

SPRING 2011

THE PEREGRINE FUND  
CONSERVING BIRDS OF PREY WORLDWIDE

2010  
ANNUAL  
REPORT



### Why should we care about birds of prey?

Every day we address the same question, asked by people with a broad range of interests. We've always drawn on science, history, and a deep appreciation for these animals in our answers. But as the rate of change on the planet accelerates, the answer is becoming more direct, personal, and compelling: human survival.

Here's the long version: birds of prey reside at the end of lengthy, often complex food chains, which makes them extremely sensitive to even subtle changes in their habitats. Birds of prey are comparable to canaries in a coal mine. Before the invention of air quality monitors, miners brought caged canaries into mines, watching them for signs of sickness or death to indicate the presence of toxic gases. The canary's sensitivity was a clear warning in a very specific environment; birds of prey can also provide warnings, perhaps for the entire planet.

Peregrine Falcons, for example, reacted to persistent pesticides that accumulated in our environment, affecting not just their survival, but the health of our shared ecosystem. Entire vulture populations in Asia reacted to a common pharmaceutical, with near-extinction as a result. California Condors react to lead from spent ammunition in meat, an observation that's valuable not just for their species or habitat, but also for people and animals around the world who consume meat harvested with lead.

Environmental changes will continue to mount as we look to the future. Our current projects reflect that, as in our study last fall in cooperation with Earthspan, sampling Peregrines along the Gulf of Mexico to determine impacts from last summer's oil spill. In February, we convened experts from throughout the circumpolar north, gathering their knowledge of Gyrfalcons and their principal prey, ptarmigan. Data about both species can help us understand the ecological effects of climate change and confront the greatest conservation challenge of our time.

No one can predict how future "coal mines" will impact canaries or any other creature; but wouldn't it be short-sighted, perhaps even foolish, to ignore the effects? Human beings are a powerful species, capable of wreaking global havoc. However, we are also the only species possessing the intellect and compassion to do something about it. We must begin by recognizing that we are not exempt from the natural world, and in fact, we may need birds of prey just as much as they need us.

Whether I'm marveling at a wild-hatched condor sunning at the Grand Canyon, or watching a Merlin hunt outside my office window, I am reminded of one thing: if we are successful, these birds' descendants will co-exist with ours, each protecting the other.

That's why we should *all* care about birds of prey.

That's why we should *all* care about birds of prey.



**J. Peter Jenny**  
President and CEO

A handwritten signature in black ink, appearing to read "J. Peter Jenny". The signature is stylized and fluid, written in cursive.





*“... if we are successful, these birds’ descendants will co-exist with ours, each protecting the other.”*

# Celebrating 40 years

2010 was a year of reflection and celebration as The Peregrine

Fund marked its 40th anniversary. The occasion generated feelings of pride in our accomplishments and a renewed commitment to resolving the many challenges that lie ahead.

In 1970, our mission was small and focused: save the Peregrine Falcon from extinction. Our founder, Tom Cade, then an ornithology professor at Cornell University, was pioneering methods of producing falcons in captivity when he received a handwritten letter from a pair of 10-year-old boys. "We have been going around collecting money to help your project," the boys wrote. "I hope everything works out alright."

Well, everything worked out just fine. The boys' generosity sparked formation of The Peregrine Fund and Tom helped spearhead one of the most successful conservation stories in history.

Today, The Peregrine Fund is bigger than it was in 1970 but every bit as focused. Conserving birds of prey remains our one and only mission. However, we now achieve that by working with many species that are rare, vulnerable, threatened, or endangered. To date, we have worked with 102 raptor species in the wild in 65 nations worldwide.



Jack Cafferty

In June, Condor Cliffs opened to the public with a celebration that drew the largest crowd ever to the World Center for Birds of Prey in Boise. The new state-of-the-art habitat is large enough to hold a pair of California Condors in a setting inspired by the Arizona canyons where our captive-bred birds are released into the wild. The exhibit is one of only three in the United States where people can view California Condors. The 35,000 people who visit the Velma Morrison Interpretive Center each year can now learn about the ecological niche that scavenging condors fill and why it is important to remove toxic lead from their environment.

Let young visitors try on "actual size" (9-foot) condor wings.



In November, new and long-time supporters of The Peregrine Fund gathered at the Racquet and Tennis Club in New York City to greet old friends, make new ones, and celebrate forty years of amazing accomplishments. The celebration was hosted by Board Chairman Lee M. Bass (above left), and Vice Chairman Carl A. Navarre (above center, with Board Chairman Emeritus Henry M. Paulson, Jr.). Guests included our own founder, Tom J. Cade (left), and conservationist Wendy Paulson (right).

All photos © Hechtler Photographers

■ **Congratulations!**

Lily-Arison René de Roland, director of our operations in Madagascar, has always been our hero. Now, he is a Disney Conservation Hero too—one of just six people in the world to be honored in 2010 by the Disney Worldwide Conservation Fund for his dedication and hard work on behalf of wildlife and habitats in his native country. In May 2010, Lily also successfully completed his post-doctoral research, a first for conservation biology in Madagascar.



Russell Thorstrom



Rachel Tueller/Bureau of Land Management

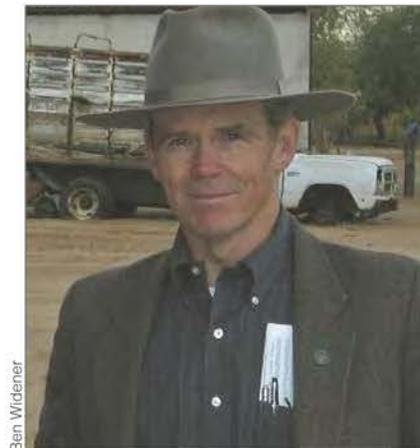
■ **Thank you!**

The effort to recover critically endangered California Condors in Arizona earned The Peregrine Fund an award from the Public Lands Foundation in October.

"The California Condor simply wouldn't be where it is today if it weren't for The Peregrine Fund and its tenacious conservation efforts on their behalf," said Linda Price, Vermilion Cliffs National Monument manager.

Foundation Vice President Beau McClure presented the Landscape Stewardship Certificate of Appreciation at a ceremony in St. George, Utah, in conjunction with the Arizona Strip District Bureau of Land Management and the Arizona Game and Fish Department.

From left: Becky Curry, Arizona BLM; Jeremy Felish, Arizona Game and Fish Department; Chris Parish, The Peregrine Fund; Bill Heinrich, The Peregrine Fund; Beau McClure, Public Lands Foundation; Linda Price, Arizona BLM; Mike Taylor, Arizona BLM; Scott Florence, Arizona BLM; Luke Thompson, Arizona Game and Fish Department; John Sims, Arizona BLM.



Ben Widener

■ **Honored!**

Former Peregrine Fund president and founding director Bill Burnham was inducted into Idaho's Hall of Fame in September and is now officially among those talented and hardworking individuals who inspire others to make their dreams come true.

Bill joined The Peregrine Fund in 1974 and served as its president and CEO from 1986 to 2006. He spearheaded the establishment of the World Center for Birds of Prey when the organization's eastern and western operations merged and moved to Boise, Idaho, in 1984. Bill served as president until his death in 2006.

The 2010 inductees also included the late Ron Yanke, a Boise businessman and long-time member of The Peregrine Fund board of directors.

# CONTENTS

■ **Principles**

2010 Mission  
Accomplishments .....4

■ **Projects**

Working Worldwide ..... 12

World Center for  
Birds of Prey .....14

Northern Aplomado  
Falcon Restoration ..... 16

California Condor  
Restoration ..... 18

Neotropical Raptor  
Conservation  
Program.....20

Pan Africa Raptor  
Conservation  
Program.....28

Asia-Pacific Raptor  
Conservation  
Program.....32

Conservation  
Science .....36

■ **People**

Cooperators .....40

Donors.....41

Volunteers and staff .....46

Financials .....48

How you can help .....48

The Peregrine Fund  
2010 Annual Report ©2010

Edited by Pat Burnham and Susan  
Whaley. Design ©2010 by Amy  
Siedenstrang.

We thank Daniel  
Bergmann for his  
cover photograph  
of Gyrfalcons in  
Iceland.



## MISSION *Restore rare species through captive breeding and release*

The Peregrine Fund's skill in producing endangered birds of prey in captivity and releasing them to the wild in significant numbers comes from 40 years of hands-on work by professionals who are passionate about raptors. Currently, we remain highly focused on California Condors and Aplomado Falcons with a propagation and release program that is proven, innovative, and adaptive.

The result is a growing flock of California Condors in the Grand Canyon region of Arizona and a thriving population of Aplomado Falcons in South Texas. Once these species achieve self-sustaining populations, they, like the Peregrine Falcon in 1999, will be removed from the U.S. Endangered Species List.

Our long experience makes the recovery effort relatively predictable year to year. However, this is not always the case. In 2010, an alarming lack of Aplomado Falcons in suitable habitat in West Texas raised a question: What caused this sudden drop in nest-

ing pairs? To find answers in 2011, we will outfit captive-bred young with transmitters before they are released in West Texas. The data collected from these transmitters will enable researchers to track the birds' movements and determine an effective conservation strategy.

Constant monitoring of wild California Condors in Arizona and careful breeding in Idaho have ensured the ongoing success of the California Condor Recovery Program. The Peregrine Fund works closely with its partners to ensure the greatest genetic diversity possible in the world's small but growing number of condors.

The Peregrine Fund supports and celebrates similar efforts around the world. In 2010, we provided expertise and grants to the Philippine Eagle Foundation, which hatched a captive-bred chick and released two rehabilitated birds to the forest. In Belize, we released five captive-bred Orange-breasted Falcons and monitored them until they successfully reached independence.

The success of our captive breeding and release program is further proven each time a young captive-bred bird takes its first flight, captures its first prey, and disperses to take its rightful place in the wild.



Aplomado Falcon chicks are raised at our facility in Boise, Idaho, then transported to Texas and New Mexico for release.

## MISSION *Improve local capacity for conservation*

Even in this technologically advanced era, the scientific community still does not know the biology and conservation status of hundreds of bird-of-prey species. To fill this void, The Peregrine Fund, since 1970, has supported more than 100 students pursuing degrees in raptor biology.

In 2010, our director of Madagascar operations, Lily-Arison René de Roland, received his post-doc-

torate title of professor, the first Malagasy to receive this honor among all non-governmental conservation organizations in Madagascar. Lily also was named a Conservation Hero by the Disney Wildlife Conservation Fund, one of only six people in the world to receive this honor. Since 1970, The Peregrine Fund has helped support, train, and educate 20 students seeking advanced degrees in science in Madagascar, a rich source of amazing wildlife found nowhere else on Earth.

Through the Neotropical Raptor Science and Student Education Program, The Peregrine Fund provides grants and hands-on experience to students the length of Latin America, from Mexico to Argentina.

These young people are documenting the biology and behavior of birds of prey that are often misunderstood and feared by the people who live near them. Past experience tells us that the involvement of local communities and a thorough understanding of a problem can build trust and support for conservation.

In Africa, students supported in part by The Peregrine Fund are studying little-known birds of prey, including vultures whose numbers have dropped dramatically due to the misuse of the chemical Furadan. This research is critical to understanding the poisoning problem and finding answers to overcome it.

The Peregrine Fund provides hands-on training to field assistants and those who maintain raptor release sites around the world. To date, more than 1,600 people have gained valuable experience working on our field projects. The result is a heightened respect for birds of prey within local communities and a greater understanding of the need to conserve habitat and all the creatures within it.

After graduation, many of the students supported by The Peregrine Fund will go on to influential careers in conservation, as so many of our past students have done, and apply their education, experience, and expertise to issues facing birds of prey and other biodiversity in their native countries.



Former Peregrine Fund graduate student Nyamba Batbayar (second from left), now with students and staff of his own in Mongolia.

# MISSION

Conduct scientific research  
and environmental education

Research and education are the cornerstones of all The Peregrine Fund does to conserve birds of prey. In early 2011, The Peregrine Fund convened an international conference focused on climate change and its effects on Gyrfalcons, ptarmigan, and other wildlife in the Arctic. The conference was held 1–3 February 2011, and drew more than 120 researchers, scientists, and other conservationists from Russia,

Iceland, Greenland, Scandinavia, and other nations to discuss the status and future of the Arctic region (see opposite page).

For 30 years, The Peregrine Fund studied Peregrine Falcons, Gyrfalcons, and other birds in Greenland and collected a storehouse of data that will be useful in determining what may be done to protect birds of prey in the 21<sup>st</sup> century. The conference proceedings will be published and made available to other researchers and policy makers faced with this complex issue.

In the wake of the 2010 oil spill in the Gulf of Mexico, The Peregrine Fund participated in a project to capture, band, and sample blood for analysis from Peregrine Falcons migrating through the Gulf region. The data will be used to determine whether chemicals related to the spill are having long-term effects on the falcons, much the way the birds alerted humans to the consequences of DDT a half-century ago.

The Velma Morrison Interpretive Center at the World Center for Birds of Prey in Boise, Idaho, is the centerpiece of The Peregrine Fund's environmental educational efforts. In 2010, nearly 36,000 people visited the center and enjoyed live bird demonstrations, interactive exhibits, and educational displays on everything from feathers to falconry.

In June, an outdoor exhibit for a pair of California Condors opened to the public with a celebration that drew the largest-ever crowd to the World Center for Birds of Prey. Indoors, the viewing chamber for Luigi, our Harpy Eagle ambassador, was renovated with a beautiful mural of a Central American rainforest. An Arctic-themed chamber, complete with Northern Lights, was finished in 2011, complementing our current featured display, a traveling photography exhibit, *Arctic Wings, Miracle of Migration*.

More than 120 scientists, scholars, managers, and other conservationists from around the world attended *Gyrfalcons and Ptarmigan in a Changing World* in Boise, Idaho. They came to share findings, learn from one another, and determine what knowledge gaps remain.

Over three days in February, participants listened to presentations on topics ranging from populations to plumage and willows to wind farms.

Ian Newton, a member and former chairman of The Peregrine Fund's board of directors, summed up on the final day: "Sea ice is shrinking, spring is earlier, vegetation is clearly responding, tree lines are rising, willow patches are expanding, but not everywhere. Key species are going to lose habitat."

He also said that, unlike Peregrine Falcons of 40 years ago, Gyrfalcons are not in catastrophic decline at the moment. He urged researchers to go beyond monitoring the species to improving our broader understanding of a highly complex problem.

The conference was convened by The Peregrine Fund, Boise State University, and the U.S. Geological Survey. Sponsors included the Environment Agency-Abu Dhabi, Trust for Mutual Understanding, National Park Service, and U.S. Fish and Wildlife Service.

The Peregrine Fund is planning to develop an online database accessible to anyone working on topics related to birds of prey and climate change. Also, a communications group will be formed so that the research community can stay in touch, share their findings, and contribute to ways of stemming and mitigating the effects of climate change on wildlife in the Arctic.

More information is available on the website: [www.peregrinefund.org/gyr\\_conference/](http://www.peregrinefund.org/gyr_conference/)

**From left: researchers Oleg Mineev (Russia), Vladimir Tarasov (Russia), and Pertti Koskimies (Finland) congregate at a circumpolar world map to point out study sites and compare their experiences in the Arctic.**



# MISSION

Conserve habitat  
to preserve biodiversity

Loss of habitat is one of the most serious challenges facing birds of prey. From the melting sea ice in the Arctic to the clear-cutting of rainforests in the Philippines, birds of prey are losing their homelands at an alarming rate.

Birds of prey are an effective indicator of environmental degradation. They are near the top of a delicate food chain that works sustainably only if all

the pieces and parts are in their proper place. Without a reliable food source, birds of prey cannot live and raise young in the landscape to which they belong.

In 2010, The Peregrine Fund continued efforts to permanently protect three areas in Madagascar that provide habitat for the critically endangered Madagascar Fish Eagle, the endangered Madagascar Serpent-eagle and other wildlife, including a diving duck that was thought extinct before being redis-

covered by The Peregrine Fund in 2006. We assisted reforestation and monitoring efforts at the local level while waiting for the national government to take the final steps.

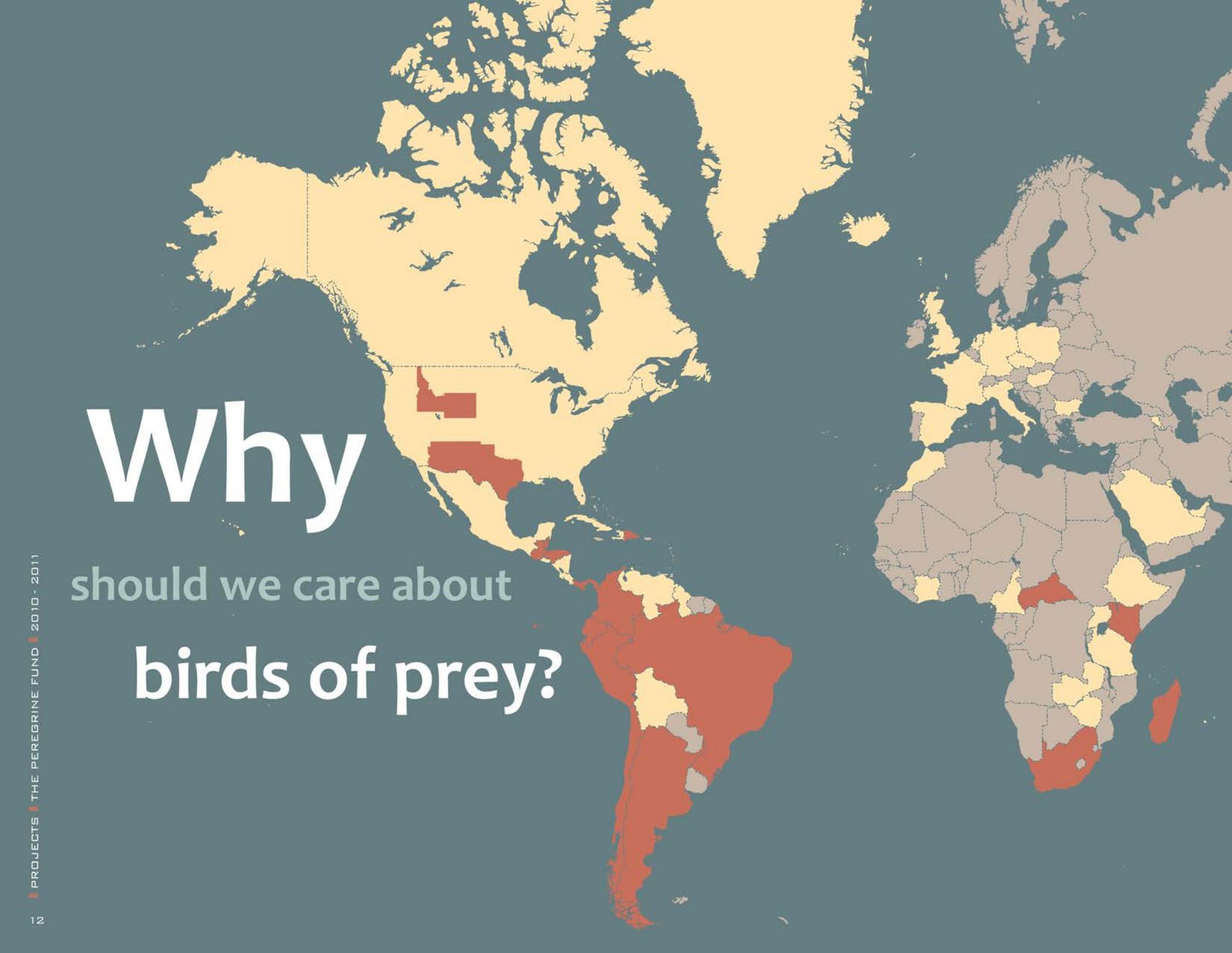
In Arizona, vast tracts of excellent habitat for California Condors are preserved as public land but the area is potentially unsafe if the scavenging birds ingest lead fragments from lead ammunition unknowingly used by hunters. The Peregrine Fund participates in hunter awareness efforts in Arizona and Utah to encourage voluntary use of ammunition that is not toxic to condors.

In Texas, The Peregrine Fund has helped enroll more than 2 million acres of suitable Aplomado Falcon habitat in the Safe Harbor program, which extends protections to both falcons and landowners.

Habitat protection is sure to be one of the most confounding problems facing humans in the 21<sup>st</sup> century. The Peregrine Fund's experience and expertise in working cooperatively with landowners can contribute to solving problems, finding solutions, and leading the way to a future that preserves the world's incredible diversity of birds of prey for future generations.



Sunrise on Mandrozo Lake in Tambohorano: one fisherman paddles as another pulls in a net in a region of Madagascar where we are working to create a protected area for fish eagles and other species, including humans.



# Why

should we care about  
birds of prey?



*As the rate of change  
on the planet accelerates,  
the answer is becoming  
more direct, personal,  
and compelling:  
**human survival.***

The Peregrine Fund has  
worked in or supported  
associates from more than  
**65 countries.**

■ In 2010

■ Since 1970



## World Center for Birds of Prey



## Education Program

The Peregrine Fund has always been involved in public education through lectures, tours, newsletters, popular publications, and film. We were further able to reach the general public with organized educational programs when we consolidated our operations and established the World Center for Birds of Prey in 1984. Since then, we have reached more than 800,000 people through on- and off-site programs.

The Velma Morrison Interpretive Center was constructed in 1994 and has been enlarged and updated many times, including the addition of a new outdoor exhibit for California Condors in 2010.

We believe that a strong education effort not only provides a base of knowledge for informed environmental decision-making, but more importantly sparks the passion needed to power effective solutions for global raptor conservation.

### ■ 2010 Results Summary

- Condor Cliffs, a new exhibit—one of only three in the United States—showcasing the California Condor, opened with a celebration in June that attracted nearly 3,300 visitors, a one-day record for the Velma Morrison Interpretive Center.
- A Harpy Eagle chamber was renovated to reflect natural habitat and allow for daily indoor flight demonstrations.
- On- and off-site environmental education programs reached over 36,000 people, including more than 6,000 students. Despite cutbacks in state public education funding for field trips, the number of school groups visiting the interpretive center remained relatively steady.

### ■ Condor Cliffs

The Peregrine Fund's Education Program strives to provide programming that is both engaging and informative. Our raptor ambassadors are generally the most eloquent teachers, so in early June we were delighted to finish construction on Condor Cliffs, a new exhibit—and only one of three in the United States—that showcases the California Condor. More than 300 tons of boulders, sand, and sandstone chip were used to build the cliff on which two condors can now be viewed. More than two hundred native Idaho plants were placed in and around the exhibit and, to minimize costs, all of the finishing elements, including landscaping, fencing, and signage, were completed by volunteers and staff.

On opening day, Condor Cliffs set a new attendance record by

Phil McClain



David Wells

California Condors perch together inside their new Condor Cliffs exhibit. Inset: new plaques were added to the Wall of Remembrance at The Archives of Falconry in March.

drawing 3,268 people in one day, along with tremendous media support from radio and television.

Signs for the exhibit inform visitors about the biology, historical importance, and current issues affecting California Condors, such as poisoning by lead from spent ammunition. With the support of wildlife photographers and other partners, a multi-media art exhibit focusing on the California Condor was created in the interpretive center's entry gallery.

#### ■ Raptor Ambassadors

Early June also saw the renovation of a large existing chamber, which now houses a male Harpy Eagle in a naturalistic setting. The viewing windows were enlarged, giving a fantastic view of the Harpy Eagle and the life-size rain-forest mural painted by Raptor Specialist Trish Nixon. Hundreds of hours of volunteer work went into the transformation. Visitors are now treated to daily flight demonstrations by the Harpy Eagle, an experience that has proven to be an effective and popular means of introduction to our Neotropical programs.

Other flight demonstrations have been developed and set to a regular schedule. One might have the chance to learn about Turkey Vultures or to see our American Crow, which has collected, hand-to-beak, enough donations to fully fund a year's worth of raptor food for the education birds.

Of our 27 education birds, 14 are used in flight demonstrations and/or shown on the glove or

perched on the lawn. Eight of the birds are taken off site and used in outreach programs. Our new behind-the-scenes tours of the facility have resulted in additional revenue and new memberships for the organization.

We continued to reach out to community organizations, events, and schools through off-site events with live raptors. A total of 28 off-site events were conducted this past year impacting 7,162 people. These programs included presentations to students at elementary, middle, and high schools in Idaho and Oregon. In most cases, the entire school population attended the presentation, which focused on birds of prey, the projects and history of The Peregrine Fund, and the relevance of conserving birds of prey and their environments.

#### ■ Youth Education

Although our programs are designed to appeal to all visitors, we have made special efforts to provide meaningful and engaging experiences for southwest Idaho youth. One example of this was our "name the condor" contest this year, where students submitted an essay with a suggested name for the female California Condor in the Condor Cliffs exhibit. A fifth grade student from Hagerman, Idaho, was the winner with "Piyopyoot Alik," a Nez Perce phrase for "bird alighting." Each of the three winners in their age group category and their classmates won a trip to the World Center for Birds of Prey for the awards ceremony.

In early 2010, the State of Idaho

cut all field trip monies for the current school year and the next. As a result, we were not surprised when elementary schools began to cancel tours, but we were also impressed with the many creative efforts to find alternative funding. In the spring, we partnered with the Bureau of Land Management in a program that provided bus money for school transportation. The number of school groups visiting the center did not change significantly from the previous year, but there was a marked shift from large public school classes to smaller private or home-schooled groups.

Looking back at the number of individuals benefitting from The Peregrine Fund's Education Program is always rewarding. There were 35,741 people directly impacted by on-site and off-site programs, including 28,579 visitors to the interpretive center. The month of July set an all-time monthly high for admission fees collected. Despite the lack of funding for field trips, on- and off-site environmental education programs reached 6,287 students.

#### ■ Volunteers

We would never have managed any of this without the Education Program's dedicated volunteer base. Our oldest volunteer is 79 and our youngest is 14; and between them all, a total of 89 volunteers contributed 7,327 hours working in the gift shop, conducting tours of the Interpretive Center and The Archives of Falconry, and doing miscellaneous tasks.



## The Archives of Falconry

The ancient sport of falconry has inspired many raptor biologists and conservationists, both amateur and professional, to become involved with The Peregrine Fund. Falconers' birds, money, insights, and techniques have contributed significantly to our successes.

The Peregrine Fund established the Archives of American Falconry in 1986 to capture and preserve falconry's historical record in the United States before pioneer falconers died. Unique in the world, the Archives' original intent expanded with the international nature of the historic materials being collected. The name subsequently was shortened to The Archives of Falconry in 2003 and it now focuses on the history of this ancient sport worldwide.

The Archives moved into the Herrick Collections Building in 2002 and then doubled in size in 2007 with the addition of the Arab Falconry Heritage Wing.

#### ■ 2010 Results Summary

- The third annual Spring Rendezvous in March 2010 featured a special exhibit of drawings and paintings of birds of prey by renowned wildlife artist and biologist Hans Peeters.

The third annual Spring Rendezvous in March drew more than 100 falconers to the Archives for a special exhibit of drawings and paintings by Hans Peeters, whose work is well-known to falconers around the world. The day also featured a ceremony to honor the lives of eight falconers with stories and remembrances. A total of 66 falconers now have commemorative plaques on the Wall of Remembrance at the Archives.

Administrator David Wells, in collaboration with Associate Bob Collins, completed 80 pages of the Book of Remembrance and displayed it for the first time at the 2010 Rendezvous. Later in the year, it was displayed off-site for the first time at the North American Falconers Association Meet.

To keep supporters informed, we produced four quarterly issues of the *Heritage* e-newsletter, with each issue spotlighting a different Archives associate. We produced a series of graphic panels to depict the Archives' history and special collections for use as displays at falconry conventions. We also established a Facebook organization page with an enrollment of 1,650.

Kent Carnie, curator emeritus, represented the Archives at several international, national, and state club events.



## Northern Aplomado Falcon Restoration

The Northern Aplomado Falcon was last seen in the American Southwest in the 1950s, leaving its niche in the grassland ecosystem unfilled for decades. The Peregrine Fund began experimenting with breeding captive Aplomado Falcons and releasing them to the wild in the early 1980s. Shortly thereafter (1986), the falcon was put on the U.S. Endangered Species List.

The recovery effort has been an excellent vehicle to promote creative solutions to problems associated with the Endangered Species Act. To provide suitable habitat, The Peregrine Fund has forged innovative Safe Harbor agreements in Texas that protect private landowners and provide 2.1 million acres of potential Aplomado Falcon habitat. In New Mexico, a 10(j) experimental, non-essential population designation for the endangered species has had similar results that extend beyond private land to lands managed by federal and state agencies.

Aplomado Falcon chicks are produced at the World Center for Birds of Prey and transported to Texas and New Mexico for release; more than 1,500 chicks have been released so far. Large-scale releases began in South Texas in 1993, where a self-sustaining population appears to be thriving, and expanded to West Texas in 2002 and New Mexico in 2006.

### ■ Propagation

During the 2010 season, 119 young were produced from 31 pairs. Of the 291 eggs laid, 175 (60%) were fertile. One hundred twenty-three (70%) hatched and 119 (97%) survived to release age. No nutritional or disease-related problems occurred.

Eleven young will augment the captive breeding population, now totaling 41 pairs. The current number of pairs will allow us to continue releasing between 60 and 80 falcons per year. We will continue to maintain as geneti-

cally diverse and productive a captive population as possible.

### ■ Releases

During the 2010 field season, 107 Aplomado Falcons were released from five sites in New Mexico and three sites in West Texas. Our overall success rate for this year resulted in 75 (70%) falcons reaching independence.

In New Mexico, we continued our release efforts on land administered by Bureau of Land Management, White Sands Missile Range, and New Mexico State

### ■ 2010 Results Summary

- 107 young Aplomado Falcons were released to the wild from eight sites in New Mexico and West Texas, with more than 70% surviving to independence.
- 24 of 32 breeding pairs in South Texas used artificial structures, a valuable management tool to help increase nesting success in the face of high frequency of predation and lack of suitable nest sites. We placed nine new nest structures: six on Matagorda Island and three in the Laguna Atascosa National Wildlife Refuge area and serviced 30 others to ensure they were suitable for use during the nesting season.
- Monitoring showed few breeding pairs in West Texas and New Mexico. We designed a study to determine what factors may be affecting reproduction in those areas of historic habitat.

Land Office and on the Armandaris Ranch. One new site, named Beck Ranch, was activated on lands administered by Bureau of Land Management. A total of 67 falcons were released in New Mexico under the 10(j) Rule, which designates the population in New Mexico and Arizona as a "Nonessential-Experimental Population." Forty falcons were released at three sites in West Texas located on private ranches.

Mortality factors after release

remained the same as in previous years, including premature dispersal and predation predominantly by Great Horned Owls. We continued providing bath pans inside hack boxes and fed pre-release falcons more quail mush to ensure their best condition possible for release.

The non-profit organization LightHawk and its team of volunteer pilots, and one independent pilot, safely transported the majority of falcons to New Mexico and Texas, greatly reducing the stress on the falcons associated with extended travel time by road.

### ■ Nesting and Survey Results

Aplomado Falcon nesting surveys are annually accomplished in the Chihuahuan Desert of West Texas. Release efforts shifted to this historical habitat for the falcon in 2005. During spring surveys in 2009, we located 10 breeding pairs in this new recovery area, but 2010 survey efforts reflected a loss of eight of those pairs. As a result, all released falcons in the Chihuahuan Desert of New Mexico and West Texas during 2011 will be part of an in-depth telemetry study to discover what caused the falcons to disappear and whether releases should continue there.

We continued to focus our survey efforts in South Texas on determining occupancy in all known territories. A total of 82 falcons were observed during a survey period of 17 April to 13 May, including 32 territorial pairs and 18 individuals. Of 40 territories surveyed in South Texas, 32 were occupied. Overall, the results mirrored those found in 2009.

This indicates stability in the southern Texas population even during recent years of suboptimal weather and habitat conditions.

From winter 2009 to fall 2010 in South Texas, rainfall and habitat conditions improved dramatically after a persistent drought that affected a large portion of Texas, especially along the Gulf Coast. Resulting prey populations were better than observed in 2008 and 2009, especially in the Laguna Atascosa National Wildlife Refuge area. We hope these improved conditions allow falcon occupancy to increase to 2005 and 2006 levels when habitat conditions were similar to those observed this year. Our modifications to new and existing nest structures have remedied the nest depredation problem detected in earlier years.

During a brief survey in March, and including observations during the release season, only two pairs of falcons were observed in West Texas. As a result, in 2011 we plan to undertake a telemetry study on all released young to determine why there are so few breeding pairs and whether releases should continue in desert ecosystems of the species' historical range.

In New Mexico, observations revealed only one falcon pair that subsequently has not nested and was composed of a juvenile and a sub-adult. While several other sightings were reported throughout the state, none were breeding.

We placed nine new nest structures: six on Matagorda Island and three in the Laguna Atascosa National Wildlife Refuge area. We also serviced 30 pre-existing

nest structures to ensure they were suitable for use during the nesting season. The new nest structure construction included the modifications made in 2009.

Approximately one-third of all known Aplomado pairs in Texas are located on properties enrolled in our Safe Harbor program. The Safe Harbor permit includes 57 counties in South and West Texas. We met with several private landowners in Texas and New Mexico to discuss the program and the possibility of additional release sites. In New Mexico, these discussions led to one new release site in 2010.

#### ■ **Monitoring Remnant Populations in Mexico**

Since 1996, we have monitored nest productivity of a small population of Aplomado Falcons in Chihuahua, Mexico. This population has fluctuated with climatic conditions, particularly precipitation. In recent years the number of territorial pairs also has decreased due to conversion of native grasslands to agriculture.

We continue to work with state and federal agencies and conservation organizations in Mexico and the United States to determine organochlorine and inorganic element contaminant burdens and their potential association with egg failures and reproduction.

Of 28 territories monitored, we observed a marked decrease in the number of occupied territories from 25 per year from 1997–2004 to eight in 2010. Three nesting attempts were observed, with one young fledging from those nests. This is the lowest productivity observed since the population was first discovered in the early 1990s.

Christina Kleberg



A young Aplomado Falcon carries a yucca seed pod during playful activity with other falcons.



## California Condor Restoration

**C**alifornia Condors are critically endangered—only 22 individuals remained alive in 1982. The Peregrine Fund started raising condors in captivity at the World Center for Birds of Prey in Boise, Idaho, in 1993 and three years later began releasing them to the wild at the Vermilion Cliffs release site in northern Arizona.

Through captive breeding, release, radio-tracking, and adaptive management, we are seeing real progress toward recovery. On 1 October 2010, the total number of California Condors in existence was 381. Of those, 76 were flying free in Arizona and nine were in the pre-release pen at Vermilion Cliffs. The wild population in Arizona has produced 12 young since 2003.

Research shows that lead poisoning from spent ammunition fragments is the principle cause of death in the condor flock, which now forages largely on its own, and we have made advancements in reducing the prevalence and impact of lead from this source. State game and wildlife agencies in Arizona and Utah have initiated mitigating efforts to reduce the amount of lead available to scavengers. In 2008, The Peregrine Fund organized an international conference that focused on the effects of lead from spent ammunition on wildlife and humans.

### ■ Propagation

Fifty-seven condors reside at our captive breeding facility at the World Center for Birds of Prey in Boise, including 39 adults, 2 juveniles, and 16 chicks. Eighteen females produced 18 eggs and 17 were fertile. Of these, 11 hatched in Boise and six were transferred for rearing at other facilities in the Los Angeles Zoo and San Diego Wild Animal Park. All eggs, including those transferred, hatched successfully. In exchange, five fertile eggs were transferred to Boise and all

hatched successfully, bringing the total number of chicks reared in Boise to 16. We did not attempt to double-clutch any of our pairs. We had 94% fertility, 100% hatchability, and 100% chick survival. All the chicks at our facility were parent-reared.

Chicks were vaccinated against West Nile Virus according to the protocol established in 2009 and an aggressive mosquito abatement program was continued. In FY10, we began storing the vaccine in super-cold storage at the Biology Department on the cam-

California Condors begin to breed at about six years of age, laying one egg per breeding attempt. This female, a member of our Arizona flock, attempted to breed in 2010 but was unsuccessful.

Chris Parish

## ■ 2010 Results Summary

- Nine captive-bred juveniles were transferred to the Vermilion Cliffs release site and six were released to the wild. One chick was produced in the wild.
- Blood samples showed that 72% of the condors we tested were exposed to lead. Of those 52 birds, 34 required treatment for lead poisoning. Three condors died of lead poisoning after the 2009 fall hunting season, the first such deaths in nearly two years. Our outreach and education efforts to hunters and others continued in 2010.
- Eighteen captive condors in Boise produced 17 fertile eggs that all hatched successfully. To further enhance genetic diversity, fertile eggs were transferred among the World Center for Birds of Prey, Oregon Zoo, Los Angeles Zoo, and San Diego Wild Animal Park, bringing to 16 the total number of chicks reared in Boise this year.

pus of Boise State University to better maintain the integrity of the vaccine. Numerous changes were made to improve our facility and enhance condor behaviors.

## ■ Release

We transferred nine captive-bred condors to the flight pen at the Vermilion Cliffs release site where they are monitored and

evaluated before being deemed fit for release. We released six condors, one of which had to be recaptured 23 days later for poor roosting behavior.

Contaminant-free dairy calf carcasses were provided every three days at the release site. We intensely monitored newly-released condors and aggressively hazed them away from unsafe roosts in an attempt to avoid predators. Despite our efforts, one newly released female succumbed to coyotes.

Although condors have gone missing in the past, we always hope they will one day return. This year, however, we added four condors with intermittent or non-functional transmitters and two wild-hatched young to the "missing and presumed dead" category. From December 2009 to January 2010, condors 414, 426, and 454 were all last reported at roost in Utah and have since been unaccounted for, suggesting a common source of mortality. The timing is consistent with the period typical of lead-related death. The flock's ever-increasing independence and use of habitats in Utah, combined with the large amount of inaccessible private property, increased our difficulty in tracking and monitoring condor behavior there.

## ■ Wild Reproduction

Seven pairs exhibited breeding behavior, three of which were confirmed incubating within a nest cave. This year's effort marked the earliest recorded lay-

ing date of 14 February. We obtained the first visual confirmation of this chick on 24 May. All other nesting attempts were abandoned.

## ■ Lead Exposure and Mortality

Our research has included observations of lead pellets and bullet fragments in the digestive tracts of lead-poisoned condors and the discovery of hundreds of bullet fragments in rifle-killed deer and coyotes fed on by condors. The Peregrine Fund continues to focus on lead exposure detection and treatment as the essential element in maintaining the population. Since the summer of 2000, we have annually trapped almost every condor in Arizona, obtaining blood for lead-level analysis and treating birds when necessary.

The highest levels of exposure occur in October and November when the deer hunting seasons are underway, and the period of greatest lead-caused mortality among condors is December and January, reflecting the delayed effect.

In 2009 we collected 75 blood samples (including re-samples), representing 61 of the 72 condors in the wild. Fifty-two of the birds showed lead levels indicative of lead exposure (>15 µg/dl), up from 43 birds in 2008. Twenty individuals revealed lead levels greater than 65 µg/dl, and 34 condors were treated with chelation therapy to reduce lead levels.

After 22 months without a confirmed fatality from lead poi-

soning, we detected three lead-related deaths in 2010. Necropsies and tests performed by the San Diego Zoo's Institute for Conservation Research confirmed the presence of lead fragments in the digestive tracts of all three birds, two adults and a chick. The adults had been trapped and tested prior to the hunting season, and neither showed indications of high lead levels. All three birds had been foraging in southern Utah prior to their deaths.

With the aid of both GPS-satellite telemetry and ground tracking VHF telemetry, we again found an abrupt increase of blood lead-levels corresponding with increased use of deer-hunting areas on the Kaibab Plateau in Arizona and the Kolob range in southern Utah in the weeks prior to testing. The disappearances in Utah of three other condors in December and January, annually the period of highest incidence of death from lead poisoning since condors began exploiting gun-killed ungulates in 2002, suggest the possibility that lead was implicated in those losses.

## ■ Monitoring

Our reduced staff of nine biologists and field workers tracked the daily movements and activities of condors, a task made more difficult by the increasing numbers of free-ranging birds and their widening tendencies toward long-range movement in this rugged landscape offering limited access. We continue to

benefit from GPS satellite-reporting transmitters on 15 condors. These transmitters record hourly position fixes to within roughly 50 meters of the actual locations and transfer accumulated data each day via satellite.

GPS transmitters have been especially valuable in revealing the exact locations of condor activity both in real time and in retrospect. The technology is especially useful as condors become more self-sufficient and spend longer periods away from the release site, as is now the case for many.

We continued to see a trend towards foraging in Utah, the northern end of the condor's home range. From the hills just outside Zion National Park, the birds eventually returned to the release site as the winter snows made carrion more scarce. This period is characterized by an increasing use of the Kaibab and Paria Plateaus where condors have continued to encounter lead bullet fragments in the remains of shot deer, coyotes, and marmots.

Close monitoring of movements also has aided us in quickly averting behavioral problems that still occasionally develop among inexperienced condors. We continue to condition them by hazing, installing aversive conditioning devices in highly used areas, and confinement. We continue our public education and outreach efforts in areas where condors and humans overlap.



Four young Orange-breasted Falcons perch near a release tower, where volunteers provide food and monitor the birds until they reach independence.



## Neotropical Raptor Conservation Program

**C**onservation in the Neotropics—a region extending from southern Mexico to Argentina and including the Caribbean Islands—is a global priority. About one-third of the world’s birds of prey occur in the Neotropics. Central America and the Caribbean are particularly important because of the limited extent of remaining forest, high degree of biodiversity, and large proportion of North American migrant species that winter there.

The best way to conserve biodiversity is to set aside large tracts of untouched land, but the reality is that most of these tracts will likely be much smaller than needed. This is particularly true for large, widely dispersed animals such as birds of prey. This puts extra emphasis on conserving the ecological requirements of these wide-ranging predators so that we may save the biodiversity within their fragile food chain.

This umbrella program encompasses projects related to conservation, research, and restoration of birds of prey in the Neotropics.

Our time-tested, hands-on, science-based approach to conservation has both a unique and valuable role for conservation in the Neotropics. A significant investment now will strongly influence conservation actions and raptor research for decades, if not longer. With forests rapidly diminishing, our return for investment will likely never be as great in Latin America as during the next 10 years.

This program aims to conserve raptor species in jeopardy; improve knowledge of raptor species with emphasis on those for which too little is known to determine their conservation status; answer important conserva-

tion questions using raptors’ ecological needs as a measure for conservation of biodiversity; reduce human persecution and other behaviors that have a negative impact on species, using raptors as a flagship for conservation; conserve important tracts of land; provide leadership; and develop local capacity for raptor conservation and research in Latin America.

We achieve results through several projects under the umbrella of the Neotropical Raptor Conservation Program:

- Harpy Eagle Conservation and Research Project, in Darien, Panama

### ■ 2010 Results Summary

- Neotropical Raptor Conservation projects continued on Harpy Eagles in Panama and Belize; public education in Belize and the Dominican Republic; raptor research and education of students from Brazil, Chile, Colombia, Panama, Peru, Argentina, and Ecuador, including the Galapagos; experimental Orange-breasted Falcon restoration and research in Belize; and Ridgway’s Hawk conservation in the Dominican Republic.

- The dissolution of Fondo Peregrino-Panama as an organization was initiated after it became evident that the organization had completed its work and was no longer necessary.

- Harpy Eagle Restoration Project, in Panama and Belize
- Orange-breasted Falcon Project, in Belize and Guatemala
- West Indies (Caribbean) Raptor Conservation Project, especially Ridgway’s Hawk Recovery in the Dominican Republic, and others
- Neotropical Science (raptor research) and Student Education (capacity development) Project, throughout Latin America and the Caribbean
- Neotropical Raptor Network and Neotropical raptor conferences.



## Harpy Eagle Research and Conservation

The Harpy Eagle is an umbrella species: conserving it effectively also conserves biodiversity throughout the forest ecosystem. Since 2001, The Peregrine Fund has promoted conservation activities and conducted scientific research on the largest wild population of Harpy Eagles in Central America, located in the Pacific region of Darien Province in Panama.

For decades, human populations have expanded, with consequent widespread deforestation, alteration and fragmentation of habitat, and increased pressure on natural resources. Viable Harpy Eagle populations need large areas of forest and are threatened when the forest is diminished and proper connectivity is lost.

We established this project in Darien in 2001, building on our field work on Harpy Eagles that began elsewhere in 1992. This wild population is important because it can serve as a “source population” to repopulate areas where the species has been extirpated by humans. This effort is a replicable model that involves training local people, research, environmental education, and local community involvement.

### ■ Tracking

We collected data on movements, diet, habitat use, interactions, and behavior of a captive-bred juvenile Harpy Eagle, called KC or Nepono, that was released in Darien in March 2009. KC has become an icon for conservation. Children and adults are constantly asking about the status of this bird and closely follow the radio messages to get updates.

### ■ 2010 Results Summary

- A captive-bred juvenile Harpy Eagle released in Darien was monitored to collect data on her movements, diet, habitat use, interactions, and behavior. She interacted well with wild eagles already in the area, proving the value of captive breeding, rearing, and restoration.
- Surveys of the breeding status of Harpy Eagles at 44 known nest locations revealed an estimated 33 breeding pairs and three new nests.
- We provided hands-on training in research and ecological monitoring techniques to three technicians, one local volunteer, and three Panamanian students as part of our continuing effort to include local communities in the monitoring and conservation of Harpy Eagles.

Before KC's release, we had several concerns, mainly regarding her ability to survive in an environment assumed to be saturated by resident wild Harpy Eagles. Today, we can say that KC has overcome the dispersal risks, traversing at least seven known territories of wild eagles and showing herself to be a very fit individual. The successful outcome of this experimental release of a captive-bred Harpy Eagle into the wild is clear proof of the great value of our captive breeding, rearing, and restoration efforts.

In January 2010, we made the last visual contact with KC. She moved into a political conflict zone in the Panamanian region of Darien relatively close to the Colombian border and has been monitored since then using only the information provided by the satellite-reporting transmitter. We have not been able to monitor KC visually or via VHF telemetry due to the risks associated with the guerrillas and drug traffickers operating in the area. We will continue monitoring KC based on satellite locations and re-initiate VHF tracking after she moves to a safer region.

Every month, we invested an average of five days tracking a marked female juvenile Harpy Eagle in the Chepigana region. The data collected from this wild eagle included: behavior (observation every five minutes), diet, movements, and habitat use.

We started to monitor this bird

in February 2007. She uses different types of forests to disperse and hunt and employs trees along farming or livestock area boundaries and riverine forest to move through forest patches.

#### ■ Surveys

To find active Harpy Eagle pairs and measure productivity, we monitored the breeding status of 44 known Harpy Eagle nest locations from an estimated 33 breeding pairs, and located three new Harpy Eagle nests. We identified that habitat loss is the main threat in the short- and medium-term for this species. Using land cover maps and satellite images, we found that the number of unoccupied nests increased in the study area as forest cover decreased.

In the first quarter, 11 nests had juveniles, one had a chick, two had adults incubating, and one had an adult male present. In the second quarter, seven nests had juveniles, one had an adult male present, and two nests were considered unsuccessful. In the third quarter, five nests had juveniles, one adult was reported, and one new nest was under construction. In the fourth quarter, five nests had juveniles, and four had adults around or in the nest trees.

#### ■ Training

We provided hands-on training in research and ecological monitoring techniques to three technicians, one local volunteer, and

three Panamanian students. We provided scientific advice to the government officers of the National Environmental Authority (ANAM) to design a National Action Plan for the Conservation of the Harpy Eagle in Panama.

#### ■ Mortality

Human activities, primarily shooting and deforestation, are the main known causes of mortality of Harpy Eagles. For this reason, we follow up on reports of birds that are found wounded or dead and try to determine the cause of mortality. Four Harpy Eagles were recovered: two adults, one juvenile, and one of unknown age. The sex of three individuals could not be determined. One of the individuals is still alive and is being rehabilitated by the Panamerican Association for Conservation (APPC) in Panama City. At least two of the eagles were shot.

#### ■ Research

The habitat that juvenile Harpy Eagles need to survive in nature is still unquantified. This is an important question that we are trying to answer to help conserve this species. We collected data of vegetation structure from more than 15,000 trees. We are making progress in the identification of trees, working together with students from the Universidad Autónoma de Chiriquí.



## Harpy Eagle Propagation and Release

Harpy Eagles are endangered in Central America, and with current conditions continuing, South American populations may become threatened. Protection of large tracts of pristine lowland forests—among the most species-rich environs of the planet—and proper connectivity are needed to secure long-term survival, along with an end to shooting by humans.

The Harpy Eagle can act as an umbrella species: by conserving it we can also effectively conserve biodiversity. A successful species restoration program signifies that it is possible to take positive steps toward improving the environment.

Our hands-on work with Harpy Eagles began in 1990 with a program of captive breeding and releases to the wild. A total of 46 captive-bred birds were released in Panama and Belize. The captive breeding phase ended in 2006 and the last captive birds were released in 2008. This experimental program produced knowledge and experience that will be useful in ensuring the survival of this and other large forest raptors. We will continue to monitor released eagles in the wild for as long as possible.

Large forest eagles, such as the Harpy Eagle, suffer tremendously from habitat loss and human persecution. Conservation projects for this species, whether through captive breeding and release, vigorous scientific study, or community education, are key to its long-term survival and the ongoing preservation of the large tracts of forest on which the eagle depends. We will make the techniques used and expertise gained by our field biologists available to others working with large forest eagles and provide support and guidance to similar conservation efforts around the globe.

Highlights of the program include successfully and predictably breeding Harpy Eagles in captivity, determining that eagles released at an older age (18 months) had a 100% survival rate and took much less time to reach independence, observing that some released eagles have begun to show signs of nesting behavior, and gathering important data on diet, dispersal, and home ranges for this species.

We continued to monitor released eagles with PIT and VHF telemetry systems in Panama and Belize. Eagles released in Belize have covered long distances and

#### ■ 2010 Results Summary

- Monitoring of released Harpy Eagles with PTT and VHF telemetry systems in Panama and Belize showed the birds have traveled into Mexico and Guatemala.
- A female Harpy Eagle in Belize that was once feared dead after her transmitter failed was observed near Tikal National Park in Guatemala.
- After a male eagle showed up in a small Belize community, we tracked the bird's movements from the ground and conducted visits with local community members to ensure that they were aware of the eagle's presence and would not harm him.

have traveled as far as southern Mexico and the Peten region of Guatemala.

#### ■ Panama

We conducted an overflight over Soberania National Park to locate two captive-bred birds, but were able to pick up the signal of only one, a female that we later trapped for relocation in Belize. However, due to issues with obtaining export permits from the Panamanian National Environmental Authority, the bird was re-released into Soberania National Park in September.

A wild sub-adult female that

had been shot in Darien, Panama, and brought to our facilities for care continued to do well after being released into Soberania National Park. She was captured, her transmitter changed, and re-released. Another wild female shot in Darien and rehabilitated before release into Soberania National Park also continued to do well.

#### ■ Belize

A female that was originally released and became independent in Belize was seen on numerous occasions with prey, including a Spider Monkey. After almost two years in the Calakmul Nature Reserve in Mexico, she occupied territory in Guatemala. Her PTT and VHF transmitters have failed. Once feared dead, she was observed in 2007, and again just outside Tikal National Park, Guatemala, in 2010.

A male that was released in Belize in 2009 showed up in 2010 near the town of Spanish Lookout, where he spent several days in a small patch of forest. We tracked the bird's movements from the ground and visited with local community members to ensure that they were aware of the eagle's presence and would not harm him. The bird returned to Rio Bravo and continued to do well.

We lost the signals of two other birds but believe they are alive and doing well in Rio Bravo.



## Orange-breasted Falcon Program

The Orange-breasted Falcon is a brilliantly colored, medium-sized tropical counterpart of the cosmopolitan Peregrine Falcon. Probably always rare and sparsely distributed throughout Meso-america because of its low reproductive rate and specialized habitat of towering cliffs and large forested areas, the species' range in Central America is now limited to the Maya Mountains of Belize and the nearby Mirador Cordillera of Guatemala with a population thought to be about 30 pairs. Confirmed records in South America since 1970 also suggest declines and we are expanding our knowledge there with the help of partner organizations and citizen science. We believe the major drivers for the falcon's decline are habitat alteration and associated human activities such as logging, agriculture, and development. A growing population of Black Vultures which usurp nesting cliffs and probably consume falcon eggs and young exacerbates the problem.

#### ■ Captive Propagation

We have produced 30 Orange-breasted Falcons in our Wyoming facilities since 2006. Nine were retained for propagation and 21 were released in Belize. The captive colony now includes nine potential breeding pairs, an imprint male and a female, and two juvenile males. Unlike other falcons, including tropical species such as the closely related Bat Falcon, Orange-breasted Falcons are difficult to breed in captivity. All propagation has been accomplished by artificial insemination. New strategies with imprints are being explored, but because of the species' unique biology, propagation in large numbers seems unlikely at this time.

#### ■ Releases

Five captive-bred chicks between 20 and 40 days old were transported directly to Belize in June by the environmental flying service LightHawk. The releases are necessary to add diversity to the small genetically impoverished population. The chicks are group-raised by hand to maintain tameness as an aid in management and retrieval from the forest during their initial inept flights.

Our current hack site is located at the end and highest point of a steep ridgeline with a sheer 600-meter drop on three sides to the river below in the Mountain Pine Ridge of Belize's Maya Mountains. The site was chosen to facil-

#### ■ 2010 Results Summary

- Helicopter surveys in 2009–10 in the central and southern Maya Mountains discovered nine previously unrecorded pairs of Orange-breasted Falcons. Surveys in pristine habitat in southern Guatemala and Honduras confirmed only Bat Falcons.
- Five captive-bred Orange-breasted Falcons were successfully released in the Mountain Pine Ridge of Belize's Maya Mountains, our first year with 100% survival.
- Publication of a major peer-reviewed manuscript documenting two decades of field studies: "Isolation and Decline of a Population of the Orange-breasted Falcon," *Condor*, 112(3): 479–489.

itate the falcons' escape from predatory Black-and-White Hawk-Eagles, which are thought to have killed five of 11 falcons hacked in prior years.

In addition to record survival of hacked birds in 2010, we confirmed our hypothesis that large

numbers of migrating swallows in the fall enable the juveniles to hone hunting skills and become independent of the summer's parental care and feeding. Only one of our released falcons has returned to the hack site the following year and based upon Peregrine demographics, juvenile mortality may reach 70%. We eagerly await each season's surveys with high hopes of finding a blue color-banded male or red color-banded female (with bright white numerals) in residence at a local cliff.

#### ■ Field Reports

We have conducted aerial surveys for falcons by fixed wing aircraft for many years, mostly to identify suitable territories as opposed to confirming resident

falcons and productivity.

In 2009, we conducted our first helicopter survey and were successful in locating four new pairs of falcons in the rugged and remote central and southern Maya Mountains. We conducted three helicopter surveys during the 2010 breeding season, and one reconnaissance flight later in the summer. The surveys confirmed five more occupied eyries, for a total of 24 known territories in Belize; 16 were active in 2009 or 2010.

Surveys in southern Guatemala and Honduras located only Bat Falcons, helping to confirm this species' isolation from the larger South American population. An additional six territories were active in Guatemala. In the last three decades, we have identified 31 historical territories, 22 are currently active and produced fewer than 17 fledglings in 2010. Finding this many territories is an incredible feat unimaginable a decade ago, representing years of hard work by a few dedicated biologists in steep, rugged jungle terrain amid rain, mud, sweat, and biting insects.

Because Orange-breasted Falcons choose the largest and most precipitous escarpments upon which to nest, the likelihood of finding many more pairs in the region is slim even though there is ample available habitat. Only one new nesting site (2009) has been discovered since the mid-1990s in our core study population in the Maya Mountains of Belize and the Mirador Cordillera of Guatemala, bringing the total known territories to 20, and at least six historic sites have been abandoned.

#### ■ Partnerships

The Peregrine Fund maintains an Orange-breasted Falcon Database jointly with the Cornell Laboratory of Ornithology's Information Science Program, eBird, which gathers and analyzes avian observations on over 8,700 species from 211 countries and now exceeds 50 million records. Our database includes confirmed records of the species from over 200 unique locations with more than 500 species accounts. All records are confirmed by The Peregrine Fund after receipt of a detailed questionnaire and/or photo. Well over 100 records have been submitted in 2010 with about 70 confirmations, but the overwhelming majority come from our well-known study locations in Belize and Guatemala. Nonetheless, eBird's outreach to amateur and professional ornithologists alike is rapidly expanding our knowledge about the species' distribution.

The Peregrine Fund is also partnering with University of Wyoming scientists who are advertising, screening, and providing funding and research credit for students to work in Belize as hack site attendants. University scientists are also evaluating the viability of our Orange-breasted Falcon study population. Using both demographic and occupancy data, this modeling confirms that the population is in decline and suggests that the observed reductions in reproductive success may alone be enough to drive these declines. The study concludes that our work with the current population in Mesoamerica may be critical to its survival.



## West Indies Program

This project is the only known conservation effort to save threatened birds of prey in the West Indies—Caribbean islands that stretch from the southern tip of Florida to the northern coast of Venezuela. Currently, we are focused on the Ridgway's Hawk, though there are other birds of prey that are rare or endangered in the region.

The Ridgway's Hawk is endemic to Hispaniola, the island occupied by Haiti and the Dominican Republic. We began studying this critically endangered bird of prey in 2000, and in 2007 we formed a

#### ■ 2010 Results Summary

- Eight young Ridgway's Hawks were successfully released as part of the assisted dispersal effort at two hack sites, including one that was newly selected to enhance security for release personnel.
- Our partner, the Hispaniola Ornithological Society, presented 27 public awareness programs to 723 people in communities living near the release sites and Los Haitises National Park in the Dominican Republic to address habitat degradation and human persecution of Ridgway's Hawks.
- Society staff, along with trained park guards and local people, supervised the assisted dispersal of young Ridgway's Hawks.

partnership with the Hispaniola Ornithological Society. In 2008, we successfully launched an innovative assisted dispersal method that involved moving young wild birds to new protected habitat. Shooting and deforestation are serious challenges, making local education and awareness campaigns vitally important to recovery.

The number of Cuban Kites, once considered extinct, is severely reduced. Our research on the endangered Grenada Hook-billed Kite shows that its population is small but relatively stable. Little is known about these kites and the reasons for their declines are not fully understood. More study could provide critical information for the development of effective conservation plans and training of personnel.

■ ■ ■ ■ ■  
**The study concludes that our work with the current population in Mesoamerica may be critical to its survival.**  
■ ■ ■

### ■ Assisted Dispersal

The Ridgway's Hawk is now confined mostly to Los Haitises National Park in the Dominican Republic, whose unenforced borders are ignored by local communities. After thoroughly searching, surveying, and monitoring the Ridgway's Hawk for nearly a decade, we have determined that about 300 individual birds remain. This small and isolated population leaves the species vulnerable to extinction through catastrophic events such as fire, hurricane, or disease, so we began an experimental "assisted dispersal" project to learn if breeding pairs could be reestablished in the species' former range outside of the national park. Young birds were collected from nests about one week prior to fledging age. They were placed in a hackbox (a protective aviary) and fed at the release site until they fledged and reached independence.

The first release in 2008 successfully fledged four young hawks on private land owned by Central Romana, Inc., the largest company in the Dominican Republic. This site was used again in 2009 and a second release site was added at Punta Cana, a private resort and land holding company.

In 2010, eight young hawks were successfully released again at both sites, but with one of these being a new hacksite selected for better security of release personnel and closer to the living quarters of Central Romana's staff. In April the hackbox was set in place, and three young hawks were released in May.

In July, one of the hawks released in 2009 at Punta Cana was observed 100 m from one of the birds released in 2010, providing evidence of survival and potential success of assisted dispersal as a conservation method.

### ■ Public Education and Awareness

Habitat degradation and human persecution appear to be the primary causes for decline of the Ridgway's Hawk. We began addressing these problems in 2004 in partnership with the Hispaniola Ornithological Society through a program of public education and awareness. The campaign occurs every year in communities living near the release sites and national park. In 2010, the society presented 27 public awareness programs to 723 people.

### ■ Developing Local Capacity

In the Dominican Republic, we are developing local capacity for raptor conservation by supporting and training biological technicians from Los Haitises National Park. Several park guards and local persons from communities bordering the park have received biodiversity and conservation training from Hispaniola Ornithological Society staff and are assisting in monitoring nesting pairs of Ridgway's Hawks within the park. The society also supervised the assisted dispersal of the young Ridgway's Hawks to a private and protected forested land holding owned by Central Romana and Punta Cana.



## Neotropical Science and Student Education

The Neotropics—a region extending from southern Mexico to Argentina and including the Caribbean Islands—contains 26 endemic species of birds of prey and provides important habitat for dozens more. Some forest species occur at low density and are difficult to study, thus presenting great challenges for their conservation against the principal threats of habitat loss and persecution.

We began this program in May 2005 to address an urgent need to find out more about the region's raptor diversity and implement programs that help people to co-exist with raptors, their prey, and the habitats the birds need for survival. Each year, we provide grants and supervision to students conducting thesis research projects related to Neotropical birds of prey.

### ■ Brazil

**White-collared Kite:** A population assessment of the critically endangered and endemic White-collared Kite was completed after conducting four field surveys since 2007 in northeast Brazil. Prior to these surveys, only a handful of historical records were known and the species was considered extinct. Surveyors reconfirmed the presence of the species in the states of Alagoas (eight pairs), Pernambuco (four pairs), and Sergipe (one pair). The records from Sergipe are the first known for the species in this state. These surveys proved that populations exist in Brazil, the range is larger than expected, and the conservation status is better than we thought. The project provided an opportunity for a master's thesis by a Brazilian student.

**Raptor community in Rio Doce National Park:** Completed in 2010, this project was carried out between 2006 and 2009 in the Rio Doce National Park and surrounding areas, Minas Gerais, Brazil, and resulted in a completed master's thesis. Rio Doce National Park is one of the largest remaining patches in the Atlantic forest of eastern Brazil. The study used behavioral observations to investigate patterns of abundance, density, distribution, composition, and habitat use of forest raptors. The study indicated that the density of potential breeding pairs is very low in this semi-deciduous forest habitat. The student continued his raptor research as an active member of S.O.S. Falconiformes, a Brazilian NGO dedicated to the conservation of birds of prey.

### ■ 2010 Results Summary

- A completed study of the White-collared Kite, once considered extinct, revealed that populations do exist in Brazil, the range is larger than expected, and the conservation status is better than originally thought.
- An active Black-and-chestnut (Isidor's) Eagle nest with a six-week-old chick was found in Colombia and observations of this rare eagle revealed that it preys mainly on domestic chickens, which poses a conservation problem in an area where researchers confirmed eight cases of humans killing the eagles in the last five years.
- A study of the Andean Condor in Ecuador represented the first step toward implementation of an unfunded national conservation strategy and revealed patterns of distribution and abundance.

### ■ Argentina

**Crowned Solitary Eagle in central Argentina:** The endangered Crowned Solitary Eagle inhabits lowland areas of semi-open seasonal dry country and moderate altitude hill ranges of southern South America. A doctoral student began in 2008 to research trapping and recording methods and in 2009 and 2010 got preliminary results. Video camera

recordings showed poisonous snakes to be the bird's main prey. This is an important finding as ranchers can see that conserving Crowned Solitary Eagles protects humans and livestock, and that the birds are not feeding on lambs or other domestic animals.

#### ■ Chile

**Andean Condor in central Chile:** This project studied the population size, age structure, sex ratio, habitat use, and recruitment of Andean Condors in central Chile as a first stage of population assessment. This will be followed by a conservation medicine approach that will investigate captive and wild condors to determine causes of death, health status, and exposure to environmental pollutants (lead, strychnine, and other heavy metals) in the highly human-influenced environment near Santiago City.

#### ■ Peru

**Habitat change across a diurnal raptor community in northwestern Peru:** The study area, within the Tumbesian Endemic Region, is home to at least 35 species of diurnal raptors, including the endangered Grey-backed Hawk, a species that occurs only within a small range from northwestern Ecuador to northern Peru. This species, as well as other raptors, is rapidly declining due to continued habitat destruction. This project has been implemented from 2008 to 2010 by a doctoral student from Peru. Field data collection on raptor abundance, density, habitat requirements and habitat degradation (from cattle grazing)

was completed in 2010. The data will be analyzed in 2011.

#### ■ Ecuador

**Galapagos Hawk:** Three goats were introduced to Santiago Island in 1813 and by the early 1970s the population of this exotic herbivore had reached an estimated 100,000 individuals. Overgrazing resulted in ecosystem degradation and loss of biodiversity. The goats were eradicated in 2006. Since 2008, The Peregrine Fund has collaborated with the University of Missouri Saint Louis, Galapagos National Park Service, and the Charles Darwin Foundation to research the endangered Galapagos Hawk and build local capacity by training Ecuadorian students in raptor research and ecological monitoring methods.

This project has two primary components, each led by an Ecuadorian graduate student. Here are the main results of each:

Completed in 2010, the first study found that there was a lower survivorship of hawks after goat removal and that many years will be required for the Galapagos Hawk to reach a new equilibrium with environmental conditions following the eradication of the island's major herbivore.

The first field season of the second study revealed the hawk's tendencies to take more arboreal prey (birds) than the dominant terrestrial prey documented in the historic data. This was one prediction resulting from the extreme vegetation recovery following eradication of goats.

### ■ Students and researchers supported by the Neotropical Science and Student Education Program

Student, degree sought, and university	Study subject	Study location
Renzo Piana PhD, Manchester Metropolitan University (MMU), UK	Diurnal raptors, responses to habitat changes	Peru
Maximiliano Galmes PhD, Universidad Nacional del Comahue (UNCOMA), Argentina	Crowned Solitary Eagle ecology and conservation	Argentina
Victor Escobar PhD, Pontificia Universidad Católica de Chile (PUC), Chile	Andean Condor population structure and health	Chile
Edwin Campbell MSc, Universidade Federal de Mato-grosso do Sul, Brazil	Harpy Eagle movements and habitat use	Panama/Belize
Mari Cruz Jaramillo MSc, University of Missouri Saint Louis, USA	Galapagos Hawk feeding ecology	Ecuador
Saskia Santamaria BSc, Universidad Nacional de Panama, Panama	Harpy Eagle captive breeding	Panama
Cesar Marquez and Henry Delgado Non-thesis research, Centro de Aves Rapaces Neotropicales	Black-and-chestnut Eagle feeding ecology	Colombia
Sergio Seipke (and team) Non-thesis research, Universidad Nacional de la Plata	White-collared Kite population assessment	Brazil
José de Jesús Vargas González Non-thesis research, The Peregrine Fund	Harpy Eagle ecology and management	Panama
Marcus Canuto* MSc, Universidade Federal de Ouro Preto (UFOP), Brazil	White-necked Hawk display behavior and density	Brazil
Francisco Denes* MSc, Universidade de Sao Paulo, Brazil	Taxonomy and distribution of <i>Leptodon</i> spp.	Brazil
Jose Luis Rivera* MSc, University of Missouri Saint Louis, USA	Galapagos Hawk survivorship	Ecuador
Andrea Calispa* BSc, Universidad Central de Ecuador, Ecuador	Andean Condor population structure	Ecuador

\*FY10 Graduated Students

**Andean Condor in Ecuador:** Completed in 2010, this project set an ambitious aim of creating a conservation program within the long-term framework of the National Strategy for the Conservation of the Andean Condor in Ecuador. This strategy includes research, monitoring, captive breeding, environmental education, and community participation programs. Unfortunately,

there has been no national or international funding to implement this strategy, and our project was the first step towards its implementation. We surveyed about half of the total suitable condor habitat in the Andes of Ecuador and infer that the total population may not exceed 100 individuals. We now have a clear idea of the patterns of distribution and abundance.

#### ■ Colombia

**Black-and-chestnut (Isidor's) Eagle:** In February 2010, an active nest with a six-week-old chick was found. Nest detections and descriptions for the Black-and-chestnut Eagle in Colombia have occurred only twice before, in 1959 and 1999. Because this is an extremely rare species and the chances of locating nests are low, we provided a grant to study prey

deliveries to the nest and test farmers' claims that the eagle preys mainly on domestic chickens. Of 25 prey items delivered to the nestling, backyard chickens were the most frequent, followed by guans and squirrels. This behavior poses a major conservation issue. Researchers confirmed eight cases in which the eagles were killed by humans in the last five years. Local residents expect compensation for chickens lost to eagles.

#### ■ Panama

**Harpy Eagle:** Major achievements in 2010 were a successful experimental release of a captive-bred Harpy Eagle into the forest of Darien and progress in analysis of Harpy Eagle nesting data. We extrapolated the nesting density in Darien to the entire area of Panama with suitable habitat at altitudes below 350 m and estimated that the Harpy Eagle population size could be 806–1,208 pairs.

We found that eagles released at 18 months of age or older showed increased survival and shorter dependence periods than eagles released at five to seven months of age. Hacking proved to be a suitable method for releasing captive-bred Harpy Eagles into the wild, but was more efficient when delayed from fledging age, when falconers' traditionally hack falcons, to much nearer the Harpy Eagle's age of independence at 23 months.



## Neotropical Raptor Network

Communication and collaboration significantly benefit conservation and research among those working in the Neotropics—a region extending from southern Mexico to Argentina and including the Caribbean Islands. The Neotropics contains some of the greatest biodiversity on Earth, but there is still much to be discovered there. Dozens of species of birds of prey are found throughout Latin America and the Caribbean, yet little is known about many of the raptors that can serve as indicators of the overall health of an ecosystem.

Formation of the Neotropical Raptor Network (NRN) was proposed to participants at the First Neotropical Raptor Conference in 2002. An advisory board was established, a website begun, a list-server created, and publication of a semiannual electronic newsletter highlighting the work of raptor conservationists throughout the region was launched. The network hosted the Second Neotropical Raptor Conference in Argentina in 2006.

The network has proven to be a quick and effective tool for researchers, graduate students, conservation institutions, and potential collaborators to track down lines of investigation and get in immediate contact with those researchers on the leading edge of Neotropical raptor conservation.

#### ■ Newsletter

For the first time, the NRN Newsletter was made available in Portuguese, in addition to English and Spanish. Improvements were made to the overall look and feel of the publication to generate more interest and reach a wider audience. We gave the newsletter an official name, *Spizaretus*, because the word (the genus of the Neotropical hawk-eagle species) is meaningful in any language and because this genus of

raptors is found from southern Mexico to northern Argentina, making it an excellent representative of the region.

Nine newsletters have been published and made available on the NRN website, including two produced in 2010. The newsletters include popular articles from network members, as well as updates on activities and general information pertaining to raptors in the Neotropics.

#### ■ List-server

The network's list server provides an informal discussion forum on issues pertaining to raptors in the Neotropics. All discussions and information posted on the list server are stored and archived so that people may review past dialogues. Membership on the list-server increased from 285 to 316 and improvements were made to the webpage, which serves as a home to the network and provides information in Spanish and English ([www.neotropicalraptors.org](http://www.neotropicalraptors.org)).

#### ■ Raptor Symposium

Progress was made in plans for a raptor symposium in 2011 at the Neotropical Ornithological Conference. Discussions also were held about a joint NRN and Raptor Research Foundation meeting in Bariloche, Argentina, in 2013.

A goal of the NRN was to become self-sustaining following the second conference and cease relying on financial support from The Peregrine Fund. The conference did not generate money sufficient to provide for travel for the network's advisory board members. The Peregrine Fund is providing assistance and support through its staff but no financial assistance to other advisory board members. We plan to provide grants for participants at the conference in 2013, but not for the symposium in 2011.

#### ■ 2010 Results Summary

- Two newsletters were produced and distributed to 316 members of the network. For the first time, the newsletter was made available in Portuguese, in addition to English and Spanish.
- Improvements were made to the webpage, which serves as a home to the network, and provides information in Spanish and English.
- Progress was made in plans for a raptor symposium in 2011 and discussions were held about a joint Neotropical Raptor Network and Raptor Research Foundation meeting in Argentina in 2013.





## Pan Africa Raptor Conservation Program

**B**iodiversity in Africa and its associated islands is threatened by the needs of the human population, which is growing at an unsustainable rate. To succeed, conservation in Africa must expand from its historical approach of preservation in parks and reserves to one of humans co-existing with wildlife.

Nearly one-third of the world's diurnal raptors and a quarter of the world's owl species occur in Africa and its associated islands. Considerable research has been completed on birds of prey in southern Africa but much remains to be done elsewhere on the continent. Studies also are needed on the importance of winter ranges for birds of prey migrating from the Palearctic zone (Europe, northern Africa, and most of Asia).

Since 1990, our Pan Africa Project has worked to identify priorities for raptor conservation across the continent and provide direction and communication to help ensure species survival.

No research grants were provided by the Pan Africa Program in FY10 outside of the East Africa and Madagascar Projects due to our limited ability to raise sufficient funds. We hope this situation will improve in coming years.

### ■ African Raptor Network

The African Raptor Network list server and website ([www.africanraptors.org](http://www.africanraptors.org)) was developed in 2008 and is maintained by The Peregrine Fund's

Pan Africa Program. It has grown in popularity for African raptor biologists and enthusiasts as a platform to discuss and exchange ideas pertaining to African raptors. We began a series of interviews with eminent raptor biologists who have conducted long-term studies on African raptors with the aim of providing mentorship and inspiration to young African students. There are currently 153 members on the list server.

### ■ 2010 Results Summary

- Maintained the online African Raptor Network to encourage the exchange of ideas and information among raptor biologists and enthusiasts.

A successful Martial Eagle takes off with prey in Kenya's Masai Mara National Reserve.

Munir Virani



## East Africa

■ ■ ■ ■ ■

**The need to monitor and evaluate raptor abundance and diversity in their historic strongholds has never been greater.**

■ ■ ■

East Africa's wildlife is threatened by the environmental impacts of rapid human population growth. When our East Africa Project began in 1990, the numbers and diversity of raptors were declining dramatically due to habitat changes, agricultural intensification, and the indiscriminate use of poisons such as carbofuran. Predicted growth in the construction of power lines and wind turbines will add even more challenges for birds of prey in this part of the world.

The need to monitor and evaluate raptor abundance and diversity in their historic strongholds has never been greater. We believe that building a wider base of knowledge will help us develop and justify scientifically sound conservation policies.

This project aims to build local capacity for conservation and research through student training. We also partner with the Raptor Working Group, formed in Kenya in 2009, to help increase public understanding about the need to conserve birds of prey and their habitats.

### ■ **Vulture Tracking in Masai Mara**

Five of the eight species of vultures in East Africa are globally threatened, mainly from scavenging on livestock that has been poisoned deliberately in retaliation for attacks by lions and other large predators. So far, 31 GSM-GPS (cellular) transmitters have been attached on three species of vultures in the Masai Mara National Reserve to understand their movement patterns, critical in mitigating threats, especially from carbamate poisoning. This project builds on our existing raptor work in the Masai Mara to understand the impact of changing land-uses on vulture popula-

tion dynamics in the Mara-Serengeti ecosystem. Preliminary results from the retrieval of four dead birds suggested up to 25% annual mortality due to poisoning. In addition, wing tagging of vultures continued, important in generating awareness about the importance of vultures through public participation in this research project.

### ■ **Role of Vultures in the Ecosystem**

In northern Kenya, we studied the role of vulture population declines on other scavengers and measured rates of disease transmission at carcasses. This study has important implications for

the spread and persistence of diseases at carcasses and highlights the crucial role of vultures in providing important ecosystem services that cannot be replaced by other scavengers. More broadly, the research emphasizes the urgent need to protect the world's remaining vulture populations in order to maintain healthy ecosystems that naturally curb the spread of disease.

### ■ **2010 Results Summary**

- Transmitters attached to three species of vultures in the Masai Mara National Reserve determined movement patterns that can be used to mitigate threats from poisoning.
- A study on the effects of vulture declines on other scavengers measured disease transmission and effects on the health of the ecosystem in southern Kenya.
- The continuation of long-term studies on birds of prey, specifically African Fish Eagles, Augur Buzzards, and Sokoke Scops Owls, increased our understanding of how these species are affected by environmental and human-caused habitat changes.

### ■ **Long-term Raptor Studies**

We continued to build on our existing long-term studies on raptors, specifically on African Fish Eagles, Augur Buzzards, and

Sokoke Scops Owls, to understand how these species are affected by environmental and human-caused habitat changes. At Lake Naivasha, the highest freshwater lake in Kenya's Great Rift Valley, prolonged and heavy rains in the early part of 2010 resulted in the lake's water level rising by more than 2 meters and regeneration of significant areas of Papyrus fringe, especially in the northern and western part of the lake. New African Fish Eagle individuals and pairs of eagles were identified, increasing the lake's resident population by about 20%. Breeding recommenced in habitats that were most affected by the 2009 drought. In 2009, only 11 of 32 nests were active but in 2010, this figure rose to 24 of 32 nests.

In the southern Lake Naivasha area, a survey of Augur Buzzard territories revealed more than 300 Augur buzzard sightings in nearly 200 hours of direct field observation, resulting in the identification of 24 active breeding territories. This is a 33% decline in the number of breeding territories since the mid-1990s, which highlights the importance of our continued long-term monitoring of common species.

Having documented disconcerting downward trends in populations of the endangered Sokoke Scops Owl in Kenya's Arabuko-Sokoke Forest, we are working with local partners to develop a thorough understanding of the species' range throughout the East African coast.



# Madagascar Project

Madagascar's incredible diversity of endemic species and rapid loss of habitat makes it one of the world's highest conservation priorities. Three of the nation's 24 raptor species are endangered; two had not been seen for more than 60 years until we rediscovered them in remote forests in 1993 and 1994. Our field work also resulted in discovery of a diving duck thought to be extinct and two new lemur species. Research will continue to fill the void of knowledge on endangered and poorly-known Malagasy birds of prey needed to provide effective conservation measures and develop local and national capacity for conservation.

The Peregrine Fund is working to create three community-based conservation areas that will protect endemic and endangered species under Madagascar's Protected Areas System. We provide guidance and assistance to seven local associations that manage their natural resources in the Manambolamaty, Tambohorano, and Bealanana areas.

Since beginning the Madagascar program in 1990, The Peregrine Fund has provided financial support, training, and education to more than 20 Malagasy students seeking advanced degrees in science.

The three important sites we are working on for inclusion in the Madagascar Protected Areas System include two wetland and dry forest sites in western Madagascar for the critically endangered Madagascar Fish Eagle and other species and a third site in the north that protects a unique mosaic of wetlands, marshlands, grasslands, and rainforest fragments. The northern area is where we re-discovered the Madagascar Pochard, a diving duck thought to be extinct and now classified as critically endangered, and the endangered Madagascar Serpent-eagle, along with other threatened and endemic biodiversity.

### ■ Permanent Protected Areas

We continued to make strides in creating permanent protection for three sites: Manambolamaty, Tambohorano, and Bealanana. We assisted the local associations in writing and preparing management plans for all three sites at the regional level and are awaiting approval at the national level.

The Manambolamaty Lakes Complex/Tsimembo Forest has temporary protected status. Tsimembo Forest was added to the Manambolamaty Lakes protected area to increase the amount of dry forest habitat included in this conservation area. We supported the communities in planting native tree

### ■ 2010 Results Summary

- We conducted biodiversity surveys, assisted and supported local communities in planting trees to mitigate deforestation, and continued assisting the effort to gain national approval for the establishment of three permanent protected areas important to conserving endangered birds of prey and other species.
- Monitoring continued for Madagascar Fish Eagles, Madagascar Red Owls, Madagascar Serpent-eagles, and Madagascar Pochards. Biologists collected pochard eggs from the wild and established a captive propagation flock to conserve this critically endangered species, which was re-discovered by The Peregrine Fund in 2006.
- National Director Lily-Arison René de Roland received his post-doctorate title of professor, the first Malagasy to receive this honor from among all nongovernmental conservation organizations in Madagascar, and was honored with a Conservation Hero award from the Disney Worldwide Conservation Fund.

seedlings for reforestation in Tsimembo Forest.

We conducted biodiversity inventories at Bealanana and Tambohorano and assisted and supported the planting of tree

seedlings of oranges, coconuts, and eucalyptus in the three communities at the Tambohorano site. We completed an Environmental Impact Study at Tambohorano and an Orientation and Evaluation Committee was established for management of this site.

From tree nurseries operated and supported by Peregrine Fund technicians, 1,000 and 6,123 seedlings were planted at the Manambolamaty Lakes Complex and Tambohorano sites, respectively.

Local associations, with The Peregrine Fund's support, continued to monitor human use and impact on fish stocks, and forest and other resources.

### ■ Monitoring

We continued our annual monitoring of Madagascar Fish Eagles breeding in the Antsalova region, which includes the Manambolamaty Lakes complex area, where 28 pairs have been documented. In the Tambohorano area, we recorded nine pairs of fish eagles.

At the Bealanana site, three clutches of eggs from Madagascar Pochards were collected from the wild and 24 Madagascar Pochard ducklings hatched for the captive propagation flock. Monitoring of nesting activity of the Madagascar Pochard continued, and a student biologist researched the nesting biology of this critically endangered and endemic diving duck. A site was identified for the construction of a permanent captive propagation facility for the pochard by the collaborating partners: The Peregrine Fund, Wildfowl and Wetlands Trust,

and Durrell Wildlife Conservation Trust.

A radio-tagged Madagascar Red Owl was monitored throughout the year at a roosting site near the research camp at Matsaborimena Lake. One nesting attempt was observed for Madagascar Serpent-eagles and they successfully fledged one young.

### ■ Education

Our National Director Lily-Arison René de Roland received his post-doctorate title of professor, the first Malagasy to receive this honor from among all the nongovernmental conservation organizations in Madagascar. He also was honored for his outstanding conservation work in Madagascar with a Conservation Hero award from the Disney Wildlife Conservation Fund.

Student Donatien Randrianjafiniasa defended his DEA on the Madagascar Cuckoo Hawk and Michel Rakotoson defended his BSc on community development in Bemanevika. Students Juliot Ramamonjisoa and Gilbert Razafimanjato continued working on their PhD programs, and T. Seing Sam is in the process of writing his MSc. The Madagascar Project published four papers from observations and work achieved at the three sites being established as protected areas.

Other students we supported in 2010 include: Antsa Ramian-drisoa, Eva Tinavalinonja Andriafanomezantsoa, Felana J.H. Andrianirina, Andriatahina J.H. Rakoto, and Marius Rakoton-dratisma.



On the day before it fledged, a Philippine Eagle chick stretched and exercised its wings near its nest in Davao Oriental, Philippines.



## Asia-Pacific Raptor Conservation Program

In 2008, The Peregrine Fund established the Asia-Pacific Program as an umbrella program encompassing large projects, including the Asian Vulture Project and Philippine Eagle Project, and small projects in the region. We work with local partners and provide grants to students researching little-known species or to projects that develop local capacity for conservation and research.

The Asia-Pacific Program covers all of Asia and the islands of Southeast Asia and Australasia in the Pacific Ocean, comprising a huge area that is rich in raptor diversity. More than one-third of the world's birds of prey live there, with many inhabiting islands of very limited geographic range. Diverse habitats include the world's highest mountains as well as deserts and tropical rainforests.

Some areas with high human population have significant interest in raptor research, but in other areas birds of prey remain largely unstudied. Some species lack even the most basic information about natural history and population status. Research in the Asia-Pacific region will enhance our understanding of global raptor diversity and abundance and conservation efforts could have significant results, especially in areas impacted by deforestation, such as New Guinea, Sulawesi, and Borneo.

In Cambodia, we supported a project to develop local capacity for research on the Grey-headed Fish Eagle, a little-known species that appears to be declining in numbers. The project was successfully completed and a peer-reviewed paper was published. Grey-headed Fish Eagles may be threatened by dam construction upstream in China, which alters the flooding regime of the seasonally inundated Tonle Sap Lake.

In Mongolia, the results of a

survey of Pallas's Fish Eagles that we supported were reported at the Sixth Asian Raptor Research and Conservation Network (ARRCN) conference, 23–27 June 2010. Like Cambodia, overfishing, illegal fishing, and dam construction on rivers in Mongolia threaten the survival of these eagles.

At the ARRCN meeting in Mongolia, we organized a raptor research techniques workshop that featured lectures by authors

of the recent "Raptor Research and Management Techniques Manual." About 150 conference delegates from 23 countries, mostly in Asia, participated in eight workshop lectures and a hands-on session on raptor trapping and handling techniques. Feedback indicated that the workshop was much appreciated and enjoyed. Many offered encouragement to do something similar again, but with more time for lectures and practical sessions.

### ■ 2010 Results Summary

- Research on the Grey-headed Fish Eagle in Cambodia was successfully completed, with results indicating that the eagles may be threatened by dam construction upstream in China.
- A survey completed in Mongolia showed that the survival of the Pallas's Fish Eagle is threatened by overfishing, illegal fishing, and dam construction.
- A workshop presented by The Peregrine Fund on raptor research techniques was well-received by participants at the Asian Raptor Research and Conservation Network in Mongolia.

■ ■ ■ ■ ■  
... conservation efforts  
could have significant  
results, especially in  
areas impacted by  
deforestation.





## Asian Vulture Crisis

For millennia, vultures have played a critical ecological and cultural role among the diverse people of the Indian subcontinent. Considered abundant in the 1980s, vulture populations suddenly began to drop in the 1990s—by up to 99% in a decade. Four species of vultures are now listed as Critically Endangered.

The Peregrine Fund established this project in 2000 to conduct scientific research to understand the cause of the decline and to assist vulture recovery.

In 2003, The Peregrine Fund discovered that a pharmaceutical drug called diclofenac was responsible for this catastrophic decline of vultures. The birds are highly sensitive to the toxic effects of diclofenac, which is widely used to treat ailing domestic livestock, the vultures' primary food source. We set up the first "vulture restaurant" in South Asia to offer diclofenac-free food to vultures.

### ■ Surveys

In the Central Indian states of Madhya Pradesh and Rajasthan, we continued to measure numbers of occupied nests of Long-billed Vultures (LBV) and Oriental White-backed Vultures (OWBV) to evaluate whether the Indian government ban in 2006 on the manufacture and sale of veterinary diclofenac is effective. Our study areas ranged from India's premier Tiger Reserves (Bandhavgarh and Ranthambhore National Park) to agricultural areas and historical monuments. Over the last three breeding seasons, numbers of occupied LBV nests in both states have remained relatively stable. Although it has been only three breeding seasons since veterinary diclofenac was banned, our results are somewhat encourag-

ing and supported by the fact that diclofenac was available in only one of 15 veterinary stores surveyed along the outskirts of Ranthambhore National Park in Rajasthan.

We located 15 new nests of OWBV at Kalwah near Bandhavgarh National Park in Madhya Pradesh.

The stability of LBV breeding pairs also was mirrored in southeast Pakistan where numbers of occupied nests also have remained relatively stable over the last three breeding seasons. While the results are encouraging, we remain cautious about interpreting these results, which highlight the need for continued systematic, long-term data collection for these slow-reproducing and long-lived species to accurately measure population trends and

### ■ 2010 Results Summary

- Surveys of occupied nests for the Long-billed Vulture and Oriental White-backed Vulture in Central India, Pakistan, and Nepal suggested stabilizing population numbers, though it is too early to know whether the ban on veterinary diclofenac is responsible.
- We continued to update and maintain the web-based Asian Vulture Population Project, which uses the internet to recruit vulture enthusiasts and researchers to locate and monitor remaining colonies of *Gyps* vultures throughout South Asia.

determine the effectiveness of the diclofenac ban.

### ■ Asian Vulture Population Project

We continued to update and maintain the web-based Asian Vulture Population Project, which has developed into an important information resource. The project uses the internet to recruit vulture enthusiasts and researchers to locate and monitor remaining colonies of *Gyps* vultures throughout South Asia. By August 2010, 31 individuals and organizations had contributed data from 105 sites.

■ ■ ■ ■ ■

**The birds are highly sensitive to the toxic effects of diclofenac, which is widely used to treat ailing domestic livestock, the vultures' primary food source.**

■ ■ ■



## Philippine Eagle Conservation

The Philippines' incredible biodiversity is seriously threatened by the country's burgeoning population and resulting loss of forest and environmental deterioration. Shooting remains a serious threat to the endangered Philippine Eagle's long-term survival. Yet, the eagle is the conservation symbol for the country and many Filipinos feel if it is lost, so is the hope for their natural heritage.

The Philippine Eagle is one of the largest eagles in the world, one of the most spectacular of all birds of prey, and a global symbol for biodiversity and conservation of rainforest. At most, only a few hundred remain. Considerable research has been accomplished on the eagle but more needs to be done, especially on its status in the wild and environmental needs.

We began assisting and advising on Philippine Eagle conservation in the 1970s. We support the Philippine Eagle Foundation, headquartered in Davao, Philippines, to accomplish results with captive breeding and release, field research and monitoring, public conservation education, and community-based initiatives to conserve and restore eagle habitats.

### ■ Propagation and Releases

The Philippine Eagle Foundation hatched a captive-bred chick in March 2010 after a hiatus of one breeding season. The chick was puppet-reared using a revised protocol that effectively prevents imprinting with humans. Protocol changes were made in light of the lack of human fear, which is believed to have resulted from imprinting during rearing of two captive-bred eagles that were released in 2004 and 2009.

This project achieved two milestones:

After rehabilitation, a young Philippine Eagle named Kalabugao was released on Mt. Kitanglad in October 2009 and

in February 2010 was confirmed to be fully independent in the wild. Kalabugao's case represented the first successful case of rescue, rehabilitation, and release in the history of Philippine Eagle conservation.

The Philippine Eagle Foundation made its first "hard-release" of a rehabilitated young eagle in May 2010. In July, field staff confirmed that this eaglet was healthy and apparently still fed by its parents. This was the quickest rescue-rehabilitation-release case so far. Rescued on May 4, she was back to her forest home 21 days later, indicating improved rapid permitting response from the authorities.

### ■ 2010 Results Summary

- One captive-bred chick hatched, the good health of an eagle that had been released to the wild the previous year was confirmed, and the first hard release of a rehabilitated young eagle was performed.
- Education campaigns reached 50 schools and communities close to habitats in three eagle island ranges.

### ■ Monitoring

Satellite telemetry on a free-flying eaglet, named Mati, at Cabuaya is going well. The foundation has gained better insights into juvenile movements since last year, which has implications for protecting larger forest areas around the nest for survival and dispersal of fledglings.

### ■ Education

Systematic education campaigns with children and adults in the uplands accelerated. Through three education projects, the foundation reached out to 50 schools and communities close to habitats in three eagle ranges. The project also provided invaluable opportunities to improve staff campaign skills and methods for engagement of people.

■ ■ ■ ■ ■  
**The Philippine Eagle is one of the largest eagles in the world... and a global symbol for biodiversity and conservation of rainforest.**  
■ ■ ■



## Conservation Science



## Scientific Publications and Presentations

The publication of research findings helps conservation managers throughout the world make more enlightened management decisions. Publishing and presenting the results of our research also maintains the scientific credibility of our organization. Our goal is to present the results of research to scientific forums, governmental agencies, and interested lay groups.

In 2010, Peregrine Fund staff and associates published work in at least 29 scientific journals ranging from *The Auk* and *The Condor* to the *Bulletin of Environmental Contamination and Toxicology*, and chapters in several books.

One of the major publishing events in the raptor world in 2010 was the production of *The Eagle Watchers*, which included firsthand accounts by 29 researchers, detailing their experiences in studying eagle species around the world. Eleven of the chapters were by staff members, students, or associates who reported on studies supported by The Peregrine Fund.

Staff participated in international raptor meetings in Scotland, Spain, and Mongolia. At the latter meeting, which was the Sixth Asian Raptor Research and Conservation Network meeting, Rick Watson organized a workshop on Raptor Research and Management Techniques, which included presentations by Ian Newton, Rick Watson, Bill Heinrich, and Lloyd Kiff.

Planning continued for a con-

### ■ 2010 Results Summary

- Twenty-nine publications appeared in scientific journals and books.
- Staff and others made significant contributions to a new book on eagles.
- We enhanced local capacity for conservation at international raptor conferences.

ference entitled "Gyrfalcons and Ptarmigan in a Changing World," held in Boise in February 2011. This international conference explored evidence for a range of environmental changes in arctic ecosystems affecting the Gyrfalcon, its competitors, and its prey, ptarmigan, waterfowl, seabirds, and others, to predict effects and outcomes of global climate change, identify areas of uncertainty, and develop global strategies for measuring and mitigating them. The Peregrine Fund will publish the conference proceedings, which are expected to be a landmark publication of information, ideas, and strategies.

Radio tracking African White-backed Vultures in the Athi-Kapiti plains, Festus Iwhagi (left) and Munir Virani (center) join Catherine Gatome (right) in gathering data for her Masters study.

Simon Thomsett



# Global Raptor Information Network

The Global Raptor Information Network (GRIN) facilitates networking between conservationists interested in the same species or groups of species, and the database provides the most up-to-date information on distribution and conservation status of diurnal birds of prey. The website provides The Peregrine Fund and other researchers with the world's most efficient access to the primary literature on birds of prey in the form of extended species accounts and a large searchable bibliography.

Since the public launch in 2004, the website has become the most authoritative and detail-rich information portal on diurnal raptors in the world. It continues to receive enthusiastic support from raptor researchers around the world and is a well-established part of the infrastructure for global raptor conservation and research.

## ■ Raptor Information System

The most important event for GRIN was acquisition of the Raptor Information System (RIS), a database with 38,000 electronic records of publications on raptors that has been supported since the mid-1970s by a succession of federal wildlife agencies. Until this merger, the RIS represented the only other comprehensive bibliographic database on raptors in existence. Including it in GRIN will result in a "mega-database" that will be unique and essential for all raptor research. Transfer of the RIS files and library began in October 2010. The RIS also included paper copies of all of the records, as well as a large collection of books and several thousand raptor-related journals.

## ■ Researcher Homepages

Another important change in GRIN was the addition of a tool that enables PDFs of publications to be posted on the homepages of researchers. About 300 PDFs were added in this fiscal year. This feature has been greeted enthusiastically by the raptor community and is clearly attracting more participants in the researcher database. This feature could make it possible for the publications of all living raptor researchers to be available on the website if all of them created homepages on GRIN.

The GRIN website was presented and promoted at international conferences on raptors in Scotland, Spain, and Mongolia. By the end of the fiscal year, 320 participants, representing 76 countries, had created homepages.

## ■ 2010 Results Summary

- We acquired the Raptor Information System, a database with 38,000 electronic records on raptors from the U.S. Geological Survey, and it will be merged into GRIN, making it a "mega-database" that will be unique and essential for all raptor research.
- A popular new tool for the website enabled PDFs of publications to be posted on researchers' homepages.
- We added thousands of new entries to the GRIN bibliography and additional content to the 333 species accounts. Photos for 20 more species were added to the site, making a total of 266 species that now have accompanying photos.

## ■ Website Enhancements

The international stature of the website continued to grow as efforts were focused on adding entries to the GRIN bibliography and adding content to the 333 species accounts. Photos for 20 more species were added to the site, making a total of 266 species that now have accompanying photos. About half the accounts, especially those for poorly-studied tropical species, are the most thorough treatments available online or, in many cases, in any medium. Individual species accounts and the bibliography are being increasingly cited in journal papers, and the latter source is

the starting point for many researchers embarking on a new study.

Links to more than 1,000 raptor organizations, raptor databases, hawkwatch sites, technical journals, and species-specific websites were expanded and maintained. Reciprocal links to GRIN and favorable reviews were created by numerous other organizations, including the Aves de Rapina do Brasil, American Ornithologists' Union, Cornell Laboratory of Ornithology, Encyclopedia of Life, europeanrap-tors.org, Oxford University Library, Tree of Life Web Project, and several U.S. Geological Survey websites.

According to our website statistics monitoring system, web traffic increased in the fiscal year, compared with FY09. The increase was most pronounced after the program underlying GRIN was re-mapped to satisfy Google requirements and specific links to all of the species accounts were added on the main Peregrine Fund website. The website ranked 14th on Google for searches on the term "GRIN" by year's end; prior to the re-working, it had not come up in the top 100. The rate of traffic probably will continue to increase during the school year, judging from previous annual cycles. Both the Google and Google Scholar search systems continue to crawl the bibliographic database, so that it usually ranks quite high in any search on scarce raptor species or on specific raptor researchers.

■ ■ ■ ■ ■  
**Since the public launch in 2004, the website has become the most authoritative and detail-rich information portal on diurnal raptors in the world.**  
■ ■ ■



## Raptor Conservation Genetics Research

### ■ 2010 Results Summary

- Stability in genetic diversity levels over time and estimates of the effective size of the migratory North American Peregrine Falcon population were investigated to determine its viability.
- A specific gene associated with plumage color in Gyrfalcons was identified, which will prove useful for investigating the importance of plumage color adaptation to extreme environments.
- Considerable progress was made in providing genetic data for all *Gyps* vultures currently held in captivity in India and Pakistan. This data will be used to develop a studbook to reduce the potential for inbreeding in the captive population.

Human-caused changes in the landscape have placed considerable pressure on many natural populations of birds of prey. Genetic-based research allows us to identify demographic factors, or processes such as dispersal patterns and historic population size fluctuations, that helped shape the biology of a species over time. Our ability to accurately identify patterns of current and historical population processes is critical for prioritizing conservation efforts.

Over the past 10 years, we have witnessed a revolution not only with our ability to generate large amounts of DNA data with little effort, but also in the development of methodologies used to interpret genetic data. In combination with field-based research, this work provides recommendations to help preserve extant populations of birds of prey and their habitat.

Since 2003, our genetic research has provided sound scientific justification and information for the conservation of birds of prey and has been useful for prioritizing conservation efforts.

### ■ Peregrine Falcon Temporal Genetic Stability and Estimates of Effective Population Size

Using samples obtained from collaborators (Mike Yates, Bill Seeger, Tom Maechtle, and others) collected at Padre Island, Texas, between 1985 and s 2007, we genotyped between 30-40 individuals per temporal period (seven periods) to investigate stability of genetic diversity levels over time and estimate the effective size of the migratory population. Results will be useful for future monitoring purposes to determine the viability of the North American migratory population.

### ■ Peregrine Falcon Global Phylogeography Project

We obtained additional genetic data to investigate the phylogeographic structure of Peregrine Falcons throughout their global distribution. Ultimately, this dataset will provide information for discerning taxonomic differences among subspecies and populations, and will continue to grow as we obtain additional samples from previously unsampled geographic locations. Completion will depend on successful cooperation with others in obtaining samples from throughout the species' geographic distribution.

### ■ New World Vulture Phylogenetic Project

We obtained samples from all representative species within the family Cathartidae and identified evolutionary relationships among species.

### ■ Falcon Phylogenetic Project

Progress has been made in procuring additional samples to investigate the phylogenetic relationships among all species in the family Falconidae. Jerome Fuchs has joined the project as a post-doctoral researcher at University of California-Berkeley and California Academy of Sciences (CAS). Once completed, this will be the most thorough phylogenetic study on Falconidae to date, and results will help discern relationships among species that will be useful for evolutionary-based questions and management decisions.

### ■ Gyrfalcon Genetic Color Plumage Polymorphism Project

We have obtained sequence data for the melanocortin-1 receptor (MC1R) gene for Gyrfalcons. This gene has recently been shown to be associated with melanin deposition in feathers among multiple bird species. We are currently in the process of determining if specific nucleotide substitutions in this gene correspond with particular plumage phenotypes (e.g., white plumage vs. grey plumage).

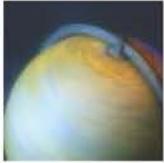
These results will be important for further investigation on adaptation in plumage color and importance relative to geographic distributions.

### ■ Gyrfalcon and Peregrine Falcon Nest Site Turnover Project

In collaboration with Kurt Burnham of the High Arctic Institute, we are currently generating genetic data from samples collected from 2002 to 2010 in Thule and Kangerlussuaq, Greenland, to identify individuals at each surveyed nest site. These data will be used to investigate turnover rates and the degree of site fidelity among Gyrfalcons and Peregrine Falcons in the two study areas in western Greenland.

### ■ Gyps Vulture Captive Breeding Project

In collaboration with Chris Bowden of the Royal Society for the Protection of Birds, we initiated a project to obtain genetic data that will allow us to reduce potential inbreeding effects within the captive breeding population of *Gyps* vultures in India. These data will be used to produce a studbook for management purposes.



## New Initiatives

The list of challenges facing birds of prey continues to grow every year due to changing habitats and human activities. Each year, The Peregrine Fund explores a variety of worthy projects and, unable to do or fund them all, selects those that best meet our mission to conserve birds of prey, gather new information on raptor biology, and build local capacity for conservation and research.

We look for projects that are non-political, solution-oriented, hands-on, and science-based. They must have clear goals that lead to sound conservation strategies that are based on information derived from scientific research combined with a pragmatic philosophy of working with people to craft common sense, innovative solutions.

Scientific research, publishing in peer-reviewed scientific journals, and developing capacity for research are hallmarks of The Peregrine Fund's scientific integrity worldwide. We focused on and funded three new needs that arose in 2010.

### ■ Gyrfalcons and Ptarmigan in a Changing World

Together with our co-hosts, Boise State University and the United States Geological Survey, we organized an international conference held in 2011 on the ecology and conservation of the Gyrfalcons and its prey, particularly three species of ptarmigan with which this falcon has a close predator-prey relationship. Emphasis was placed on predicting the impacts of global climate change on the Gyrfalcons and those species that will most influence its ecology in this century, including humans.

Gyrfalcons and their principal prey, ptarmigan, are widely distributed in the arctic ecosystem and are therefore candidates for

measuring, understanding, and potentially mitigating current and predicted changes in their environment. Since 1993, we have studied the biology and ecology of Peregrine Falcons and Gyrfalcons in Greenland and have witnessed changes in climate and the effects on falcons.

The conference brought together experts from around the world to share information and to develop a common purpose toward understanding the global factors and changing patterns of abundance affecting Gyrfalcons and their prey and establishing a global strategy and plan of action for research and conservation.

We invited speakers to the conference, including world experts on Gyrfalcons, ptarmigan, other

prey species, competitors, and habitat, as well as on climate change and associated change in arctic and alpine biotas, contamination, resource extraction, diseases, and other factors influencing the ecosystems in which these species occur. A website was created and notice was given to those interested in attending.

### ■ American Kestrel Project

The American Kestrel has long been cited as North America's most common raptor, but recent studies have reported a troubling decline in kestrel populations, particularly along the east and west coasts of the United States and Canada. The steady decline is cause for concern and the reasons for these trends are unclear. We began researching ways in which The Peregrine Fund might be able to address these questions.

A kestrel project similar to the Bluebird Trails program is an appealing approach because it could contribute to research and organize and activate a broad grassroots effort for kestrel conservation. We concluded that the program could begin as a pilot program in schools in the Boise area, where educators are familiar with and enthusiastic about The Peregrine Fund, our staff has a strong understanding of the Idaho curriculum, and we would be able to visit classrooms as they implement the lessons. After the pilot program is running smoothly, lesson plans could then be integrated into targeted schools across the nation, possibly with the help of other partners.

The American Kestrel is a wide-

spread species which is visible to a diverse audience, both rural and urban. A kestrel program would be an excellent means of expanding our public education effort while conducting kestrel conservation and research.

### ■ Assessment of Deepwater Horizon Oil Spill on Migrating Peregrine Falcons

In October, we partnered with Earthspan, Inc., to capture migrating Peregrine Falcons at South Padre Island, Texas, to collect blood samples and evaluate the scope, and potential for impact, of exposure to oil and other chemicals resulting from the Deepwater Horizon oil spill. Initial blood analysis will determine whether further investigations are needed on summer breeding grounds or during future migrations.

Polycyclic aromatic hydrocarbons (PAHs), components of the oil spill, are known to cause a variety of adverse impacts including poisoning, reproductive failures, and effects on offspring. The Peregrine Falcon is a top predator and a well-documented environmental sentinel species that appears to be sensitive to the effects of PAHs. Samples from this project will be compared to 40 years of historical data. The results will be disseminated to the U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency, other federal agencies with jurisdiction related to oil spill management in the Gulf Coast region, and all relevant state agencies along the Gulf Coast.

### ■ 2010 Results Summary

- We organized an international conference, convened in 2011, on global climate change and its effect on the arctic-dwelling Gyrfalcons and its prey as models of predator-prey dynamics in an ecosystem most dramatically affected by this global conservation priority.
- A project to investigate the American Kestrel decline in North America and build public support for conservation resulted in plans to launch a continent-wide program, starting with a pilot project in the Boise area.
- In response to the Deepwater Horizon oil spill in the Gulf of Mexico, we partnered with Earthspan in a project to assess the potential impact of oil exposure on survival and reproduction in migrant Peregrine Falcons.

# thank you

We were assisted  
in 2010 by many  
individuals,  
foundations,  
non-profit  
organizations,  
universities,  
and agencies.

## ■ All Projects

Dr. Jeff Johnson, University of North Texas  
Dr. David Mindell, California Academy of Sciences

## ■ Aplomado Falcon Program

Ing. Erique Baeza  
Bureau of Land Management  
Cinda Cole  
Jimmy and Suanne Delk  
Department of Defense at White Sands  
Missile Range  
Brad Kelley  
Dr. Alberto Lafon  
LightHawk  
Alberto Macias  
Bobby and Lynda McKnight  
Jon and Jackie Means  
Meridian Veterinary Clinic, Dr. Scott Higer  
Clay and Jody Miller  
Miguel Mora, Texas A & M University  
Johnny Mounyo  
New Mexico Bureau of Land Management  
New Mexico Department of Game and Fish  
New Mexico State Land Office  
The Port of Brownsville  
The Raptor Center, Dr. Pat Redig  
Don Ryman  
Secretaria de Medio Ambiente y Recursos Naturales  
State of Texas  
T and E Inc.  
Texas Parks and Wildlife Department  
Turner Endangered Species Fund  
Turner Enterprises Inc.  
U.S. Fish and Wildlife Service  
Washington State University, Dr. Lindsay Oaks  
Zoological Society of San Diego, Dr. Bruce Rideout

## ■ California Condor Program

Arizona Game and Fish Department  
Arizona Public Service  
Arizona Strip Bureau of Land Management  
Boise State University  
Bureau of Land Management  
Norm Freeman  
Habitat, Dr. Reed Linenberger  
Liberty Wildlife, Dr. Kathy Orr  
Meridian Veterinary Clinic, Dr. Scott Higer  
National Park Service  
Phoenix Zoo  
The Raptor Center, Dr. Pat Redig  
Maggie Sacher, Lee's Ferry Lodge  
Salt River Project  
Southern Utah's Coalition of Resources and Economics  
Tufts Center for Conservation Medicine  
U.S. Forest Service  
U.S. Fish and Wildlife Service  
U.S. Geological Survey  
University of Idaho

Utah Division of Wildlife Resources  
Washington State University, Dr. Lindsay Oaks  
Zoological Society of San Diego, Dr. Bruce Rideout

## ■ Neotropical Program

**Panama:**  
Campesinos communities of Chepigana region  
Federal University of Mato-Grosso do Sul  
Jacobo Lacs  
Jardín Botánico Summit  
Ministry of Education (MEDUCA)  
National Environmental Authority of Panama (ANAM)  
Panama Canal Authority (ACP)  
Parque Natural Metropolitan  
Sociedad Mastozoológica de Panamá (SOMASPA)  
Tierras Colectivas Embera y Wounaan  
Universidad Autónoma de Chiriquí (UNACHI)

**Belize:**  
Avian Support Alliance  
Air Wing of the Belize Defense Force  
Belize Agricultural Health Authority (BAHA)  
The Belize Zoo/Tropical Education Center  
Jodi and Vance Bente, CASA  
Bull Run Overseas, Ltd.  
Chiquibul National Park  
Ecoflight  
Forest Department  
Friends of Conservation and Development, Director Rafael Manzanero  
Hidden Valley Inn  
Lighthawk  
Ministry of Natural Resources and the Environment  
Programme for Belize  
Trevor Roe  
G.A. Roe & Sons, Ltd.  
Royal Air Force

**Guatemala:**  
Foundation for Anthropological Research & Environmental Studies  
Global Heritage Fund  
Hotel Maya Internacional  
Dr. Richard Hansen  
Tikal National Park  
WCS-Petén, CONAP

**Mexico:**  
Consejo Nacional de Áreas Naturales Protegidas (CONANP)  
Reserva Natural Calakmul

**South America:**  
Asociación Armonía (Bolivia)  
CECARA and Universidad de la Plata (Argentina)  
CONICET (Argentina)  
CONICYT (Chile)  
Fauna Australis and Universidad Católica (Chile)

Fundación Charles Darwin (Ecuador)  
Instituto Alexander von Humboldt (Colombia)  
Instituto Nacional de Recursos Naturales (Peru)  
Manchester Metropolitan University (UK)  
Park Nacional Galápagos (Ecuador)  
The Rufford Small Grant Foundation (Peru)  
SIMBIOE (Ecuador)  
S.O.S. Falconiformes (Brazil)  
Universidad Católica (Ecuador)  
University of Missouri Saint Louis (USA)

## West Indies:

Central Romano Corporation, Ltd.  
Dominican Republic Secretaría de Estado de Medio Ambiente y Recursos Naturales  
Punta Cana  
Sociedad Ornitología de la Hispaniola (SOH)

## ■ Pan Africa Project:

A Rocha Kenya  
Arabuko-Sokoke Forest Management Team  
Association ASITY Madagascar  
Association VAHATRA  
Basecamp Foundation  
Dr. Marc Bechar, Boise State University  
Dr. Keith Bildstein, Hawk Mountain Sanctuary  
Ralph Buij  
Centre National de Formation Professionnelle des Personnes en Situation de Handicap (CNFPPSH)  
Centre National de Recherche Industrielle et Technologique (CNRIT)  
Conservation International – Madagascar  
Dr. Rob Davies  
Dr. Neil Deacon  
Department of Zoology, National Museums of Kenya  
Durrell Wildlife Conservation Trust  
Elsa Trust Ltd.  
Endangered Wildlife Trust  
Dr. Zoe Gibbs  
Dr. Mwangi Githiru  
Dr. David Harper, University of Leicester, U.K.  
Hell's Gate Management Committee  
Dr. Andrew Jenkins, University of Cape Town  
Kenya Wildlife Service  
Ms. Sarah Higgins, Lake Naivasha Riparian Association  
Dr. Joseph Lalah, Maseno University, Kenya  
Lewa Wildlife Conservancy  
Madagascar Institut pour la Conservation des Ecosystemes Tropicaux (MICET)  
Madagascar National Parks  
Madagasikara Voakajy  
Makerere University Institute of Environment and Natural Resources (Uganda)  
Mauritian Wildlife Foundation  
Karim Kara, Megapixel Productions

Steve Minis, Deputy Warden of the Masai Mara National Reserve  
St. Lawrence University  
Ministère de la Pêche  
Ministère de la Population  
Ministère de L'Environnement et des Eaux et Forêts (MinEnvEF)  
Ministère de L'Enseignement Supérieur (MinSup)  
Ministère des Affaires Transgères  
Missouri Botanical Garden (MBG)  
Narok County Council  
National Ramsar Committee (CONARAMS)  
Nature Kenya  
Nature Uganda  
Office National pour L'Environnement (ONE)  
Olare Conservancy  
Parc Botanique et Zoologique de Tsimbazaza

Dr. Richard Pettifor, Zoological Society of London (United Kingdom)  
Dr. Derek Pomeroy  
Ms. Corinne Kendall, Princeton University  
Azim Rajwani, Africa-Eco Camps Ltd.  
Pr. Sylvère Rakotofringa, University of Antananarivo.  
Raptor Working Group of Kenya  
James Sindiyo, Senior Warden of the Masai Mara National Reserve  
Simon Thomsett  
United Nations Educational, Scientific and Cultural Organization (UNESCO)  
University of Antananarivo  
Dr. Rob Simmons, University of Cape Town  
Prof. Ara Monadjem, University of Swaziland  
University of Tulear  
USAID – Madagascar  
Vintage Africa Ltd.  
Wildlife and Wetlands Trust  
Wildlife Clubs of Kenya  
Wildlife Conservation Society  
World Wide Fund for Nature (WWF-Madagascar)  
Zimbabwe Falconer's Club

## ■ Asia Pacific Program

ACC Cement Company (India)  
Balendu Singh of Dev Vilas  
Nabin Baral  
Bird Conservation Nepal  
Bombay Natural History Society  
Jamshed Chaudhry, Pakistan  
Forest Departments of Madhya Pradesh and Rajasthan  
Nature Conservation, Pakistan  
Philippine Eagle Foundation  
Punjab and Sind Wildlife Departments, Pakistan  
Royal Society for the Protection of Birds, U.K.  
Shailendra Tewari of Tigers Den  
Sharad Vats of Nature Safari Limited  
World Wide Fund for Nature- Pakistan

# thank you

**Your contributions of funds, services,  
and goods make our work possible.**

## ■ \$20,000 or more

Acacia Partners, LP  
Arizona Bureau of Land Management  
Mr. and Mrs. Lee Bass  
Lee and Ramona Bass Foundation  
Archie W. and Grace Berry Foundation  
Mr. Harry Bettis  
The Bobolink Foundation  
The Brown Foundation, Inc., Houston  
Liz Claiborne and Art Ortenberg Foundation  
Mr. Lewis Coleman and Ms. Anne Solbraekke  
Conservation International-Madagascar  
Laura Moore Cunningham Foundation, Inc.  
Edward W. Rose III Family Fund of The Dallas Foundation  
Roy Disney Family Foundation  
Double Eagle Dairy  
The Charles Engelhard Foundation  
Eyas Foundation  
The Samuel Gary, Jr. Family Foundation  
Mr. and Mrs. Edward J. Hudson  
Robert Wood Johnson 1962 Charitable Trust  
Robert J. Kleberg, Jr. and Helen C. Kleberg Foundation  
LightHawk  
The John D. & Catherine T. MacArthur Foundation  
The Meadows Foundation  
Microsoft  
Ruth O'Donnell Mutch  
Mr. Carl Navarre  
New Mexico Bureau of Land Management  
The Offield Foundation  
Mr. and Mrs. Paxson Offield  
Mr. Harold C. Price and Mrs. Jessie H. Price  
SeaWorld  
Soaring Wings Investments, LLC  
Trust for Mutual Understanding  
Turner Foundation, Inc.  
U.S. Army, White Sands Missile Range  
U.S. Fish and Wildlife Service  
The G. Unger Vetlesen Foundation  
Wolf Creek Charitable Foundation  
Julie Ann Wrigley Foundation

## ■ \$10,000-\$19,999

820 Management Trust  
Mr. John P. Baumlin  
Drs. Frederick A. Beland and Susan S. Beland  
Mr. Frank M. Bond  
Mr. and Mrs. Yvon V. Chouinard  
James A. "Buddy" Davidson Charitable Foundation  
Disney Worldwide Conservation Fund  
Fiberpipe Internet Services  
Grand Canyon Conservation Fund  
The Griffin Family Trust  
The Tim and Karen Hixon Foundation  
Mr. and Mrs. Donald Kayser  
Lloyd and Julie Kiff  
Ledder Family Charitable Trust  
Mr. William Mallon, Jr.  
Mrs. Patricia Manigault  
Maple Grove Dairy  
Gordon and Betty Moore Foundation  
Harry W. Morrison Foundation, Inc.  
Mrs. Velma V. Morrison  
Patagonia  
Mr. Tom Taylor  
U.S. Bancorp Foundation  
U.S. Forest Service, Arizona  
U.S. Geological Survey  
James and Christine Weaver  
Wiancko Charitable Foundation  
Ms. Conni B. Williams

## ■ \$5,000-\$9,999

Arizona Game and Fish Department  
Bank of America Charitable Foundation, Inc.  
Marilyn and John Bicking  
H.E. Mohammed A. Al-Bowardi  
Mr. Tim Burr  
Robert Cornstock Design, LLC  
Dr. and Mrs. William E. Cornatzer  
Mr. and Mrs. James H. Frazier  
Ms. Rebecca Gaples and Mr. Simon Harrison  
Walter Clay Hill Family Foundation  
The Horizon Foundation  
Mr. Jacques Jenny  
Ms. Judith King  
Mr. and Mrs. Forrest E. Mars, Jr.  
Mrs. Margaret S. Marti  
Maxey Tookey Architects  
Meadowlark Farms  
Monsanto Fund  
Morgan Family Fund, an advised fund of Silicon Valley Community Foundation  
Natural Encounters Conservation Fund  
Gloria M. Young Ornithological Fund of The Philadelphia Foundation  
John and Vicki Swift  
The Tapeats Fund  
Mr. Dick Treleven  
Wells Fargo Foundation

## ■ \$2,500-\$4,999

Dr. Richard Bierregaard and Ms. Cathy Dolan  
California Community Foundation  
Corporate Matching Gift from The Capital Group Companies Charitable Foundation  
The Centre for Development Finance (CDF) in IFMR  
Deutsche Optik  
Wendy and James Drasdo  
Devon A. and Katherine M. Elstun  
Kevin Finn  
Gerhard Borbonus Landscaping  
Goldman Sachs Matching Gift Program  
Hewlett-Packard Company  
Higgins & Rutledge Insurance, Inc.  
Idaho Power Foundation, Inc.  
Mr. and Mrs. J. Peter Jenny  
Janet Stone Jones Foundation  
Journal Broadcast Group, Inc.  
Mr. and Mrs. David Junkin, II  
Luther King Capital Management  
Ms. Loraine E. Klinger  
Irving Kohn Foundation, Inc.  
H. Frederick Krimendahl II Foundation  
Mr. and Mrs. Lee Larson  
Meridian Veterinary Clinic  
Larry H. Miller Subaru Mitsubishi Photographers Alliance Workshops LLC  
Rocky Mountain College  
Ms. Cynthia S. Schotte  
Schwab Charitable Fund  
Sierra Trading Post  
The Teddy Foundation  
Tesoro Companies, Inc.  
Mr. Russell Thorstrom  
University of Michigan  
Weyerhaeuser Company Foundation  
The Whittenberger Foundation



Unrestricted gifts from our Chairman's Circle members are crucial to The Peregrine Fund's operation. Membership is reserved for donors at the Partner (\$1,000), Patron (\$2,500), and Premiere (\$5,000) levels. Contact our membership office at (208) 362-3716 for more information.

Many individuals listed below have been members for multiple years (\*) and many give in excess of \$2,500 per year (+).

Marilyn and John Bicking*+	Luther King Capital Management*+
Dr. Richard Bierregaard and Ms. Cathy Dolan*+	Ms. Loraine E. Klinger*+
Mr. and Mrs. Duncan Boeckman*	Mr. and Mrs. Mike D. Lahey
Mohammad A.A. Bowardi+	Mr. and Mrs. John Mackiewicz*
Mr. and Mrs. Frederick Brodsky*	Mr. Stanley Marcus*
Magalen O. Bryant	Mr. and Mrs. Forrest E. Mars, Jr.*+
Dr. and Mrs. William E. Cornatzer*+	Mr. Darren Mast
Mr. Chris Crowe	Mr. Marshall B. Miller and Ms. Claudia P. Huntington*
Mr. and Mrs. Frank T. Curtin*	Mrs. Paul L. Miller*
Count Charles de Ganay*	Kellie J. Morrison*
Mr. Paul Dickson*	Mr. and Mrs. Don Moser*
Wendy and James Drasdo*+	Mr. and Mrs. Norman E. Nabhan
Devon and Katherine Elstun*+	Dr. Jerald Lindsay Oaks*
Mr. Kevin A. Finn*+	Elizabeth B. Parks*
Ms. Margaret Flerchinger*	Sheila and Ron Pera*
Ms. Rebecca Gaples and Mr. Simon Harrison*+	Ms. Cynthia S. Schotte*+
Ms. Barbara Grace*	Mr. Richard T. Schotte*
Mrs. Helen K. Groves*	Mr. and Mrs. Stephen Sherrill
Dr. Stephen Hill*	Jennifer P. Speers
Mr. Jacques Jenny*+	Ms. Catherine G. Symchych
Mr. and Mrs. David Junkin, II*+	Mr. and Mrs. Steve Thompson*
Mr. and Mrs. Harvey C. King*	Mr. David Thomson*
Ms. Judith King*+	Mr. Richard S. Thorsell*
	Mr. Skip Tubbs*
	Mr. and Mrs. Bill Weiler*
	Mr. and Mrs. Blair Woodall*

*532 members  
have been  
donating for a  
decade or more.*

## In memory...

We received donations in memory of the following individuals in 2010:

Art Baca  
Kaye Baird  
Louise Boguley  
James Breese  
Bill Burnham  
John A. Campbell  
James R. Canning  
Elbert Cleaveland  
Luke Cole  
Alfrieda Corr  
Salvador J. DeLaCruz  
Roy Lee DeWitt  
Phillip J. DiMaggio  
Roy E. Disney  
Don Disotell  
Phil Eldredge  
Edwin L. Fitch  
Scott Francis  
Christopher Garber  
Phillip Glasier  
D.M. Gregory  
Dylan Hopkins  
Lawrence B. Hunt  
Barbara Johnstone  
Duvall A. Jones  
Norma Justice  
Ray Anderson Miller  
Todd N. Montgomery  
D. James Nelson  
Morlan W. Nelson  
Kendal Clifford North  
J.H.M. Pieters  
Annapurna Post-Leon  
Phil N. Priddy  
Barbara Quenzer  
James E. Sailer  
Jerry Scott  
Alfred P. Seales  
William Shinnors  
Patrick Stokes  
Phyllis Swanson  
Sandra K. Thomas  
Denis R. Trowbridge  
Dorothy Westlund  
Ruth Yakupzack  
Judy Zirbel

To donate in memory of a loved one, please contact our membership office at (208) 362-3716 or use our secure online donation form.

## A bequest

is a provision made in a will that is transferred to The Peregrine Fund after the donor's death. The following general text is suggested for bequests:

*"I give, devise, and bequeath to The Peregrine Fund, Inc., an Idaho not-for-profit corporation, located on the date hereof at the World Center for Birds of Prey, 5668 West Flying Hawk Lane, Boise, Idaho 83709, the sum of \$\_\_\_\_\_ (or specifically described property.)"*

If you would like assistance in making a bequest, please contact our membership office at (208) 362-3716.

### ■ \$1,000-\$2,499

Animal Encounters at ABQ BioPark  
Mr. Terry Beggs and Ms. Christine Otradovec  
Mr. and Mrs. Duncan Boeckman  
The Boeckman Family Foundation  
Mr. William A. Brock and Ms. Elizabeth D. Owens  
The Brodsky Charitable Foundation Trust  
Mr. and Mrs. William Brown  
Ms. Magalen O. Bryant  
Mrs. Patricia Burnham  
Dr. Kurt Burnham  
Dr. and Mrs. Tom J. Cade  
California Hawking Club  
Mr. Don Cronrath  
Ms. Ellen Crosby  
Mr. Chris Crowe  
Mr. and Mrs. Frank T. Curtin  
Donna and Rodger Daniels  
Count Charles de Ganay  
Mr. Paul Dickson  
Duggan Library  
Harold and Jacque Eastman  
Eaton Canyon Nature Center  
Ms. Dianne Eshbach  
The Fanwood Foundation  
Ms. Margaret Flerchinger  
Ms. Karen Francis  
Fuddruckers  
Nathaniel Gerhart Memorial Fund  
Goshawk Fund, a Donor Advised Fund at the Nature Conservancy  
Ms. Barbara Grace  
Mr. and Mrs. Peter W. Gray  
Ms. Karen K. Gregory  
Mrs. Helen K. Groves  
The Hackborn Foundation, Inc.  
Dr. and Mrs. Alan Harmata  
The Jacob and Terese Hershey Foundation  
Dr. Stephen Hill  
Ms. Rachel Hollis  
Mr. Blake Hopkins  
Mr. and Mrs. Vernon Howe  
Ms. Juliet Hudson  
Idaho National Laboratory through corporate funds from Battell Energy Alliance  
Indiana Falconers Association  
Jayker Field Nursery, Inc.  
Jayker Treasure Valley Wholesale Nursery, Inc.  
Mrs. Imogene Powers Johnson  
KBOI-TV  
Mr. and Mrs. Harvey C. King

Denise Kodner Trust  
Ms. Helen Kupeli  
Mr. and Mrs. Mike D. Lahey  
Mr. Gary Landers  
Ms. Marcia Lincoln  
Robert and Teresa Lindsay Family Foundation  
John S. Mackiewicz, Ph.D.  
Mr. Stanley Marcus  
Mr. Darren Mast  
Mr. Daniel McLaughlin  
Melling Family Foundation  
Ms. Magalen O. Bryant  
Mr. Microwave Telemetry, Inc.  
Mr. Marshall B. Miller and Ms. Claudia P. Huntington  
Mrs. Paul L. Miller  
Ms. Kellie J. Morrison  
Mr. and Mrs. Don Moser  
Mr. and Mrs. Norman E. Nabhan  
Albuquerque BioPark  
North American Falconers Association  
Dr. Jerald Lindsay Oaks  
Owyhee Construction Inc.  
Elizabeth B. Parks  
The Pattee Foundation, Inc.  
Pioneer Hi-Bred International, Inc.  
Mrs. Karen Heiberg Reuter  
Ridgewood Enterprises, Inc.  
Mr. and Mrs. John Robison  
Ms. Allison Rohnert  
Ms. Marcia Ross  
Mr. Richard T. Schotte  
Mr. and Mrs. Stephen Sherrill  
Bailey Smith Fund  
Snake River Field Station  
Ms. Jennifer P. Speers  
Mr. Norman D. St. Armour  
Stichting De Harpij  
George Miksch Sutton Avian Research Center  
Ms. Catherine G. Symchych  
Tall Timbers Research Station  
Texas Hawking Association  
Texas Ornithological Society  
Mr. and Mrs. Steve Thompson  
David Thomson  
Mr. Richard S. Thorsell  
Mr. Skip Tubbs  
Ms. Christie Van Cleve  
Wal-Mart Foundation  
Dr. and Mrs. Richard T. Watson  
Mr. and Mrs. Bill Weiler  
Dr. and Mrs. Charles E. Wheatley III  
Prof. and Mrs. Clayton M. White  
Whitney Fire Protection District  
Blair and Laura Woodall

### ■ \$500-\$999

AAA Oregon/Idaho  
Mr. Nicholas W. Acquavella  
The Adams Foundation  
Ms. Henrietta K. Alexander  
Ms. Leigh Armstrong  
Ms. Kathlyn Austin  
Ms. Donna Bailey  
Mr. David N. Ball  
Mr. Jack Barclay  
Mr. and Mrs. Stephen A. Beebe  
Mr. and Mrs. H. William Belknap  
Ms. Dawn Bosh  
Mr. and Mrs. Dana Brabson, Jr.  
Douglas and Patricia Carpenter  
Mr. and Mrs. Allen Chaikin  
CommonCents  
Concepcion Abbey and Seminary  
Dr. Jerald L. Cooper  
Mr. and Mrs. Paul Imlay Corddry  
Costco  
Ms. Caroline Craig  
Mr. Eric Cupp  
Mr. Nelson Davison  
Mr. and Mrs. Tomas Dawson  
Ms. Mary Dondo  
Mr. and Mrs. Tucker Dorn  
Mr. and Mrs. Danny Durrance  
Ms. Mary Ann Edson  
Mr. Jim Edwards  
Mrs. Betsy Eldredge  
Mr. Leo E. Faddis  
Fort Wayne Children's Zoo  
Ms. Kim R. Frankfourth  
Mr. Carlos A. Garza  
Mr. James F. Gilpin  
Dr. Cathleen A. Godzik  
Ms. Tina Good  
Mr. Robert Graves  
Mrs. Marie M. Half  
Mr. and Mrs. Dick Harley  
Mr. and Mrs. John F. Harrigan  
Mr. and Mrs. Ken Harrison  
Ms. Mary Hawkins  
Bill Heinrich and Susan Ault  
Ms. Marianna Hopkins  
Hungarian Institute of Ornithology  
Idaho Records Management  
Mr. Eric Johnson  
Mr. Hank Kaestner  
Mr. Cliff Kellogg  
Ms. Fran Kiesling and Ms. Sharon Lubinski  
Mr. and Mrs. Jacob Kirkman  
Mr. and Mrs. Brian Knox  
Mr. and Mrs. David J. Knutson  
Mr. Jeff Kolb  
Mr. Ray Lappan and Ms. Cathy Kriloff  
Mr. Steven LaRue  
Mr. Hugh M. Lawrence  
Layne Laboratories, Inc.

Mr. H. Paul Lee  
Mr. and Mrs. James Lee  
Dr. Lee Lenz  
Ms. Marty Leonard  
Les Schwab Tire Center  
Mr. Rick Liberto  
Mr. Tony Luscombe  
Mr. and Mrs. Tom Maechtle  
Ms. Linda Meza  
The Valerie Brackett and Nikolaos Monoyios Charitable Fund of the Vanguard Charitable Endowment Program  
Montana State University-Billings  
National Aviary in Pittsburgh  
Mr. and Mrs. Walter Negley  
Daniel and Patricia Nelson  
Mr. Leonard L. Nicholson  
Ms. Natalie Nicholson  
North Carolina Museum of Natural Sciences  
Mr. Scott Olle  
Mr. Kevin P. O'Rourke  
Mr. John E. Parks  
Mr. Eric D. Paschal  
Mr. Hans Peeters  
Sheila and Ron Pera  
Mr. Christian S. Pinover  
Ms. Debby Du Bois Porter  
Portland General Electric Company  
Dr. Marshall F. Priest  
Mr. and Mrs. Mark L. Purdy  
Quint Financial Group, LLC  
Mr. and Mrs. Randy Rasmussen  
Mr. Donald L. Reiman  
Mr. Mark Restum  
Dr. Beverly Ridgely  
Ms. Judith Roderick  
The Jim and Patty Rouse Charitable Foundation, Inc.  
Sandpiper Fund  
Silicon Valley Community Foundation  
St. Luke's Regional Medical Center  
Mr. and Mrs. Dennis Stacy  
Mrs. Julie Kelleher Stacy  
Mrs. Helen S. Stern  
Jeraldine Struthers  
Mr. Scott Struthers  
Taylor Brothers Fire & Safety, Inc.  
Joseph H. Thompson Fund  
Track Utilities Inc.  
Alasdair and Susan Turner  
Mr. Ferdinand Vollmer  
Mr. John Warriner  
Mr. Craig Williams  
Ms. Carol A. Wolf  
Mr. David L. Woodard  
Yanke Machine Shop, Inc.  
Young President's Organization

■ \$200-\$499

Mr. Chris Adams  
 Mr. and Mrs. Philip D. Aines  
 Mr. Ryan Albers  
 Mr. David C. Allais  
 Mrs. Carole Alverson  
 Arngen Foundation, Inc.  
 Mr. Blair Anderson  
 Ms. Kristen L. Anderson  
 Anser Charter School  
 Mr. and Mrs. Mark Armstrong  
 Ms. Linda S. Arrasmith  
 Mr. Allen Asbury and Ms. Teresa  
 Maylor  
 Ascension  
 Mr. Rick Ashworth  
 Avon Foundation for Women  
 Mr. Jerry Bagnani  
 Dr. Clarence Ballenger  
 Ms. Shelly Barbanica  
 Wendy and Greg Barnes  
 Craig and Barbara Barrett  
 Foundation  
 Mr. Adam Bates  
 Mr. Max W. Batzer  
 Mr. John R. Baumert  
 Ms. Lorraine Bazan and Mr. Chris  
 M. Stover  
 Mr. Clifton T. Beck  
 Mr. and Mrs. Spencer B. Beebe  
 Linda, Tim, BreAnna, and Tyler  
 Behrman  
 Dr. and Mrs. Herbert John Beil  
 Mr. and Mrs. Roger Bell  
 Mr. and Mrs. Stanley R. Bell  
 Benu  
 Mr. Andrew C. Blatz  
 Ms. Susan Boettger  
 Bogus Basin Ski Resort  
 Boise Spectrum Dunlap, LLC  
 Boise State University  
 Mr. and Mrs. Harold C. Bond  
 Mr. Michael Borrer  
 Mr. David J. Bottjer  
 Ms. Karen D. Brender  
 Dr. Theresa L. Bucher  
 Buck's Bags, Inc.  
 Mr. Andrew Bullen  
 Mr. Robert Burinskaskas  
 Mr. and Mrs. Russell Buschert  
 C&A Paving Co.  
 Mr. and Mrs. Jack Cafferty  
 Mr. Thomas Cantella  
 Mr. and Mrs. Doug Carnahan  
 Mr. Mark Castrodale  
 Ms. Vija Celmins  
 Mr. and Mrs. Blake Chapman  
 Ms. Jeanette Clonan  
 Ms. Nancy Cohen  
 Dr. Scott A.B. Collins

Ms. Maryann Corpening  
 Mr. Gordon B. Cray, Jr.  
 Mr. Roger Crawford  
 Donald and Michelle Cronin  
 Mr. Terry Cross  
 Mr. William Cundiff  
 Mr. and Mrs. Paul D'Andrea  
 Mr. Robert Davis  
 Mrs. Marie A. de Angelis  
 Mr. Dan Denham  
 Mr. Scott Derrickson  
 Ms. Michelle Devine  
 Mr. and Mrs. Lee Dickerson  
 Ms. Ellen Dickhaut  
 Mr. and Mrs. Douglas Dotson  
 Mr. R. David Duncan  
 Ms. Jeri Edwards  
 Endangered Species Print Project  
 Mr. James Entgelmeier  
 Ms. Kathleen Epperly  
 Ms. Elise Faike  
 Mr. and Mrs. Charles W. Fawcett  
 Dr. and Mrs. Richard Fitzgerald  
 Mr. and Mrs. Kenneth D. Fleming  
 Mr. Dallas D. Ford  
 Mr. Kirk H. Francis  
 Mr. David Frankson  
 Ms. Sheila Sturgeon Freitas  
 Friends of Blackwater National  
 Wildlife Refuge, Inc.  
 Dr. Richard Fyfe  
 Dr. and Mrs. Hugh Paul Gabriel  
 Ms. Betsy Galiney  
 Ms. Sylvia Gallegos  
 Tim and Shelley Gardner  
 Mr. Tim Garner  
 Mr. and Mrs. James D. Garry  
 Mrs. Ann Gattorn  
 Suzie and Calvin Gauss  
 Mr. and Mrs. Robert A. Gillespie  
 Mr. Morten Kristiansen and Ms.  
 Randi Gran  
 Grand Canyon Association  
 Grande Ronde Bird Club  
 Ms. Cynthia Gray  
 Ms. Mary Hackley  
 Professor Frederick A. Hagar  
 Hageman Family Foundation  
 Mr. and Ms. Tom Haifley  
 Mr. William Halliwell  
 Ms. Kathryn Hampton and Ms.  
 Cheryl Peck  
 Dr. E. A. Hankins, III  
 Ms. Kathy Haranzo  
 Mrs. Alan Harley and Chris Harley  
 Mr. and Mrs. Elliott M. Harold, Jr.  
 Ms. Jennifer Harwood  
 Hat Ranch, Inc.  
 Mr. William L. Hegarty  
 Mr. and Mrs. Glen Helzer

Mr. James Henry  
 Ms. Corinne Hewett  
 Mr. and Mrs. Franklin G. Hill  
 Col. and Mrs. James W. Holler  
 Mr. Robert B. Hollister  
 Mr. and Mrs. Herb Holt  
 Leo and Katherine Hoyt  
 Mr. John Humphreys  
 Dr. and Mrs. Phil Hunke  
 Idaho Falconers Association  
 IWCF Members' Philanthropic Gift  
 Fund in the Idaho Community  
 Foundation  
 Mr. and Mrs. Jim Ince  
 Ms. Barbara Indra  
 Mr. David Jenkins  
 Mr. and Mrs. Bryan Jennings  
 Mr. and Mrs. Terry Jennings  
 Ms. Valerie J. Jensen  
 Mr. and Mrs. J. Clive Jordan  
 Dr. and Mrs. Craig L. Jordan  
 Mrs. Judith M. Joy  
 Mr. Paul Juergens  
 Ms. Anita Kaczmar-Yee  
 Ms. Ruth V. Kassens  
 Dr. and Mrs. John Keiser  
 Mr. Jeffrey Kempic  
 Ms. Jennifer Kender  
 Mr. and Mrs. Junior Kerns  
 Mr. and Mrs. William H. Kistler  
 Ms. Karen S. Kleehammer  
 Mr. Kevin Knag  
 Ms. Katy Koivastik  
 Ms. Annie Kolb-Nelson  
 Mr. Hal C. Krause  
 Ms. Edith R. Lamb  
 Mr. William D. Lanagan, Jr.  
 Ms. Barbara Lancaster and Mr.  
 Ron Vance  
 Richard and Patricia Laurence  
 Mr. Joseph Lawson  
 Ms. Paulette F. Leeper  
 Mr. Stephen Lewis  
 Mr. Alan Lieberman and Ms.  
 Cyndi Kuehler  
 Life Flight Network, LLC  
 Ms. Bobbi Gail Lipton  
 Ms. Janet E. Lotz  
 Mr. Brian Lounsbury  
 Lazuli Lune  
 Macy's Shop for a Cause  
 Magnum Demolition  
 Ms. Bernadine Marconi  
 Mr. Ronald A. Marquez  
 Mr. Andrew L. Martin  
 Mr. David E. Mason  
 Mr. and Mrs. Don Masterson  
 Mr. Timothy P. McDaniel  
 Mr. Stefan McDonough  
 Sarah and Joe McGarry

Mr. David McMahon  
 Mrs. Mimi McMillen  
 Ms. Becky Medina  
 Mr. Bruce Medlin  
 Mr. Roger Mellick  
 Merlin Systems, Inc.  
 Mr. Davis Merritt and Ms. Pat  
 McGaran  
 Mr. and Mrs. Jacob Messinger  
 Mr. James R. Meyer  
 Michigan Audubon  
 Michigan Hawking Club  
 Dr. David Mindell  
 Mr. Jon C. Minnberg  
 Mr. and Mrs. George P. Mitchell  
 Ms. Elsie Mogck  
 Mr. Eric T. Monico  
 Montana Falconers Association  
 Frank and Mary Montgomery  
 Charitable Fund  
 Mr. J. David Morris  
 Dr. Michael Morris  
 Kimberly and Raivo Murnieks  
 Mr. and Mrs. Raivo M. Murnieks  
 Ms. Patricia A. Murphy  
 Murray State University  
 Mr. William Murrin  
 Mr. Brian Mutch  
 Mr. and Mrs. Peter Mygatt  
 Mr. and Mrs. James C. Nelson  
 Dr. R. Wayne Nelson  
 Mr. Peter R. Newman  
 Mr. and Mrs. William S. O'Keefe  
 Mr. and Mrs. Gerald Ondr  
 Mr. and Mrs. Jim O'Neil  
 Ms. Karen Ostertag  
 Ms. Faith A. Ottavi  
 Geoff Pampush and Cyd  
 Cimmiyotti  
 Ms. Jean Parker  
 Mr. and Mrs. Doug Parks  
 Peasley Transfer & Storage  
 Ms. and Ms. Cheryl Peck  
 Mr. Timothy S. Penn  
 Ms. Cynthia Philpot  
 Mr. Douglas Pineo  
 Pioneer Title Company of Ada  
 County  
 Ms. Frances Pope  
 Mr. Dale Pressnall, Jr.  
 The T. Rowe Price Program for  
 Charitable Giving  
 Mr. Jay A. Pruett

Ms. Catherine Purchis  
 Mr. and Mrs. Ira Purchis  
 Ms. Robin A. Radlein  
 Raptor Research Center  
 Mr. and Mrs. Robert E. Ray  
 Ms. Jan Reichart  
 Mr. Fred Reynolds  
 Ms. Amy Richard and Mr. Ed  
 Pearson  
 Mr. Wilfredo Rodriguez  
 Roosevelt Elementary School  
 Mr. and Mrs. William E. Rose  
 Mr. Oscar Ruiz  
 Mr. Paul D. Russell  
 Mr. Steve Sadicario  
 Salem International University  
 Mr. Randall Sartin  
 Dr. William Satterfield  
 Mr. John Savage  
 Dr. and Mrs. Phil Schmid  
 Mr. N. John Schmitt  
 Mr. and Mrs. Roger Allan Schultz  
 Mr. and Mrs. Clee Sealing  
 Mrs. Susan Seifert  
 Mr. and Mrs. Jerry Selig  
 Mr. William R. Shealy, Jr.  
 Mr. Ed Sherman  
 Mr. Neil H. Shubin and Ms.  
 Michele A. Seidl  
 Ms. Rita C. Shultz  
 Ms. Lisa B. Sigwart  
 Ms. Gay C. Simplot  
 Ms. Marion Simpson  
 Mr. Justin Sindorf  
 Mr. and Mrs. Jerry Sloan  
 Mr. Albert Smith  
 Mr. David H. Snow  
 Ms. Sue Sontag  
 Shane Soroka Equipment Co, LLC  
 Mr. Peter Spiegelman  
 Mr. Nicholas Staddon  
 Ms. Patricia C. Stein  
 Ms. Charlotte Stephens  
 Mr. and Mrs. Edward Stimpson  
 Ms. Kerry Street  
 Mr. David C. Stuesse  
 Ms. Isobel Sturgeon  
 Mr. and Mrs. Daniel E. Svikhart  
 TableRock Brewpub and Grill  
 Mr. and Mrs. Michael Tannen  
 Dr. Thomas J. Templeton  
 Mr. Roger Thacker  
 Mr. and Mrs. Carl G. Thelander

Ms. Lucinda Thiel  
 Ms. Audrey Thompson  
 Ms. Deborah Thomson  
 Mrs. Beverley Thorne  
 Mr. and Mrs. Sean D. Thorp  
 Mr. Richard K. Thorpe  
 Mr. Jerry Thorstrom  
 Mr. John Tierney  
 Mr. and Mrs. Peter B. Tirrell  
 Ms. Sally Tongren  
 Dr. Charles Trost  
 Mr. and Mrs. Ben Tuttle  
 Mr. Jeffrey D. Uhlenburg  
 Mr. and Mrs. Lewis Ulrey  
 University of Nebraska at Kearney  
 Mr. George T. Urdzik and Ms.  
 Pamela Horton  
 Ms. Benedicte Valentiner  
 Ms. Maris M. Van Alen  
 Mr. Dan Varland  
 Mr. Larry Vaughn and Ms. Margot  
 LeRoy  
 Mr. and Mrs. John W. Wade  
 Mr. Byron L. Walker  
 Dr. and Mrs. James A. Wells  
 Mrs. Mary A. Welsh  
 Robert and Christine Werst  
 Mr. Gregory D. Weyland  
 Dr. Dave Whitacre  
 Wildlife Experiences Inc.  
 Lisa Willemsen  
 Ms. Maxine A. Winer  
 Mr. Tom Witherington  
 Mr. Richard Wolcott  
 Mr. and Mrs. Ralph Wolter  
 Mr. Bob Wood and Ms. Sheila M.  
 Boester  
 Mr. and Mrs. Kenneth Wood  
 Mr. and Mrs. Jeff Woodman  
 Mr. Matthew Woodruff  
 Tanafriti Wright  
 Ms. Jenny Yakupzack  
 Mr. and Mrs. Michael A. Yates  
 Mr. Kurt Young and Ms. Marcia  
 VanderBroek  
 Mr. and Mrs. Jeff Zeltwanger  
 Mr. and Mrs. Hubert P. Zernickow  
 Mr. and Mrs. Robert B. Zoellick

thank you

■ \$100-\$199

Ms. Mary K. Abercrombie  
 Mr. Christopher Acker  
 Dr. Charles E. Alexander  
 Ms. Karen L. Allaben-Confer  
 Mr. David Allan  
 Meridith and Robert Allis  
 Ms. Kay Alspaugh  
 Mr. Mike Anderson  
 Mr. Richard Anderson  
 Ms. Sharon Anderson  
 Mr. and Mrs. Robert R. Angell  
 Anglers-Orvis Fly Shop  
 Mr. Raphael Arnaud  
 Mr. William H. Arneson  
 Ms. Stefanie Arthur  
 Ms. Beatrice Ashburn  
 Mr. and Mrs. Max Ault  
 Mr. Donald Ayres  
 Mr. and Mrs. Tom Backe  
 Mr. Fritz Baldauf  
 Mr. and Mrs. William Ballentine  
 Ms. Sylvia Barbarich  
 Mr. and Mrs. Albert P. Barker  
 Mike and Jocelyn Barker  
 Mr. Marshall G. Barnes  
 Mr. and Mrs. Rick Barongi  
 Ms. Kathy Bartholemy  
 Mr. and Mrs. Peter Battenfeld  
 Mr. and Mrs. Brian E. Battles  
 BCD Travel  
 Mr. and Mrs. Allan B. Beach  
 Mr. William Beardsley  
 Mr. and Mrs. Raymond Beaton  
 Mr. and Mrs. Bob Beckwith  
 Mr. and Mrs. Christopher J. Beeson  
 Mr. and Mrs. Steve Belardo  
 Ms. Melissa Beldon  
 Ms. Cynthia Bellah  
 Ms. Adele Bennett  
 Ms. Diane L. Beres  
 Ms. Judy Bernhard and Mr. Byron Spooner  
 Mr. John R. Bickel  
 Mr. A. Howard Bickerstaff, III  
 Mr. and Mrs. Jeffrey Bienick  
 Big Horn Environmental Consultants  
 Mr. and Mrs. Bliss Bignall, Jr.  
 Ms. Victoria Bishton  
 Mr. Steven G. Black and Ms. Wendie A. Wulff  
 Ms. Sunni Black  
 Ms. Veronique Blontrock  
 Mr. Peter H. Bloom and Ms. Rebecca Morales  
 Rolinda and Al Bloom  
 Mr. Ray Boehmer  
 Mr. and Mrs. Larry Bomke  
 Mr. and Mrs. Lee R. Bondurant  
 Ms. Judith Boyce

Dr. Marjorie A. Boyd  
 Ms. Mary J. Boyd  
 Mr. Patrick W. Boyd  
 Mr. and Mrs. Arthur Boysen  
 Ms. Fiona Branagh  
 Ms. Wendy Brenner  
 Ms. Laura Brickey  
 Ms. Clara Bright  
 Mr. and Mrs. Jeff Broberg  
 Mr. and Mrs. Gary Broker  
 Mr. and Mrs. Bart B. Brown  
 Mr. Duncan B. Brown  
 Mr. Ronald E. Brown  
 Ms. Beverly Brune  
 Mr. Don Bryant  
 Mr. and Mrs. William H. Bryant  
 Ms. Jill Bryson  
 Mr. David F. Buck  
 Mr. Robert K. Burke  
 Ms. Eleanor Buttmann  
 Cabelas  
 Mr. Jerome Cain  
 Mr. Stefan E. Calabria  
 Ms. Kim S. Caldwell  
 Mr. Clay Cannady  
 Ms. Darlene Carpenter  
 Mr. Mike Carpenter  
 Mr. and Mrs. Thomas E. Carroll  
 Mr. and Mrs. Lee A. Casebere  
 Mr. Kevin W. Cassel and Ms. Shirley Kaste  
 Mr. Rennie Castelino  
 Mr. Thomas Castellane  
 Mr. and Mrs. George Cawthon  
 Mr. Patrick Center  
 Mr. Robert Chamberlain  
 Ms. Carol Channel  
 Ms. Dawn A. Cheek  
 Mr. Carl Cheney  
 Mr. Jonathon W. Chow  
 Mr. and Mrs. Mark G. Churchill  
 Jeff, Kathy, Jack, and Robert Cilek  
 Mr. Peter Wm. Clark  
 Mr. Damian Clarke  
 Mr. and Mrs. Donald K. Clarke  
 Ms. Nova Clarke  
 Ms. Christina E. Clayton and Mr. Stanley Kolber  
 The Honorable William P. Clements  
 Dr. Jack Clinton-Eitniar  
 Mr. Robert J. Cmarik  
 Mr. Timothy Coble  
 Mr. and Mrs. David Cochran  
 Mr. Edward M. Coffman  
 A.T. and Cinda Cole  
 Mr. Roger Cole  
 Dr. Charles T. Collins  
 Mr. and Mrs. James C. Collins  
 Mr. Jonathan C. Colman  
 Ms. Deanna L. Combs  
 Mr. George Combs

Ms. Christy Commons  
 Ms. Wanda M. Commons  
 Ms. Shannon E. Conaty  
 Mr. Gordon Cone  
 Connecticut Falconer's Association  
 Ms. Linda Connolly  
 Mr. Thomas Connors  
 Mr. William Conway  
 Mr. and Mrs. John Cook  
 Mr. Ronald Cook  
 Dr. E. Newbold Cooper  
 Mr. and Mrs. Bruce Copeland  
 Ms. Melissa Coppock  
 Ms. Georgiann Cornelius  
 Duncan Costello  
 Mr. and Mrs. Tom Coulson  
 Mr. Tim Crawford  
 Mrs. Helen Crewse  
 Mr. Robert Cronshey  
 Ms. Brenda J. Curtin  
 Mr. Alan Czarnowsky  
 Mr. and Mrs. Robert F. Daily  
 Mr. Andy Daleiden  
 Ms. Elaine N. Daniel and Mr. James A. Bailey  
 Mr. and Mrs. Paul Dannhardt  
 Mr. Peter E. Dans  
 Ms. Shoshana Datlow  
 Ms. Lindsay Dault  
 Ms. Kate Davis  
 Mr. and Mrs. William Davis  
 Ms. Megan Day  
 Ms. Karen Delarosa  
 Mr. Adrian M. Delmont  
 Mr. John W. Denton  
 Mr. William Desler  
 Ms. Susie Dillon  
 Mr. and Mrs. Les Doak  
 Doane College Library  
 Mrs. Wendy Dodson  
 Ms. Leslee Doner  
 Mr. and Mrs. Bill Donovan  
 Dr. James M. Donovan  
 Mr. and Mrs. John Dorn  
 Ms. Barbara Douglas  
 Downtown Shoe Repair  
 Mr. and Mrs. C. Bert Dudley  
 Ms. Christine E. Duffy  
 Mr. Steve Duffy  
 Mr. and Mrs. John F. Dullmeyer, Sr.  
 Ms. Elizabeth A. Durham  
 Mr. and Mrs. Boyd L. Earl  
 Mrs. Susanna C. Easton  
 Mr. Jamey Eddy  
 Ms. Bonnie Eden  
 Ms. Coni Edick  
 Edson Family Chiropractic  
 Ms. Carol E. Edwards and Mr. John P. Gee  
 Mr. and Mrs. Richard Edwards

Ms. Nina Eldredge and Ms. Lisa Fernandez  
 Mr. and Mrs. Leland Endres  
 Ms. Dianne Engleke  
 Richard and Rebecca Evans Foundation  
 Ms. Maryon Evans  
 ExxonMobil Foundation-Matching Gift Programs  
 Mr. Michael Faison  
 Mr. Mark Feingold  
 Mr. Andrew Feld  
 Ms. Katherine Festa  
 Mr. Clark Fidler  
 Ms. Cheryl E. Flango and Mr. Keith J. Osiewicz  
 Drs. Greg and Tracy Florant  
 Mrs. Peggy Foley  
 Ms. Kathy Folsom  
 Mr. and Mrs. Steve J. Fonken  
 Mr. and Mrs. Oz Forrester  
 Mr. and Mrs. John Francis  
 Ms. Jeanette Frazier  
 Mr. Philip M. Freedman  
 Mr. and Mrs. Bill Freutel  
 Ms. Betty Friedman  
 Ms. Bernadette M. Frieht  
 Mr. Gary Fry and Ms. Lynn Dinelli  
 Mr. and Mrs. Frank Fuerst  
 Brian and Julie Gallagher  
 Mr. and Mrs. Tony Galvan  
 Ms. Pamela Garner  
 Mr. William J. Gehring, Jr.  
 Mr. Jay Richard George  
 Mr. and Mrs. Jerry A. George  
 Ms. Martha Gibbons  
 Mr. Thomas Gibson and Ms. Kay Evans  
 Sonny and Daniel Gichner  
 Mr. and Mrs. Richard Gidner  
 Ms. Susan Giesecke  
 Mr. King Gillespie  
 Dr. Jay Glass  
 Mr. John Glos  
 Mr. Joseph Goldman  
 Mr. and Mrs. Eric Goodman  
 Ms. Lauren E. Gordon  
 Mr. Stuart Gordon  
 Ms. Debra Goretzki  
 Mr. P. Ross Gorman  
 Mr. Tom Gossard

Ms. Nancy J. Gotwalt  
 Mr. Drew A. Graham and Ms. Bridget Leo  
 Grand Circle Field Institute  
 Gran-Del Petroleum Products, Inc.  
 Ms. Marion Greenhalgh  
 Ms. Jozeffa Ann Greer  
 Mr. Donald Gregory, Jr.  
 Mr. Norman E. Gribbins  
 Ms. Linda K. Grob  
 Mr. Joshua M. Grode  
 Mr. Tim Gurbick  
 Dr. and Mrs. William Guth  
 Mr. and Mrs. Steven Hahn  
 Haimish Holding, Inc.  
 Mr. and Mrs. Terry Hales  
 Mr. and Mrs. Henry Hallowell, Jr.  
 Mrs. Jane Hallowell  
 Ms. Janice Hambleton  
 Mr. David Hamel  
 Ms. Rhonda L. Hardesty Sipe  
 Mr. and Mrs. Logan Hardison  
 Mr. and Mrs. Donald Harenberg  
 Mr. Stuart Harrington  
 Ms. Janet Harris  
 Mr. and Mrs. Peter Harrity  
 Mr. Timothy P. Hart  
 Mr. and Mrs. Jim Hatchett  
 Mr. Scott A. Hauser  
 Mr. Daniel Hayes  
 Mr. and Mrs. Larry Hays  
 Dr. Alison M. Hazel and Mr. Michael J. Gefell  
 Mr. Todd R. Heidenreich  
 Mr. and Mrs. Peter Helming  
 Ms. Anita Hendrickson  
 Mr. Kurt Henke  
 Dr. Steve Herman  
 Ms. Susan Herrel  
 Mr. and Mrs. David H. Hibner  
 Mr. Don A. Hicks  
 Mr. Robert F. Hight  
 David and Mary Jane Hill  
 Mr. Jan Hintermeister  
 Mr. David Hoelzinger  
 Mr. James Holcomb  
 Ms. Sarah S. Holcomb  
 Mr. and Mrs. Russell Holdredge  
 Mr. Robert G. Holland  
 Mr. Robert P. Holmes, III  
 Mr. and Mrs. Scott Holt

Mr. Ken Hooke  
 Mr. Eric Hornaday  
 Houghton Mifflin Company  
 Mr. Craig Howard  
 Rich Howard  
 Mr. Val T. Howard  
 Ms. Elise Hudson  
 Mr. David M. Hummel  
 Dr. and Mrs. Grainger Hunt  
 Mrs. Shirley F. Hunt  
 Ms. Jenifer Hunter  
 Dr. and Mrs. Thomas R. Huntington  
 Ms. Holly Hutchison  
 IBM International Foundation  
 ING  
 Mr. and Mrs. Gregory A. Inskip  
 Mr. Trevor Jackson  
 Mr. Richard Jacobs  
 Mr. Markus Jais  
 Mr. David Jamieson  
 James and Alexa Jardine  
 Ms. Rebecca S. Jauquet  
 Alan and Sally Jenkins  
 Mr. Benjamin Jennings  
 Mr. Larry Jensen  
 Ms. Pamela C. Jerrett  
 Mrs. Jocelyn Jerry  
 Mr. Roland Jeske  
 Mr. David L. Johnson and Ms. Anne Nobles  
 Marcia and Bill Johnson  
 Ms. Beverly M. Jones  
 Ms. M. Louise Jones  
 Ms. Maggie Jones  
 Ms. Valerie M. Jones  
 Ms. Jennifer Jordan  
 Mr. William F. Jordan  
 Mr. Steve Justus and Ms. Valerie Grimes  
 Don and Michelle Kemner  
 Estate of Henry C. Kendall  
 Mr. Lowell Kent  
 Dr. William Keppler  
 Mr. Wade Hampton King, Jr.  
 Mr. and Mrs. Philip Kinney  
 Mr. and Mrs. Mel Lee Kirksey  
 Mr. Charles L. Klawitter  
 Christina and Jay Kleberg  
 Ms. Cheryl Kleinbart

thank you

Ms. Karen Kluge and Mr. Terry Rosenmeier  
 Ms. Belinda A. Knochel  
 Ms. Kris Knoernschild and Mr. Mark Murzin  
 Ms. Pamela Koon  
 Mr. Greg Korelich  
 Mrs. and Mr. Lisa Kornberg  
 Mr. and Mrs. Dan Kornberg-Porter  
 Mr. Donald E. Kudera  
 Mr. Munir Kureshi  
 Takashi and Reiko Kurosawa  
 Mr. and Mrs. Thaddeus F. Kusiak  
 Mr. and Mrs. David M. Labiner  
 Mr. James Lambe  
 Mr. and Mrs. Arthur Lambert  
 Dr. and Mrs. Roger Lang  
 Mr. and Mrs. Peter A. Langhus  
 Ms. Marie J. Langlois  
 Mr. Daniel Lass  
 Mr. and Mrs. Bertrand Latil  
 Ms. Karen Laughlin  
 Mr. and Mrs. Richard W. Lawin  
 Mrs. Betty S. Lawler  
 Mr. George Lawrence  
 Mr. Jeff Lawrence and Ms. Carol Overcash  
 Lawrence University  
 Mr. Tim Lawson  
 Ms. Connie Leavitt  
 Dr. and Mrs. William D. Lenzi  
 Mr. and Mrs. Andy F. Lerner, Jr.  
 Mr. Ed Levine  
 Mr. and Mrs. Kenneth M. Levine  
 Mr. Ted Levine  
 Ms. Joanne K. Lewis  
 Mr. and Mrs. Robert C. Lilly  
 Ms. Kristen Lindfors  
 Mr. and Mrs. Bill Link  
 Mr. and Mrs. Irving Littman  
 Ms. Ronna Loerch  
 Mr. George B. Lopez  
 Mr. Jaime Lopez  
 Ms. Julia Lord and Mr. Chris Kelly  
 Mr. John W. Love  
 Mr. Charles Lowery  
 Ms. Maryanne Lucas  
 Ms. Claire Lupton  
 Ms. Margaret Lyneis  
 Mr. and Mrs. William C. MacBride  
 Ms. Lynn MacDonald  
 Mr. J. Frederick Mack  
 Mr. and Mrs. Wallace MacLaren  
 Dr. William MacLeod  
 Dr. and Mrs. John MacMillan  
 Mr. and Mrs. Craig Madsen  
 Mr. and Mrs. Bruce J. Magelky  
 Ms. Sapra Maloor  
 Mr. David Mann  
 Maple Elementary School

Ms. Aida Markiw  
 Mr. and Mrs. George Marshall  
 Ms. Marker B. Marshall  
 Mr. and Mrs. Russell Martenson  
 Mr. Paul Martin  
 Mr. and Mrs. William Martin  
 Mr. and Mrs. Paul Mascuch  
 Mr. Mike Matejcek  
 Mr. Zin Matheny  
 Mrs. Nobuko McClure  
 Mr. and Mrs. Harry C. McElroy  
 Mr. and Mrs. John B. McGowan  
 Ms. Jerrie McIntyre  
 Mr. and Mrs. Craig McKenzie  
 Ms. Ellen McKinney  
 Mr. Gordon L. McLennan  
 Mr. William T. McMath  
 Mr. F. Arthur McMorris  
 Mr. Steve McNall  
 Mr. Scott McQuarrie  
 Mr. and Mrs. Gary McStay  
 Mr. Michael P. McSweeney  
 Mr. Leon Medvec  
 Ms. Colleen Hyde Meigs  
 Dr. and Mrs. David K. Merrick  
 Ms. Colleen Merrill  
 Ms. Marilyn Meshell  
 Ms. Shannon Meyers  
 Ms. Kim Middleton  
 Mr. and Mrs. Rufus L. Miley  
 Mr. James M. Miller  
 Ms. Leslie Miller  
 Mr. Louis Miller  
 Mr. and Mrs. Michael K. Miller  
 Mr. Henry H. Minor  
 Dr. Jack Mitch  
 Mr. Judson B. Montgomery  
 Mr. and Mrs. Richard Montgomery  
 Mrs. Helen Fox Moody  
 Mr. Richard Moore  
 Morgan Stanley  
 Mr. Cory D. Morgenstern  
 Mr. Bill Morris  
 Mr. and Mrs. Howard Morris  
 Mr. Scott W. Morrow  
 Mrs. Alida Morzenti  
 Ms. Abbe L. Mulholland  
 Dr. Margit Gabriele Muller  
 Mr. and Mrs. Dennis Mulshine  
 Ms. Jill L. Murphy  
 Mrs. Marilyn S. Murphy  
 Mr. and Mrs. Bob Mutch  
 Ms. Caroline Natwick  
 Mr. Hernan Navarro, Jr.  
 Ms. Pamela Negri  
 Mr. and Mrs. Kevin Nelson  
 Dr. Arthur Neuburger  
 Ms. K. K. Newkirk and Mr. William H. Hazle  
 Mrs. Russell L. Nicholson

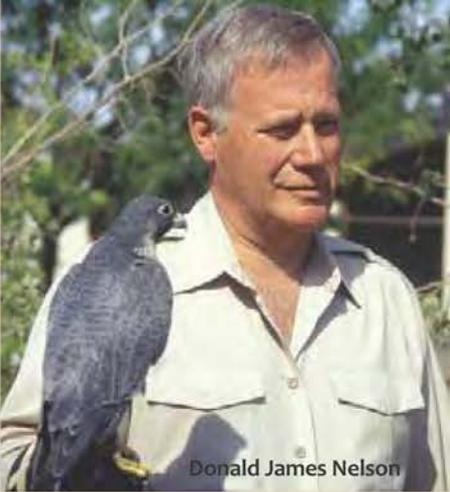
Mr. and Mrs. Tom Nicholson  
 Mr. and Mrs. Liston Noble  
 Ms. Elaine O. Nydick  
 Mr. and Mrs. Bob Oakleaf  
 Ms. Louise J. O'Connell  
 Ms. Rebecca Olsen  
 Onondaga Audubon Society  
 Ornithological Society of the Middle East, London  
 F. Edward and Jeanne P. Osborne Family Foundation, Inc.  
 Mrs. Mary B. Palmer  
 Mr. and Mrs. Michael Palmer  
 Mr. Charles D. Parker  
 Dr. Jim D. Paruk and Ms. Stefania K. Strzalkowska  
 Ms. Ethel M. Patterson  
 Mr. Gregory Pavelka  
 Mr. Ray Pazos and Ms. Noreen Walsh  
 Mr. and Mrs. Richard J. Pearson  
 Ms. Jean Perata  
 Ms. Dorothea Perrin  
 Mr. and Mrs. Chris Peters  
 Ms. Sara Jean Peters  
 Dr. and Mrs. David K. Merrick  
 Dr. Mike Petersen  
 Mr. and Mrs. Rudolf Petersen  
 Mr. and Mrs. Len Peterson  
 Mr. and Mrs. Jack G. Peterson  
 Mr. Rand K. Peterson  
 Ms. Carol A. Petro  
 Mr. Leonard J. Peyton  
 Pheasant Farms, LLC  
 Mr. and Mrs. Donald Pica  
 Mr. Robert D. Pierce  
 Ms. Louise Plank  
 Dr. Bruce Poland  
 Mr. David Potter  
 Mr. C. Donald Powers  
 Mr. and Mrs. Donald M. Powers  
 Mr. Ralph A. Pray  
 Mr. and Mrs. Ronald W. Prestfeldt  
 Ms. Ann Prezyna  
 Ms. May E. Price  
 Mr. Aaron Putnins  
 Mr. and Mrs. Lawrence Quiel  
 Noel Quinn  
 Ms. Mabel A. Quinto and Mr. William Hildebrandt  
 Mr. and Mrs. Fred Rajc  
 Mr. and Mrs. Myron Rand  
 Raptors of the Rockies  
 Mr. Peter Ray  
 Mr. Bayard D. Rea  
 Margaret W. Reed Foundation  
 Ms. Pamela Register  
 REI  
 Mr. Kyle Reiser  
 Ms. Ann E. Reitz  
 Ms. Nina S. Rensenhous  
 Ms. Deborah Reynolds

Ms. Pamela Riley  
 Mr. Dave Rimlinger  
 Tom and Charlene Ripke  
 Riverstone International School  
 Ms. Lynne Roberts  
 Ms. Rebecca Olsen  
 Rochester Birding Association  
 Mr. Gary Rode  
 Cmdr. Michael Rodman  
 Mr. Tom Rosmond  
 Mr. R. Thomas Ross  
 Mr. and Mrs. Robert E. Ross  
 Mr. Jeffrey Roy  
 Mr. and Mrs. Charles Rubens, II  
 Ms. Elissa Rudolph  
 Mr. Joseph H. Ruf  
 Mr. Gary G. Ruhser and Mrs. Jean C. Ruhser  
 Mr. and Mrs. James Ruos  
 Mr. and Mrs. Steven Russell  
 Ms. Wendy Russell  
 Ms. Patricia A. Russo  
 Tom and Suzy Ryder  
 Ms. Lorraine C. Saarie  
 Mr. Morris Sadicario  
 Cmdr. and Mrs. Ralph Sallee  
 Mr. and Mrs. Calvin E. Sandfort  
 Mr. G. Brett Saunders  
 Mr. Allan Savory  
 Mr. Aaron J. Saxon  
 Ms. Jacqueline Schafer  
 Dr. William Scheible  
 Mr. Fred Scheppele  
 Mr. and Mrs. Joel Schick  
 Ms. Mary Schlosser and Dr. Stewart J. Hazel  
 Mr. Thomas K. Schmidt  
 Mrs. Gretchen Schnabel  
 Mr. Paul Schneider  
 Mr. and Mrs. Paul T. Schnell  
 Mr. and Mrs. Jonathan Schofield  
 Mr. Jonathan M. Schofield  
 Mr. and Mrs. A. A. Schonder  
 Mr. Frederick D. Schroeder  
 Mr. Ky Schroeder  
 Mr. Virgil Schwab  
 Mr. Ryerson E. Schwark and Ms. Jenny L. Gibbons  
 Mr. Lars J. Segog  
 Mr. John Seidl  
 Avery and Susan Seifert  
 Ms. Judith Semple  
 Mr. Benji Shake  
 Mr. Mark Sharky  
 Mr. Michael Shaw  
 Ms. Donna Shearer  
 Dr. Steve Sherrod  
 Mrs. Joan Bopp Shor  
 Tamra and Michael Shotts  
 Mr. Rod Shown  
 Mr. Mark Shuford

Mrs. Amy Siedenstrang and Mr. Jake Ellis  
 Mr. David Sinton and Ms. Missy Siders  
 Mr. and Mrs. Jeffrey Sipple  
 Dr. Joseph Skorupa  
 Dr. Mark Sloan  
 Mr. and Mrs. Edward C. Stottow  
 Mr. Matthew Smar  
 Mr. David F. Smith  
 Ms. Lou Ann Smith  
 Mr. and Mrs. Terry Smith  
 Smoky Davis Meats  
 Mr. and Mrs. Tom Smylie  
 Mr. and Mrs. Jeffrey Smythe  
 Mr. Eric Soehren  
 Sonoran Audubon Society  
 Ms. Renee Sosa and Mr. Alexander Michael  
 Mr. Charles R. Stirrat  
 Peter and Tove Stocks  
 Mr. and Mrs. Russell Strader  
 Mr. and Mrs. Paul Street  
 Mr. Tom Stricker  
 Mr. Tom Strikwerda  
 Ms. Jennifer Strutz  
 Mr. Michael Stubbe  
 Mr. Michael Stude  
 Mr. Rudolph Stutzmann  
 Mr. and Mrs. David Suhr  
 Mr. and Mrs. Dennis Sullivan  
 Mr. and Mrs. Jay Sumner  
 Ms. Wendy Swanson  
 Philip and Barbara Syrdal  
 Ms. Betty Tableman  
 Nelson Talbott Foundation  
 Mr. Nelson Talbott  
 Ms. Ruth Tatter  
 Ms. Nancy Tatum  
 Ms. Ginger Taylor  
 Mr. William Terry  
 Ms. Mary Thom  
 Mr. James Thomas  
 Mr. Robert Thomasson  
 Ms. Debra Thompson  
 Mrs. Dwight C. Thompson  
 Ms. Lynda Ellenshaw Thompson  
 Ms. Lynda Thorstrom  
 Mrs. Jerry Jean Tileston  
 Ms. Laurie Todd  
 Sei Tokuda  
 Mr. Michael J. Tomas, III  
 Mr. A.J. Tompkins  
 Ms. Susan Towery  
 Mr. Clinton Townsend  
 Ms. Martha C. Trainer  
 Ms. Mary Trapnell  
 Mr. John A. Trunnell  
 Mr. Eliot P. Tucker  
 The Tuesday Birders

Ms. Jenel M. Turner  
 Mr. William C. Tuthill  
 Mr. and Mrs. Stephen M. Unfried  
 University of North Carolina, Pembroke  
 Mr. Ron Updegrave  
 Mr. Arnaud Van Wettere  
 Mr. and Mrs. Richard S. Vandenburg  
 Mr. John Vandermeer  
 Mr. Bill Vandervalk  
 Ms. Martha Loar Vandervoort  
 Mr. Maureen Vanek  
 Ms. Janis VanWyle  
 Mr. and Mrs. Bill Velasquez  
 Mr. Michael Vitte  
 Mr. and Mrs. William Vogel  
 Ms. Catherine Volpe-Proctor  
 Ms. Theona Vyvial  
 Mrs. Emily Wade  
 Mr. and Mrs. Lothar F. Warneke  
 Mr. Thomas Warren  
 Mr. David Warwick  
 Mrs. Winifred Washco  
 Mr. Robert Wasilewski  
 Mr. Michael Watkins  
 Mr. Ernest Way  
 Dr. Gary Weddle  
 Mr. Dave Weeshoff  
 Ms. Elizabeth Wehrli  
 Ms. Mary Weigel  
 Ms. Susan Whaley  
 Ms. Pam Wheeler  
 Mr. and Mrs. Jon Wiese  
 Wild Birds Unlimited of Boise  
 Wildsight Productions, Inc.  
 Mr. David E. Wilhelm  
 Ms. Ashley Williams  
 Ms. Jeanne Williams  
 Mr. Mark Williams  
 Ms. Joan A. Wilson  
 Ms. Joann Wilson  
 Ms. Dawn Wilson-Enoch  
 Ms. Annie Wise  
 Mr. Jeff Wneck  
 Ms. Lisa Woldin  
 Ms. Frances S. Wolfson  
 Riley and Sage Wolter  
 Mr. Edward F. Wood  
 Mr. and Mrs. Dale C. Woolley  
 Mr. and Mrs. William L. Woolley  
 Mr. Chris Yadon  
 Ms. Susan Yanchuck  
 Ms. Roberta L. Youmans  
 Mrs. Jack C. Young  
 Mr. Leonard Young  
 Ms. Stephanie Youngerman and Mr. Robert Jahn  
 Ms. Debbie Zalmana

If you do not find your name, or find it in an inappropriate location or incorrectly spelled, please let us know. Accuracy is very important to us and although we try hard, sometimes mistakes occur.



Donald James Nelson

Former Chairman of the Board and good friend of The Peregrine Fund, **Donald James Nelson**, died from the effects of a stem cell transplant on 11 March 2010. A resident of Boise, Idaho, Jim had been diagnosed previously with MDS, Myelodysplastic syndrome.

Jim joined The Peregrine Fund Board of Directors in 1993 and served as chairman and secretary. He was a strong supporter of the World Center for Birds of Prey, contributing time, equipment, and resources to numerous landscaping and construction projects. He helped pave the road to our hilltop campus, which made it possible to open our doors to the public. Exceptional

people skills made him an extraordinary advocate for the organization in the community. The Christmas parties he hosted each year were eagerly anticipated by the staff and their family and friends.

For 30 years, Jim was president of Nelson Construction. Known for his vitality, intellectual curiosity, and zest for life, Jim included the environment among his many passions. An avid traveler, Jim visited and participated in Peregrine Fund projects in Greenland, Guatemala, Panama, and Hawaii. He surveyed migrating Peregrines in Texas for research projects and was part of a board trip to Ecuador and the Galapagos Islands.

Jim is survived by his wife, Karin, also a good friend and contributor, and their two children and four grandchildren. A memorial service to honor Jim's life was held at the World Center for Birds of Prey on March 22.

It is with great sadness that we report the passing of **Dr. J. Lindsay Oaks**, College of Veterinary Medicine at Washington State University, after a brief battle with an aggressive neuroendocrine tumor. Lindsay was a close collaborator and long-time friend of The Peregrine Fund, first involved as a teenager in the 1970s with the captive breeding and restoration of endangered Peregrine Falcons. He subsequently qualified as a veterinarian and specialized in veterinary microbiology. He may be best known for his role in 2000–2003 helping us discover that veterinary diclofenac was the primary cause of mortality that drove the catastrophic decline of *Gyps* vultures in South Asia. He also worked with us to discover and prevent a viral agent causing mortality in captive Aplomado Falcon chicks in the mid-1990s, and in 2008 to expose lead from spent ammunition, a fatal element in food consumed by California Condors, as a contaminant also of processed venison consumed by humans. He advised us on everything from West Nile virus to highly pathogenic H5N1 bird-flu, and how to respond to these threats. His interests and collaborations go well beyond these accomplishments; he will be missed by many.



Dr. J. Lindsay Oaks, D.V.M., Ph.D

Martin Gilbert

Former Peregrine Fund board member **Daniel J. Brimm**, 86, died 19 December 2010, at his home in La Jolla, California. He served on the board from 1981 to 1988. Dan was a founder of Chemtronics, an aerospace components manufacturing company. After retiring in 1986, he devoted his time and resources to breeding, rehabilitating, and recovering Peregrine Falcons.

# volunteers

## ■ The Archives of Falconry

Bob Collins  
Peter Devers  
Jim Hansen  
Rachel Hollis  
Bill Mattox  
Natalie Nicholson  
Vicki Swift

## ■ Velma Morrison Interpretive Center

Alexis Neufeld  
Allan Wylie  
Amanda Brumbaugh  
Anne Blair  
Arielle Hobbs  
Barbara Fordham  
Barbara Girard  
Betty Purdy  
Beverly Fransen  
Bill Belknap  
Bill Rath  
Bonnie Helzer  
Brit Peterson  
Bruce Parks  
Chan Springer  
Christa Braun  
Christy Commons  
Claudia Fernsworth  
Claudia Laushman  
Connie Leavitt  
Dale Howard  
Dave Oliver  
Dean Sangrey  
Deanna Combs  
Deb Anderson  
Denise Rotell  
Diann Stone  
Dick Thatcher  
Doug Brown  
Dylan Baker  
Eileen Loerch  
Eric Tabb  
Fletch Breedlove  
Fred Pugh  
Gerrit Tallabas  
Gina & Kate Bush  
Heather Nichols  
Helen Crewse  
Jack Osgood  
Jack Lupien  
Jessica Wood  
Jill Bragdon  
Joni Frey  
Jude Streicher  
Judy Weidner  
Julie Ekhoff  
Kathryn Hampton  
Kathryn Hobson  
Keats Conley  
Kit Fawcett  
Leo Faddis  
Lila Streicher  
Lindsey Hamilton  
Marcia Ross  
Maryon Evans  
Maud Bolstad  
Michael Shaw  
Mike Garets  
Milt Melzian  
Mitch and Linda Mitchell  
Monica Pittman  
Morgan Peters  
Nancy Oliver  
Nikki Sartin  
Pam Lowe  
Pat Hovland  
Patty Stone  
Pennie Guy  
Randy Rasmussen  
Raquel Haley  
Ray Brucks  
Rick Deisher  
Ron Price  
Ron Crayton  
Ruth Kassens  
Scott Dowdle  
Shannon Steege  
Sheryl Parks  
Stephen Gradhandt  
Steve Lewis  
Toree Tucker  
Val Grimes  
Vivian Upton  
Wieteke Holthuijzen

## ■ East Africa Project

Gordon Brown  
Evan Buechley  
Titus Iboma  
Rebecca Johnson  
Shiv Kapila  
Angus Keys  
Paul Kirui  
John Musina  
Darcy Ogada  
Hetal Patel  
Matt Podolsky  
Leisamon Sankai  
Simon Thomsett

## ■ Asian Vulture Crisis Project

Patrick Benson  
Shiv Kapila  
Yeray Seminario

## ■ Harpy Eagle

Aristides Tazon  
Rigoberto Aripio

## ■ Orange-breasted Falcon

Carlos Cruz  
Camille Meyers

## ■ Library

Mark Fuller  
Ruth Jacobs  
Julie Kiff  
Susan Touissant  
Tom Zariello

Volunteers at our  
Boise facility donated  
more than 7,000  
hours in 2010

# staff

## ■ United States

Linda Behrman  
Joell Brown  
Derek Buchner  
Pat Burnham  
Jack Cafferty  
David Cline  
Marta Curti  
Donna Daniels  
Sam Davila  
Edward Feltes  
Michael Garets  
Brian Gloshen  
Sherri Haley  
Bill Heinrich  
Grainger Hunt  
Marti Jenkins  
J. Peter Jenny  
Paul Juergens  
Meagan Kaiser  
Lloyd Kiff  
Camille Kirkpatrick  
Andria Kroner  
Amel Mustic  
Brian Mutch  
Julia Nadal  
John Neilson  
Trish Nixon  
Geoff Pampush  
Chris Parish  
Nick Piccono  
Matthew Podolsky  
Mark Purdy  
Shaun Putz  
Travis Rosenberry  
Cal Sandfort  
Amy Siedenstrang  
Heather Springstead  
Paul Spurling  
Cindy Thiel  
Russell Thorstrom  
Rick Watson  
Eric Weis  
David Wells  
Susan Whaley  
Amanda Wilhelm  
Jim Willmarth  
Allyson Woodard

Archivist, John Swift  
Archivist Emeritus, S. Kent Carnie

## ■ Neotropics

Hernan Vargas

## ■ Pan Africa

Munir Virani

## ■ Madagascar

Tolojanahary R. A. Andriamalala  
Adrien Batou  
Be Berthin  
Augustin N. Bonhomme  
Eloi Fanameha (Lala)  
Jean Louis Andry Hiankinantsoa  
Jaomizara  
Eugene Ladoany  
Kalavah R. Loukman  
Jules Mampiantra  
Moïse  
Monesse  
Charles Rabearivelo (Vola)  
Berthine Rafarasoa  
Jeannette Rajesy  
Marius P. H. Rakotondratsima  
Michel Rakotoson  
Donatien Randrianjafiniasa  
Gaston Raocelison  
Bien Aimé Rasolonirina  
Ernest Razafimandimby  
Gilbert Razafimanjato  
Joseph Razafindrasolo  
Jacquot M. Razanakoto (Lova)  
Lily Arison Rene de Roland  
Seing T. Sam  
Gilbert Tohaky  
Soalihy Tongamoelinakily



Jack Cafferty

Jack Osgood (left), who volunteered at the World Center for Birds of Prey well into his 90s, feeds a Harpy Eagle held by staff member Jim Willmarth. Special “behind-the-scenes” tours like this are now offered to the general public.



## Why should I give at the office?

- A payroll deduction automates giving year-round
- Record-keeping for tax purposes is simple
- Your employer may match your contribution, enabling your donation to accomplish even more
- The Peregrine Fund participates in EarthShare and the Combined Federal Campaign



### ■ The Peregrine Fund's financial status

continued to be impacted by the economy, as unrestricted revenues, gains, and other support decreased by 4.6% from fiscal year 2009 levels. The largest impact to operating revenue was the result of a timing issue on a government grant, resulting in approximately \$480,000 of grant revenue being recorded in fiscal year 2011, instead of fiscal year 2010 as originally budgeted.

Decreases in salaries and benefits implemented during fiscal year 2009 were continued for fiscal year 2010 in order to keep expenses within estimated revenue projections while at the same time continuing critical programmatic work.

The decrease in net assets for the year was \$370,494, which includes investment income of \$893,174 and a decrease in pledges receivable of \$761,596.

The financial results depicted are derived from The Peregrine Fund's audited September 30, 2010 financial statements, which contain an unqualified opinion. The complete audited financial statements can be obtained by contacting The Peregrine Fund, Administrator, 5668 West Flying Hawk Lane, Boise, Idaho 83709.

### ■ STATEMENT OF FINANCIAL POSITION

AT SEPTEMBER 30, 2010 AND 2009

<b>Assets:</b>	<b>2010</b>	<b>2009</b>
Cash and cash equivalents	1,229,452	1,469,630
Grants receivable	102,654	100,000
Pledges and other receivables	1,026,264	1,709,843
Inventory, prepaids, and other assets	107,114	80,870
Property and equipment (net of depreciation)	5,137,284	5,210,421
Archives collection	2,276,960	2,253,977
Endowment assets	9,702,738	9,132,925
<b>TOTAL ASSETS</b>	<b>\$19,582,466</b>	<b>\$19,957,666</b>

#### Liabilities and Net Assets:

##### LIABILITIES

Accounts payable	65,829	86,000
Accrued taxes and expenses	28,832	44,050
Deferred revenue	30,683	—
<b>TOTAL LIABILITIES</b>	<b>125,344</b>	<b>130,050</b>

##### NET ASSETS

Unrestricted	17,705,367	17,157,734
Temporarily restricted	1,751,755	2,669,882
<b>TOTAL NET ASSETS</b>	<b>19,457,122</b>	<b>19,827,616</b>

<b>TOTAL LIABILITIES AND NET ASSETS</b>	<b>\$19,582,466</b>	<b>\$19,957,666</b>
---	---------------------	---------------------

**STATEMENT OF ACTIVITIES**

FOR THE YEAR ENDED SEPTEMBER 30, 2010, WITH COMPARATIVE TOTALS FOR 2009

**OPERATING REVENUES AND EXPENSES**

Revenues:	2010 Total	2009 Total
Contributions utilized (note 1)	3,761,110	3,565,551
Government grants	631,195	973,800
In-kind revenues	270,368	310,627
Admissions and sales	185,714	172,431
Endowment funds utilized	413,300	500,000
Other	46,488	41,258
<b>Total unrestricted revenues, gains, and other support</b>	<b>5,308,175</b>	<b>5,563,667</b>
<b>Expenses:</b>		
Program expenses		
Species restoration	2,148,565	2,409,663
Conservation programs	1,326,537	1,365,798
Education / information	1,033,855	1,099,660
<b>Total program expenses</b>	<b>4,508,957</b>	<b>4,875,121</b>
Supporting services expenses		
Administration	388,246	359,267
Fundraising	380,936	305,739
Membership	76,628	87,168
<b>Total supporting services expenses</b>	<b>845,810</b>	<b>752,174</b>
<b>Total expenses</b>	<b>5,354,767</b>	<b>5,627,295</b>

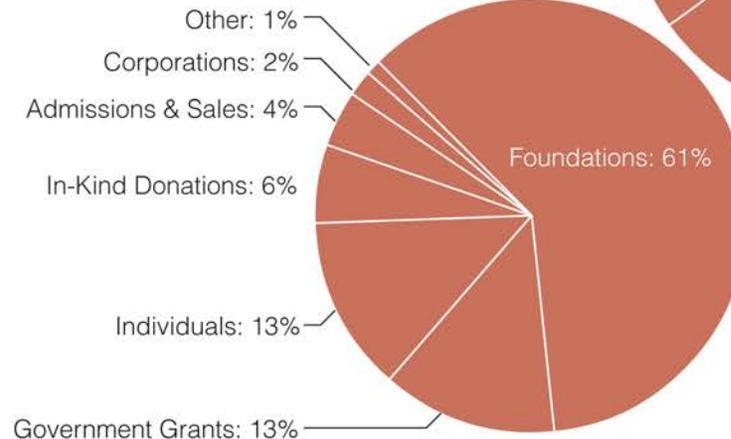
Operating revenues over operating expenses (46,592) (63,628)

**NON-OPERATING ACTIVITIES AND PLEDGES**

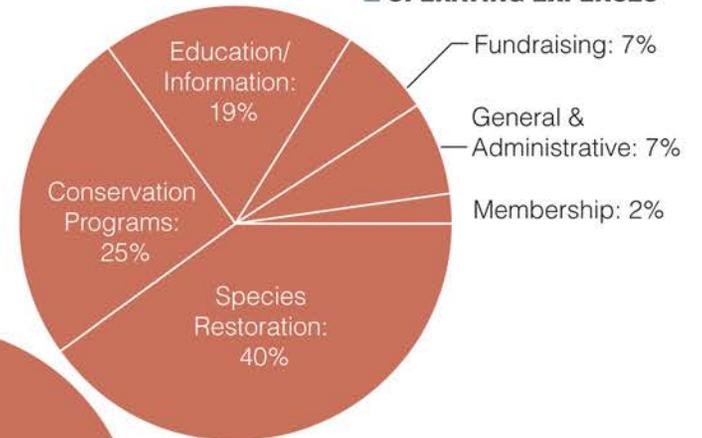
Non-operating activities:	2010 Total	2009 Total
Bequests and endowments	98,092	61,228
Investment income (loss)	893,174	(185,943)
Endowment funds utilized	(413,300)	(500,000)
<b>Pledges and contributions designated for future years:</b>		
Pledges and contributions	99,058	1,741,941
Prior year's revenue used in current year (1,000,926)		(448,847)
<b>Total non-operating activities and pledges (323,902)</b>	<b>668,379</b>	
<b>Increase (decrease) in net assets (370,494)</b>	<b>604,751</b>	
<b>Net assets at beginning of year 19,827,616</b>	<b>19,222,865</b>	
<b>Net assets at end of year 19,457,122</b>	<b>19,827,616</b>	

Note 1: Contributions utilized in 2010 includes current year contributions of \$2,760,184, and prior years' contributions released from restrictions of \$1,000,926.

**OPERATING REVENUES (excluding endowment)**



**OPERATING EXPENSES**





# THE PEREGRINE FUND

**World Center  
for Birds of Prey**  
5668 West Flying Hawk Lane  
Boise, Idaho 83709  
United States of America

**Business Office**  
(208) 362-3716

**Interpretive Center**  
(208) 362-8687

**Fax**  
(208) 362-2376

**E-mail Address**  
tpf@peregrinefund.org

**Website**  
www.peregrinefund.org

## BOARD OF DIRECTORS OF THE PEREGRINE FUND

### OFFICERS AND DIRECTORS

**Lee M. Bass**  
Chairman of the Board and Director  
President, Lee M. Bass, Inc.

**Carl A. Navarre**  
Vice Chairman of the Board and Director  
Book Publisher and CEO, MyPublisher, Inc.

**J. Peter Jenny**  
President and Director

**Richard T. Watson, Ph.D.**  
Vice-President

**Patricia B. Manigault**  
Treasurer and Director  
Conservationist and Rancher

**Samuel Gary, Jr.**  
Secretary and Director  
President, Samuel Gary, Jr. & Associates, Inc.

**Tom J. Cade, Ph.D.**  
Founding Chairman and Director  
Professor Emeritus of Ornithology,  
Cornell University

**Ian Newton, D.Phil., D.Sc., FRS.**  
Chairman of the Board, Emeritus, and Director  
Senior Ornithologist (Ret.)  
Natural Environment Research Council  
United Kingdom

**Paxson H. Offield**  
Chairman of the Board, Emeritus, and Director  
Chairman of the Board, Santa Catalina Island  
Company

**Henry M. Paulson, Jr.**  
Chairman of the Board, Emeritus

**Julie A. Wrigley**  
Chairman of the Board, Emeritus  
Chairman and CEO, Wrigley Investments LLC

### DIRECTORS

**Robert B. Berry**  
Trustee, Wolf Creek Charitable  
Foundation, Rancher, Falcon  
Breeder, and Conservationist

**Harry L. Bettis**  
Rancher

**P. Dee Boersma, Ph.D.**  
Wadsworth Endowed Chair  
in Conservation Science  
University of Washington

**Frank M. Bond**  
Attorney at Law and Rancher

**Robert S. Comstock**  
President and CEO  
Robert Comstock Company

**William E. Cornatzer**  
Dermatologist, Falconer,  
and Conservationist

**Derek J. Craighead**  
Ecologist

**Scott A. Crozier**  
Attorney at Law

**James H. Enderson, Ph.D.**  
Professor Emeritus of Biology  
The Colorado College

**Caroline A. Forgason**  
Partner,  
Groves-Alexander Group LLC

**Karen J. Hixon**  
Conservationist

**Donald R. Kayser**  
Private Investor

**Jacobo Lacs**  
International Businessman and  
Conservationist

**Ambrose K. Monell**  
Private Investor

**Carter R. Montgomery**  
Managing Partner, Central Energy, LP

**Velma V. Morrison**  
President, Harry W. Morrison  
Foundation

**Ruth O. Mutch**  
Investor

**Lucia Liu Severinghaus, Ph.D.**  
Research Fellow,  
Research Center for Biodiversity  
(retired)  
President, Raptor Research  
Group of Taiwan

**Steven P. Thompson, LLC**  
Regional Director for California  
and Nevada Region (Ret.)  
U. S. Fish and Wildlife Service

**R. Beaugard Turner**  
Fish and Wildlife Manager  
Director of Natural Resources  
Turner Enterprises, Inc.

**Russell R. Wasendorf, Sr.**  
Chairman and CEO, PFGBEST

**James D. Weaver**  
President, Grasslans Charitable  
Foundation and Rancher