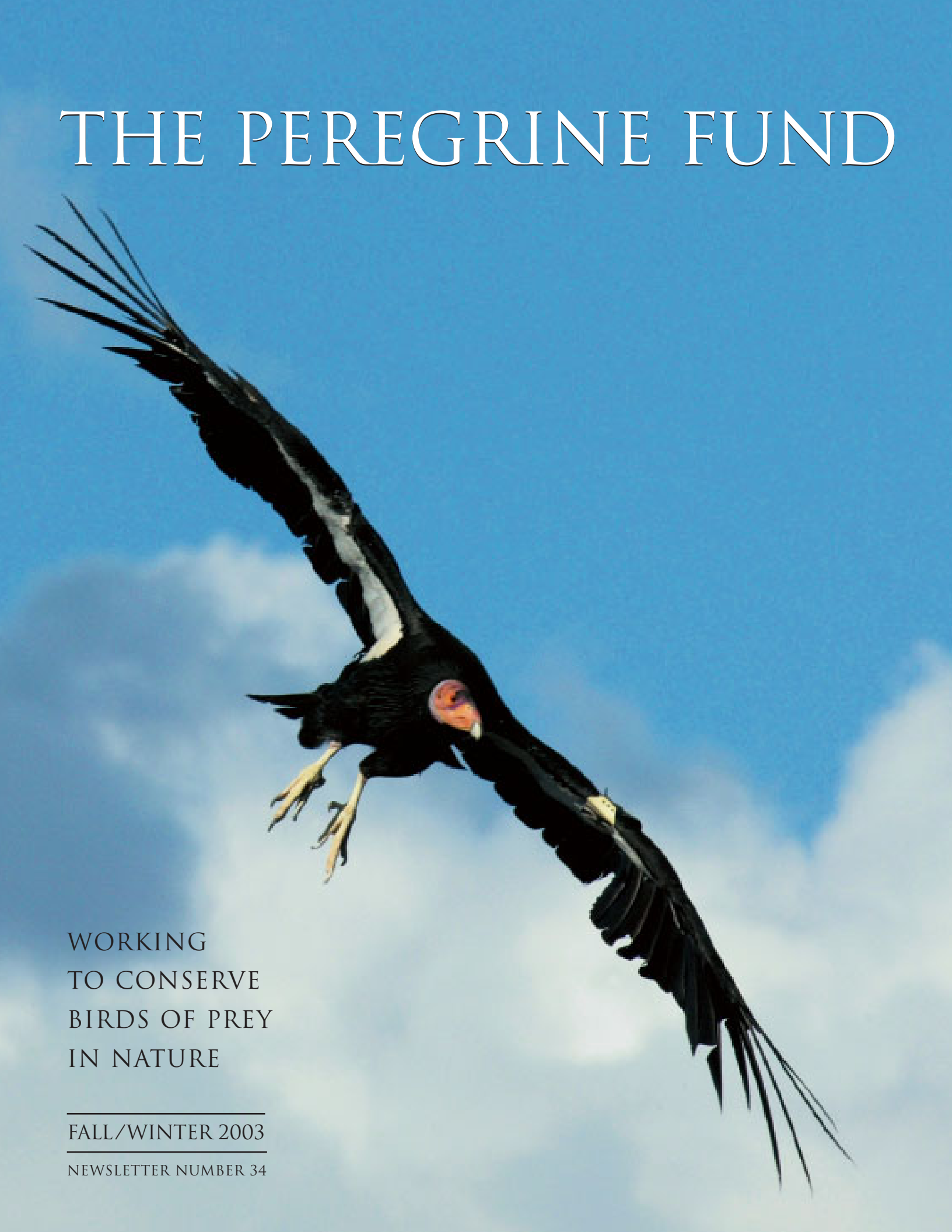
THE PEREGRINE FUND



WORKING
TO CONSERVE
BIRDS OF PREY
IN NATURE

FALL/WINTER 2003

NEWSLETTER NUMBER 34

Photo by Craig Koppie

Reader's Digest Article Recognizes The Peregrine Fund as Best Animal Charity

The Peregrine Fund is listed in the November 2003 issue of *Reader's Digest* as one of a dozen "Best Charities" to trust with your donations. All are "highly regarded by organizations that investigate and rate charities, and all keep their fund-raising costs low (and your donations can be tax-deductible)," writes reporter John Mitchell.

This recognition is a result of our promise to members: we only directly request your contribution once a year by mail; we keep your address confidential; we keep you informed of our progress; 100% of all donations go directly to projects; we work hard to see your dollars are spent carefully and effectively; and we do our best to make a meaningful difference.

THE PEREGRINE FUND

NEWSLETTER NO. 34 · FALL/WINTER 2003

On the cover: *Condor 123, the male parent of the first wild-hatched chick since 1982, soars near the nest site.*

Photo by Christie Van Cleve

Business Office (208)362-3716 • Fax (208)362-2376 • Interpretive Center (208)362-8687

tpf@peregrinefund.org • http://www.peregrinefund.org

Aplomado Falcon Research

Grainger Hunt

The question always surrounding the process of species restoration is whether a released population can survive on its own. Part of the reason for the historic loss of the Aplomado Falcon in the United States was the changing character of the vast, open grassland savannas brought about by farming, grazing, and other forms of development. Even so, Aplomado Falcons were still seen in southern Texas in the early 1950s. Their final disappearance was almost certainly brought about by DDT use in agriculture, a factor beginning in 1947 that affected eggshell thickness and reproduction in many other populations of raptors. DDT was banned in 1972 but lingered in the environment of the Texas coastal plain for many years afterward. By the mid-1990s when the release project had been underway for several years, a decrease of DDT to safe levels was evidenced by near-normal eggshells and hatching rates among the released falcons.

Besides reproduction, individual falcon survival is the other critical factor affecting the future trend of Aplomado Falcons in southern Texas. Since the beginning of the project, Peregrine Fund biologists have banded each released falcon with a colored band showing letters and numbers unique to each individual. These engraved aluminum bands, called VIDs for "visual identification," can be read with a telescope at distances of up to several hundred meters. An important purpose of the bands is in estimating the proportion of breeding adults that survive from one year to the next, and that information will be used with other data to predict the long term success of the population. This approach is based on an important facet of falcon natural history: namely, that once a falcon obtains a breeding territory and a mate, it ordinarily remains there year after year.

By identifying the falcons present during annual surveys conducted in the early spring, and by recording cases where adults have been replaced by others, an annual survival rate can be calculated. The latter is actually a minimum estimate, because some falcons have switched territories and others may have joined the ranks of adults without territories. Thus far, the results have been encouraging. In surveys conducted by Erin Gott, Marta Curti, Jessi Brown, Paul Juergens, and Angel Montoya, at least 85% of the adult falcons present on breeding territories in 2002 were still alive in 2003. In all, the researchers were able to read the bands of about 70 Aplomado Falcons in 2003.

The Great Horned Owl is the main predator of Aplomado Falcons in southern Texas, and other raptor species, possibly the Crested Caracara, may reduce nest success by preying upon eggs and small young. To bolster reproductive success in 2002, we experimented with artificial nest structures designed to exclude these and other predators. Even though the number of structures offered in 2003 was small, and some were unused, several produced good results, including the production of young at two territories where falcons had never before been successful. We are increasing the number of artificial nest structures in winter 2003-04 with the hope of establishing pairs in new areas and increasing productivity overall.

Erin Gott

Erin Gott

Above: Wild Aplomado Falcon chicks at the nest.

Left: The metal bars on a newly-designed nest structure deter predators but allow Aplomado Falcons to pass through.

Our Aplomado Falcon program has spawned several academic projects during the last year or so. Alberto Macias Duarte, a young biologist from Hermosillo, Mexico, recently obtained a Master's degree from the University of Chihuahua and entered a doctoral program at the University of Arizona. Another Peregrine Fund employee, Jessi Brown, who has worked on the Aplomado Falcon project in southern Texas for several years, has enrolled as a graduate student at the University of Nevada at Reno. Her Master's thesis will focus on reproductive success of Aplomado Falcons, with emphasis on the influence of other raptor species and habitat.

A New Epoch for the California Condor

Lloyd Kiff

A California Condor chick jumped out into space from its cliff nest site in Grand Canyon National Park on the afternoon of Wednesday, 5 November, parachuting slowly and awkwardly downward to land on rocks 500–600 feet below the nest cave. It was the first successful fledging of a chick in the wild by condors released as a part of the condor recovery program initiated in 1980. Underlining the cooperative nature of the program, the male parent was produced in 1995 at the Los Angeles Zoo and the female was hatched in the same year at the San Diego Wild Animal Park. They were released in northern Arizona by The Peregrine Fund in May 1997.

The fledgling already proved to be too agile and wily to be caught, in itself an encouraging indication of its good health.

The chick was first confirmed in May by The Peregrine Fund's condor biologist Sophie Osborn in a remote part of the Grand Canyon that could be reached only by a rigorous 12-mile hike. Even then, the actual nest cave was virtually inaccessible because of its location several hundred feet high in the side of a huge redstone cliff, so Sophie and National Park Service biologist Chad Olson monitored the nesting attempt from a distant observation point. During the intervening months, development of the chick seemed to be proceeding normally, so based on its appearance and the regular feeding visits of its parents, a decision was made not to enter the nest.

Chris Parish

Two days after its breathtaking (to both the bird and Sophie) descent from the nest, the field crew attempted to catch the fledgling to attach a radio transmitter, but it already proved to be too agile and wily to be caught, in itself an encouraging indication of its good health. Thus, to the delight of those who long for the good old condor days, the Grand Canyon fledgling has become, albeit temporarily, the only unmarked and uncaptured condor to exist in the wild since the early 1980s.

This event not only represents the first successful nesting of released condors as a part of the recovery project, but quite possibly the first successful nesting of the species east of the Pacific Coast region since the Late Pleistocene Epoch. Although there were several somewhat casual reports of condor sightings in Arizona in the late 19th and early 20th centuries, even if one or more of them was valid it seems likely they were nonbreeding wanderers from the California coastal population. Certainly no post-Pleistocene (younger than 9,500 years) samples of eggshells or condors, young or old, have turned up in the numerous Grand Canyon caves where abundant condor remains have been collected.

It is well known that California Condors occurred over a much more extensive range in North America and probably in greater numbers during the Pleistocene Epoch, a time when great herds of large mammals roaming the continent supported an accompanying cast of large scavenging birds. In the 1940s, paleontologists, who are more accustomed to dealing with species extinction than species recovery, dubbed the condor a "Pleistocene relic," and this unfortunate characterization has plagued the species since then. It suggests to some that the species is a goner, a victim of so-called "evolutionary senescence," no matter how much time and money are spent to save it.

This is wrongheaded thinking. The successful fledging of the Grand Canyon chick underscores the fact that the California Condor is no less a creature of the present epoch than we humans are. There is no reason why healthy populations of condors cannot eventually be established in several regions with continued efforts by The Peregrine Fund and the other cooperators in the recovery program. California Condors are not really very different from the related Andean Condor in South America or the ecologically similar Old World Vultures in Africa, Europe, and Asia, and most populations of those species are thriving throughout much of their traditional ranges.

Nevertheless, it is true that the condor recovery effort has been long, difficult, and expensive, and the survival of the species in the wild is still not assured. Several earlier nesting attempts by released birds in Arizona and California were unsuccessful, probably due in most cases to the inexperience of the parents, as is also often the case with young captive condors. Lead poisoning, mostly (or entirely) from bullet fragments ingested from shot animals, remains a worrisome problem, and in the estimation of some, an ongoing threat that precludes recovery of the species. This may prove to be the case in some areas, e.g., interior California, but is less likely in other, more remote regions, including the Grand Canyon. It is also perhaps significant that the recent successful fledging

itself occurred in one of the hardest-to-reach areas on the North American continent.

No matter what, the successful fledging of the Grand Canyon chick is yet one more wonderful milestone on the long road toward condor recovery. It is especially gratifying for those who promoted the concept of a captive breeding-reintroduction program at a time when the very notion was considered to be downright heretical. Indeed, there was a time when some folks caught up in the mystique of the bird claimed that the California Condor could not be safely or successfully trapped, or that the birds would never breed in captivity, or that the young could not be released to the wild successfully, let alone produce young successfully.

Now only a few additional steps remain—the successful breeding of a pair of condors that were fledged in the wild, followed by multiple pairs of condors breeding routinely and successfully in the wild, leading eventually to the establishment of self-sustaining wild populations. This should make possible the final milestone—the condor's fledging from the Endangered Species List!

Background: A California Condor cleans its beak after feeding nestling.
Inset, opposite: Distant photo of nestling California Condor in the Grand Canyon.

Christie Van Cleve

Harpy Eagle Restoration Reaches New Heights

Angel Muela

Above: A young Harpy Eagle soon after release into the wild.

"As we sat in the observation blind, the first hints of sunlight began to illuminate the tangle of trees and vines that surrounded us. Above us, howler monkeys, with their strong, guttural calls, announced the start of a new day. For us, employees and volunteers on The Peregrine Fund's Harpy Eagle Restoration Project, this was not any ordinary day. This was the day that two young, captive-bred harpies were to be released for the first time."

—Marta Curti

Rick Watson

In their new home at The Peregrine Fund's Neotropical Raptor Center in Panama, our three pairs of Harpy Eagles exceeded our wildest expectations by laying 18 fertile eggs in their first year there (2001), all but one of which hatched. The warm, moist climate and direct exposure to sunlight must have agreed with the birds! But their success created a new challenge—a good one to have—of developing successful release techniques for the 17 youngsters.

From the care of the Neotropical Raptor Center the young eagles were moved, at about five months of age, to the release site where they were housed in a "hack box," a specially designed aviary built on top of a tower in the forest. The young birds spent from three to four weeks in the hack box, which gave them time to become accustomed to the area around them while being protected from potential predators.

Releasing young and naive Harpy Eagles is a lengthy process, taking many months of daily tracking and feeding by our "hack site attendants" in the dense rainforest before the young birds learn to hunt on their own. Release day is always a special day. Well before dawn, we quietly place food in front of the hack box and open the door. The birds don't usually stir until after sunup when they discover their new freedom. Usually, their first activity is to eat the food we placed the night before, and then, over the next few days they begin making exploratory flights into the trees nearby. Most of the birds remain dependent on the food that we provide for at least another eight to twelve months. We provide them food in "feeding trees" near the hack box to which they habitually return. To make sure they are feeding and remain healthy we track them by following their radio transmitters as they explore and learn to hunt. This is their most vulnerable time when they can become prey to other predators or suffer a lethal injury from their own attempts to catch prey. In the wild, only about 10 to 30% of eaglets usually survive to become adults so some mortality at this vulnerable stage is expected. Occasionally a bird suddenly and unexpectedly flies several miles from the release site and has to be tracked, captured, and returned to the release area so that we can continue to feed it.

Because releasing birds takes so much time and human care, the hack sites are chosen to provide both suitable, remote habitat for eagles and access and housing for hack site attendants. This combination is difficult to find, so we established a more-or-less permanent hack site in Soberania National Park bordering the Panama Canal and a second one near Las Cuevas Research Station, in the Chiquibul Forest of Belize, where birds will be released annually for many years to come. Once they become independent of our

in Panama and Belize

care, our plan is to trap the birds and release them again in localities far removed from people and access, where they will be expected to survive on their own and only be tracked periodically from the ground, air, or satellite, until they reach maturity and breed. This two-stage method of release is still experimental, but we hope that it will allow us to regularly release the young produced at the Neotropical Raptor Center and then relocate them to other sites throughout Central America to begin restoring the species to its former range.

In 1998, when we first tested releasing Harpy Eagles to the wild, two of the five young eagles were shot by people. Thanks to our environmental education program, none of our latest eagles have been shot, though two have succumbed to natural predators. One bird was taken by an ocelot while another was taken by a jaguar that discovered the hack site soon after two birds were released. Nervous that the remaining eagle's new power of flight might not be enough to help him escape if the jaguar visited again, our hack site attendants stayed up all night to chase the jaguar away whenever he showed up! Our hack site attendants still talk about the night they chased the black jaguar, and he hasn't come back!

As our success at captive breeding has improved, so has the need and opportunity to restore Harpy Eagles wherever they once occurred.

Jaguars are not the only hazard in the forest. In Belize, xate (pronounced "shah-tay") collectors from Guatemala frequent the Chiquibul Forest, "poaching" the leaves of the palms of the genus *Chaemadorea* for export and sale to florists who use the leaves in floral arrangements. The collectors are sometimes armed and threatening, and in the wrong circumstances, perhaps just as dangerous as jaguars. Being a hack site attendant is hard, arduous work, but the rewards are great as they watch the young eagles gain independence and begin to hunt for themselves.

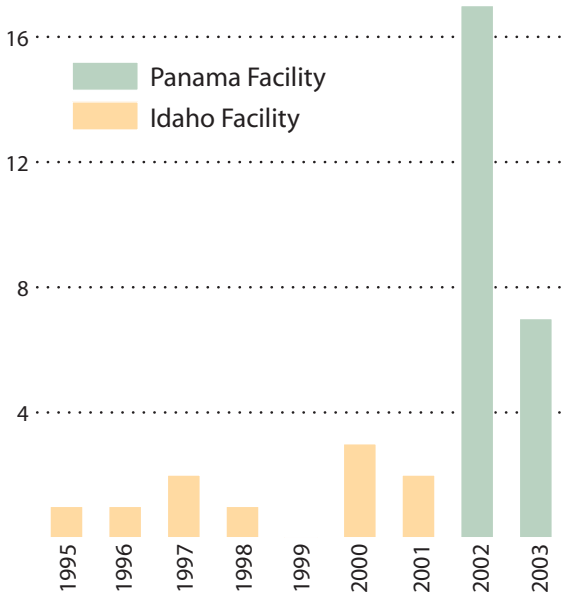
Releasing Harpy Eagles is a challenge, but a good one. This year, our breeding pairs at the Neotropical Raptor Center have produced seven eaglets; a number that may be closer to average than the exuberant 17 of their first year in Panama! As our success at captive breeding has improved, so has the need and opportunity to restore Harpy Eagles wherever they once occurred. The Central American Commission on Conservation and Development (CCAD) has asked us to help restore Harpy Eagles throughout the Mesoamerican Biological Corridor, from Panama to southern Mexico—it is a challenge that we can now seriously consider.

Perry Conway

Angel Muela

Above: Eagle chamber at the Neotropical Raptor Center.

Annual production of Harpy Eagle chicks



Munir Virani

Time is not on the vultures' side. We estimate they have less than five years to extinction unless something is done right now to control diclofenac in the vultures' food source.

Eureka! We found the cause of the

Rick Watson

When, in 2000, biologists suggested that a new, possibly viral, infectious disease might be responsible for hundreds of thousands of vulture deaths in South Asia, we were requested to investigate the reason. If disease was the cause, then it could spread to Europe and even Africa, with disastrous consequences, and finding a solution to the problem would require international cooperation and expertise on multiple fronts. We elected to work in Pakistan and Nepal where laws permitted the collection and export of vulture samples, and willing local partners were to be found in the Ornithological Society of Pakistan and Bird Conservation Nepal. We asked our long-time friend J. Lindsay Oaks, a specialist in avian diseases, to select and lead a team of experts to analyze the samples we collected. And we began field studies at the largest remaining vulture colonies in each country to measure rates and patterns of mortality, information needed to understand the cause.

The road since then has been long, hard, hot, and dusty—much like the Punjab landscape in which we have worked! We quickly found that vultures were dying in high numbers with characteristic, easily seen signs of kidney failure, otherwise known as "gout" in birds. A white, paste-like deposit of uric acid coated the internal body organs of dead vultures. Over 85% of the birds died of this single cause, but the hard question was, "what caused the renal failure?"

Initial samples analyzed by Lindsay showed no consistent signs of pathogenic viral or bacterial disease, though he did find a new bacterium as well as a new parasite! Nor were there any signs of pesticides, poisons, heavy metals, or nutritional deficiencies that may cause renal failure and death in vultures. Frustrated by finding nothing, Lindsay suggested that ". . . the samples must be fresher, they may be too autolysed to find delicate viruses," (autolysed meaning rotten, for want of a better word!). Our veterinarian Martin Gilbert, biologist Munir Virani, and Pakistani partners went back to the field, worked harder and longer, often at night to escape the blistering daytime highs of 120°F in the Punjab summer. Their task? Collect vultures as they dropped dead from their tree roosts or nests.

Despite the troubles that erupted in Pakistan following 9/11 and the war in Afghanistan, they worked on. Fresh samples were sent to the United States for testing . . . but still there was no sign of either known or new infectious diseases, or anything else known to cause renal failure in birds. Nothing. Every test was negative. By late 2002 we concluded that an infectious disease was most probably not at work. The patterns of mortality and diagnostic tests suggested acute poisoning, but this was clearly something new and previously unknown. The task of "finding a needle in a haystack" then seemed easier than the task that lay ahead.

We began by looking at chemicals and drugs used on the vultures' primary source of food—dead domestic livestock. Our Pakistani partners conducted surveys among veterinarians and veterinary suppliers to list every pesticide and drug used on livestock. One drug, diclofenac, stood out to our veterinarians as being unexpected and potentially nephrotoxic—that is, able to cause kidney failure in mammals and

Martin Gilbert

Pat Benson

Left: Two Peregrine Fund scientists, Martin Gilbert and Munir Virani, take on the grim task of searching out dead and dying vultures to be examined. Above: Lindsay Oaks from Washington State University, leader of our diagnostic investigation team, inspects a dead vulture at the start of our investigation. Opposite page: Long-billed Vulture.

Asian Vulture population crash!

possibly also in birds. It was unexpected because diclofenac, one of the class of non-steroidal anti-inflammatory drugs (NSAIDS), was not known to be used in veterinary practice, at least not in the United States or Europe. "It seems like a long-shot," said Lindsay, "but worth testing for anyway."

Then on 23 April 2003 Lindsay wrote our team an e–mail, "...the results for the diclofenac are pretty exciting...," he said. Initial tests had come back and diclofenac was present in all the birds that died of gout but none of the others. Later that week, more test results came in and they remained perfectly consistent. Eureka!! At last, after nearly three years of painstaking investigation, we had found the probable cause!

Since then we have done exhaustive testing and experimentation. We have confirmed that diclofenac is present in all the vultures that die of gout, and is therefore responsible for the high rates of mortality that have caused vultures to disappear from Pakistan and probably elsewhere in South Asia in just ten years. We have found that even very low doses of diclofenac cause the same renal failure, so vultures are unusually sensitive to the drug. We have shown that vultures feeding on a buffalo or goat that has been treated with normal veterinary doses of diclofenac prior to death can easily consume sufficient contaminated meat to be killed by the remains of the drug left in the meat. The evidence is conclusive. Livestock treated with diclofenac that become vulture food when they die, as is often the case in Asia for religious reasons, can provide lethal doses of the drug to vultures.

What now? Time is not on the vultures' side. We estimate they have less than five years to extinction unless something is done right now to control diclofenac in the vultures' food source. That leaves us a very short window of opportunity—maybe only months rather than years—to mitigate the effects of diclofenac and begin restoring vultures to viable populations.

We are working as fast as we can to bring this evidence before the governments of India, Pakistan, Nepal, Bangladesh, and Bhutan. With U.S. Department of State endorsement we have called a high level summit meeting in Kathmandu, Nepal, to outline our results and seek commitments from governments to control diclofenac in veterinary use and help support species restoration efforts. We are also working in the field to answer additional questions that arise from our discovery: Are there places where diclofenac is not used and vultures remain safe? What area must be diclofenac free to sustain a viable population of vultures? Why is diclofenac so popular in South Asia? What are the market forces propelling its sale (2.5 million doses in 2002 in India alone!) and what substitutes might take its place?

We are also working to develop cooperation from other organizations working in the region who might work together to a common and successful solution. In our experience, species recovery can only occur when governments commit to solve the causal problem, and organizations and individuals set aside their differences to work together for species recovery. It is amazing what can be achieved when no one cares who gets the credit, but rather, that results are achieved. Having found the cause of vulture mortality, our new goal is clear!

African Crowned Eagle Conservation

Simon Thomsett

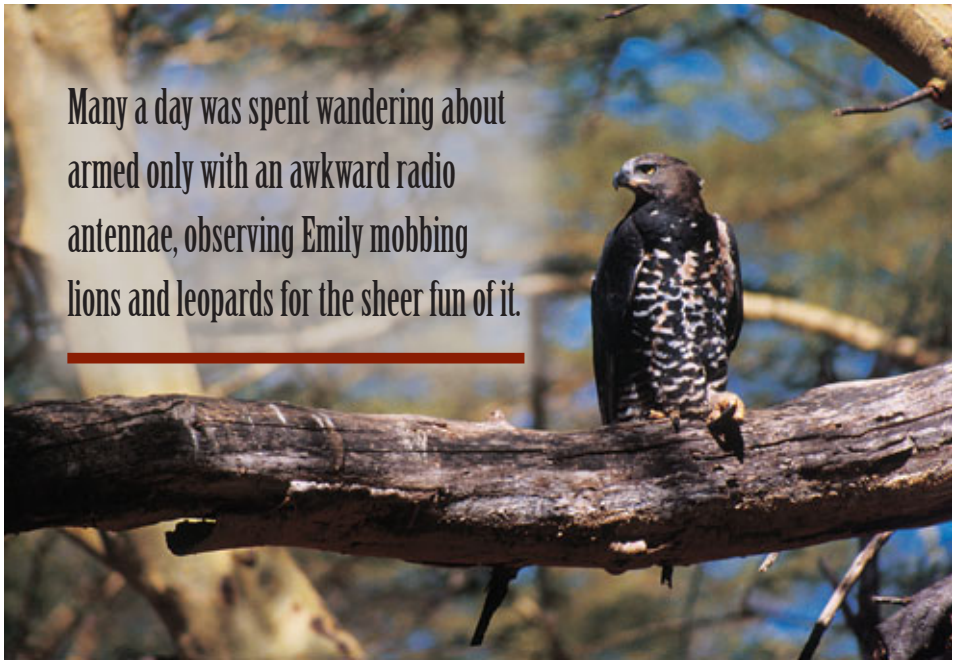
High over the forest canopy a Crowned Eagle calls out, like a lion roaring. This forest lies at the foothills of snow-clad Mt Kilimanjaro and this eagle and his mate own it. They have a huge nest over a crocodile and hippo-filled clear spring. Herds of elephant, zebra, and impala move in from the dry acacia thorn that surrounds this oasis.

This Eden lies at the southwestern edge of Tsavo National Park in Kenya, an area about the size of Israel. The Crowned Eagle is Africa's largest forest eagle that shares much of its biology with the world's other great forest eagles such as the Philippine and Harpy Eagles. It weighs between 5.5 and 11 pounds and has feet as large as a man's hand with needle sharp hind talons. On average, it captures the largest prey of any eagle. Both in Kenya and in West Africa it has the propensity to take the very largest of male monkeys feeding on the troop periphery. These 15 to 35-pound sentinels are formidable and immensely strong. Other favored prey items are usually within their own weight but on occasion they are capable of taking antelope up to the size of a full grown female bushbuck weighing around 90 pounds (40 kg). It competes directly with the larger mammalian carnivores.

We have no difficulty in identifying any forest-dwelling raptor as species imperilled, for the simple fact that forests in Kenya are the most threatened of habitats. Kenya's enormous population explosion, the ever-increasing need for fertile farmland and wood, plus government annexing gazetted forests has had a severe impact on water catchment forests. Today our forest cover is a paltry 2%, and that roughly equates to some 450 pairs of Crowned Eagles.

Today the majority of Kenya's Crowned Eagles inhabit fragmented small patches of forest that have no possible future. The eagle will certainly be confined to those forests within protected national parks and reserves. It is a species deserving conservation management.

The eagles soaring above Tsavo were born in a captive breeding facility. Their



Simon Thomsett

father is called Rosy, and like Johnny Cash's "Man Named Sue," has a vile temper. Rosy was rescued with a badly broken wing in 1978 when he was just under a year old. In 1985, he was joined by a female, named Girl, who was accused of killing livestock. We rescued Girl and her male chick, Totes, but failed to catch her mate, who was shot dead a few days later.

In 1993 The Peregrine Fund financed a modest chamber to house the eagles and on 7 June 1994, the first egg was laid, to hatch on 2 August. It was the first eagle to be captively bred anywhere in Africa. Because their young are removed at four to six months they lay every year, an unusual occurrence as in the wild they lay only once every two years. All chicks are parent reared. Although we cut short their parental care by 1.5 years we make certain they associate with an adult consort after they are removed. The idea is not to produce as many chicks as possible, but to produce well-adjusted eagles with knowledge of eagle decorum and hunting skills. There followed 11 eggs and seven surviving young, one of which was killed by Africa's ferocious version of the wolverine, the ratel.

The question as to where one could successfully release Crowned Eagles needs to take into account many factors. In optimal habitats, the Crowned Eagle population is at capacity, or over capacity. Like sinking islands, these shrinking forests concentrate the eagles to a point that cannot sustain them. To introduce naive captive-bred eagles into such an agitated society of eagles was unlikely to succeed. In the last 25 years, we had noted sub-optimal habitats that did not formerly hold Crowned Eagles. Release in such marginal habitats devoid of competition seemed the best solution.

In March 1996, courtesy of the Kenya Wildlife Service (KWS), we made an aerial reconnaissance of Tsavo to determine the best sites for release. Our affiliates in the Ornithology Department, National Museums of Kenya, and KWS approved our request to release. In April 1998, the first of many volunteers, Anthony D'Ellesandro and Safi Darden, released Totes into the famous Mzima Springs. He fared poorly, being ousted by petulant Verreaux's Eagle Owls at night. Ten days later we moved him to the vicinity of a luxury safari lodge where the springs fed a luxuriant growth of figs, giant magnolia, and yellow fever trees. Here we handed over the hacking task to Peter and Connie Frank, the owners. Totes, after establishing his territory and hunting for himself, was tragically killed in the pouring rain by a leopard as he sat eating a vervet monkey on the ground. We released Baby a few months later, and on 10 October 1998 he led me over vol-

canic debris miles to his hyrax kill. We lost him for months yet he appeared intermittently at the hack site for nearly one year. He was located 9 mi upstream at Kitani and there I once found him after a more than interesting walk that encountered every conceivable frightening animal en route.

Emily and Steven were released on 14 July 1999. They formed a pair, and both built their own nests. Emily, a gentle giant of a female excelled herself the day after release by latching onto the back of a full grown female impala standing in a herd. Many a day was spent wandering about armed only with an awkward radio antennae, observing Emily mobbing lions and leopards for the sheer fun of it. Once she took a full grown female baboon and we arrived at the uproar to rescue her from the rest of the troop. Another time while dozing on a fallen tree she suddenly looked anxiously below, dropped her one raised foot, and flattened her feathers. Six and a half feet beneath her a female leopard crawled away in an unsuccessful effort to remain hidden.

Emily, the dearest of all the eagles, was destined to destroy our hearts by being violently killed by a crocodile while she fed on a young bushbuck at the water's edge on 27 December 1999, five months after release. Such mishaps were not so much setbacks, but tragedies that the entire staff of the nearby lodge and all the volunteers as well as the park rangers and wardens shared.

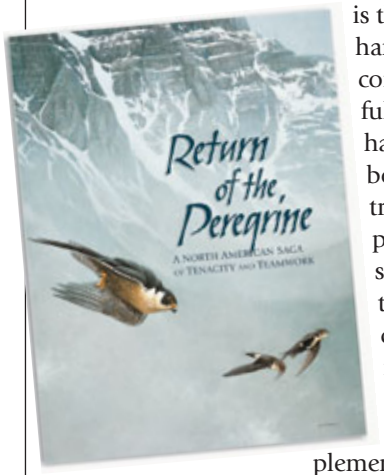
In May 2003 we had a surprise encounter with a recently fledged female Crowned Eagle at Kitani, the last known location of Baby who had been known to occupy the area in 1998. We had intermittent reports of Baby up until 2000, and have good reason to speculate that this young female was his.

Also encouraging, in September 2003 we observed Steven and Ema co-operatively hunting vervet monkeys in a coordinated and preconceived manner, as well as mating. Such unions are known to occur in the wild.

To reach such success after so much tragedy is the lot of conservation work. The trails of these magnificent eagles have involved so many people and this alone has created awareness that has helped highlight the plight of forest species.

Return of the Peregrine Tells the Story Behind Restoration

Perhaps the greatest conservation feat in history, restoring the once-endangered Peregrine Falcon to North America, is a saga that deserves to be told by the falconers, biologists, and conservationists who lived it. *Return of the Peregrine* is their story, one that will be handed down for generations to come. Nearly four years of careful writing, editing, and design have culminated in a hardbound, full-color book that truly honors those who accomplished the recovery, from the scholars who sounded the initial alarm to the field attendants who released and monitored thousands of captive-bred Peregrine fledglings.



Nearly 500 images complement the text, including paintings and drawings, stunning photos of Peregrines and their habitats, and candid shots of the many people involved. Robert Bateman's *Peregrine Falcon and White-throated Swifts* graces the dust jacket.

A debut event was held at the new Archives of American Falconry gallery in late October; days later, shipments arrived in the hands of nearly 400 readers who reserved the book through our pre-sale. Orders continue to arrive daily from a broad range of individuals and retail outlets, and we expect more than half our stock to be sold by the end of 2003.

If you haven't ordered yours yet, or if you would like to send a gift, now is the time. We are happy to include your personal message and deliver it directly to the recipient. Simply fill out the form and mail or fax it to us. You may also purchase *Return of the Peregrine* online at our award-winning website, www.peregrinefund.org.

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Photo of immature Gyrfalcon taken by Cal Sandfort at Saunders Island, North Greenland, as part of our Greenland Falcon Project.

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World Center for Birds of Prey
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Boise, ID 83709
United States of America