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RefugeUpdate

July/August 2004 Vol 1, No 4



Most of the Conservation in Action Summit work took place in “breakout sessions,” when participants delved deeply into issues of priority for the Refuge System. More than 250 participants attended the Summit May 24-27 at the National Conservation Training Center. (Ryan Hagerty/USFWS)

Shared Priorities Emerge from Conservation in Action Summit

Enthusied about the Refuge System, more than 250 participants at the landmark Conservation in Action Summit May 24-27 made major strides in identifying a set of shared priorities to guide the Refuge System for the next five to 15 years.

Coming from 38 states and representing a wide spectrum of backgrounds, the participants in 3½ days debated and discussed ideas, strategies and action items that had been formulated in the 10 months leading up to the first-ever Summit. Their final votes on priorities continued the vision embodied in *Fulfilling the Promise*.

“Before the Summit, we had the benefit of so much input, including an extensive survey of Fish and Wildlife Service employees and conservation partners,” noted Jim Kurth, deputy chief of the Refuge System and a member of the three-person Summit Executive Committee.

“We had held extensive meetings with teams of experts to draft white papers. We had several Web chats and a focus group of 35 highly-experienced refuge managers to help refine the white papers,” he continued. “The Summit’s breakout sessions and polling provided a wealth of insights about the challenges facing the Refuge System.”

Among preliminary results from the Summit were:

- The need for a more systematic approach to bird conservation, including identifying species of special concern.
- The importance of endangered species work, with emphasis on refuge activities that integrate with the broader work of the USFWS and other conservation organizations.
- The need to deal with invasive species along with vexing issues associated with water quality and quantity on refuges.

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(Ana Fuentes/USFWS)

Born on a Refuge

Hopper Mountain Refuge, CA, was established in 1974 to protect the California condor. Two other refuges – Blue Ridge in 1982 and Bitter Creek Refuge in 1985 – joined Hopper Mountain to create a refuge complex for the same purpose.

The population of condors dropped to just 22 birds in 1983, its lowest level ever. In 1992, the first captive reared birds were released through Hopper Mountain Refuge Complex.

Today, 244 condors soar in the wild, 99 of which were bred in captivity. ♦



From the Director

A Salute to Fire Management

Wildland fire management has been commanding

more national attention in recent years, and with good reason. As development continues to expand into rural areas and as our forests and lands become more fragmented, wildland fire management is becoming an ever more important tool in protecting habitat for both people and wildlife.

The Fish and Wildlife Service has focused on both the escalating costs of fire suppression and the negative impacts of intense, fast-moving wildfires that recognize only natural forces – not management or jurisdictional boundaries. As an agency, we are fully involved with a variety of wildland fire management partners. Initiatives such as the National Fire Plan, and the Healthy Forest Initiative, the 10-Year Comprehensive Strategy and Implementation Plan, and the Healthy Forest Restoration Act have

enhanced our ability to protect communities and the environment from unwanted fires.

But the Service's current involvement in the fire management is not new. Refuges have long been leaders in using prescribed fires to restore and maintain wildlife habitat, long before others understood or accepted the value of prescribed burns. We can be proud of our record of achievement and expertise when it comes to using fire as a resource management tool.

As fire management becomes more complex, we are reaching out to collaborate with states and nontraditional partners and groups. To that end, I've been honored to serve on the Wildland Fire Leadership Council since 2002, working with the directors of the Interior land management agencies, the Forest Service, the National Governors Association, the National Association of State Foresters, the Intertribal Timber

Council, the National Association of Counties and the Federal Emergency Management Agency. We need to continue in this vein, collaborating with state and local stakeholders in the Wildland Urban Interface (WUI) program, for example. Treatment of non-WUI lands is also critical to conserve fish and wildlife habitats and to manage Refuge System lands.

Our federal, state and local partners depend on us to share our fire-qualified personnel, as we depend on them. That is why timely mobilization of resources is critical to effectively managing fires and their related costs.

This issue of *Refuge Update* offers great insight into many aspects of fire management as well as salutes those who are on the front lines of fire management.

— Steve Williams



Chief's Corner

The Best Public Lands in the World

As we worked at the end of the

Conservation in Action Summit to identify shared priorities, who voted was as important as what they voted for.

During the Summit, more than 250 people engaged in rich, collegial, open conversations – formally and informally – to set priorities for the Refuge System. We had participants from 38 states, representing a wide spectrum of backgrounds. Twenty-three refuge Friends groups were there, along with numerous state agencies and dozens of nonprofit conservation organizations. Biologists, refuge managers,

interpretive specialists, heavy-equipment operators and regional directors from the Fish and Wildlife Service participated.

The depth and breadth of the assemblage's experience was unsurpassed in the Refuge System's history. Never before have we gathered so many people representing such varied interests and perspectives.

Opinions abounded. That's just what made the Summit such a success.

At the Summit's conclusion, we asked all participants to vote on their top priorities in order to derive a set of shared priorities

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RefugeUpdate

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Public Can Comment on Bison Range Agreement

The public may comment on a draft annual funding agreement negotiated by the USFWS and the Confederated Salish and Kootenai Tribes for the National Bison Range Complex, MT, which would enable the tribes to perform some of the Service's activities during fiscal year 2005. The comment period closes Oct. 11.

Activities covered by the draft agreement include the following categories: biological program; fire program; maintenance program; and visitor services.

The USFWS will maintain ownership of and management authority over all lands and buildings at the Bison Range.

The National Bison Range Complex consists of the National Bison Range, Swan Lake, Lost Trail, Pablo and Ninepipe refuges, and the Northwest Montana Wetland Management District.

Established in 1908 to conserve the American Bison, the Bison Range and ancillary properties provide important habitat for a variety of species such as elk, pronghorn antelope and migratory birds. The draft agreement applies only to those units that lie within the boundaries of the

Flathead Reservation – National Bison Range, Ninepipe Refuge, Pablo Refuge and waterfowl production areas within the reservation.

The draft agreement was negotiated pursuant to the Indian Self-Determination and Education Assistance Act. Under the Act, qualified Indian Tribes may request to perform activities administered by the Department of the Interior that are of geographic, historic or cultural significance to the requesting tribe.

The draft agreement is available at <http://mountain-prairie.fws.gov/cskt-fws-negotiation> or by contacting the Bison Range, 406-644-2211.

Comments may be submitted via e-mail at draftafapubliccomments@fws.gov, or in writing to the Bison Range, 132 Bison Range Rd., Moeise, MT, 59824. During the public comment period, an open house(s) may be held. A notice for the open house will appear in local newspapers.

Following the public comment period and any subsequent revisions to the draft agreement, the final agreement will be signed by the Service and the CSKT, after

which the agreement will be submitted to Congress for a 90-day review period before it is implemented.

The Confederated Salish and Kootenai Tribes are comprised of the Bitterroot Salish, the Pend d'Oreille, and the Kootenai Tribes. The tribes occupy the 1.3 million acre Flathead Reservation in northwestern Montana.

Prior to current negotiations regarding the National Bison Range Complex, the Confederated Salish and Kootenai Tribes have assumed management of many activities previously provided by the federal government on the Flathead Reservation. The activities include Tribal Health and Human Services; the Tribal Wildlife Management Program; and Mission Valley Power. ♦

Agreement Reached with Tribal Consortium at Yukon Flats Refuge

The product of nearly two years of negotiations, an agreement between the Council of Athabascan Tribal Governments and the USFWS enables the Council to perform some of the Service's work on Yukon Flats NWR, AK, in fiscal years 2004-05. The agreement runs through July 31, 2005.

Under the agreement, the Council, a consortium of 10 Indian Tribes of the Yukon Flats, would:

- Locate and mark public easements across private lands within the refuge boundary;

continued pg 9



Beaver Creek, a nationally designated Wild River, flows into Yukon Flats NWR, AK, from the mountains in the south. An agreement between the Council of Athabascan Tribal Governments and the USFWS enables the Council to perform some of the Service's work on the refuge during fiscal year 2005. (David Spencer/USFWS)

Chase Lake Refuge Probes Pelican Exodus



The eggs remain, but the Chase Lake NWR pelicans are still missing. Biologists are trying to find out why thousands of white pelicans disappeared from their nesting sites at the North Dakota refuge. (USFWS)

Biologists are trying to determine why thousands of white pelicans disappeared from nesting sites at Chase Lake NWR, ND, and where they went.

The USFWS, which first noticed signs of nest abandonment May 25, continued to make daily inspections. By June 2, the entire nesting colony on two of the three nesting sites had abandoned all their nests and eggs. A flight over the surrounding area May 28 revealed little.

A third nesting site had a typical number of birds, about 2,500 pelicans, until June 14, when biologists found that all nests and chicks had also been abandoned.

The 4,449-acre refuge is home to the largest nesting colony of white pelicans in North America. A record number of pelicans, approximately 35,466, nested on the refuge in 2000. Approximately 29,494 pelicans nested there in 2003.

Although biologists found a few sick and dead pelicans, preliminary tests did not indicate the presence of any toxins or diseases. Additional testing of pelican eggs, chicks, blood samples and adults is continuing at the National Wildlife Health Center in Madison, WI.

The probe has not ruled out harassment by either animals or humans. Biologists found a coyote den relatively close to one nesting site. None of the other refuges or areas with nesting pelican colonies report similar abandonment, unusual hikes in pelican populations or abnormal mortality rates.

“This situation has puzzled many wildlife professionals,” says Refuge Manager Mick Erickson. “The Service is working closely with state and other federal agencies to determine exactly what occurred. At this point, we don’t have conclusive answers.” ♦

Banking On Time; Shoring Up The Past

Closed since 1942



Work may begin this fall to restore the crumbling wall of the First Bank of White Bluffs, built in 1907. Scouts, students and other volunteers will mold more than 100 of the unusual E-shaped blocks as part of the restoration project. Volunteers and the staff of Hanford Reach National Monument, WA, hauled off old cedar roof shakes, disintegrated wall plaster and 60 years of bird guano as the first step in restoration. (Jenna Gaston/USFWS)

While restoration plans await approval by the Washington State Historic Preservation Office, volunteers and the staff of Hanford Reach National Monument, WA, hauled off old cedar roof

shakes, disintegrated wall plaster and 60 years of bird guano scraped from the original tongue-and-groove floor boards of the First Bank of White Bluffs, the first step in the structural stabilization of a

historic building that served the community for 35 years. Restoration may begin this fall.

Volunteers, the Refuge System, other public agencies and consultants are working to revitalize the crumbling bank, built in 1907 to serve the then-emerging communities of White Bluffs and Hanford. The bank closed in 1942, just a year before the communities were taken over by the federal government as feverish work began on the top-secret Manhattan Project, which developed atomic weapons for World War II.

The 195,000-acre Hanford Reach National Monument/Saddle Mountain NWR – the only national monument in USFWS holdings – was established by Presidential Proclamation in June 2000. It protects a rich diversity of archaeological and historical resources and the largest intact shrub-steppe habitat in the Columbia Basin. Although the bank building is on

Refuge Manager Competes at Summer Olympics

Add the title “Olympian” next to John Magera’s name.

Refuge Manager at Middle Mississippi River NWR, IL, Magera is on the U.S. Olympic Archery Team at the 2004 Summer Olympics in Greece, little more than a year after competing in his first bow tournament. He was named to the Olympics team June 19 after finishing third at the Olympic Archery Team Trials.

The 11-day Olympics begin Aug. 13 in Athens. Archery competition will be held Aug. 15-21.

He surprised himself and the established archery community when he finished third, beating world-ranked archers, including three former Olympians. “My only goal was to get into the top 16 and if I did that, I would’ve been completely happy going

home,” said Magera. “I don’t think it’s really sunk in yet that I am actually on the Olympic team.”

Magera will join 2000 Olympic Silver Medalist Vic Wunderle of Mason City, IL, and three-time Olympian Butch Johnson of Woodstock, CT, on the men’s team. John’s wife, Karin, a park ranger at Crab Orchard NWR, IL, will travel to Athens to watch her husband compete. “We’re going to have a little cheering section for him,” she said.

Magera competed in his first international competition July 13-17 at the European Grand Prix in Antalya, Turkey. ♦



John Magera, refuge manager at Middle Mississippi River NWR, IL, is on the U.S. Olympic Archery Team.

Department of Energy (DOE) land adjacent to the monument, the Refuge System coordinated the volunteer work since USFWS manages the monument land cooperatively with DOE and is concerned about adjoining resources.

The only remaining structure that marks the historic town of White Bluffs, the bank remains a featured stop on the annual pilgrimage of the descendants of White Bluffs/Hanford pioneers. Abandoned after it closed, the building suffered from years of neglect, including use for target practice.

Monument Cultural Resource Manager Jenna Gaston brought together a coalition of local volunteers and partners, including architects, contractors, county officials and former White Bluffs residents, to help save the building.

Future plans call for replacing a crumbling wall. Since the building’s roof is gone, that needs to be replaced. The first steps in restoration have already been taken.

Built in 1907 to serve the then-emerging communities of White Bluffs and Hanford, the First Bank of White Bluffs closed in 1942, just a year before the communities were taken over by the federal government as feverish work began on the top-secret Manhattan Project. This historic photo shows the bank’s architectural design, rather typical of small town banks in that era. (Department of Energy Archives)



Concrete blocks were salvaged from a partially collapsed wall. A heavy tarp was specially designed for the structure to avoid further damage.

Local architects and concrete suppliers have offered to donate materials and expertise to reconstruct the unusual E-shaped blocks used in the original construction. More than 100 blocks, each weighing about 30 pounds, will be molded

by scouts, students and other volunteers and used in the wall reconstruction.

“We’re banking on community support to accomplish this much needed preservation,” Gaston concluded. ♦

Chincoteague Recreation Planner Wins National Award



Angela Tracy, with the USFWS since 1991, received the Legends Award from the American Recreation Coalition for her outstanding work to improve outdoor recreation experiences and opportunities. She is supervisory outdoor recreation planner at Chincoteague NWR, VA. (USFWS)

Angela Tracy, supervisory outdoor recreation planner at Chincoteague NWR, VA, since 1997, received the Legends Award from the American Recreation

Coalition in early June for her outstanding work to improve outdoor recreation experiences and opportunities.

An employee of the USFWS since 1991, Tracy was recognized as a key member of the team that planned and designed the refuge's Herbert H. Bateman Administrative and Educational Center, which has already won several awards for its environmental design, including the White House Closing the Circle environmental award.

"Angie began the process of building an interpretive and educational center the day she arrived at the refuge," said Refuge Manager John Schroer. "Her involvement has been very intense over the last five years." She was especially instrumental in guiding the design of innovative exhibits. The center's state-of-the-art classroom will host tens of thousands of students annually, perhaps giving them their first glimpse of wildlife conservation.

Chincoteague Refuge, encompassing more than 14,000 acres of barrier islands, including portions of Assateague Island, receives 1.4 million visitors annually.

Additionally, Tracy was honored for running the largest public use program in Region 5. Under her guidance, the quality and quantity of environmental education and interpretive programming have greatly increased. She initiated such innovations as roving interpretive patrols that reach visitors on the trails. She has convinced local schools to use the refuge's outdoor resources.

Tracy has been the refuge's liaison with local businesses, the Chincoteague Natural History Association, the Commonwealth of Virginia, the Town of Chincoteague and County of Accomack.

"Angie always maintains a high degree of professionalism, integrity, and optimism as she meets each new challenge," concluded Schroer. ♦

Summit – from pg 1



Interior Secretary Gale Norton was one of many officials who addressed Conservation in Action Summit participants. Participants came from 38 states and represented a wide spectrum of backgrounds. (Todd Harless/USFWS)

Participants saw a need for basic inventories to document the extent of the problems.

- 🍃 Fire must continue to be used as a tool for wildlife management and fuels reduction.
- 🍃 Basic work is needed in marine conservation to inventory and assess resources and identify boundaries and threats.

🍃 A collaborative planning process with partners is needed in strategic growth to translate conservation plans on the national, regional and local levels into habitat goals.

🍃 Wilderness stewardship, a topic not identified during preliminary phases, was deemed a priority.

🍃 The need for scientific study and applied research for management decisions. Participants sought a national strategy for scientific monitoring on refuges, including baseline inventories and more rigorous resource monitoring. They also suggested that scientific findings be communicated in plain language to a broader audience.

🍃 Strong endorsement for development of a comprehensive environmental education program to help today's

youth become tomorrow's conservationists.

🍃 Recognition that the Refuge System can provide more quality wildlife-dependent recreation.

"It will take some time to develop a detailed strategy synthesizing the shared priorities we identified," Kurth concluded.

"We sought to develop a strong shared sense of priorities for the Refuge System during the Summit," said Executive Committee Member Evan Hirsche, president of the National Wildlife Refuge Association. "Now we will work diligently to sift through all the information we gathered and develop a set of concise priorities we all can share."

Executive Committee member Bob Byrne, of the Wildlife Management Institute, indicated that full Summit results will be presented in the fall. ♦

Around the Refuge System

Region 6 biologists recently found that archaeological and historic data were useful in reconstructing the lifeways of several species. These studies may serve as models for similar studies by biologists who lack historic data for the species they wish to list, restore or protect. Historical writers have often recorded information about past environmental conditions and animal distributions when they wrote about scientific investigations or other stories. USFWS biologists should contact Regional Cultural Resources staff members for further information about using such information.

A nest count of royal terns – including those on Fisherman Island NWR, VA, and Cape Romaine NWR, SC – was conducted May-June in Maryland, Virginia, North Carolina, South Carolina and Georgia as the first project of a working group of biologists organized by the Eastern Shore of Virginia NWR. States used standardized methods for the nest counts. The group is seeking better data in light of declining royal tern populations in all four states. The group's first meeting, held in February, included biologists from the governments of Maryland, Virginia and North Carolina as well as The Nature Conservancy, University of North Carolina, US Geological Survey and the USFWS. Researchers from Clemson University and North Carolina Audubon also attended. The group will continue to delve into issues concerning royal tern conservation and management. For more information, contact Pam Denmon, 757-331-2760.

This spring was the best breeding season for red wolves in North Carolina since the species was listed as endangered in March 1967. A record 55 pups were born in 11 litters. Additionally, two females were born in captivity. The pups were transferred from a captive facility at Cape Romain NWR, SC, to join the wild red wolf population in northeastern North Carolina. The two sister pups, selected for their rare genes, were placed in separate dens with wild red wolf pups of identical age. Captive-to-wild fostering is coordinated by the USFWS Red Wolf Recovery Program and the American Zoo and Aquarium Association's Red Wolf Species Survival Plan to integrate genetically valuable captive-born pups into the wild red wolf population. More than 100 red wolves – the only wild red wolf population – roam 1.5 million acres in northeastern North Carolina.

Blackwater NWR, MD, received an environment award April 21 from the Shore Leadership Alumni Association for protecting 26,000 acres of rare and pristine wildlife habitats. Six organizations and businesses received Annual Shore Leadership Award for Excellence in Program and Service for their impact on Maryland's Eastern Shore. The group recognized the refuge as the "biological crescent of the Eastern Shore." The awards recognized issues addressed during the nine-month Shore Leadership Program for executives and upper management of business, government and nonprofit and education organizations across the Eastern Shore. The refuge is the largest tourist attraction in Dorchester County. It provides habitat for threatened Delmarva fox squirrels and bald eagles and about 35 percent of the Atlantic Flyways waterfowl and shorebird population.



Ed Britton, manager of the Savanna District of the Upper Mississippi River National Wildlife and Fish Refuge, IL, received the Department of the Interior Superior Service Award for his eight-year campaign to transform some of the Savanna Army Depot into the Lost Mound Unit of the refuge. The former 13,062-acre depot, used since 1917 to test cannons as well as manufacture and store ammunition and other ordnance, was officially closed March 2000. After eight years of intricate negotiations, the 9,715-acre Lost Mound Unit became part of the refuge in September 2003. It contains the largest tract of tallgrass prairie remaining in Illinois, and several thousand acres of Mississippi River bottomlands – all critical to wildlife and a number of rare, threatened, or endangered species. Britton began his career with the USFWS in 1977. He has worked at five refuges and became manager of the Savanna District in 1995.

Around the Refuge System

Five judges unanimously awarded “best of show” to Aurora Firth, a 17 year-old home-schooled student from Anchor Point, AK, at the Alaska Junior Duck Stamp Conservation and Design program. The judging was held April 2 at the administrative offices of Yukon Flats NWR, although the award was presented May 1 at the formal awards ceremony. The program, which drew 998 entries from 52 schools across the state, integrates art and science to teach youngsters the importance of wetlands and waterfowl conservation. Aurora, who was also the Alaska Best of Show winner in 2001 and 2003, topped this



year's entries with an exquisite color pencil drawing of a Barrow's Goldeneye pair. She received a second

place award for her conservation message during national competition with other state winners. ♦

Hokule'a Voyages Through Hawaiian Islands NWR

Historic trip links remote islands to public



Hokule'a arrived at Midway Atoll NWR, HI, June 9 after completing an 18-day trip that took the Polynesian voyaging canoe and its crew 1,200 miles from Kauai to the far end of the Hawaiian Islands NWR. (Tim Bodeen/USFWS)

By Susan Saul

When the twin-hulled canoe Hokule'a sailed out of Hanalei Bay on the Island of Kauai, HI, May 23, Outdoor Recreation Planner Ann Bell from the USFWS Honolulu office was onboard, acting as the

education and environmental protocol officer for “Navigating Change,” the Polynesian Voyaging Society’s unique environmental and cultural mission.

The 2,400-mile, two-month voyage is the first time in centuries that a Polynesian canoe cruised Hawaii’s most leeward islands, which have been the Hawaiian Islands NWR since 1909. The Polynesian Voyaging Society navigated the replica canoe by traditional, noninstrument seafaring techniques from Kauai to Kure Atoll and back, following the traditional route of ancient Hawaiians.

More than 60 classrooms and about 1,600 students in Hawaii, Louisiana and American Samoa were linked to the vessel by daily satellite telephone calls. Teachers used a curriculum guide, video and Web site to prepare the students for the calls.

“Navigating Change” brought public attention to the biological wonders of the rarely seen ecosystem of coral reefs, atolls, small islands, seamounts, banks and

shoals that compose the refuge. It also challenged Hawaii’s residents to conserve the unspoiled condition of the refuge islands.

“It’s important that the people of Hawaii understand the leeward islands,” said Bell. “The refuge islands are part of their history and environment.”

Some of the World’s Most Pristine Habitat

Scientists describe the 10 refuge islands and the surrounding reefs as some of the most pristine habitats on earth, home to millions of seabirds and thousands of sea turtles as well as pupping habitat for Hawaiian monk seals. The reefs are essential habitat for sharks and countless indigenous and endemic species. Many refuge species exist nowhere else.

Hokule'a stopped at each of the islands and atolls. The USFWS allowed the crew to go ashore at Tern and Laysan islands and Midway and Kure atolls.

Agreement Reached — from pg 3

- Assist with environmental education and outreach in local villages;
- Monitor subsistence wildlife harvest;
- Survey moose populations (in cooperation with the Alaska Department of Fish and Game); and
- Maintain federal property in and around Ft. Yukon.

Management authority for the refuge will remain with the USFWS, as required by the National Wildlife Refuge System Administration Act. Congress' 90-day review of the agreement ended Aug. 3.

Under provision of the Indian Self-Determination and Education Assistance Act, qualifying Indian tribes and

consortia of tribes may request to perform activities administered by the Department of the Interior that are of geographic, historic or cultural significance to the tribe making the request.

"The Service views this annual funding agreement as a mechanism to engage local residents in refuge management activities, increase the efficiency of refuge programs and foster a closer relationship between refuge staff and local residents," said Refuge Manager Ted Heuer.

The agreement – the first of its kind in the USFWS – was modified after a 60-day public comment period that included public meetings in Anchorage and Fairbanks in March.

"Yukon Flats Refuge has a long history of working cooperatively with the native people of the region," noted Interior Secretary Gale Norton upon signing of the agreement. "Refuge staff have great respect for tribal members' knowledge of the area and for their desire to protect its wild resources for future generations of all Americans – a goal which reflects the mission of the National Wildlife Refuge System." ♦

At Laysan Island, the crew helped haul away hundreds of pounds of washed-up nets and ropes that could have entangled endangered monk seals and sea turtles. They planted native vegetation from the USFWS' nursery on the island, and helped collect native sedge makaloa for transplanting to Midway Atoll, where refuge managers hope to restore a wetland.

Laysan is a prime example of environmental degradation and restoration. A century ago, guano miners, feather poachers and an ill-conceived rabbit-canning business converted the tropical forest of flowering plants and sandalwood trees to a desert. When the canning business failed, the rabbits were released and ate nearly all the vegetation. Endemic land birds became extinct.

The USFWS is restoring the island. "Laysan shows what can be done to restore the environments of the main Hawaiian islands," Bell said.

Hokule'a sailed to Kure Atoll, the end of the Hawaiian Archipelago, before returning to Midway Atoll NWR on June 9. There, the outbound crew was replaced by another, who took the canoe on a non-stop trip back to Kauai.

In addition to its classroom outreach, Hokule'a brought its stewardship message to Hawaii residents via daily newspaper and television coverage. A reporter from one of Honolulu's daily newspapers was a crew member. A videographer traveled onboard for a few days to get footage for television stations.

"Navigating Change" partners included the USFWS, Polynesian Voyaging Society, Bishop Museum, NOAA, State of Hawaii, Hawaii Maritime Center, University of Hawaii, Coastal Zone Management Hawaii and the National Fish and Wildlife Foundation.

For more information about the voyage, go to:

- The Other Hawaii — <http://the.honoluluadvertiser.com/specials/hokulea/>
- Polynesian Voyaging Society — www.pvs-hawaii.org
- Navigating Change — www.navigatingchange.org

- University of Hawaii — www.hawaiianatolls.org ♦

Susan Saul works in External Affairs in the Pacific Regional Office as an outreach specialist for refuges.



Ann Bell, outdoor recreation planner in the Pacific Islands External Affairs Office, took a turn on the sweep of the replica Polynesian voyaging canoe Hokule'a during its recent 18-day trip through the Hawaiian Islands NWR. Keoni Kuhoa, cultural specialist on the crew, helped Ann keep the canoe on course.

FOCUS ...On Fire Management

Keeping Fire on Our Side



Ed Hirales, regional telecommunications specialist, at right, worked with partner Dave Daniels of the Bureau of Land Management to monitor ignition of a prescribed fire February 4 on Imperial NWR, AZ. (Christopher Wilcox/USFWS)

By Phil Street

Like wildlife, wildfire has always been part and parcel of biological systems.

Without fire periodically revitalizing the landscape, there could be no native tallgrass prairie, wetlands, regenerating lodgepole or jackpine forests. The majority of Service-managed lands depend on fire to restore and maintain ecological health.

Fire is a critical tool to managing ecosystems. It recycles vital nutrients, stimulates growth, and provides quality habitat for a variety of species. Regular fires, part of nature's design, check the risk of catastrophic fire by clearing underbrush and reducing dead vegetation. Periodic fire also makes wildfires easier for firefighters to control.

Fire management has long been part of the Refuge System. Staff at what became

St. Marks NWR, FL, ignited the first documented prescribed burn in 1927. Even during the 1930s and 1940s, when fire suppression took hold on other federal lands, refuge managers quietly continued burning.

The results of our long history of prescribed fire use are evident today. Among federal lands, refuges are in the best overall shape and ensure the safest conditions for both firefighters and the public.

But as pioneers in allowing fire to play a natural role in ecosystems, the USFWS also took on the risks of managing this powerful tool. The late 1970s marked a turning point in this effort. The inability of refuge managers to contain a lightning fire in the wilderness on Seney NWR, MI, in 1976 acted as a wake-up call and pointed to the need to hire more skilled and dedicated fire managers.

In 1978, USFWS established a formal fire management program and, a year later, headquartered it at the National Interagency Fire Center in Boise, ID, with other agencies managing wildland

Reclaiming the Rio Grande

By Jesse Stanley

Bosque del Apache NWR, NM, was named for the Native Americans who once camped in the riverside forests along the majestic Rio Grande River. Now, the "woods of the Apache" are under siege from salt cedar, also known as tamarisk, a small, invasive tree introduced from Asia early last century.

Highly fire-adapted and flammable, the plant has taken hold of vast areas of the Southwest, becoming a severe fire hazard to human as well as biological communities. The refuge is leading the fight against the invasion.

The large-scale Bosque Fuels Reduction Study seeks to determine the best methods for removing invasive species from the Rio Grande Valley and restoring the native cottonwoods and willows. Salt cedar is a major fire hazard along the Rio Grande corridor; several major fires have ignited in the area in recent years.

So far, the ongoing project has eradicated 343 acres of salt cedar through mechanical removal and burning. Some of the treated areas will be seeded with cottonwood, black willow, and shrubs and other understory plants to restore the native habitat.

fire. Interagency coordination, training, qualifications and safety standards were adopted.

Then in 1979 and 1981, three Service firefighters died in the line of duty — Richard S. Bolt at Okefenokee NWR, GA and Beau Sauselein and Scott Maness at Merritt Island NWR, FL. These tragic losses strengthened the agency's commitment to professionalize the fire program.

Over the last two decades, the fire program has grown dramatically in response to increasing needs. Today, about 600 fire staff work throughout the Refuge System as an integral part of interdisciplinary staffs. More than 3,000 USFWS employees are certified, or "red carded," to support the fire program when needed, essential for cost-effective fire management on refuges.

All refuges with burnable vegetation are required to have Fire Management Plans, complementing Comprehensive Conservation Plans.

Improve Habitat, Cut Risk

Faced with rapid growth of communities around refuges and the increase in urban

refuges, fire managers confront increasingly complex issues. The extreme fire activity in 2000 led to the National Fire Plan, which primarily seeks to reduce fire risk, especially in the wildland-urban interface areas around federal lands.

While fire suppression provides immediate protection during an unwanted wildfire, prescribed fires reduce accumulated vegetation known as "hazardous fuels." Such fires can also improve wildlife habitat and control invasive plants, among other benefits. More than 90 percent of hazardous fuels reduction on refuges is accomplished through prescribed fire.

"We consistently meet Interior Department goals for hazardous fuels reduction, and we treat more acres than the other agencies at less than half the cost per acre," said Refuge System Chief Bill Hartwig.

Each year, the USFWS manages more prescribed burns than wildfires, burning a greater percentage of its lands than any other federal agency. On average, the Service conducts prescribed burns on more than 300,000 acres annually.

In addition, large refuges with wilderness areas commonly monitor naturally ignited fires, a practice known as wildland fire use. Last year, refuges in Alaska managed more than 250,000 acres in this way, by far the cheapest fire management method.

The fire program is dedicated to carrying out Service and Refuge System missions through the traditional use of fire, while giving better protection to nearby communities through active fuels management. To meet the increasing challenges of land stewardship, we must maintain high professional standards, continue to use the best available science, and strengthen partnerships to fulfill our mission for the American people. ♦

For more information about fire management in the USFWS, go to fire.fws.gov.

Phil Street is Chief, Branch of Fire Management under the Division of Natural Resources. He is the Fire Director for the USFWS and coordinates closely with fire directors from other federal agencies located at the National Interagency Fire Center in Boise, ID.

Other research plots are being cleared and flood-irrigated to see if the native species will return without replanting.

Revegetation has been completed on two plots. The results have been encouraging, with salt cedar spread contained, with existing weed growth maintained at less than a foot high, and grasslands regenerating in areas that have been cleared and burned

"This study will provide important information for developing strategies to reduce salt cedar, including preparation techniques, burning parameter limits, expected fire behavior, control problems, fire effects, and input for smoke

management," said Assistant Refuge Manager Shaun Sanchez.

The Forest Service and the University of New Mexico are assisting the refuge with ongoing monitoring to help refine future treatments. Monitoring the treatments' effects on wildlife will continue for several years.

The Forest Service Rocky Mountain Research Station, the US Geological Survey, the Bureau of Land Management, New Mexico State Land Department, the Middle Rio Grande Conservancy District, the City of Albuquerque and other local, state and federal partners are cooperating in the project. ♦



Firefighters at Bosque del Apache NWR, NM, burn piles of downed salt cedar as part of a project to restore the native habitat for tens of thousands of wintering birds and mitigate the fire danger to nearby communities. (USFWS)

Jesse Stanley is the outreach assistant for the Fire Management Branch. He was an intern provided through the Student Conservation Association

FOCUS ...On Fire Management

One Alaskan Village Reduces Risk of Wildland Fires

By Jody DeMeyere

Assisted by the USFWS, Allakaket residents in the summer of 2003 conducted a hazardous fuels reduction project in their remote Alaskan village south of the Brooks Range, illustrating just how local communities can avoid harmful affects of wildland fire by working cooperatively with federal agencies.

Villagers created a fuel break between a new housing development and the adjacent forested wildlands of Kanuti NWR. The development, built on the crest of a ridge east of the village, faced risk from wildland fire because it is surrounded by black spruce forest.

In fact, Allakaket generally was at high risk from wildfires that could start on federal lands. The boreal forest of the Kanuti Refuge, which surrounds the village, often experiences wildland fires. Indeed, more than a third of the 1.6 million-acre refuge has burned in the past 12 years. Over the years, many of the small fires around Allakaket have been suppressed, leading to a greater accumulation of hazardous fuels around the village.

Village Chief Pollack Simon led the fire crew, composed of a dozen village residents, in creating the fire break. The crew worked with personnel from the

GOAL: A Partnership Forged by Fire

By Shawn Gillette

In late 1954, in the timber-rich region of southeastern Georgia, several wildfires ignited inside Okefenokee NWR, GA, and quickly spread, destroying more than 90,000 acres of commercial forest as well as many homes and businesses. Many jobs were lost as a result.

Yet, from the fire's ashes arose the first cooperation in fire management among federal, state and local resources in and around

Okefenokee Swamp. Steps were taken that lessened the likelihood of another such devastating fire. That legacy of cooperation still benefits southeastern Georgia/northeastern Florida.

The Greater Okefenokee Association of Landowners (GOAL) – a partnership among landowners whose properties border the swamp – was created in September 1994. GOAL represents a diverse cross-section, from numerous private landowners to commercial timber companies, manufacturing companies, two state forests and two federal agencies.

GOAL members work as a team to manage, protect and promote forest resources in and around Okefenokee Swamp. GOAL is not a formal partnership. Membership is voluntary. Yet, clearly, GOAL membership is extremely beneficial.

Four years before GOAL was established, fire fighters from various organizations battled the Shorts Fire in Okefenokee Refuge's southwestern reaches. The fire burned more than 20,000 acres, but cost a staggering \$10 million to manage. It also stretched thin staff and equipment. The fire demonstrated the



The Greater Okefenokee Association of Landowners (GOAL) – a partnership of private landowners, commercial timber companies, manufacturing companies, two state forests and two federal agencies whose properties border the swamp – work as a team to manage, protect and promote forest resources in and around Okefenokee Swamp. (USFWS)

Kanuti Refuge and the US Bureau of Land Management to mechanically treat and burn piles of slash – dead and downed debris remained from a logging operation or a previous fire — on 35 acres around the new houses.

They removed low brush, thinned the black spruce forest, trimmed the lower limbs of the remaining spruce and removed slash – all in an effort to reduce potential fire intensity and enable firefighters to suppress unwanted wildland fires that could threaten the village. They created defensible space, a fire break, by removing and reducing hazardous fuels.

“This project was a success for a number of reasons,” said Sam Patten, Yukon Flats NWR, AK, fire management officer. “First, it was a great example of how

federal agencies can work together with rural villages of interior Alaska.

“Secondly, the project gave local people greater knowledge about how to keep wildland fires from destroying their homes. The project employed local residents and allowed them to demonstrate their expertise. And finally, it was a great model for other rural villages scattered across Alaska, many of which are at risk from wildland fire,” concluded Patten. ♦

Jody DeMeyere is a park ranger at Kanuti NWR, AK.



Allakaket, AK, generally was at high risk from wildfires that could start on federal lands, illustrated by this photo from 1997, before the hazardous fuels reduction project began. More than a third of the 1.6 million-acre refuge has burned in the past 12 years. (USFWS)

need for more concerted and coordinated efforts by the affected federal and state agencies, landowners and businesses.

GOAL achieved that management objective. By working together, GOAL partners better protect their interests from the affects of wildfires and manage their natural resources. Although GOAL's origins can be traced to wildfire suppression, it represents more.

The partners assist the refuge with natural resource projects, such as red-cockaded woodpecker and black bear studies. They also work with refuge staff to establish cooperative burn zones around the swamp for prescribed fires.

A Unique Partnership

“There is no doubt, GOAL is a unique partnership,” said Gary Howell, silvicultural specialist for the Suwannee Unit of International Paper and GOAL chair. “It's not everyday you can find the type of cooperation that GOAL fosters among its diverse members.”

GOAL provides safety, communication, rapid response, effective management and cost effective firefighting. In 2002, three separate fires, known as the Blackjack Bay Complex Fire, began in the swamp. Two of the wildfires merged and threatened private property. Thanks to GOAL, coordination and communication among partners was excellent, resulting in better overall management. The fires burned more than 124,000 acres, but only cost \$8 million to manage — an amazingly low dollar-per-acre figure. No significant loss of habitat, structures or commercial property occurred. Overall logistics ran smoothly.

GOAL members receive state and federal training and logistical support. They reciprocate with resources and personnel. Many, for example, have constructed helicopter dip sites on their property for use in aerial suppression.

“This partnership continues to be very successful with little or no problems,” said Okefenokee Refuge Manager Skippy Reeves. “The most significant benefit for

me is the sense of comradery and cooperation among the partners. We're all in this together.”

GOAL represents a rather unconventional approach to a common objective – protecting the natural resources in and around the Okefenokee Swamp. The voluntary collaboration among the members is a winning combination that allows everyone to feel rewarded by working together.

Thanks to this partnership, future generations will have an effective tool unavailable in 1954. GOAL has progressed tremendously in just a short time, protecting the swamp and providing many benefits to the public, private and commercial landowners and the communities that surround it. ♦

Shawn Gillette is a refuge ranger at Okefenokee NWR, GA.



In 2003, more than 2000 acres of marsh were burned at Prime Hook NWR, DE, to remove accumulated fuels within the refuge. In 2004, an additional 750 acres were burned. (USFWS)

Burning to Protect People and Benefit Wildlife

At Work in Wildland Urban Interface

By George O'Shea

Prime Hook NWR, DE, anxious to protect three adjacent beach communities with more than 750 homes, used \$1.1 million from the Wildland Urban Interface (WUI) program to create a Phragmites free zone.

The fire management project ridded 1,000 feet of refuge land and roadways of the invasive common reed, which posed a fire hazard.

The three-year initiative reduced the fire risk for private landowners, some of

whom have dwellings right next to the refuge's thriving 8,000-acre swamp.

More than 150 landowners partnered with the refuge in the program, launched in 2002, which used herbicides, prescribed burning and mowing to remove the accumulated dead canes that posed a fire danger. The landowners permitted access across their land to enable the refuge to control and eradicate Phragmites.

Since 2002, Prime Hook Refuge has treated more than 4,000 acres of the invasive species, Phragmites, on and off the refuge with the herbicide Rodeo. The herbicide was applied in the fall by both fixed-wing and rotary aircraft and by hand in the fall from tracked marsh vehicles.

Wildfire in Wilderness: Good for Wildlife

By Karen Miranda Gleason

When Red Rock Lakes NWR, MT, staff helped fight a small lightning-caused fire that started on nearby private land August 2003, they never expected the fire to spread onto the pristine wilderness refuge. Luckily for the wildlife, it did.

This remote wilderness, one of the most beautiful refuges in the Refuge System, supports a great diversity of fire-dependent wildlife habitats.

During the fire, managers used minimal impact suppression tactics (MIST) to avoid negative impacts from firefighting on a largely untouched landscape. The techniques cause the least disturbance to the soil, thus minimizing the spread of noxious weeds and preserving other wilderness values.

Using MIST, hand and engine crews limited their efforts to protecting homes and other buildings. A modified skidder in lieu of a bulldozer provided a lower-impact means to build fireline, which was only constructed where needed to protect human life or property. Managers monitored the fire's progress in other, unpopulated areas where steep terrain limited effective firefighting.

Single engine air tankers dropped fire retardant, and light helicopters carried water buckets.

The use of biodegradable fire retardant, with ingredients similar to fertilizer, and water from local lakes and streams also helped minimize any impacts from firefighting.



Prime Hook NWR, DE, launched its Wildland Urban Interface program in 2002 to remove the fire threat from 750 homes on adjacent land. The program used herbicides, prescribed burning and mowing to remove the accumulated dead canes that posed a fire danger. (USFWS)

Optimal control was achieved by spraying the same area two consecutive years. Refuge personnel use amphibious tracked vehicles, “Marsh Masters,” to mow or crush 100-foot-wide firebreaks adjacent to the homes and roadways during the fall and winter. That stopped the threat of wildfire from reaching the homes. Where possible, the marsh was burned in March and April as part of the refuge’s prescribed burning program.

In 2003, more than 2000 acres of marsh were burned to remove accumulated fuels within the refuge. In 2004, an additional 750 acres were burned.

The USFWS Zone Fire Management Officer Timothy Craig and his crew from Great Dismal Swamp NWR, VA, provided

assistance and expertise for the burning program. Staffs from Blackwater and Patuxent refuges in Maryland, the Delaware Forest Service and the Milton and Lewes (DE) Fire Departments also gave assistance to Prime Hook Refuge staff. Follow-up herbicide and/or burning continues this year.

“Not only did we prevent wildfires from touching our neighbors, but the program provided collateral benefit by increasing and diversifying food resources for refuge wildlife,” said Prime Hook Refuge Manager Jonathan Schafler. “Once the Phragmites was removed, other plant species – whose seeds had lain dormant – germinated and replaced the once dominant reed. Last year, we had dense

stands of Walter’s wild millet and showy marsh mallow, commonly called hibiscus.

“These plants, along with wild rice, nut sedge and the invertebrates associated with these plants, provided excellent high protein food for thousands of migrating ducks, geese and shorebirds. The sight was glorious,” he concluded. ♦

George O’Shea is the assistant manager at Prime Hook NWR, DE.

acres of the refuge in the rugged Centennial Valley, enhancing conditions for wildlife. Many types of beetles moved right into the burned snags, which immediately attracted woodpeckers and a range of other cavity-nesting birds, said Refuge Biologist Jeff Warren. “We’re also seeing lush growth this year of new forage for moose, antelope, bear, elk, deer, wolves and a host of small mammals.”

About 500 acres of forested area experienced its first intense “stand-replacement” burn since the late 1800s. Such fires are critical for regenerating many forested ecosystems across the country, including the mixed conifer habitat in the Rocky Mountains.

“Historically, this type of high-intensity fire occurs about once every 60-100 years in this forest. It was long overdue,” said Gale Green, Region 6 fire ecologist. “This event was extremely beneficial to

revitalize that ecosystem. We expect to see good results for wildlife for a very long time.”

“Wildfire is an essential component of wilderness systems,” said USFWS National Wilderness Coordinator Nancy Roeper. Fire plays a leading role on refuges with large wilderness tracts – like those on Red Rock Lakes and Charles M. Russell refuges in Montana, Seney Refuge in Michigan, Okefenokee Refuge in Georgia and Arctic and Yukon Delta refuges in Alaska, among others. ♦

Karen Miranda Gleason is the outreach coordinator for the Fire Management Branch at the National Interagency Fire Center in Boise, ID.



Fire fighters placed protective cover on the refuge manager’s house, which is located on Red Rock Lakes NWR, MT. A lightning-caused fire that started on nearby private land in August 2003 spread onto the pristine wilderness refuge, benefiting wildlife in many ways. (USFWS)

FOCUS ...On Fire Management

Vegetation Monitoring Supports Refuge Fire Program



Sherburne Refuge's program to restore oak savanna has led to development of a comprehensive plant list and state-of-the-art refuge herbarium, discovery of new plant species and identification of infestations of non-native plants. (USFWS)

By Jeanne Holler

For more than 10 years, staff at Sherburne NWR, MN – following the National Park Service's fire monitoring protocol – has tracked long-term changes in plant communities to document the effects of prescribed fire on refuge habitats. Such monitoring has helped guide fire management decisions and

increase staff knowledge of refuge plants and environmental conditions.

Just 50 miles northwest of Minneapolis/St. Paul, the 30,600-acre refuge lies within Minnesota's transition zone between tallgrass prairie and deciduous forest. Although 93 percent of refuge uplands historically were in oak savanna, just 732

acres – about 5 percent of the uplands – remain. Many areas are in transition toward oak savanna as the refuge works to increase this acreage to 12,499, or 77 percent – the long-range goal in the Comprehensive Conservation Plan.

Restoring upland plant communities, especially fire-dependent and globally imperiled oak savanna, is a management priority. Vegetation monitoring has been integral to the process. An average of 111 staff days are devoted to monitoring annually.

“Here at Sherburne we are dedicated to restoring oak savanna by using prescribed fire as the major tool,” says Refuge Manager Anne Sittauer. “Just as important as the restoration is our commitment to monitor the fire behavior and its effects on vegetation.”

The fire monitoring protocol documents changes in vegetation characteristics as



Fire crews from Baskett Slough and William L. Finley refuges in Oregon burned 455 acres last year, helping to resurrect the native prairie. The prescribed burns also help prevent wildfires and lower the risk to nearby communities. (Jock Beall/USFWS)

Fire Resurrects Oregon's Prairies

By Brian Gales and Susan Saul

If there is one thing everyone associates with western Oregon, it's the rain.

Surprising, then, to consider that fire helped shape the Willamette Valley landscape for possibly the past 10,000 years.

Periodic burning by native peoples created wet prairies and oak savannas that supported abundant game animals and edible plants. Fire improved seed production, reduced brush undergrowth and created optimum conditions for hunting deer.

Today, more than 99 percent of the Willamette Valley's 1 million acres of



Restoring upland plant communities, especially fire-dependent and globally imperiled oak savanna, is a management priority at Sherburne NWR, MN. Vegetation monitoring, which takes an average of 111 staff days each year, is integral to the process. Within a week after every prescribed burn, the effects of the fire, including scorch height and litter consumption, are measured. (USFWS)

the refuge works to restore natural communities, reduce unnatural fuel buildups and reestablish the historical fire regime in terms of size, frequency, intensity and severity.

There are 107 permanent transects/plots in the monitoring program: 28 in oak savanna, 29 in dry oak forest, and 50 in restored native grassland habitats. Vegetation characteristics were recorded when the plots were established. Within a week after every burn, the effects of the fire, including scorch height and litter consumption, are measured. Vegetation attributes are measured after one, two, five and 10 growing seasons. If the unit is re-burned within this timeframe, the process starts again. Photographs

document changes in the landscape to support conclusions drawn from the quantitative data.

Monitoring results will guide decisions about future fire management, including whether to continue the same type of application. It also serves as an early warning system for potential environmental problems that need to be addressed by research.

The program has led to development of a comprehensive refuge plant list and state-of-the-art refuge herbarium; discovery of new plant species and infestations of non-native plants; and a partnership with the University of Minnesota, launched in 1997. As part of the partnership, the

university provides training in collection and herbarium techniques and helps identify unknown plants. A sample of the plants collected goes into the J.F. Bell Museum of Natural History herbarium at the university.

“Our refuge has an effective long-term prescribed fire program largely due to the excellent monitoring program,” says Sittauer. “It allows us to show accomplishments, provide reasons for any needed changes to management, and is a definite measure of our success”. ♦

Jeanne Holler is a wildlife biologist at Sherburne NWR, MN.

native prairies are gone – destroyed by more than 150 years of fire suppression, concurrent with the spread of agriculture and urban development. The oak savanna is changing into oak woodland and Douglas fir forest. Much of the original prairie that did not fall to development has been overgrown by introduced species, including Scotch broom, pear, and Himalayan blackberry, as well as native shrubs and trees, such as poison oak, black hawthorn and Oregon white oak seedlings.

Major representations of the remaining fragments of Oregon’s original landscape are located on two Willamette Valley national wildlife refuges: Baskett Slough and William L. Finley. These remnants are important habitat for federally-listed species, including Fender’s blue butterfly, Kincaid’s lupine, Bradshaw’s desert

parsley, Willamette daisy and Nelson’s checkermallow.

In the last few years, refuge managers have diligently imitated the cleansing effects of fire. Crews thin the oak and ash trees. They cut the brush with mowers equipped with rubber treads to minimize soil compaction and disturbance. The thinning increased sunlight, benefiting prairie plants and butterflies alike. Prescribed burning has also helped resurrect the native prairie. Refuge fire crews burned 455 acres last year.

In 2003, the Fender’s blue butterfly reached its highest population in 10 years, a 64 percent increase above the 2002 count. “We’re hoping in the next few years we can see the local butterfly population go through the roof,” said Jock Beall, refuge biologist. “Some of the upswing is

undoubtedly due to favorable weather conditions, but habitat restoration has also been a key factor.”

The thinning and prescribed fires reduce hazard fuels to prevent wildfires and lower the risk to nearby homes, agricultural lands and private woodlands. Interagency cooperation and support during the burning operations comes from the U.S. Forest Service, the Bureau of Land Management, the Oregon Department of Forestry and the Monroe Rural Fire District. ♦

Brian Gales is the fire management officer for the Willamette Valley Refuge Complex; Susan Saul works in External Affairs in the Pacific Regional Office as outreach specialist for refuges.

Cahaba Refuge Formally Dedicated

“This refuge could not have come about without the hard work of a great many people.”

USFWS Refuge Supervisor Ricky Ingram joined Jeff Danter, executive director of The Nature Conservancy (TNC) of Alabama, Alabama Senators Richard Shelby and Jeff Sessions and Representative Spencer Bachus May 2 in formally dedicating Cahaba River NWR, AL.

The refuge was established in September 2002 through a partnership between The Nature Conservancy of Alabama and the USFWS to preserve a unique segment of the biologically significant Cahaba River and protect a number of threatened and endangered species.

“This refuge could not have come about without the hard work of a great many people,” noted Ingram.

At the ceremony, TNC received a grant under the Longleaf Legacy Program to

restore 185 acres of longleaf pine at the refuge. The program, begun in August 2003, is a partnership among the National Fish and Wildlife Foundation and the Southern Company and its operating companies, which include Alabama Power.

“The longleaf pine community used to stretch across the Southeast, from Virginia to Texas. Today, only a small fraction remains,” said Willard Bowers, vice president of Environmental Affairs for Alabama Power. “We and Southern Company are proud to play a role in helping to rebuild this diverse habitat.”

The Cahaba River stretches for almost 200 miles and is Alabama’s longest free-flowing stream. The river supports 64 rare and imperiled plant and animal species, 13 of which are found nowhere else.

The refuge was authorized by Congress on October 19, 2000, through legislation sponsored by Rep. Bachus and then Congressman (now Governor) Bob Riley. The refuge, established with 1,200 acres, has since expanded to 2,997 acres, almost 90 percent of the land that is in the approved acquisition boundary.

The Nature Conservancy helped acquire all the land and has been working with many partners to create habitat management and public use plans. ♦



Cahaba River NWR, AL, was established in September 2002 through a partnership between The Nature Conservancy of Alabama and the USFWS to preserve a unique segment of the biologically significant Cahaba River. (USFWS)

Marking the Millennium with Circles of Trees

Pocosin Lakes NWR Grew with Community Involvement

By David Kitts and Susan J. Russo

In the spring of 2000, at the dawn of the vernal equinox, 25 people from Tyrrell County, NC, gathered around a bonfire on a farm field at Pocosin Lakes NWR, drawn together by their dream of the Millennium Forest designated for the site. Together, they expressed what the nine-acre Atlantic white cedar forest would mean to them and what it could bring to the community.

Later that day, Tyrrell County Elementary School students each planted a tree and beneath it placed a clay marker bearing their name or that of someone close to them. The clay markers can last 1,000 years. The forest of native Junipers, as the trees are called in this part of the country, may grow forever on the field being restored to forested wetland.

The planting of the Millennium Forest was completed April 7, with help from more than 600 volunteers. The project has touched many in a community that long boasted of its cultural diversity and natural resources, but felt threatened in 1994 by a proposed hazardous waste incinerator.

Although no incinerator was built, the proposal can be credited with motivating neighbors to secure and enhance the natural treasures that make the community so special, said Jim Savery, refuge manager when the forest project got off the ground.

Students from the University of North Carolina, North Carolina State University and Tyrrell County Elementary School helped plant the forest, as did volunteers from the Pocosin Arts. Some volunteers drove more than 100 miles for the chance to plant some of the trees.

Studying native Atlantic cedar

Since 1992, several experimental plantings of the native Atlantic white cedar forest had been completed. Dr. Eric Hinesley, of



Maggie Hill and Justin McClees of Columbia High School planted some of the last trees that are part of the Millennium Forest at Pocosin Lakes NWR, NC. More than 600 volunteers, including students, planted the trees during the project's four-year development. (Susan Russo/USFWS)

North Carolina State University, had been instrumental in studying whether the refuge's soils, altered by years of farming, could support restoration of the key plant species that once thrived on the refuge.

During this time, Pocosin Arts Founder Feather Phillips, previously an art teacher in neighboring Washington County, was vitally interested in melding her art, the environment and her interest in youth. Inspired by artist Joseph Beuys, who proposed the planting of 7,000 trees in Kassel, Germany, as a social action project, Phillips proposed the forest project, originally called, "7,000 Junipers: An Art Action for the Millennium." The refuge provided the ideal location for the forest and eagerly joined the partnership to establish the Millennium Forest.

In 2001, Phillips enlisted the help of Carl Twarog and Eva Roberts, teachers from East Carolina University's School of Art, who created the concentric circle design that makes the forest so unusual. The artists envisioned a tree cathedral whose

center would convey spiritual reflection, solitude and tranquility.

Today, the 7,000 trees in the Millennium Forest, all donated by North Carolina State University, are at various stages of growth. Some are just six inches tall. In 10 years, when the trees are vibrant in the nine-acre parcel, the circle pattern will become more visible. The forest is closed to the public until the trees grow stronger. The refuge hopes to provide public access in about five years.

"Not only will the forest always be protected," noted Refuge Manager Howard Phillips, "but it is a contribution to future generations. The project has created tremendous links within the community."

The project was featured at the 2004 Smithsonian Folklife Festival in Washington, DC, this summer. ♦

David Kitts is Pocosin Lakes NWR, NC, assistant manager. Susan J. Russo is the refuge interpretive ranger.



Ward Feurt got a firsthand look at the pacing and coordination of a Presidential visit when George W. Bush came to call at the Wells National Estuarine Research Reserve, ME. (USFWS)

The Day I Spoke to the President

By Ward Feurt

I was talking to George Bush just yesterday while shaking his hand. Admittedly, land acquisition didn't come up, but I did emphasize the US Fish and Wildlife, Rachel Carson Refuge, and partnerships.

That's how I opened a message I sent April 23, a day after the President made a wetlands policy speech at the Wells (ME) National Estuarine Research Reserve, next door to Rachel Carson NWR. A presidential visit is a happening unto its own.

We first heard on April 12 that President Bush was coming for a wetlands field trip, suggested by the Council on Environmental Quality. That started the whirl of rumors, suggestions, hopes and facts that accelerated, reversed, bubbled and never stopped until the President arrived.

We sent a list of potential attendees – with the required social security numbers and dates of birth – to the White House, along with information on where to send our photos with the President. Wells Reserve Manager Paul Dest spent more than a week working with the White House advance party, the Secret Service, the White House planning group and hundreds of local people.

The final event bore only some resemblance to earlier plans. Every plan changed at least once.

As of April 19, the visit appeared certain. USFWS External Affairs called to notify us that, "There is no nice way to tell you this, but if anyone is going meet the President, it will be the Regional Director." Although I was somewhat disappointed, I totally understood: My job is to manage the Rachel Carson Refuge. His job is to be the Service's administrator

Muscatatuck Friends Group Gives Gift of Learning

Center Dedicated after Eight Years

The Muscatatuck Conservation Learning Center was dedicated May 8, eight years after Muscatatuck (IN) Wildlife Society teamed with the wildlife refuge to build a state-of-the-art learning center and established a nonprofit foundation to raise \$500,000 for construction.

"This is a gift that will reach across generations to bring the message of conservation to Indiana children and adults for decades to come," said Muscatatuck Refuge Manager Lee Herzberger.

Having formed the non-profit Muscatatuck Wildlife Society Foundation in 1997, the wildlife society was the driving force behind creation of the learning center. Members worked

tirelessly to acquire grants, raise funds, plan and build the facility. The Nina Mason Pulliam Charitable Trust contributed \$150,000 while the Efroymsen Fund of Central Indiana Community Foundation contributed \$25,000.

Indeed, the wildlife society, which had never before secured a major foundation grant, discovered that foundations want projects to be funded with locally-raised money before they are willing to provide their own share. Therefore, local fundraising became important for more than just the dollars donated.

Fundraising events ranged from a 5K run held during National Wildlife Refuge Week to the sale of 250 commemorative bricks. The wildlife society has so far sold

"This is a gift that will reach across generations to bring the message of conservation to Indiana children and adults for decades to come."

By 5 a.m. on April 22, refuge officers secured our headquarters and closed the Carson Trail. Our next-door neighbor, who walks the mile-long trail every day, was barred from entry. She understood.

Exhilarating, Amazing, Memorable

That morning, I reached Regional Director Marvin Morarity as he drove up the Maine Turnpike. The White House had not vetted him for this visit, so he told them he would send me in his place. Marvin knew that, for me, it would be an exhilarating, amazing and memorable event. He could not have been more gracious.

Secret Service Agent Brian B. led us to the viewing area. The President's time is so well coordinated that he shakes some hands as he walks in one direction and others when he returns.

The President's entourage consisted of 13 vehicles, sweeping up US Route 1 at 60 mph, past protesters. On site, he

stepped out without ceremony and put his arm around his mother. Together, they walked down the cart path towards the water.

Brian briefed us: The White House press corps would come back from the water first; we wanted to avoid them or they might trample us. We needed to stay a foot apart so the White House photographer would not get an adjoining shoulder in the picture. After we met the President, we were to step down the cart path. You cannot bunch up around the President. We should wait until the President clears the area to return to our seats.

I was at the front, so I knew the President would see my USFWS patch. As he walked up the cart path and he saw us, he loudly called, "How are you doing?"

"Ward Feurt. US Fish and Willdlife Service," I said, by way of introduction.

"Thank you for all the hard work you do," he replied.

"That's Important Work"

I said that I worked for USFWS and at Rachel Carson Refuge. I can't recall how I put those two statements together. "That's important work," the President acknowledged.

The White House photographer took our picture. I had been told to look in the direction the President looks to avoid one of those inattentive shots. I was too nervous to carry it off.

"You work with this guy over here?" President Bush asked, gesturing to Dest.

"Yes, we work together all the time," I was able to reply, betraying my questionable presence of mind.

The refuge staff got great photos that day. They sat in the front, in uniform, and were in quite a few pictures themselves. ♦

\$39,000 worth of bricks, although continuing sales will support conservation education programming. The bricks are on display in a center courtyard.

Local architect David Correll designed the center, with suggestions from the foundation's education committee, which included educators and youth group leaders. The center features a multipurpose room, exhibit space, woodland and marsh dioramas, nine interpretive panels and a wildlife kiosk. Two interactive exhibits highlight the refuge and the Refuge System.

The foundation's education committee is developing hands-on learning opportunities that fulfill state academic standards.



Troy McCormick and Education Committee Chair Marty Winslow joined others on the Muscatatuck Wildlife Society Foundation to raise \$500,000 for construction of the Muscatatuck Conservation Learning Center, dedicated eight years after the vision of a state-of-the-art center was first discussed. (Susan Knowles/USFWS)

"We expect the number of visits by schools, youth groups and the public to grow as word of the center spreads,"

concluded Foundation President Jim Roberts. The refuge receives 185,000 visits annually. ♦



The refuge is an excellent outdoor classroom, including programs about raptors. Education and signage as top priorities for the Friends group, which also lists advocacy and “developing the refuge as the hub of conservation for the valley and surrounding communities” among top issues. (Sue McDonald/USFWS)

First Friends Group Incorporated in Montana

When Richard McKay moved from Seattle, WA, to Stevensville, MT, in January 1998, he wanted elbow room after 30 years in business and a hustle-bustle urban life.

First, he encountered “migration mania,” a reported influx of urban dwellers seeking the wide-open spaces of Big Sky country.

Second, he discovered Lee Metcalf NWR, a 2,800-acre oasis nestled between the Bitterroot and Sapphire mountains, whose existence seemed a secret to the community.

“As I traveled around, I didn’t see people acknowledging what the refuge had to offer,” said McKay, who, in December 2003, helped incorporate the first Friends group in Montana. Friends of Lee Metcalf NWR President McKay is working with its 10-member board to recruit 500 members this year and expand the board by six people. Currently, the group has more than 100 members.

The path from concept to incorporation is instructive for refuge supporters across the country.

The first step began with a mentor visit in August 2003, scheduled after the refuge sought to participate in the annual program. Kathy Woodward, a member of the Great Swamp NWR, NJ, Friends’ group, and Minnesota Valley NWR Manager Rick Schultz “led an inspiring session,” noted Sue McDonald, then the refuge’s outdoor recreation planner. McDonald is now at Imperial NWR, AZ.

Mentor Visit Was Key

McDonald invited eager community members to the mentor visit, including Dale Burk, president of the Revalli County Fish and Wildlife Association, who was a personal friend of Sen. Lee Metcalf, namesake of the refuge. She also invited Jim Rokosch, active in watershed issues, George Wasser, a high school teacher who is now the group’s vice president, and

On the Alaska Marine Highway

A Naturalist Introduces Refuge to Thousands

By Doug Stuart

The **Refuge System**, for the 15th consecutive year, is introducing thousands of travelers aboard the 296-foot state-owned Tustumena ferry to the Alaska Maritime NWR as they tour, from May to October, from Homer to Kodiak.

The ferry makes the 125-mile journey twice weekly, with an average of 150 passengers. Each month, the ferry goes beyond Kodiak to the beauty and grandeur of the Aleutian Islands.

For the past four years, I have been the USFWS naturalist who travels monthly from Homer to Dutch Harbor in the Aleutian Islands, stopping in Kodiak,

Chignik, Sand Point, King Cove, Cold Bay, Akutan and False Pass. Each eight-day trip caters to a highly diverse list of passengers that includes Americans from the lower 48 states, local residents, foreign visitors, native Alaskans, fishermen, Coast Guard personnel and business people.

The State of Alaska’s Marine Highway System has nine vessels serving coastal communities. For many remote Aleutian communities, the monthly ferry visit is the only reliable contact with the outside world.

For the ferry passengers, the trip is a chance to see an Aleutian Alaska rich with 9,000 years of native culture. For the Refuge System, the trips are a chance to

introduce passengers to the world’s finest network of conservation lands.

One special seabird – the small and very rare whiskered auklet – nests on the Baby Islands about 30 miles from Dutch Harbor/Unalaska. Birders from around the world ride the Tustumena through the Alaska Maritime Refuge, hoping for a glimpse. This rare seabird and many other species make up the 40 million seabirds that visit the refuge yearly.

I am always on the look out for ways to involve passengers with the beautiful and diverse geology, flora, fauna and people of the Aleutian Islands. I use a multimedia approach: slide programs, videos, open forums and hands-on activities.

McKay. Attorney David Woodgerd joined somewhat later, when the group sought advice about by-laws and articles of incorporation.

Quickly, education and signage emerged as top priorities for the Friends group, which today also lists advocacy and “developing the refuge as the hub of conservation for the valley and surrounding communities” among top issues.

“The mentor visit was key,” said McDonald. “The community was enthused about starting a Friends group, but we really didn’t know how to get the ball rolling.”

After the mentor visit, the organizing phase moved rather quickly. The core group began meeting twice monthly. They brought a diversity of people into the picture. They asked 90-year-old Donna Metcalf, widow of Sen. Lee Metcalf, to be the group’s first member. They brainstormed goals and objectives. They pushed hard for a new refuge manager when Dave Gilland became manager at Benton Lake NWR, MT.

Key also was an early and unexpectedly large gift – more than \$10,000 – that showed that individuals are willing to put their money where their hearts are. Membership dues today range from \$10 for students to \$5,000 for an “eagle” sustaining life membership. “You have to have people willing to ask people who are dedicated to conservation to contribute,” said McKay. “It starts with the leadership, but anyone can ask for a donation.”

The Friends have an informative and evocative membership brochure. McKay and others are speaking to such groups as the Main Street Association, the chamber of commerce, Ducks Unlimited, Trout Unlimited and civic clubs to harvest new members.

They have mailed membership brochures to Audubon Society members, with that group’s permission. They meet monthly and have special committees on fundraising, signage, membership and mapping.

McKay credits *Taking Flight*, a handbook produced by the National Wildlife Refuge

Association, with laying out a straightforward path for the organization. He points to a few keys for success:

- An officer with a business orientation is a tremendous asset. “Because I ran my own business, I am very aggressive,” said McKay. “I push this group much harder than most volunteer groups would be pushed.” A volunteer lawyer to draft incorporation papers and an accountant to be treasurer are beneficial as well.
- Seek opportunities to put out the membership message. The group has a table at every community event. “You can’t just stick the brochures in stacks,” said McKay. “You have to have a conversation with each brochure.”
- Finally, the work of a Friends group is a team effort. “You have to have passion to do the work,” summarized McKay, “and you have to have the time.”

“This group is the best thing to happen to the Lee Metcalf Refuge since its creation in 1963,” concluded McDonald. ♦

Izembek Refuge at Cold Bay is a crossroads for migrating waterfowl and shorebirds. Established in 1960 to protect the Pacific Black Brant, a small coastal goose, Izembek Refuge is 600 air miles from Anchorage. Visitors are fervent to see it when the ferry pulls in.

This year, I arranged with Captain Robert Crowley and Izembek Refuge Manager Rick Poetter to extend our usual, too-short 45-minute stopover to 120 minutes. The extra time allows refuge personnel to bring trucks and a small school bus to transport passengers to the viewing platform overlooking the Izembek Lagoon, interpreting along the way. The passengers now have an hour and a half on the refuge before they must dash back

to the ferry. The interval ashore is a highlight.

With weather delays, this small window of time sometimes closes. Last year, we succeeded in making the trip six of seven times. We hope to succeed on all the trips this year.

The Alaska Maritime Refuge’s ferry naturalist program has been a great opportunity to bring the USFWS message to a tremendously diverse group as we travel through the waters of this magnificent refuge. ♦



The ferry trips are a chance for visitors to see an Alaska rich with 9,000 years of native culture. For the Refuge System, the trips are a chance to introduce passengers to the world’s finest network of conservation lands. (USFWS)

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that will serve the Refuge System for years to come.

We are still working to interpret the ballot information. As it is distilled, we will share the interpretation with you.

Clearly, Summit participants believe we need to conduct rigorous scientific assessments on our refuges and implement a strategic growth process that takes scientific data into account. We must enhance law enforcement and develop system-wide bird and habitat monitoring.

But something as important as enunciated priorities emerged from the Summit. We left with a renewed sense of purpose, determination and optimism. We appreciated again that the Refuge System is the best system of public lands in the world. We dedicated ourselves again to ensuring that the public, where appropriate and with our help, would enjoy their lands and their fish and wildlife resources.

We were thankful once again that we have the privilege of working for the best cause in the world.

Another Mile Added to Florida National Scenic Trail

The US Forest Service and the National Park Service's National Trail Land Resources Program Center bought 292 acres along the Wakulla River April 27 to extend the federally-funded Florida National Scenic Trail (FNST) another mile. The land will be managed as part of St. Marks NWR, which already has a 42-mile segment of the trail.

Volunteers with the Florida Trail Association plan to build a one-mile hiking trail this fall to connect with the trail in the refuge.

So far, 340 acres of important wildlife habitat have been added to the refuge as part of trail acquisition. Coupled with a 42-acre tract bought by the Forest Service in 2002, the newest acquisition, purchased from the Sam M. Shine Foundation for \$1 million, will eliminate a gap in the FNST. Moreover, the acquisitions have insulated the refuge from



So far, 340 acres of important wildlife habitat have been added to the St. Marks Refuge as part of land acquisition for the Florida National Scenic Trail. (James Burnett/USFWS)

incompatible development and allowed the refuge to offer compatible wildlife-dependent recreation without using scarce USFWS acquisition dollars.

The 292 acres in Wakulla County is one of the largest undeveloped areas remaining along the river. ♦

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.



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