Wind In Their Wings: The Condor Recovery Program

by Joanna Behrens and John Brooks

Photos by Scott Frier/Nikon Inc.

The California condor *(Gymnogyps californianus)* once soared over much of the North American continent. Its range extended from British Columbia, Canada, down the Pacific coast to central Mexico, across the southern United States, and up the Atlantic coast to New York. During the Pleistocene Epoch, which ended about 11,000 years ago, this scavenger dined on the carcasses of mastodons, giant sloths, primitive horses, and other megafauna of the time. As these species became extinct, the giant birds switched to bison, elk, and deer. With the advance of settlers, the condor added cows and sheep to its diet, but its numbers declined as the human population increased. People decimated and poisoned their food sources, strung power lines across flight paths, and occasionally shot condors just for sport. It is estimated that 600 condors existed in the wild in 1890. By 1982, however, that number had plummeted to 22, and the extinction of this magnificent bird was on the horizon.

The California Condor Recovery Program was established in 1975 to reverse this alarming decline. The condor program is a cooperative, multi-agency effort with the U.S. Fish and Wildlife Service as the lead agency; cooperators include the U.S. Forest Service, Zoological Society of San Diego, Los Angeles Zoo, California Fish and Game Department, Peregrine Fund, and Ventana Wilderness Society. The goal of the recovery program is to establish two separate wild populations of 150 individuals, each with at least 15 breeding pairs.

The captive rearing program began with the removal of a chick from the wild in 1982. At that point, the species' total population was only 22 birds. Disaster struck in 1985 with the disappearance of six wild condors, including four members of the last five known breeding pairs. With only a single breeding pair remaining, the Fish and Wildlife made the controversial decision to capture all remaining wild condors for safety and captive breeding. AC9, the last free-flying condor, was trapped in 1987 and transported to the San Diego Wild Animal Park.

Thus began an odyssey that has met with unanticipated success. The captive condors began producing chicks as early as 1988. In 1992, when the first efforts to reintroduce condors to the wild began, the total population of California condors (all in captivity) stood at 63. As of April 2000, there are a total of 157 condors, 62 of which soar once again over the mountains and canyons of California and Arizona. Ninety-five California condors are being held to produce chicks for future release into the wild.

As the recovery program works towards its goal of establishing two separate wild populations, the number of release sites has grown. There are now three active release sites in southern California managed by Hopper Mountain NWR Complex, one in central California managed by the Ventana Wilderness Society, and two in Arizona administered by The Peregrine Fund.

Although captive California condors have proven that they will breed successfully in captivity, the recovery program has been plagued with other difficulties. In the early years of the reintroduction, for example, five condors died after collisions with power

lines. Experts worked to address this problem and made several changes in the rearing methods. Among the most successful was the initiation of a power pole aversion training program for all condors scheduled for release. This training involves the use of a mock power pole placed inside the flight pen where the young condors are kept prior to release. The power pole emits a small electrical charge whenever a condor attempts to land on it. Young condors quickly learn to avoid perching on these poles and move on to natural perches. This program has greatly reduced condor mortalities from power line collisions.

Lead poisoning historically was a problem for condors and continues to be a serious concern. At least three condors died due to heavy metal poisoning in the 1980s. W5, a captive-bred condor released in 1995, was recaptured in 1998 after exhibiting extreme signs of illness. Blood tests revealed the highest blood lead levels ever recorded in this species. Condors will feed on any dead animal that is shot and left behind, or on gut piles from field dressed game, which can contain bullet fragments. Strong stomach acids break the shot down into lead salts, which are absorbed into the bloodstream. The digestive tract then becomes paralyzed and starvation results. As part of the condor recovery program, hunters are being encouraged to bury all gut piles and to use nontoxic bullets when they become available. A new bullet non-toxic to wildlife has been developed; it is composed of tungsten and tin but has the desirable ballistic properties of lead. It should be on the market within about one year.

A more perplexing problem is the attraction that some condors have to human activity and housing areas. As captive-bred birds return to the species' ancestral roosting sites, they often find that people have taken over their habitat. With no wild parents to show them how to behave, these juveniles often settle in on roof tops and balconies, risking the dangers of close contact with humans. As the birds reach breeding age, some biologists speculate that this behavior may disappear. Perhaps the rigors of raising their own chicks will better occupy their time. This season, biologists have observed pair bonding behavior for the first time since condors were reintroduced into the wild. Time will tell if the aging and breeding processes will alleviate the undesirable behaviors that bring the birds into close contact with humans. On the other hand, some biologists fear that the misbehaving birds will influence the behavior of newly released birds and perpetuate the problem.

With breeding in the wild just around the corner, it should not be too long before we can evaluate the success of another step in the California Condor Recovery Program.

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A juvenile condor prepares to take flight

Lead Poisoning a Continuing Threat

After this article was written and the *Bulletin* approached press time, word arrived that the problem of lead poisoning continues to plague the California condor. This summer, five of the condors that had been released into Arizona died of lead toxicity after apparently feeding on one or more animal carcasses containing lead shotgun pellets. In response, biologists with The Peregrine Fund temporarily captured the remaining 16 condors for testing and treatment. Most of the recaptured condors did turn out to have high lead levels. After successful chelation treatments to remove the lead, the condors are being re-released. The source of the poisoning is unknown but biologists hope that this episode will prove to be an anomaly. We will have more information on the impacts of lead toxicity in a future edition of the *Bulletin*.