



Inside

Friends Flourish, page 3

Refuges in southwestern Louisiana and the northernmost reaches of Idaho are finding innovative ways to help new refuge Friends groups take root

Yukon Delta Refuge Hosts Major Shorebird Research, pages 4-5

The refuge is the site for new multi-national scientific effort to better understand migration of bar-tailed godwits and sharp-tailed sandpipers

Focus on... Nature Photography, pages 8-14

A bird's-eye view on one of the Nation's most popular activities

Learning a New Language, pages 18-19

¿Qué pasa? Spanish is "happening" across the Refuge System

Named For Women

Many refuges are named for noted individuals. Three refuges are named for women:

Elizabeth A. Morton NWR, NY, was named after a New York citizen who donated lands for the refuge in 1954.

Rachel Carson NWR, ME, was named for the author of *Silent Spring* and other notable writings that helped spur several conservation laws and shape society's views on environmental protection. She worked for the Fish and Wildlife Service for a time.

Julia Butler Hansen NWR for the Columbian White-tail Deer, WA, was named for a former member of Congress who had a significant influence on natural resource programs, including the Refuge System.

RefugeUpdate

May/June 2005 Vol 2, No 3

Business and Conservation Partners Safeguard World-Class Wetlands



Catahoula NWR, LA, is a key stepping stone for hundreds of thousands of waterfowl and other migratory birds and a popular destination for tens of thousands of sportsmen each year. (USFWS)

Some of the most wildlife-rich wetlands and bottomland forests in the heart of the Mississippi Flyway will soon become a part of Catahoula NWR, LA, thanks in large part to a groundbreaking new public-private partnership called "Acres for America."

The acquisition of more than 6,000 acres of vulnerable habitat was one of just five signature projects funded by the new program when it was unveiled in April by the National Fish and Wildlife Foundation and Wal-Mart Stores, Inc.

"This is a gift by Wal-Mart to the American people," said Acting Fish and Wildlife Service Director Matt Hogan. "Wal-Mart's innovative conservation program will soon be the model for corporate America. We are honored to have Catahoula National Wildlife Refuge selected as one of the first projects funded under this new program."

The new tract, adjacent to the refuge's 15,000 existing acres, was owned by American Electric Power for the last four years and managed by the Service under a cooperative agreement, during which time some 10,000 acres within the refuge boundary were reforested. When the agency learned AEP planned to sell the land, it turned to The Conservation Fund to help identify funding sources and negotiate a deal.

With a grant from "Acres for America," initiated by the National Fish and Wildlife Foundation to protect critical wildlife habitat across the country, The Conservation Fund completed a \$2 million fundraising campaign to acquire the tract, which it will soon donate to the Service to purchase Catahoula Refuge.

Ultimately, the acquisition was made possible with a \$1 million grant from



From the Acting Director

What You Might Be Missing

In Texas, San Bernard National Wildlife Refuge will build a

the headquarters will also be able to take the Lake Champlain Auto Birding Trail – a multi-partner project – as they tour this refuge, one link in a chain of 100 birding hotspots within the Lake Champlain basin.

boardwalk, observation deck and interpretive facilities to give people a close-up view of the thousands of waterfowl, shorebirds, wading and water birds that flock to the Wolfweed wetland area, created through a partnership among the Fish and Wildlife Service, Ducks Unlimited, Phillips Petroleum and the National Fish and Wildlife Foundation. Within easy reach of 3 million Houstonians, the refuge estimates the visitor enhancement projects will not only increase awareness of resource conservation, but also could contribute about \$25,000 annually to the local economy.

In Vermont, Missisquoi National Wildlife Refuge expects to complete a new hiking trail this fall, in time for the grand opening of its headquarters. Those who stop at

In Minnesota, the Prairie Wetlands Learning Center's Prairie Science Class was recently featured in *Science Scope*, the National Science Teachers Association's peer-reviewed journal. The article hailed the program, a partnership between the Fish and Wildlife Service and the Fergus Falls public schools, as "pioneering a trail" in interdisciplinary learning.

Refuge System lore recounts the days when wardens guarded against public use of national wildlife refuges. Those days are gone. While we recognize that carrying capacity on refuges requires delicate balance, we also recognize that Americans' support for the Refuge System will remain solid only when they understand what we do. The 60-plus visitor

enhancement projects funded in fiscal years 2004 and 2005 are among many programs and projects that attest to full implementation of the National Wildlife Refuge System Improvement Act.

Our visitor services today are expansive, giving students an appreciation of the natural world; opening volunteer opportunities; providing access for those with disabilities; and making the protection of our outdoor heritage a part of community life. Whether watching wildlife through a camera's lens, fishing, or just being enthralled by wildlife along some of our 2,500 miles of land and water trails, those who visit a wildlife refuge take home enduring memories.

In partnership with Friends organizations and others, the Refuge System is delivering cost-effective visitor services at hundreds of refuges across the country, even as the number of visitors keeps growing. That's why our visitors keep coming back.

— Matt Hogan



Chief's Corner

Welcoming Public to Their Land

Cache River National Wildlife Refuge Manager

Dennis Widner is prepared to welcome visitors hoping to catch a glimpse of an Ivory-billed woodpecker, thought to be extinct for more than 60 years until one was spotted on the Arkansas refuge in April. As the vacation season gets underway, other national wildlife refuges are equally ready for the predictable boost in visitation. That can only help the Refuge System. As the travel industry rebounds, national wildlife refuges could well become

destinations. Publicity about rare species may heighten public interest in a few refuges, but how should we work to increase knowledge about the National Wildlife Refuge System overall?

Recognizing the importance of a close connection between fish and wildlife resources and the American people, the National Wildlife Refuge System Improvement Act encourages recreational uses that are compatible with our overriding mission to protect and enhance habitat and wildlife. The "big six" priority uses in the Refuge Improvement Act have served us well, bringing 40

RefugeUpdate

Gale Norton
Secretary of the Interior

Matthew J. Hogan
Acting Director – U.S.
Fish and Wildlife Service

William Hartwig
Assistant Director –
National Wildlife Refuge
System

Martha Nudel
Editor in Chief

Address editorial
inquiries to:
Refuge Update
USFWS-NWRS
4401 North Fairfax Dr.,
Room 634C
Arlington, VA
22203-1610
Phone: 703-358-1858
Fax: 703-358-2517
E-mail:
RefugeUpdate@fws.gov

This newsletter is published on recycled paper using soy-based ink



continued pg 24

Friends Flourish from the Swamps to the Selkirks

New Organizations Take Root in Louisiana and Idaho

Friends of refuges continue to sprout across the country, with more than 240 formal organizations now providing invaluable grassroots vigor in the form of hands-on conservation, visitor services and advocacy. Refuges in Louisiana and Idaho have recently found innovative ways to maximize refuges' growing appeal and tap into their neighbors' interest in supporting conservation.

Casting a Wide Net in Southwestern Louisiana

Diane Borden-Billiot, outreach specialist for the Southwest Louisiana NWR, cast a wide net to spread the word about a scoping meeting to get a new Friends organization started. Because the complex covers Sabine, Cameron Prairie and Lacassine Refuges, she had a lot of ground to cover. Yet, the first meeting, held in February, was tremendously successful — nearly 50 people showed up, and they're already calling themselves the Friends of Southwest Louisiana Refuge Complex. "It was a really diverse group, too," said Borden-Billiot, "We had educators, hunters and retirees interested in doing something outdoors."

Since then, a solid group of about 25 people are not only handling the administrative details to file appropriate paperwork with the Internal Revenue Service and formalize the group but also making plans for projects. "They're already talking about connecting our boardwalk to an accessible observation deck at Sabine and building a photo blind at Lacassine," Borden-Billiot noted.

"Diane's proactive outreach had a remarkable result," said Trevor Needham, who coordinates the Refuge System's Friends Program. "To engage so many people at such an early stage of a Friends group development is very impressive, and bodes well for future successes," he said, noting that most Friends organizations are started by a handful of core supporters, but Borden-



Outreach Specialist Diane Borden-Billiot presented Randy Roach, mayor of Lake Charles, LA, with a gift of refuge memorabilia at a community gathering to start a Friends organization for the Southwestern Louisiana NWR. Borden-Billiot's outreach helped create an extraordinary showing of community support for the refuges. (Sharon Wallace)

Billiot's experience seems to demonstrate broad community interest right upfront.

Borden-Billiot and some volunteers started about six months before the meeting, using newspapers and monthly radio and television news talk-show segments to spread the word that the refuge was hosting a special open house, giving neighbors a chance to learn more about the refuges and how they can get involved. They also delivered hundreds of invitation flyers to retailers in the surrounding communities.

"Every month we tried to do something bigger and better to keep the meeting on people's radars," she said. "Some of these communities are over an hour away, so we knew they'd be making quite a commitment just to make the trek. Overall, we used a broad approach, and it worked for us."

Laying the Groundwork in Idaho

Meanwhile, in the mountainous valleys of Idaho, a Friends mentoring team helped

Kootenai NWR Refuge Manager Dianna Ellis and interested citizens get started in establishing a new Friends organization. One of seven mentoring visits approved for this year, the Kootenai gathering is significant because the refuge is the first in the state to start up a Friends group.

The Refuge System's Friends mentoring program is an education and information-sharing tool designed to provide customized assistance to new Friends organizations, as well as nurture and advise existing groups. The program brings together an experienced Friends member and refuge manager team with refuge staff and citizens interested in forming a new organization or energizing an existing one. An average of 8-10 mentoring visits take place each year, Needham said.

Kootenai Refuge Manager Dianna Ellis laid the groundwork for the April meeting by sending 75 special invitations to frequent visitors and longstanding refuge

continued pg 20



Yukon Delta Refuge hosts the majority of North America's bar-tailed godwits and sharp-tailed sandpipers (pictured). Because of its value to many different shorebirds, the refuge is part of the Western Hemisphere Shorebird Reserve Network. (Nils Warnock, Point Reyes Bird Observatory)

Yukon Delta Hosts Major Shorebird Research

Yukon Delta NWR, AK, is the site for a new multi-national effort to better understand the long-distance migration of shorebirds that stage each fall on the outer Yukon-Kuskokwim Delta, especially bar-tailed godwits and sharp-tailed sandpipers.

“Because the refuge supports the majority of North America’s population for both species, we have a big responsibility to understand their

needs,” explained Refuge Wildlife Biologist Brian McCaffery. “Some of our preliminary research suggests godwits may be declining, so we want to develop better ways to measure population fluctuations and patterns. Without the international coordination, we’d only be looking at one piece of the puzzle.”

The bar-tailed godwit is thought to undertake the longest single-flight over-water migration of any bird, traveling from Alaska to wintering grounds in New Zealand 11,000 kilometers away. Juvenile sharp-tailed sandpipers head east from their nesting grounds in the central Siberian Arctic to stage on the Yukon-Kuskokwim Delta before turning back to the southwest en route to wintering areas in Australia.

Researching Key Pieces of the Puzzle

Research over the last few years has focused on godwit productivity, including determining the proportion of juveniles in staging flocks, giving biologists valuable information for population modeling. While studying staging godwits along Yukon Delta Refuge’s coastline, biologists have identified birds specially flagged in Australia, New Zealand, China, Taiwan and Japan, adding key pieces to the stopover puzzle.

Scientists want to unlock such mysteries as how and where these species acquire the resources to fuel such long flights, what habitats are most essential to support them during fall staging, how

First-Ever Workshop Explored Continental Collaboration

By Donita Cotter

Conservation work across the North American continent took a step forward as 24 field managers from the Canadian Wildlife Service (CWS), Mexico’s National Commission of Natural Protected Areas (CONANP) and the Refuge System convened February 28-March 4 for the first-ever Trilateral Protected Areas Managers Workshop to explore opportunities for cross-border collaboration.

The Refuge System’s Division of Natural Resources organized the workshop under the auspices of the Trilateral Committee for Wildlife and Ecosystem Conservation and Management. The committee was established in 1996 to facilitate and enhance cooperation and coordination among wildlife conservation agencies of the United States, Mexico and Canada.

Fish and Wildlife Service Deputy Director Marshall Jones welcomed conference representatives. Ernesto Enkerlin, president of CONANP, Stephen Virc,

CWS’ National Protected Areas Coordinator and Refuge System Chief Bill Hartwig each presented an overview of their agency’s mission, structure and resource programs.

The Trilateral Workshop highlighted shared management challenges and promoted exchanges of information on such topics as:

- Partnerships, such as the Refuge System’s Friends initiative, and the role of non-governmental organizations.



A six-nation recon team converged at Yukon Delta Refuge in 2004 to develop field protocols for more extensive shorebird research. The crew's efforts paved the way for a major international research expedition taking place in August and September 2005. (John Terenzi, USGS)

they orient to reach their distant destinations, how long their full migration takes, and where they stop along the way.

Toward that end, in September 2004, the refuge hosted a six-nation crew of eminent shorebird biologists for reconnaissance on the refuge's coastline, evaluating sites, logistical requirements and field sampling techniques in anticipation of a major, international expedition planned for the summer.

The 2004 recon team, including scientists from Sweden, the Netherlands, New Zealand, Australia, Canada and the U.S., found godwits flagged just a few months

earlier in New Zealand. The team also mist-netted juvenile godwits for flagging and sampled sharp-tailed sandpipers to investigate their migration physiology.

The 2005 expedition crew, to be led by Dr. Ake Lindström of Lund University in Sweden on behalf of the Swedish Polar Research Secretariat, heads to Beringia, the region where Asia and North America converge around the Bering Sea. Yukon Delta Refuge staff and experts from the U.S. Geological Survey's Alaska Science Center are privileged to be a part of this cadre of world experts on migratory shorebird ecology.

Another effort begun last year with the National Park Service involves godwit nest monitoring and analyzing eggs for contamination. "We want to find out if contaminants are being passed from adults to young. If so, that could be a significant factor explaining the low numbers of juveniles we're seeing," said McCaffery.

"It's possible that our initial research is just not extensive enough to give us an accurate view of the overall status of the population," he added. "Stepping up our efforts with the international community will improve our monitoring and give us better information on how to address any problems.

During peak migration, in August and early September, Yukon Delta Refuge hosts at least 60,000 of Alaska's 100,000 bar-tailed godwits. Less is known about sharp-tailed sandpiper numbers, but McCaffery estimates there are probably tens of thousands using the refuge for staging each fall.

"Shorebirds are listed first in Yukon Delta Refuge's founding purposes, so it's only natural that we embrace our responsibility to promote world-class shorebird research," said McCaffery. ♦

- 🌿 Invasive species management strategies, including the Refuge System's volunteer mapping effort and use of strike teams for early detection and rapid response.

- 🌿 Managing a system of protected areas, including setting habitat goals and objectives and managing for biodiversity.

- 🌿 Law enforcement and border issues.

Presentations by each country's field managers illustrated North America's diversity of wildlife and natural resources and the commonality of threats and challenges, including management of oil

and gas activities at Canada's Kendall Island Bird Sanctuary within the Arctic Circle on the Beaufort Sea, tallgrass prairie restoration efforts on Neal Smith NWR in Iowa, and management of visitors to the marine parks of Quintana Roo, Mexico.

Workshop participants developed a draft framework for the formal designation of a network of "Sister Protected Areas" to link land management expertise and habitat conservation efforts among the three countries. Sister Protected Area managers would work together on wildlife and habitat management, training, ecotourism, recreation or any other effort

that could benefit from additional perspectives and experience.

The workshop's results and the proposal regarding the Sister Protected Areas were presented at the Trilateral Committee meeting in Zacatecas, Mexico, in May. ♦

Donita Cotter is a refuge resource specialist in the Division of Natural Resources in Refuge System Headquarters, specializing in Wilderness and Wild and Scenic River issues.

Around the Refuge System



One of the Refuge System's newest sites, Assabet River NWR, MA, opened to visitors in March. The refuge joins seven others making up the Eastern Massachusetts NWRC. (USFWS)

🍃 **Massachusetts:** Friends members and refuge staff welcomed Assabet River NWR's first visitors in March, celebrating the opening of more than five miles of trails for wildlife observation and photography. Fishing and hunting opportunities will be available in the future. A full-fledged grand opening event, featuring music, tours, exhibits and guest speakers, will be held in October. Located 20 miles west of Boston, Assabet River is one of eight refuges that make up the Eastern Massachusetts NWR Complex, created in 2000 when the U.S. Army transferred 2,230 acres to the Fish and Wildlife Service. The refuge's wetlands and forests are important feeding and breeding areas for migratory birds and habitat for several species considered threatened or endangered by the State of Massachusetts.

🍃 **Louisiana, New Hampshire, and Texas:** The Migratory Bird Conservation Commission approved funding for more than 1,200 acres of migratory bird habitat to be added to refuges in three states. In Louisiana, \$150,000 will help purchase 615 acres

🍃 **Kansas, South Dakota, and Montana:** Three Service employees earned the Paul Gleason Lead by Example Award for demonstrating outstanding leadership in wildland firefighting during the 2004 season. As members of the Mid-Plains Interagency Handcrew Boss Team, Todd Schmidt, a fire program technician at Quivira NWR, KS, and Pat Harty, a prescribed fire specialist at Lacreek NWR, SD, received the honor for their roles in leading a crew of fire specialists in four states to respond to wildland fires in the central Great Plains. Paul Chamberlin, a Service fire operations safety officer in Montana, received the award for promoting the "LCES" (Lookout, Communication, Escape routes, Safety zones) training concept and other national safety programs. Named after a well-known federal fire leader who died in 2003, these national awards are given by the National Wildfire Coordinating Group.

Moose at Silvio O. Conte NFWR are just one species that stands to benefit from land acquisition in New Hampshire approved by the Migratory Bird Conservation Commission. (Ryan Hagerty/USFWS)



of waterfowl habitat for Black Bayou Lake NWR; in New Hampshire, the commission approved \$304,000 toward the acquisition of 516 acres of wetlands for Silvio O. Conte NFWR; and in Texas, \$81,200 will go toward the acquisition of 98 acres of waterfowl habitat for Trinity River NWR. The commission approved nearly \$16 million for 140,000 acres of wetlands and uplands in 11 states in the U.S. and 15 projects in Mexico.

🍃 **National:** A comprehensive Web site on historic resource preservation, <http://historicpreservation.fws.gov/>, is both a reference for employees involved with protecting sites and an educational tool for the public. The Web site can help employees learn how to better comply with historic preservation authorities and find training materials to aid in interpreting resource values to others. The public can learn about the myriad historical resources the Service

manages. Web site visitors also can find out how to take advantage of history-oriented volunteer opportunities available throughout the country.

Florida: Two men were sentenced in December 2004 and ordered to pay fines and restitution of more than \$18,000 for trespassing, disturbing and destroying mangroves and installing structures while searching in 2003 for buried treasure in the Marquesas Keys, a closed area within Key West NWR. They created a 170-foot path through mangroves and dredged a nearly 1,000-square foot pool as they sought legendary buried treasure from Spanish ships that sank in the 1600s. A law enforcement vessel owned by the National Oceanic and Atmospheric Administration and crewed by the Florida Fish and Wildlife Conservation Commission intercepted the defendants, giving prosecutors key evidence. "This case shows how valuable our cooperative law enforcement efforts are," said Refuge Marine Specialist Andrew Gude, noting that the three lower Keys refuges have only one refuge law enforcement officer to cover about 400,000 acres of land and water. "We appreciate the support from the state, the Florida Keys National Marine Sanctuary and the Monroe County sheriff. We couldn't have made the case without their help," said Gude.

Montana: Dinosaur discoveries put Charles M. Russell NWR in the national spotlight in March, when researchers announced they discovered microscopic soft tissue within a *Tyrannosaurus rex* femur bone excavated from CMR's renowned fossil beds. News of this scientific first was carried in the *New York Times*, *The Washington Post*, and *Los Angeles Times* and newspapers across the country. Paleontologists are

hopeful the preserved genetic material will help them better understand dinosaur physiology and their kinship with other species.

Alaska: Its debut at the annual Dillingham parade netted Togiak NWR, AK, the grand prize for its float, which celebrates the species for which it is renowned — the walrus. Cape Peirce and Cape Newenham in the refuge's far southwest corner are among the three main areas for walrus haul-outs in Bristol Bay. For the past 47 years, Dillingham has celebrated in March the period when trappers historically gathered to have their

beaver pelts sealed. The five-day celebration, sponsored by the Dillingham Chamber of Commerce, includes dog mushing, a native crafts fair, baking contests, a parade and many other events. Although the celebration hails the beaver roundup, the refuge decided to focus on the walrus because it's a species "everyone loves," according to Refuge Manager Paul Lindberg. "We're going after the grand prize again in 2006. As you can imagine, the plans are being closely guarded." ♦



Togiak NWR, AK, won the grand prize for its walrus float in the annual Dillingham parade, sponsored by the local chamber of commerce. (USFWS)

FOCUS ...On Photography

Improving Our Image

Nature Photography Is One of Refuges' Claims to Fame

"For more than 20 years, I've focused my cameras at our national wildlife refuges — to me, the places in America that vibrate most intensely with the seasonal movements of wildlife," says Karen Hollingsworth, renowned nature photographer and longtime refuge champion. "Through these images, an intimate season-by-season glimpse into these ever-changing landscapes and ecosystems is revealed...sharing the amazing variety and wonder of these rare and precious places."

Nature photography gives us the chance to be still, be silent, be patient and ultimately to become engrossed in the

challenge of capturing rare glimpses of nature's mysteries. Through our lenses, we see the natural world much differently. We are keenly aware of light and its magical reflections. The full spectrum of color suddenly appears more vibrant. We become conscious of shapes and angles as we carefully construct our compositions, taking nothing for granted. We are humbled by the wariness of our subjects, gaining a renewed reverence for the instincts that ensure their survival.

When persistence, talent and good fortune come together, our images not only give us a wonderful way to relive

Images That Speak

By Larry Richardson

I have been a professional nature photographer for 25 years, about as long as I have been a wildlife biologist. Although I enjoy both careers, photography has become an avocation, an outlet for my curiosity for nature, and the camera a portal for discovery.

This image of a captively bred Florida panther gives us a rare glimpse of the big cat at home in its native habitat.
(© Larry Richardson)



However, for the sake of a higher calling, pictures are just props for conveying powerful messages. If the old proverb is true, and each image is really worth a thousand words, then putting mine together into a show is like producing a play, and telling a story is the thrill.

Last September, a couple days after Hurricane Jeanne slammed the East Coast of Florida, I was shooting the brown and white pelicans resting on their namesake refuge, Pelican Island NWR. But for a few broken branches and high water licking the shores, you could not tell that the birds just survived the worst hurricane season ever. Later that week, green sea turtles along Archie Carr NWR were still crawling up on the sandy beaches and laying their eggs, while nearby homes lay in ruin, strewn across the same shoreline.

Up close these scenes illustrated unremarkable roosting and nesting behavior, but pulling back to the broader perspective of the storm's aftermath,

our memories, but also the gift of sharing our outdoor experiences with others.

In this issue of *Refuge Update*, we celebrate one of the fastest growing and most popular pastimes for refuge visitors: nature photography. Surveys indicate that each year, 34 million visitors, out of a total of 40 million, come to refuges to see and photograph wildlife and the thriving habitats that make up America's scenic landscapes.

Thousands of miles of trails and hundreds of observation structures on refuges make nature photography a relatively easy program to promote at most sites. "Most people don't realize that taking your car along refuge auto tour routes is an awesome way to get good shots," says Hollingsworth. "The key is being out there

at sunrise and sunset." About 140,000 people each year also use refuge photo blinds, and this is one area of visitor service benefiting from a partnership with the North American Nature Photography Association.

The nation's largest and most renowned group of nature photographers has been supporting the growth of photography on refuges for almost a decade since a formal MOU was signed with the Fish and Wildlife Service. A host of resources, including grants for photo blind construction, are available through this partnership. Those who have taken advantage of NANPA's expertise have found not only high caliber contacts but also enthusiastic supporters. Refuge employees can find out more by visiting www.nanpafoundation.org/blinds (see related story, pages 12-13).



(Charles H. Heck, Sr.)

Just this year, the Refuge System also became a member of the Travel Industry of America, giving access to another stellar pool of experts and resources to bolster refuge photography programs.

With many Americans already possessing an interest in nature photography, refuges can build recognition and support for the entire Refuge System. ♦

they defined nature's resilience against terrible odds.

By adding a few more images of sharks, manatees and frigate birds patrolling the waters off J.N. "Ding" Darling Refuge after Hurricane Charlie, a fascinating story emerges, speaking volumes about wildlife's response to such horrific storms. These images did not lie; life goes on.

Images can also be icons. These are my best — and I have only a few. They represent what I hope people will consider great images, like Ansel Adam's image of Half Dome in Yosemite. These are compelling, provocative and memorable images — pictures that leave a lasting impression — but more importantly, pictures that beg to be introduced, serenaded and placed center stage. To me they are still just props, but now we are producing an opera.

One of my most used images, an endangered manatee at Crystal River NWR, was taken the first time I used an underwater camera. I shot a lone sea cow rising from the murky bottom. It slowly rotated to present its belly for a dose of

scratching from a waiting friend treading water near the surface. That image of a human hand on a manatee defined what "endangered" really means to me — a species that cannot survive without our help.

My favorite, though, is an image of the endangered Florida panther. Not a wild cat, but one of the very few bred from captive stock whose kin had long since been removed from the wild and raised by people. It's simply an image of a panther lying in its native habitat, a blanket of oak leaves on the ground surrounded by palmettos. What is remarkable about the image is that the cat is at rest, something that no one will ever see a wild panther do. This image defines a sense of place, a big rare cat at home.

There is something philosophical and darn right exciting about images that evoke such meaningful messages. For lands included in the Refuge System, where our mission is to safeguard wildlife, it makes sense that we give them a voice. ♦

Larry Richardson is a wildlife biologist at Florida Panther NWR.



This photo, taken shortly after Hurricane Jeanne, symbolizes wildlife's resilience to the forces of Mother Nature. (© Larry Richardson)

Photography Is a Focal Point for Refuge Friends

By Bill Buchanan

I want to take you on a little journey to meet one of the most dedicated groups in the National Wildlife Refuge System. It has been my good fortune to have been part of this from the beginning, first as a volunteer and then as a Fish and Wildlife Service staff member who now serves as the liaison between the Friends of the Heinz Refuge at Tinicum Photo Group and the refuge staff. I am still an active photographer and contributor to the group, but rely, as do many of the staff, on the generosity and expertise of group members.

One of the first committees created when the Friends of the Heinz Refuge at Tinicum, PA, was established in the mid-1990s, the photo group consisted of just a few people. Many regularly took the refuge's "photo walks" that I led as a volunteer. I thought we could serve the fledgling Friends group and the refuge

through our photo skills and suggested we become a committee under their umbrella. We eschewed bylaws, officers and individual dues by not designating ourselves a "club." Members must simply keep up their yearly Friends membership and contribute, as time allows.

Today, the photo group, with about 10 seasoned members, not only provides breathtaking images and video for interpretive displays, environmental education and public outreach, but also offers a "Learning about the Environment Through the Lens" program for high school students, organizes an annual Photo Fest community photography contest and creates traveling exhibits that are used regionally.

Once or twice annually, as many as six students from the greater Philadelphia area are invited for a half-day each of classroom, field and display work with the guidance of photo group members. In addition to individual displays, the students also work on a collective display to build a sense of teamwork. These are showcased at the refuge.

Over two consecutive Saturdays, the students first learn through classroom and field work and then edit photos and create displays. In the process, they learn the history of the refuge and Tinicum Marsh and its role in the Darby Creek Watershed and Delaware Estuary. Students not only gain a sense of place, but also a better understanding of the natural interconnections in the watershed.

A Lifetime of Learning

Each student is teamed with a photo group mentor who guides him or her through field work, photo composition and creativity — skills that only experience and experimentation can hone. I have always believed it is that human connection that can only be appreciated as

"I have found there never seems to be a lack of energy or enthusiasm for photography, the refuge and the natural world as a whole."



As part of the Heinz Refuge Photo Group's "Learning Through the Lens" program, photo group mentor Larry DiPietro gives guidance to student Joe Melchiorre during a field day session. (Bill Buchanan)



This image of a snowy egret by Ron Holmes, a member of the Heinz Refuge Photo Group, is just one of dozens taken by group members and featured in traveling exhibits that showcase the refuge throughout the region.

one generation hands down to another what may be a lifetime of trial and error.

First launched in 1998, more than two dozen students have participated in "Learning Through the Lens." Information is distributed through press releases, flyers posted at schools and libraries, in the Friends' quarterly newsletter and on the refuge Web site. The refuge's environmental education specialist has also spread the word to area teachers.

The 35mm cameras used by the students were purchased at cost through a donation from Sunoco and the generosity of Webbcam, LLC in Philadelphia. Webbcam and Kodak donate film and the cost of processing. We are hoping to expand the number of cameras, thus the number of students, for the program, and looking to enhance the program by purchasing longer lenses and other equipment.

This year's program took place in conjunction with International Migratory Bird Day May 14. This allowed the students to learn more about the fascinating story of the refuge's hemispheric travelers.

Another large undertaking by the photo group has been the development of a traveling photo exhibit, about 40 mounted and framed 11x15 inch photos shot by group members to showcase the refuge. The exhibit is booked at several regional venues and displayed at the refuge's Cusano Environmental Education Center between destinations.

There never seems to be a lack of energy or enthusiasm for photography, the refuge and the natural world as a whole. Ours is as diverse a group as you could ever find, and those differences make the group dynamic.

Bringing New People Into Focus

The group also encourages "new blood" to come into the fold. Without it, any organization becomes stagnant and stale. We have seen members come and go, but there always seems to be a core group that becomes the glue that keeps it all together.

"The photo group has been an invaluable asset to the refuge," said Refuge Manager Kate McManus. "Its members have given an amazing amount of time and talent. Many also contribute to the refuge in other ways, such as by serving on other committees, getting involved with refuge projects and always giving us outstanding materials for use in public relations, interpretive displays and documentation. We thank them for their time, talents and dedication to the refuge and the National Wildlife Refuge System."

And I thank them for all the joy, admiration and friendship they have given me all these years. The group flattered me during Photo Fest by having the "best of show" award be given in my name. The "Bill Buchanan Award for Photographic Excellence" was their way of recognizing me as their founder. I hope that what I have written here can express to all of them my sincere pride and thanks for what they have contributed. ♦

Bill Buchanan is the outdoor recreation planner at John Heinz NWR at Tincum, PA.

"The photo group has been an invaluable asset to the refuge," said Refuge Manager Kate McManus. "Its members have given an amazing amount of time and talent."

FOCUS ...On Photography

NANPA Helps Photography Soar to New Heights

By Jane S. Kinne

“Committed to Photography of the Environment” was the mantra adopted by the North American Nature Photography Association when it was founded in July 1994. Three years later, the fledgling organization signed a Memorandum of Understanding with the Fish and Wildlife Service. Both parties enthusiastically agreed that constructing photographic blinds on suitable refuges was the most appropriate way to fulfill the partnership.

Nearly eight years later, NANPA's non-profit Infinity Foundation has helped supply funding for the construction of photo blinds at 17 refuges, with six more under construction and another 14 approved for funding. We have consulted with countless refuges needing professional expertise in developing better facilities and services for nature photographers. We have real progress to show, but there is a lot more potential to expand our work together.

Photography is one of the wildlife-dependent recreation pursuits named in the National Wildlife Refuge System Improvement Act.

Each situation is different, but in every case, the advice, leadership and coordination by refuge staff has been invaluable in the successful completion of blinds. Many times, the labor has come from Friends organizations, while on another occasion, at Fort Niobrara NWR, NE, for example, from a dedicated and energetic Boy Scout troop.

Refuges must follow some guidelines when requesting funding. Some of these are basic, such as ensuring the refuge has a suitable area, away from heavy visitor traffic. NANPA can help identify areas that maximize morning and evening light as well as assist with a design plan. Grant proposals must include price quotes for all necessary materials, show that donations of goods have been solicited from local vendors, and demonstrate that a labor force, such as the Friends organization or other volunteers, has been recruited for construction. Lastly, we appreciate progress photos showing the site before, during and after construction for our historical archives and publicity purposes. More information on these guidelines and a sampling of completed projects is available on www.nanpafoundation.org/blinds.

If you're interested in being a part of this partnership, there are some easy steps to take upfront. Deborah Moore, in the Branch of Visitor Services, has coordinated our collaborative work since the MOU was signed, and has persistently helped spread the word about partnering possibilities (703-358-2386 or Deborah_Moore@fws.gov). To learn more about NANPA, please visit the Web site listed above or contact us using info@nanpafoundation.org. ♦

Jane S. Kinne is a past president of the North American Nature Photography Association and its foundation, and currently serves as development director for the latter.



Completed Blinds	Under Construction	Funds Approved
Bear River, UT	John Heinz at Tinicum, PA	Modoc, CA
Ruby Lake, NV	Humboldt Bay, CA	Stewart B. McKinney, CT
Moosehorn, ME	Black Bayou Lake, LA	Montezuma, NY
Seney, MI	St. Marks, FL	Tetlin, AK
Cameron Prairie, LA	Tishomingo, OK	Stillwater, NV
Willapa, WA	Cibola, AZ	Oxbow, MA
Ft. Niobrara, NE		Upper Mississippi, MN, WI, IA, IL
St. Catherine Creek, MS		Turnbull, WA
Morris WMD, MN		Agassiz, MN
Salton Sea, CA		Sacramento, CA
Shiawassee, MI		Eastern Virginia Rivers, VA
Buenos Aires, AZ		Missisquoi, VT
Prime Hook, DE		Rocky Mountain Arsenal, CO
Quivira, KS		Tewaukon, ND
Blackwater, MD		
Minnesota Valley, MN		
DeSoto, IA		

Bear River Refuge Leads by Example

Bear River Migratory Bird Refuge, UT, was the first to benefit from photographic blind support under the MOU with the North American Nature Photography Association.

“We were impressed by a photo blind on stilts we’d heard about at Sacramento Refuge, and we knew we just had to have one,” says Refuge Manager Al Trout. “Bear River is a great place to photograph a wide variety of birds, but like so many areas, it helps a lot to have some cover if you want to get really good shots.”

With NANPA’s help, the blind became reality. “NANPA folks helped us refine the design for our refuge, and actually they provided funding to support us in constructing two blinds,” Trout says. NANPA also helped the refuge connect with local photography clubs to consult with on the best site and other details for construction.

“NANPA has definitely made it easier for us to offer visitors a better outdoor experience,” says Trout. “It’s a fantastic partnership for the Refuge System.” ♦

Photo Blind Paves the Way for New Photo Contest

By Charles H. Heck, Sr.

With a brother who retired from refuge service, I frequently traveled to refuges to view and photograph birds and animals from a distance. On some of these excursions, I had opportunities to use photographic blinds, and eventually decided to purchase a portable blind. The portable gave the advantage of cover, but also the disadvantage of not being in place long enough for wildlife to become acclimated to it.

My hometown of Monroe in northeast Louisiana is surrounded by refuges and state wildlife areas, creating a haven for many varieties of birds and endangered species. Black Bayou Lake NWR is within five miles of home, offering a beautiful natural lake filled with picturesque and stately cypress and tupelo trees, surrounded by swamps graduating into bottomland hardwoods and mixed pine and hardwood uplands.

I became a regular at Black Bayou Refuge, patrolling with camera on window mount, vigilant for photographic opportunity. I grew to know the manager, and became a member of Friends of Black Bayou.

A forester at Black Bayou suggested putting a photographic blind on the refuge to enable visitors to get close to their subjects without disturbing them. The refuge manager and Friends members approved the idea, and I was asked to find a site and funding for the project.

Through the Internet, I found out about the North American Nature

Photography Association and its partnership with the Fish and Wildlife Service. As an avid reader of photographic literature, I was floored by NANPA's membership, as well as their goals and projects.

NANPA representatives were friendly, knowledgeable and encouraging, providing guidance and data on successful blinds in other areas. My pleasant experiences with these professionals led me to enthusiastically and proudly join this environmentally supportive group. Through NANPA's direction, the refuge received its first grant.

Our blind will be situated in a relatively remote location, requiring road work, long asphalt trails and elevated boardwalks. It soon became clear that more funding was needed. After much searching, we were awarded a National Wildlife Refuge Friends Group Grant, and should now be able to complete our dream project.

The blind project engendered other new ideas. In October 2004, we had our First Annual Friends of Black Bayou Photo Contest, which resulted in more than 165 entries. Ribboned entries may be viewed at <http://friendsofblackbayou.org>.

Serving as judge and keynote speaker for our awards event, Mark Lagrange, an excellent nature photographer (and NANPA member) from south Louisiana, narrated a collection of images called "Creativity in Nature Photography." We are gearing up for our second annual competition, to be held during National Wildlife Refuge Week in October. ♦

Charles H. Heck, Sr. is a member of the Friends of Black Bayou. He was introduced to refuges by his brother, Berlin Heck, who served as refuge manager at Squaw Creek NWR, MO, and Little River NWR, OK.



Black Bayou Lake NWR, LA, offers a beautiful lake surrounded by swamps graduating into mixed pine and hardwood uplands. (Charles H. Heck, Sr.)

Refuge Dedication Honors Legendary African American Sportsman

By Raye Nilius

Two hundred fifty people gathered Feb. 22 at the Mississippi Museum of Natural Science in Jackson to dedicate the first national wildlife refuge named for an African American. The Holt Collier Refuge honors the legacy of a native Mississippian, expert marksman and freed slave best known as President Theodore Roosevelt's 1902 bear hunting guide.

"The President of the United States was anxious to see a live bear the first day of the hunt," Collier later recalled. "I told him he would see that bear if I had to tie it and bring it to him." As it turns out, Collier did capture a bear and tied it to a tree, but Roosevelt refused to shoot it. The event was publicized across the nation in a *Washington Star* cartoon, eventually leading to the birth of the "Teddy Bear."

The lands that today are part of the Holt Collier Refuge — currently 1,435 acres — were Farmers Home Administration lands managed for conservation by staff at Yazoo Refuge. About 1,100 acres have been reforested with native bottomland trees to produce a rich source of food for wildlife in years to come. The U.S. Army Corps of Engineers has pledged an additional 633 acres inside the refuge's 18,000-acre acquisition boundary.

As additional lands are purchased from willing sellers, the majority will be reforested with bottomland trees to provide habitat for the threatened Louisiana black bear, a common visitor in the region. In time, the refuge will be able to manage water for waterfowl, shorebirds and wading birds. For now, Holt Collier Refuge is open for deer archery and rabbit hunting.

At the dedication ceremony, Senator Thad Cochran (R-MS) and Congressman Bennie Thompson (D-MS) stood side by side and unveiled the new refuge sign. Their collaboration in 2003 led to the 2004

legislation that established the refuge. Ann Marie Parker, Holt Collier's great-niece, and her son John and grandson Brandon also attended.

Among the special guest speakers were Southeast Regional Director Sam Hamilton and First Lady Marsha Barbour, wife of Mississippi Governor Haley Barbour, who proclaimed February 2002 as Holt Collier Day. Marcus Ward, special assistant to Assistant Interior Secretary Craig Manson, spoke on behalf of the Interior Department. One memorable highlight of the day was Yazoo Refuge's Ollie Morganfield strolling through the crowd in period costume as Holt Collier. ♦

Raye Nilius is deputy project leader at Theodore Roosevelt NWRC, MS.

The Holt Collier Refuge honors the legacy of a native Mississippian, expert marksman and freed slave best known as President Theodore Roosevelt's 1902 bear hunting guide.



Yazoo Refuge's Tractor Operator, Ollie Morganfield, dressed in period costume as Holt Collier during the refuge's dedication ceremony. (David Linden/USFWS)

Student Conservation Partnerships Show Huge Potential

Budding Conservationists Receive Valuable Experience

By Rebecca Robertson

At Imperial and Cibola NWRs, AZ, the Student Conservation Association teamed up with the Fish and Wildlife Service from September 2004-February 2005 to address the critical conservation issue of invasive plant species. A crew of five SCA interns helped control such exotics as saltcedar and Bermuda grass.

As the crew's project leader, I realize that by working with the Service, we not only make a positive impact on the environment, but we also got practical training while a long-term partnership between the Imperial and Cibola Refuges and SCA took root.

Our crew was the first exotic plant management team to work at these refuges. Today, plans are being made for next season's SCA crew to continue what we started. It's just been amazing to be a part of a good partnership in its beginning stages, and it's made my first stint working with the Service an awesome experience.

As the nation's oldest and largest provider of conservation service opportunities for young people, SCA is a non-profit educational organization that partners with non-governmental organizations and federal agencies. SCA interns have been gaining valuable experiences like mine since the 1950s; in the 1980s, refuges first began partnering with SCA. Interns have worked in areas such as restoration ecology, fire science and fisheries.

In 2004, SCA put 74 volunteers in the field with Service employees. The association hopes to have 200 volunteers in the field by 2010. From refuges like Okefenokee in Georgia to the San Diego NWR Complex in California, SCA interns have provided valuable service while learning how to become tomorrow's conservation leaders.

"We hope to work with the Fish and Wildlife Service and our community partners to address the growing conservation challenges facing the country," said Rick Covington, regional director for SCA. "An example might be working to preserve and restore native wetland habitats on refuges and surrounding communities by encouraging the incorporation of volunteers of all ages to assist in the process.

"Imagine a retired landscape architect assisting refuge planning staff in creating the restoration plan, young adults helping to collect needed GIS data, third graders from the local school districts collecting native seeds, a local company donating materials and time to build a greenhouse — allowing these third graders to propagate the seeds they collected," Covington envisioned. "These third graders would then return as fourth graders to replant these native plants and as eighth graders to conduct water quality monitoring."

It's a lofty vision, but SCA understands there's work to be done that requires equal parts of muscle and imagination. For more information on the SCA, visit www.theSCA.org. ♦

Rebecca Robertson was project leader for a Student Conservation Association crew supporting Imperial and Cibola NWRs, AZ.

As the nation's oldest and largest provider of conservation service opportunities for young people, SCA is a non-profit educational organization that partners with non-governmental organizations and federal agencies.



SCA interns recently spent five months at Imperial and Cibola NWRs, AZ, helping refuge staff thwart the spread of exotics. (SCA Team)

Renowned Birder Shares Perspectives on Refuges

The following remarks were given by renowned birder David Sibley during National Wildlife Refuge Week 2004, upon receiving an award from the Refuge System for outstanding support of migratory bird conservation through public education and the promotion of wildlife recreation.

In my 35 or so years of birding, I have visited many national wildlife refuges. During the 12 years that I traveled around the country, intensively watching and sketching birds as research for my guide to birds, I would guess that more than 90 percent of my birding was done on public lands, state parks and preserves, national forests, national parks, Bureau of Land Management lands and of course, refuges.

The National Wildlife Refuge System is unique among all those public lands because refuges are dedicated to providing habitat for birds and other wildlife. A friend of mine at Cape May used to explain park management decisions with a sarcastic “parks are for people” but the refuges are for the birds.

I always knew that wherever I went, I could pick out a refuge on a map and know that I was going to have a great birding experience. I grew up in Connecticut, visiting places that are now in Stewart B. McKinney Refuge. On day trips, we could visit Jamaica Bay, Plum Island, Montezuma and Forsythe Brigantine Refuges.

As I traveled farther afield, I visited Chincoteague, Great Dismal Swamp, Santee, Piedmont, Savannah, Merritt Island, Loxahatchee, Key Deer, Ding Darling, St. Marks, Noxubee, Seney, Horicon, Squaw Creek, DeSoto, Upper and Lower Souris, Quivira, Salt Plains, Buffalo Lake, Muleshoe, Atwater Prairie Chicken, Aransas, Anahuac, Santa Ana, Ninepipe, Grays Lake, Bear River, Bosque del Apache, Bitter Lake, San Bernardino, Buenos Aires, San Juan Islands, Flattery Rocks, Grays Harbor, Ridgefield, Tule Lake, Humboldt Bay, Farallon Islands, Sacramento, Kern,

Salton Sea, Alaska Maritime and the Arctic NWRs.

As I read through the list I’m struck by how much those names mean in the birding community. Each one is known to American birders on a first name basis. Reading the list of refuges off a map is like looking at an old high school yearbook. Names spark memories and images of things seen and experienced. I remember stopping in at the John Heinz at Tinicum Refuge whenever I was near the Philadelphia airport. A walk around the refuge was the perfect antidote to airport rush.

I remember standing alone on the west Texas plains at dawn watching 15,000 sandhill cranes fly out of their roost at Muleshoe Refuge, sitting on an island off the tip of Cape Flattery in Washington surrounded by thousands of calling auklets and storm petrels, counting great blue heron nests at Iroquois in western New York or hearing my first Baird’s sparrow singing across the prairie at J. Clark Salyer Refuge in North Dakota.

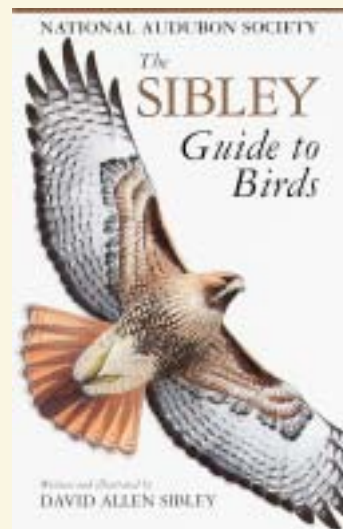
During the 12 years that I was actively working on my guide, people often asked me why I was doing it. Weren’t there lots of bird guides already in print? I said yes, and they were good ones, but styles had changed, knowledge had increased, they were getting a little outdated and I wanted to do something more complete and current.

The popularity of birding continues to grow, and with it the expertise of birders and the amount of information being learned. I hope that I’ll be sitting in an audience 20 or 40 years from now, when the next generation of field guides has come out and some young author/illustrator talks about how the *Sibley Guide to Birds* was a pretty good field guide in its time. It’s nice to know that whoever is at that podium, and the birders who use their field guide, will still talk about how important refuges are in providing opportunities to see and study the birds of North America. ♦

“I always knew that wherever I went, I could pick out a refuge on a map and know that I was going to have a great birding experience.”



Author David Sibley



Learning a New Language

Spanish Appears Across Refuge System

¿Qué pasa? Spanish is “happening” all across the Refuge System.

The use of Spanish in publications, Web sites and other communications is growing as the Refuge System increasingly reaches out to a population that has not experienced quality wildlife-dependent recreation on the nation’s wildlife refuges as fully as they could if they received information in their native tongue. Examples abound.

One Refuge System video was translated into Spanish in 2000 and distributed to all field stations, especially useful for national wildlife refuges bordering Mexico. Additionally, the Refuge System developed Spanish-language bumper stickers declaring, “Celebrating a Century of Conservation. Support your National Wildlife Refuges.” Nearly two years ago, the Refuge System began publishing a shortened version of its Visitors’ Guide in Spanish.

San Diego NWR Complex, for example, has produced a Spanish-language version of its refuge brochure, while the Lower Rio Grande Refuge Complex in Texas

began offering public service announcements in Spanish for Spanish-language radio stations about five years ago, encouraging Hispanic residents to visit the refuge. One of its most popular offerings is a Spanish-language book about the Junior Refuge Manager program. Today, all new exhibits and brochures are provided in both Spanish and English.

Rocky Mountain Arsenal NWR, just eight miles from downtown Denver, is one of the most recent national wildlife refuges to reach out to the fast-growing Hispanic population by launching a Spanish-language Web site in January and offering wildlife interpretive tours in Spanish. Within two weeks of the Web site’s launch, more than 20 people had registered to take the Spanish wildlife tours. At the same time, the refuge registered a substantial number of “hits” from Internet users querying Spanish language search engines.

Although the Spanish pages, <http://rockymountainarsenal.fws.gov/spanish/index.html>, are a link from Rocky Mountain Arsenal Refuge’s English homepage, Refuge Information and



Bilingual information was also key for the “Hands on the Land” project, in which Kennewick High School Multimedia Class students created interactive Web sites for Hanford Reach National Monument at Saddle Mountain NWR, WA. (Ron Crouse/ USFWS)

Education Assistant Beverly Taylor created a page title, meta tags and key words in Spanish so search engines will easily pick up the information. Outdoor Recreation Planner Ivan Vicente wrote the Web pages with input from two other Spanish speakers on staff, Luis Garay and Ruby Rodriguez.

“This is just the beginning of what we hope will be a comprehensive Spanish site that would eventually include translation of the individual English Web pages, especially the kids’ pages and wildlife pages,” noted Taylor.

“We felt it was important to make information available as quickly as possible for the large and growing Spanish-speaking community in the area,”

Rocky Mountain Arsenal NWR is one of the most recent national wildlife refuges to reach out to the fast-growing Hispanic population by launching a Spanish-language Web site. (Aaron Rincker/ USFWS)



said Refuge Manager Dean Rundle, who pointed out that the population of Commerce City, where the refuge is located, is 53 percent Hispanic. Denver's population is about 35 percent Hispanic.

Although Spanish interpretation for all nature programs and tours has been available upon request, the Spanish Web pages promote tours given entirely in Spanish. Those tours are not listed on the English pages. Of course, all English tours at the refuge welcome those who speak Spanish.

“By offering Spanish information and promoting Spanish tours, another set of people will feel more welcome to visit the refuge,” said Rundle. “We expect this will encourage more English-speaking Hispanics to come as well.”

Bilingual Becomes the Norm

Bilingual information was also key for the “Hands on the Land” project, in which Kennewick High School Multimedia Class students created interactive Web sites for Hanford Reach National Monument at Saddle Mountain NWR, WA. Created by the non-profit organization “Hands on the Land,” the three-year project had two goals: to create a national network of field classrooms to enhance environmental education for those in K-12, and to teach practical, employable skills to high school students.

The high school students created three Web sites for Hanford Reach, the first describing mammal species; the second on common bird species; and the third focusing on fish species. All students had to be bilingual. The most recent Web page is hosted at http://www.handsontheland.org/classroom/hare04/index_spa.html.

While this was the first time many of the multimedia students visited a refuge, the benefit to Hanford Reach was substantial as well. Not only did the Web sites provide environmental education, but they also are among the first refuge Web pages in a language other than English. While most of the pages are in Spanish, some are in Russian and Bosnian.

“Our Hispanic community in the tri-cities area of Richland, Kennewick and Pasco is quite large,” said Hanford Reach National Monument Wildlife Biologist Heidi Newsome. “The Bosnian and Russian communities are smaller, but they appear to be growing.” The refuge has produced boundary and directional signs in Spanish and is planning to produce a Spanish brochure.

For now, progress is being noticed. “I applaud the Fish and Wildlife Service for creating more avenues for it to be enjoyed by, and serve as an educational tool to, all Coloradoans,” said Senator Ken Salazar when the Rocky Mountain Arsenal Refuge Spanish Web site debuted. ♦

“We felt it was important to make information available as quickly as possible for the large and growing Spanish-speaking community in the area,” said Refuge Manager Dean Rundle.



“Hands on the Land” taught practical, employable skills to high school students. (Ron Crouse/USFWS).

Friends Flourish from the Swamps to the Selkirks

from pg 3

“allies” in the community, and also got the word out through multiple media outlets.

“Kootenai Refuge is a little gem, and there’s always a lot going on,” remarked Ellis, noting that the nearly 3,000-acre refuge is located on the International Selkirk Loop, a popular travel route for both Americans and Canadians. “A Friends organization could help spread the word about all Kootenai has to offer.”

Nestled amidst the Selkirk, Purcell and Cabinet mountains along its namesake river, the refuge was established primarily for migratory waterfowl, with Canada geese, mallards, pintails and tundra swans some of the biggest benefactors.

Birdwatching is the most popular attraction at Kootenai, Ellis observed, with hunting a close second. “Visitors especially enjoy seeing tundra swans and nesting bald eagles. Elk come down from the mountains in the winter, and on occasion woodland caribou and grizzlies, too,” she said.

“We have great environmental education partnerships going with Valley View Elementary School,” Ellis said, noting that some Valley View teachers are among of the refuge’s strongest supporters. She hopes to recruit Friends members from nearby Bonner’s Ferry, where the school is located, a community known as “a small town with a big heart.”



“A little gem with a lot going on,” Kootenai NWR will become the first refuge in the state to start a Friends organization. (Bob Griffith)

Ellis hopes a new Friends organization will help other partnerships gain strength, especially working with the Kootenai Tribe and the Army Corps of Engineers to recover endangered and threatened species such as the white sturgeon, bull trout and kokanee.

“I see the mentoring visit giving us all the nuts and bolts to get started, and I imagine it will be just the sort of catalyst we need to get it together and get going,” Ellis said. “We certainly do have a lot of folks who love the refuge.” ♦

Birdwatching is the most popular attraction at Kootenai, Ellis observed, with hunting a close second.

Friends-Related Resources

- 🍃 Contact National Community Partnerships and Friends Coordinator Trevor Needham, (703) 358-2392 or Trevor_Needham@fws.gov.
- 🍃 Visit the National Wildlife Refuge Association’s Web site, www.refugenet.org, to find a wealth of information, including downloadable publications, or send an e-mail to nwra@refugenet.org or call 800-996-6972.
- 🍃 The National Fish and Wildlife Foundation also has good information on its Web site, including guidelines for the National Wildlife Refuge Friends Group Grant Program and many others. Visit www.nfwf.org or call 202-857-0166.

How To Save Some Ancient Cherries

By Jennifer Stafford

When someone considers the Refuge System's work in preserving cultural artifacts, they're unlikely to think of foodstuffs. Yet DeSoto NWR, IA, is making a name for itself with just such an unusual attraction.

For more than 30 years, DeSoto Refuge has been home to the Steamboat Bertrand Collection, featuring cargo excavated from the hull of the sunken sternwheeler Bertrand, discovered on the refuge in 1968. Today, the collection is housed in the refuge visitor center.

The Bertrand sank in the Missouri River, 20 miles north of Omaha, in 1865, with a wide array of tools and supplies in its hold. While the entire cargo is indeed a time capsule, the most unusual items are the foodstuffs. Grocery items include canned fruits and meats, nuts and spices, salted codfish, instant lemonade and coffee, French mustard, condiments such as ketchup and pepper sauce, butter, lard and flour.

The Bertrand also was carrying a large quantity of alcoholic beverages, including French champagne and brandy cocktails, as well as medicinal bitters. While very little of the canned foods survived, the bottled foods, such as brandied cherries

and peaches, mixed vegetables, pickles and olive oil, remained largely intact.

Refuge staff enlisted help in preserving Bertrand's foodstuff from Larrie Stone, a micro-biology professor at nearby Dana College. He began working with Bertrand's foodstuffs in 1979, and has treated the items ever since.

Dr. Stone developed unique protocols for dealing with contamination. Fairly common bacteria and molds appear to have been introduced during and after the excavation. Treatment includes filtration procedures using Whatman and Gelman filters, washing in alcohols and disinfectants and replacing fluids lost through evaporation. Dr. Stone also has brought the project into his classroom, involving students in the treatment process.

The best part of the job, said Dr. Stone, is working with the refuge staff. What item does he least enjoy treating? "Sardines. They're very odorous," said Dr. Stone, "and I've never been much of a fish person." ♦

Jennifer Stafford serves as museum technician at DeSoto NWR, IA.



The sunken steamboat Bertrand was discovered on DeSoto NWR in 1968, and 200,000 items were ultimately excavated from its hull. DeSoto Refuge houses the Steamboat Bertrand Collection, including a variety of unusual foodstuffs. (Courtesy Woodmen of the World Magazine, Omaha, NE, Leland A. Larson)



Larrie Stone, a micro-biology professor, takes special care of the Bertrand's foodstuff. Dr. Stone developed special procedures to preserve all kinds of food and medicinal items found on the sunken steamboat. (Jennifer Stafford/USFWS)

To Hear Their Song for Springs to Come

Texas Refuge Has Been International Linchpin

Almost since its establishment in 1992, Balcones Canyonlands NWR, TX, has worked with international partners — especially biologists from Mexico, Honduras, Venezuela and, most recently, Guatemala — on behalf of endangered golden-cheeked warblers and black-capped vireos. Central Texas is the only place where golden cheeks nest, making the refuge pivotal to their continued survival and recovery.

“Not only do we have a big responsibility to help recover these species, but they’re also a huge tourist attraction,” says Refuge Manager Deborah Holle. The refuge has maximized the popularity of ecotourism by hosting an annual Songbird Festival, especially featuring golden cheeks and black caps, for the last five years.

Golden cheeks live on the refuge for about five months of the year, while black caps are residents for a little longer. During the winter months, golden cheeks migrate

to Chiapas in Mexico and Central America, and black caps flock to western Mexico.

“If we only took care of their nesting area, that would be just one piece of the puzzle,” says Holle. “Our work with Mexican and Central American biologists is absolutely critical to our overall recovery programs for golden cheeks and black caps, and in turn, our knowledge of their nesting habits helps the biologists who protect their wintering grounds.”

Most recently, in November 2004, the Fish and Wildlife Service and several partners hosted a golden-cheeked warbler symposium and recovery workshop, bringing together experts from the state, non-profit groups and academia with peers in Guatemala and Mexico, reinforcing valuable coordination that has progressed over the years.

“We’ve hosted several prominent biologists from other countries, and that

has helped immensely with gaining more information on the birds’ life cycles and habitat requirements,” says Holle.

In 1992, the Children’s Alliance to Protect the Environment established a Children’s Forest at the refuge’s Doeskin Ranch Public Use Area. Indeed, the First Lady of Honduras, Mrs. Norma de Callejas, came to dedicate the forest.

A year later, the National Audubon Society and its local Travis Chapter sponsored four biologists — one each from Honduras and Venezuela and two from Mexico — to tour the refuge to study nesting golden cheeks, black caps and other neotropical migrants in Central Texas.

In April 2000, The Nature Conservancy sponsored a Guatemalan biologist to study in Central Texas. Having previously studied golden cheeks in his home country, he spent more than a week at Balcones Canyonlands Refuge to further

his knowledge. He and the refuge biologist have continued to exchange information.

More recently, in April 2004, on a trip to Central Texas sponsored by The Nature Conservancy, four Central American biologists spent three days with the refuge biologist, studying the ecology of golden cheeks in their breeding range. The group exchanged extensive information about research in their countries.



An endangered black-capped vireo nests near an observation deck at Balcones Canyonlands NWR, TX, a critical part of the bird's breeding range. (USFWS)

Then, in June 2004, the Interior Department's International Affairs Office brought four Guatemalan biologists and managers from that country's non-profit Defenders of Nature Foundation to the refuge to study golden cheeks' nesting habitat. This group included the manager of the Sierra de las Minas National Park, part of the most biologically rich region of the country and co-managed by the Guatemalan Park Service and the foundation. In fact, Sierra de las Minas National Park is where the golden cheeked warbler was first discovered in 1860, a region that is still the heart of the bird's winter range.

The scientists learned about the refuge's management techniques for the birds' nesting habitat, and were equally excited to hear the golden cheeks' song across the refuge. They also gave several presentations to biologists from the Service and the Biological Resources Division of the U.S. Geological Survey. All the participants expressed an interest in establishing a "Sister Protected Area" relationship between the park and the refuge.

This latest study tour was sponsored by Interior's International Affairs Office with funds provided by the Guatemala office of the U.S. Agency for International Development, demonstrating USAID's commitment to conservation and protected area management.

"The Guatemalans have integrated their research on golden-cheeked warbler feeding habits with their forest fire effect research within Sierra de las Minas National Park," said Cynthia Perera, program manager for Interior's



Balcones Canyonlands NWR has hosted numerous biologists from Latin American countries to exchange information on the life cycles of endangered golden-cheeked warblers and black-capped vireos. Pictured from left are Cesar Tot, director of Sierra de las Minas National Park; Javier Marquez, director of Sierra del Lacandon National Park; Cynthia Perera, Department of the Interior International Affairs program manager; and Luis Castillo and Igor de la Roca, both of the Guatemalan Defenders of Nature Foundation, during a tour of the refuge last year. (Chuck K. Sexton/USFWS)

International Affairs Office, noting that the park is part of a Biosphere Reserve of the same name which safeguards about 80 percent of the country's biodiversity.

"This is helping them protect large parcels of important habitat from being slashed and burned to make way for farming and cattle grazing," she added. "If these scarce and vulnerable habitats in Guatemala can be better protected, the more likely it is that they'll continue to attract nature lovers, bringing tourist dollars to communities and generating new sources of income."

Such cross-border work with Latin American biologists has the best chance of ensuring that Americans, Mexicans and Central Americans will hear the song of golden-cheeked warblers and black-capped vireos for springs to come. ♦

Central Texas is the only place where golden cheeks nest, making the refuge pivotal to their continued survival and recovery.

Chief's Corner – from pg 2

million people annually into the Refuge System not only to observe and enjoy wildlife, but also to gain a sense of ownership.

We want Americans to understand that the lands and wildlife we protect enriches their lives and their communities. Even if only a few people ever see an Ivory-billed woodpecker, the knowledge that this beautiful bird still graces the southern skies moves people to want to save the land that is home to this and thousands of species.

But people can be moved only if we welcome them onto their lands. We should direct people to refuges that can accommodate more visitors. We should also recognize that many people are only “armchair travelers,” charmed and motivated by what they read even if they never journey there. How many people love the idea of Alaska as the last frontier, although they have little hope of ever seeing the mountains and lakes of this vast state?

So, as we get more publicity about the Refuge System, rejoice. Those who see national wildlife refuges will tell their neighbors, their friends and, hopefully, their legislators. Those who only meet us on the printed page will pass those stories on as well. We can only benefit from a public enthralled with all we conserve.

Business and Conservation Partners Safeguard World-Class Wetlands –

from pg 1

“Acres for America” and a \$1 million federal grant awarded under the North American Wetlands Conservation Act. The Louisiana congressional delegation was instrumental in supporting The Conservation Fund and other partners to make the addition possible.

Located in central Louisiana, the seasonally flooded bottomlands and forested bayous of Catahoula Refuge host up to 400,000 waterfowl and shorebirds during peak migration. Recognized under the Ramsar Convention as a Wetland of International Importance, state-owned Catahoula Lake is also considered a top priority for the North American Waterfowl Management Plan’s Lower Mississippi Valley Joint Venture. Each year, more than 40,000 birdwatchers, hunters and anglers also flock to the area.

“The spectacular addition to the Catahoula National Wildlife Refuge is an incredible gift to the people and wildlife of Louisiana,” said the Service’s Southeast Regional Director Sam Hamilton.

“Acres for America” will permanently conserve about 138,000 acres, one for every acre of Wal-Mart’s current footprint, as well as the company’s future development. ♦



Some 6,000 new acres for Catahoula NWR contribute to an ongoing effort by public, non-profit and corporate partners to restore bottomland hardwood forests in the Mississippi River Delta. (USFWS)

Send Us Your Comments

Letters to the Editor or suggestions about *Refuge Update* can be e-mailed to RefugeUpdate@fws.gov or mailed to *Refuge Update*, USFWS-NWRS, 4401 North Fairfax Dr., Room 634C, Arlington, VA 22203-1610.



RefugeUpdate

USFWS-NWRS
4401 North Fairfax Dr.
Room 634C
Arlington, VA 22203-1610

STANDARD PRESORT
POSTAGE AND FEES
PAID
U.S. DEPARTMENT OF THE
INTERIOR
PERMIT G-77