting perches and nest structures (Rosenberg et al. 1991, Bednarz 1995).

Reproduction: Nests are built in any of a variety of tall, sturdy structures including mesquite, paloverde, and cottonwood trees and saguaro cactus.

Water: In Arizona, drinks water daily when temperature exceeds 37 deg C (Dawson and Mannan 1991a). May use cattle tanks, water catchments, and stock ponds.

Pattern: Inhabits desert scrub and desert wash habitats with scattered trees for hunting perches and nest structures.

SPECIES LIFE HISTORY

Activity Patterns: Diurnal. Roosts in isolated small trees with relatively dense foliage (Bednarz 1995).

Seasonal Movements/Migration: Not migratory.

Home Range: In New Mexico, the average 95% harmonic mean size of the home ranges of 20 Harris' hawks was 5.5 km sq (Bednarz 1995).

Territory: May be territorial, but evidence of conspicuous defense of territory is equivocal. Nests typically separated by at least 500 m. May maintain territories more by mutual avoidance than active defense.

Reproduction: May breed year-round in years of abundant prey, but most first clutches are laid in March and April. Clutch size varies from one to five, with most being three or four

(Bednarz et al. 1988). Second and occasionally third clutches may be laid. Breeding system is usually monogamous, but polygyny and polyandry are reported (Faaborg and Bednarz 1990, Bednarz 1995).

Niche: Preyed upon by coyotes, common ravens, and great horned owls (Dawson and Mannan 1991b). Any mammal or snake capable of entering nest may kill eggs and small young. Harris' hawks aggressively mob great horned owls, are fiercely attacked by Swainson's hawks (Dawson and Mannan 1991b), and are mobbed by a variety of passerine birds (Bednarz 1995).

REFERENCES

- Bednarz, J. C. 1995. Harris' hawk. *The Birds of North America* 146:1-23.
- Bednarz, J. C. and J. D. Ligon. 1988. A study of the ecological bases of cooperative breeding in the Harris' hawk. *Ecology* 69:1176-1187.
- Bednarz, J. C., J. W. Dawson, and W. H. Whaley. 1988. Harris' hawk. Pages 71-82 in R. L. Glinski et al. (eds.). *Proceedings of the southwest raptor management symposium and workshop*. National Wildlife Federation, Washington, D.C.
- Dawson, J. W. and R. W. Mannan. 1991a. The role of territoriality in the social organization of Harris' hawks. *Auk* 108:661-672.
- Dawson, J. W. and R. W. Mannan. 1991b. Dominance hierarchies and helper contributions in Harris' hawks. *Auk* 108:649-660.
- Ellis, D. H., J. C. Bednarz, D. G. Smith, and S. P. Fleming. 1993. Social foraging classes in raptorial birds. *Bioscience* 43:14-20.
- Faaborg, J. and J. C. Bednarz. 1990. Galapagos and Harris' hawks: divergent causes of sociality in two raptors. Pages 359-383 in P. Stacey and W. Koenig (eds.). *Cooperative breeding in birds: long term studies of ecology and behavior*. Cambridge Univ. Press, Cambridge.
- Rosenberg, K. V., R. D. Ohmart, W. C. Hunter, and B. W. Anderson. 1991. *Birds of the lower Colorado River valley*. Univ. Arizona Press, Tucson.
- Small, A. 1994. *California birds: their status and distribution*. Ibis Publishing Co., Vista, CA.
- Walton, B., J. Linthicum, and G. Stewart. 1988. Release and reestablishment techniques developed for Harris' hawks - Colorado River 1979-1986. Pages 318-320 in R. L. Glinski et al. (eds.). *Proceedings of the southwest raptor management symposium and workshop*. National Wildlife Federation, Washington, D.C.

B620

Life history accounts for species in the California Wildlife Habitat Relationships (CWHR) System were originally published in: Zeiner, D.C., W.F.Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. *California's Wildlife*. Vol. I-III. California Department of Fish and Game, Sacramento, California. Updates are noted in accounts that have been added or edited since original publication.