by Marta Curti and Peter Jenny



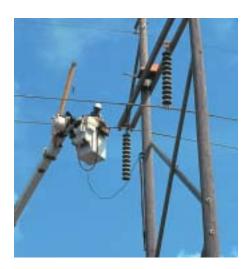
Photo © Cliff Beitter

Central Power and Light played a part in the aplomado falcon restoration effort by placing an artificial nest structure on a power line pole. Photo by A.B. Montoya

A Partnerships to Restore the Aplomado Falcon

 $T_{
m he\ northern\ aplomado\ falcon}$ (Falco femoralis septentrionalis) once inhabited open grassland savannas throughout the southwestern United States, much of Mexico, and parts of Guatemala. Feeding mainly on small birds and large insects, aplomado populations suffered due to land altering practices, egg and skin collecting, and pesticide use. As a result, this small raptor has been absent from most of its historic range within the United States for nearly half a century. Now the aplomado falcon is making a dramatic comeback due to a strong partnership among The Peregrine Fund, the Fish and Wildlife Service, Texas Parks and Wildlife, private landowners, the U.S. Coast Guard, and conservation organizations, with generous financial support from a number of corporations, individuals, and foundations.

Almost a decade before the aplomado was listed as an endangered species in 1986, the first steps were taken toward creating the successful captive breeding program that exists today. Beginning in 1977, biologists from the Chihuahuan Desert Research



Institute (Ft. Davis, Texas) and The Peregrine Fund collected 25 nestlings in Mexico. With the help of those falcons and their offspring, the Santa Cruz (California) Predatory Bird Research Group and The Peregrine Fund developed breeding and release techniques for this species. "[The] pilot study helped us work out most of the problems associated with the releases. Since then, the restoration efforts have really taken off," said Angel Montoya, field manager for the project.

Armed with this new-found knowledge, The Peregrine Fund intensified its captive breeding program and, between 1990 and 1993, collected additional falcons from the wild. During this time, releases were postponed and the focus shifted to obtaining a healthy population of aplomado falcons that would serve as the genetic base for all future aplomados bred in captivity. Full-scale releases were initiated in Texas in 1994. In May of 1995, the first known successful hatching and fledging of a wild aplomado in the U.S. in more than 40 years was documented. The historic nesting event occurred on a powerline pole near Brownsville, Texas, owned by Central Power and Light.

The captive-bred falcons spend roughly the first month of their lives at The Peregrine Fund's breeding facility in Idaho, where they are artificially hatched and hand fed for up to 25 days. They are raised in small groups until transported to their release site at 32-37 days of age. Often, biologists remove the first clutch of eggs an aplomado falcon lays and place them with a captive peregrine falcon *(Falco peregrinus)* for incubation. The aplomado will then lay a second clutch.



Hack site attendants and landowners observing released aplomado falcons at the Welder Wildlife Refuge Photo by Brian D. Mutch

This surrogate parenting, by a species once requiring surrogate parenting itself, nearly doubles the captive aplomado production.

Once release sites are chosen, the aplomado falcons are transported from the captive breeding facility. To prevent over-heating and over-stressing the birds, the falcons are flown on a commercial airline to Texas. However, it is often a 5-7 hour drive from the nearest airport to the release sites. This is where the Coast Guard steps in. Using their pilots and planes, the Coast Guard has made several trips back and forth between commercial airports and previously arranged pick-up sites at all hours of the day and in all types of weather, even transporting the falcons directly to release sites on occasion. Their assistance has helped to ensure the health and safety of these highly endangered birds of prey.

At the release site, the young falcons are placed in a specially designed box, called a hack box, where they may remain for 5-8 days until they are released. The time spent in the hack box allows the falcons to become acclimated to the site. During this time, they are also fed and observed daily, though their contact with humans is kept to a minimum.

Since the private sector owns 97 percent of the land in Texas, access to the excellent habitat that exists on private land is essential to the recovery of this species. At The Peregrine Fund's request, the Service drafted a Safe Harbor Agreement to encourage private sector involvement. This agreement, signed in 1997, provides private landowners with a "safe harbor" against any future restrictions placed on them or their land practices due to the presence of this endangered species on their property. It also gives biologists the opportunity to choose from the best possible release sites in parts of Texas based upon present land conditions, historical records, prey diversity and abundance, and the relative absence of aerial predators such as great horned owls (Bubo virginianus).

So far, more than 1 million acres (404,700 hectares) of private land, situated primarily along or near coastal Texas, have become part of this agreement, and many private landowners have become actively involved in the recovery effort. In fact, some private landowners are so enthusiastic about the project that they often call Peregrine Fund biologists with updates and sightings. A few private landowners have even contacted The Peregrine Fund in the hopes of getting aplomados released onto their land, too! The success of this cooperative effort led the Service to expand the Safe Harbor Agreement into parts of west Texas. Releases may begin there this year.

Since 1985, The Peregrine Fund has released 578 aplomado falcons. After the first documented recent nesting in 1995, numbers have continued to increase, and in 2001, biologists documented 33 pairs and 22 nests. Says Montoya, "This [success] is amazing, and we hope it continues to get better and better." There is no evidence to suggest that things will go otherwise. In fact, there are hopes of expanding the reintroduction range into New Mexico in the future.

Peregrine Fund biologists predict that it will take several more years to have a self-sustaining population of aplomados throughout much of the bird's former range. With the continued financial support and collaboration of agencies, individuals, corporations, and foundations, the future looks bright for this magnificent species.

For more information, please call The Peregrine Fund at 208-362-3716 or visit their web site at http:// www.peregrinefund.org.

Marta Curti is a writer/editor at Sevilleta National Wildlife Refuge in Socorro, New Mexico. Peter Jenny is Vice President of The Peregrine Fund in Boise, Idaho.