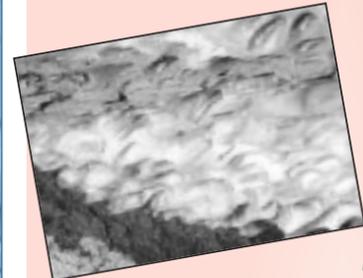


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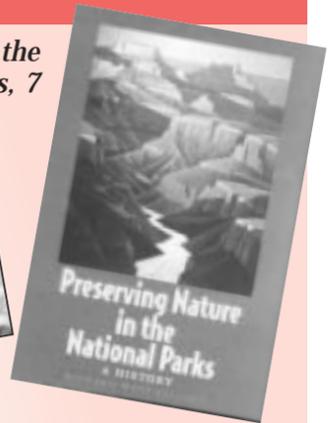
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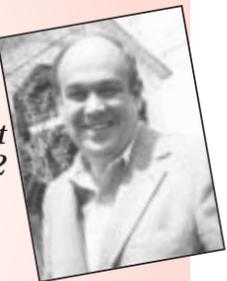
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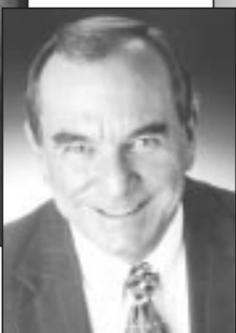
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With a new director on board and a clearly defined mission for the wildlife refuge system, the Fish and Wildlife Service marks National Wildlife Refuge Week with confidence and optimism. Director Jamie Rappaport Clark, who stresses the need for continued courage as well as cooperation (page 23), urges Americans to visit the "Wild Places" to gain an appreciation of their conservation mission (pages 16-17). Public support for the refuges is exemplified by the many wildlife artists whose paintings raise hundreds of thousands of dollars to buy habitat (page 8). Continued recovery of endangered species (page 6) bears witness to the Service's successful partnerships with private and public agencies to preserve America's natural heritage. International efforts under CITES are highlighted on pages 31-32.

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Photo by Robert Jones, Jr., ISC

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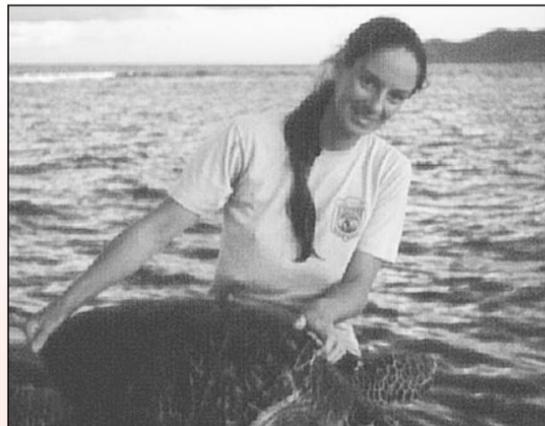
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I nterior People



Kathy Karpan, right, former Wyoming secretary of state, proudly displays a gift she received after being sworn in as director of the Office of Surface Mining. **Ada Deer**, assistant secretary for Indian affairs, congratulates Karpan. Story, page 15.



Zandy Marie Hillis-Starr, a biological technician at Buck Island Reef National Monument in the U.S. Virgin Islands, has been awarded the first Trish Patterson-Student Conservation Association Award. Page 20.

Susan D. Haseltine, a zoologist and former research administrator with the U.S. Fish and Wildlife Service, has been named principal deputy of the USGS Biological Resources Division. Page 13.



Women At Work



Janet Courtney, a Phi Beta Kappa graduate of the University of Colorado and Minerals Management Service veteran, has been named Outstanding Technician Assistant Employee for 1997 by the Denver Federal Executive Board. Page 25.



Deborah Gibbs Tschudy, who leads the Royalty Valuation Division for the Minerals Management Service, was named a trustee of the Rocky Mountain Minerals Law Foundation. She is only the second federal employee to be so honored in the foundation's 43-year history. Page 25.



Michelle Chavez is sworn in as New Mexico state director for the Bureau of Land Management by Secretary Babbitt. Chavez will oversee activities on 13.1 million acres of BLM-administered land in New Mexico, Oklahoma, Texas, and Kansas. Page 28.

Jamie Rappaport Clark, the new director of the U.S. Fish and Wildlife Service, stressed cooperation, communication, and courage in remarks at her September 16 swearing in ceremony. Page 23.



Ann Morgan is the Bureau of Land Management's new state director for Colorado, where she will oversee the management of 8.3 million acres of land, supervise 17 offices, and manage a \$35 million budget. Page 28.

Kate Lidfors Miller, cited for her excellent background in cultural resources management, interpretation, and natural resource issues, has been named superintendent of Effigy Mounds National Monument in Iowa. Page 21.



I N M E M O R I A M



Eugene and Carolyn Shoemaker

Dr. Eugene M. Shoemaker, a former U.S. Geological Survey scientist and the father of modern planetary geology, died July 18 from injuries that he suffered in an automobile accident in Australia.

Secretary Babbitt and USGS Director Gordon Eaton joined with scientists and leaders from around the world to mourn the loss and praise the career of the man best known to Americans as the co-discoverer of the Comet Shoemaker-Levy. The comet, which Shoemaker discovered with his wife Carolyn and David Levy, struck Jupiter in 1994, providing scientists new insights into the dynamics of comets and the planetary science of Jupiter.

"Gene Shoemaker was both a personal friend and a teacher, going all the way back to my years as a geology student," said Babbitt. "His life and work leave a permanent legacy to the American space program and our knowledge of the universe. While we join with the family in mourning his loss, our spirits have been permanently stirred by his revolutionary thinking."

"The U.S. Geological Survey is deeply, deeply saddened by the accidental death of Dr. Shoemaker, an

outstanding member of the USGS family and the acknowledged founder of modern planetary geology," said Gordon Eaton. "Gene's landmark contributions to the geology of the Earth, its Moon, and the Solar System span more than four decades."

"His accomplishments and well-deserved honors fill many books," Gordon said. "But in addition to being a world-class scientist, Gene also took the time to educate the public on the excitement of planetary science and was an enthusiastic mentor of younger scientists. Just one of his living legacies is the USGS Astrogeology Center in Flagstaff where, known as "Super Gene," he inspired dozens of scientists in the study and mapping of planets, moons, comets, and asteroids.

"Much of his research over the past two decades was done in partnership with his wife, Carolyn, a planetary astronomer and USGS volunteer," Eaton noted. "We extend our deepest and shared sympathy to her and the family. Gene will be missed, but his work and friendship will continue to inspire us." For more information about Gene Shoemaker and the Flagstaff Field Center, visit www.flag.wr.usgs.gov/USGSFlag.

Stanton Stresses Improved Funding, Career Development, and Resource Management

In a major statement to National Park Service employees, **Director Robert Stanton** outlined his priorities and goals, addressed employee issues, pledged support for improved, regular communication, and shared his vision of the Service as a “premier environmental leader.”

“I believe a major challenge facing the service today is to secure greater fiscal resources to carry out its mission,” Stanton said a few days after he was sworn in as the 15th NPS director. “My top priority—and pledge to you—is to vigorously pursue improved funding for NPS operations and programs.”

To accomplish that goal, he vowed “to explore all avenues, from the Congress on appropriations needs to civic-minded public and private interests, to forge inventive, new partnerships that are consistent with our policies and stewardship responsibilities.”

As director, Stanton has policy and administrative responsibility for the 375 units of the National Park System, which covers 83-million acres, is managed by 20,000 permanent and seasonal employees, receives 265 million visitors a year, and operates on an annual budget of about \$1.6 billion.

Regarding workplace issues, Stanton said, “I strongly support the Service’s commitment to professionalizing and diversifying its workforce—and to providing a safe environment for employees and visitors—and I am directing that all necessary resources be provided to support ongoing career development initiatives.”

A 31-year veteran of the NPS, Stanton said that conserving the nation’s natural heritage for future generations “is the most fundamental trust that the American people and its leaders have bestowed upon us.” But he warned that the Service can not hope to meet this obligation without a

Director Stanton works the Moran entrance station at Grand Teton National Park, where he began his NPS career 31 years ago, during a visit to the park in late August. Photo by Linda Olson, Grand Teton NP



First Lady Hillary Rodham Clinton, right, watches as Secretary Babbitt swears in Robert Stanton as NPS director during an August 15 ceremony in the Old Executive Office Building. Stanton’s wife, Janet Moffatte, is at left. Photo by Tami Heilemann, Interior Service Center



stronger resource management and protection capability and pledged himself to energetically project this need and attract new, substantial support for these efforts.

“The NPS can and should act as a premier environmental leader, modeling sustainable practices for others, helping local communities to preserve their own heritage resources, and offering assistance as educator and manager of places of incomparable beauty, scientific value, and historical meaning.”

Turning to organizational issues, Stanton noted that the NPS has developed a strategic plan to guide it. “I am a proponent of performance management and am pleased that we have in hand well-articulated goals,” he said.

“We have also worked very hard to implement the NPS Restructuring Plan, and this has produced the positive result of stimulating field-level creativity and initiative. It is now time to complete this task, eliminate the distractions and uncertainties of restructuring, and focus on the challenges facing the organization.

“Improved, regular communications between and among us are essential if the service is to function efficiently,” he stressed. “I intend to report to you regularly each month on key issues, progress of the National Leadership Council, and Servicewide policy matters.

“In my vision for the NPS: we will preserve and maintain the resources entrusted to our care to the highest levels of quality possible, and we will accomplish this through a highly-skilled, diverse, dedicated, and motivated staff using prudent financial management systems, partnerships, and state-of-the-art technology,” Stanton said. “Our programs and services will be available to the broadest spectrum of park visitors with specific assurances of the availability of these services to youth and citizens with disabilities; and we will become the most efficient, effective, and respected agency of the federal government.”

Dropping in on Main Interior



Employees in the Main Interior Building in Washington, D.C. were treated to some unscheduled excitement on August 27 when three Greenpeace activists rappelled down the E Street side of the building to unfurl a giant banner protesting oil exploration in the Arctic.

Within an hour of their descent, city and federal authorities had dispatched a fire truck and ordered the protesters off the building. The climbers and a Greenpeace staff member were arrested and charged with reckless endangerment, disorderly conduct, and destruction of government property.

The Washington event was coordinated with a similar action in Anchorage, Alaska, where two Greenpeace climbers draped a protest banner on the Department’s Minerals Management Service building. Greenpeace wants Interior to withhold support for further oil development off Alaska’s northern coast.

Interior is studying whether to allow exploration in the National Petroleum Reserve, west of Alaska’s main fields at Prudhoe Bay. Created in 1923, the reserve has never been systematically explored.

Some experts estimate the area could hold a billion barrels of oil. Secretary Babbitt visited the region in July to review how drilling might affect Alaskan Native communities and wildlife and to meet with native and state officials to discuss the issues.

At right, three Greenpeace activists rest on their climbing gear after unfurling a protest banner on the E Street front of the Main Interior Building. Above, District of Columbia firemen escort the last of the climbers down a fire ladder. Photos by Robert Jones, Jr., Interior Service Center



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Bob Swanson, above, a hydrologist with the U.S. Geological Survey in North Platte, Nebraska, explains to a group of Groundwater University students the movement of streams and the connections between surface and groundwater, while, at right, another group of students discovers the geology of the Ogallala Aquifer. The University, based at Jeffrey Lake near Brady, Nebraska, is an annual groundwater education program sponsored by a consortium of agencies, including the USGS, the Natural Resources Conservation Service, the Central Nebraska Public Power and Irrigation District, and the Groundwater Foundation. For more information on the program and the foundation, call (800) 858-4844. Photos courtesy of the Groundwater Foundation.

Around the Department

Virginia sprouted its sixth largest city this past summer at Fort A.P. Hill, near Fredericksburg. And Interior agencies were on the scene, ready and eager to help the young residents of this instant community to learn about the Department's conservation and natural resource management role.

Boy Scouts from all 50 states and 31 different countries gathered at the 76,000-acre U.S. Army base for the 1997 National Scout Jamboree from July 28 through August 5. About 35,000 scouts attended along with their troop leaders, about 5,000 staff members, and hundreds of visitors.

Held every four years since 1937, the jamboree this year celebrated the 60-year anniversary of this popular, premier gathering of the Boy Scouts of America youth movement. Guided by the theme *Character Counts...Be Prepared for the 21st Century*, the scouts engaged in activities that ranged from recreation and physical fitness to conservation education and reenacting historic events.

President Clinton visited the encampment on July 30 and spoke at the opening arena show as four F-16 jet fighter airplanes thundered over the assembled scouts. The President was honored with the Silver Buffalo, the Boy Scouts of America's highest award for national service to youth.

"If every young person in America would give back to their community in the way you do, just imagine what we could do," the President said. "Imagine how many fewer problems we could have...We need you if we're going to build our communities and bring our people together across all the lines that divide us."

In the jamboree's Conservation Area, Interior agencies joined more than 30 federal, state, and local groups that set up and staffed exhibit booths along the Conservation Trail to provide engaging educational exhibits and to showcase their environmental efforts. Interior participants included the Bureau of Land Management, Bureau of Reclamation, Minerals Management Service, Fish and Wildlife Service, U.S. Geological Survey, and National Park Service.

BLM's Trails to Adventure

Bibi Booth

Delighted squeals of "This is just the coolest!" became familiar sounds at BLM's *Trails to Adventure* exhibit, far down the jamboree's mile-long Conservation Trail. A four-part, interactive journey through selected public-land natural environments, the exhibit presented a trail-side, wild-West facade, its doorway beckoning intrepid scouts to explore:

70-million-year-old dinosaur fossils, a simulated paleontology dig, and casts of a dinosaur trackway at the Lost Canyon Paleo Site; Big Foot Cave—a detailed, crawl-in replica of a New Mexican limestone cave, complete with cave-like air conditioning, 60 feet of winding tunnels, a "bat nursery," and trickling water; and hands-on construction of a life-size wood and mud prehistoric-style dwelling, the Mogosazi Pithouse [Mogollon and Anasazi].

Wrapping up the BLM exhibit was a close-out tent—the Info Outpost—for general public-lands information, scout questions, and rubber-stamping passports. Scouts with passport stamps from at least 11 of the 16 Conservation Trail sites were entitled to an official Boy Scouts of America Conservation Area patch.

An estimated 35,000 scouts trekked through the BLM exhibit, many of them returning, family and friends in tow, for second and even third visits. Some were reluctant to leave. As scout **James Kennedy** (Troop 815, Lancaster, California) said, "You give a whole new meaning to the word 'hands-on.' You get to crawl through a cave and see what it's like; you get to build a house out of mud and sticks. I'm having a great time! I've spent my whole day here!"

Adults, too, were wowed. **John Daneau**, a Rhode Island science teacher and scoutmaster, tried to imagine demonstrating in a classroom "the good, hands-on science" that scouts were learning at *Trails to Adventure*. "Impossible," he concluded—high praise for the BLM staff who worked to make the exhibit educational, dazzling, and a great time for all.

Four BLMers also hosted a booth on the Merit Badge Midway, offering hour-and-a-half-long classes toward a merit badge in Environmental Science; about 350 scouts earned their badges there. An additional 50 to 75 partially fulfilled requirements for the Archaeology merit badge through performance of supervised site work at the Mogosazi Pithouse. (And thanks to the hardworking, pole-tying, mud-slinging scouts, that pithouse was in move-in condition by the last day of the jamboree!)

The success of this complex exhibit was due in large measure to months of preparation by talented, imaginative BLM resource specialists and volunteers, whose diverse skills (not to mention manual labor!) transformed an overgrown half-acre of land into an airy, wheelchair-accessible, learning adventure for thousands.



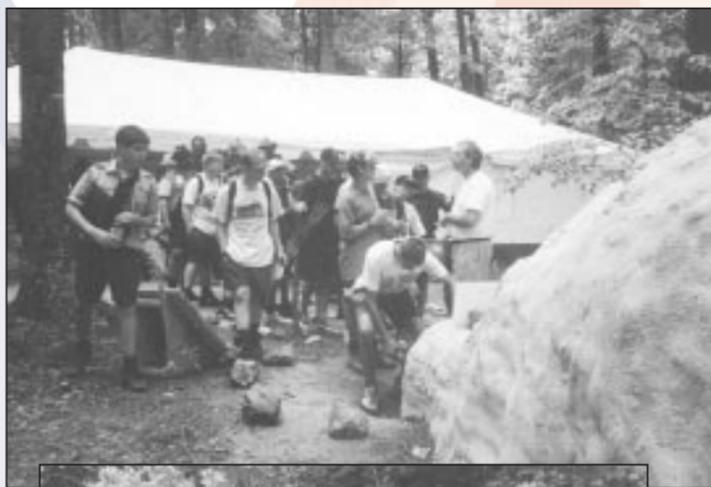
Clockwise from top, a scout whisks sand from a "fossil" at BLM's Lost Canyon Paleo Site; scouts look for sharks teeth in Gulf of Mexico marine samples at MMS's exhibit; dexterous scouts use their knot tying skills to attach latillas (long branches) to the sides of a Mogosazi Pithouse on BLM's Trails to Adventure; and an MMS volunteer helps a scout find oil in a computer simulation game.

AT NATIONAL SCOUT JAMBOREE

Our cave replica, for example, was built in New Mexico, sawn into several pieces, and transported by truck to Fort A.P. Hill for restoration on-site; the reverse procedure was then used at jamboree tear-down time. Sound expensive? Thanks to staff ingenuity and generous private cooperators, the cave exhibit cost one-twentieth of the amount quoted by commercial set-design firms. This surprisingly durable teaching tool will continue to enlighten children far into the future: there's already a two-year waiting list of educational institutions wishing to use it.

Exhibit construction and dismantling were also carried out with a keen sense of environmental conscience. Almost all pithouse construction materials (high-clay soil and long, deadfall branches) were stockpiled from plentiful local sources well in advance of the jamboree. Twine for binding of the house's wooden side supports was biodegradable, ensuring that any stray remnants would not permanently mar the site. Except for some smaller packaging materials, all components of BLM's exhibit were slated for re-use (fencing, wooden boards) or recycling (cave flashlight batteries).

We are grateful to our BLM staff, volunteers, private donors, and jamboree participants, whose enthusiasm made this event such a rewarding experience. And as our Fort A.P. Hill site returned to its natural state, we looked forward to planning new adventures for BLM's next jamboree appearance in the year 2001.



Above left, would-be spelunkers learn about cave ethics from Don Simpson, Washington, D.C., before venturing into Big Foot Cave. Above, a scout and his scoutmaster visit interpretive displays at the Info Outpost. At left, Mark Buckbee, Oregon, and Ron Fox, Washington, D.C., lead scouts through the field portion of BLM's Environmental Science Merit Badge.

Reclamation's Enviroscape and World of Western Water

Carrie Kemper

Reclamation contributed \$25,000 to the jamboree's efforts, which enabled the bureau to fill a large tent with a five-member core Reclamation team, extra volunteers, plenty of interesting exhibits, and agency gifts for the scouts.

Reclamation exhibited three models in the Conservation Area. The most popular, a working dam entitled *Reclamation and the 21st Century*, was built by **John Pattie** of the Technical Service Center in Denver, Colorado. The model came complete with water, fish ladders, drum screens, a visitor center, and a switchyard.

The scouts were also interested in the interactive *Enviroscape model* that demonstrated ways to alleviate water pollution. The third model, *The World of Western Water*, was a stand-up reading exhibit that gave a brief history of the agency.

Reclamation volunteers also distributed 10,000 flashlight keychains to the scouts who stopped in to interact with Reclamation's demonstration models.

Environmental outreach coordinator **Kathie Marsh** was impressed with the scouts' curiosity. "The scouts seemed genuinely interested in learning what Reclamation was all about," Marsh recalls. "It gave us the opportunity to educate them on Reclamation's wonderful history and show them the progress we've made as a natural resource management agency."

MMS volunteer **Frank Lietz**, a former Boy Scout and adult scouting volunteer for the past 25 years, was delighted to spend two weeks doing what he enjoys best—interacting with scouts and troop leaders.

"The core volunteer group had a great time this year and worked well together," said Lietz. "The same team volunteered at the previous jamboree four years ago, so this year the pieces fell into place easily," he added.

Thanks and congratulations go out to the following Commissioner's Office volunteers who spent one or more days helping staff the exhibits: **Tom Bennett, Mollie Buckey, Roy Arnold, Carrie Kemper, Henk Willems, Michael Gabaldon, intern Russell Callejo, and Bill Steele.** Thanks also to **Sue Phillips.**

The MMS Goes to Scout Camp

Stephen C. Shaffer

The Minerals Management Service teamed up with the Smithsonian Institution to produce an exhibit that brought more than 30,000 visitors. The exhibit focused on the MMS/Smithsonian partnership in biological research that helps to conserve and protect a marine environment in which natural gas and oil are being developed.

At one station, scouts could dissect marine samples and use compound microscopes to identify plankton, fossiliferous, and macrofaunal (starfish, clams, etc.) species from the Gulf of Mexico. MMS jamboree coordinators **Ralph Ainger** and **Edgar Vega** worked for months to help build a display that would present information that was engaging as well as educational.

"The scouts came running off the Conservation Trail into the tent to play with the computer simulated game we had devised," said Ainger. "We challenged them to learn about natural resources by searching for oil and gas on the computer model. The scouts learned the lessons of searching for hydrocarbons," Vega added. "Because of the many requests for copies of that computer game, we promised to place copies of the model on the MMS home page."



At right, Reclamation's jamboree coordinator, **Bob Bochar**, a former Eagle Scout, demonstrates the workings of a dam to inquisitive scouts. Above, Reclamation's core volunteer group included, from left, **Bob Bochar** (Commissioner's Office), **Nancy Samuel**, **Will Samuel** (retired, Technical Service Center), **Kathie Marsh** (Reclamation Service Center), and **Frank Lietz** (Technical Service Center). They spent nine days teaching scouts and troop leaders about western water issues.

Back at the MMS office in Herndon, Virginia, **Alice Drew** created a web site on the MMS home page and placed photographs from each day of the jamboree. The scouts were told to tell their friends and parents to look for photographs at www.mms.gov.

To mark the scouts' visit to the MMS-Smithsonian tent, **Margaret Clark, James Bennett, and Karen Monds** designed and produced 2,000 commemorative buttons that were handed out. All MMS staff volunteers who worked in the tent were impressed with the scouts' eagerness to learn about the MMS and its mission. It was a great experience for everyone connected with the jamboree.

"The scouts were fabulous and the volunteers were wonderful," said MMS staffer **Jim Feagans**. "I was proud to be a part of the MMS team. In fact, the Public Broadcasting Service also attended the jamboree and will produce a documentary on the 60th anniversary."

"We are already planning for the next jamboree," said Ainger. "The level of enthusiasm from the MMS and Smithsonian folks was overwhelming and people from all over the bureau are calling me and volunteering for the 2001 jamboree."

For more information on the jamboree, please visit the MMS web site at www.mms.gov and look under *What's New* or the Boy Scouts of America Jamboree web site at www.bsa.scouting.org/jambo97/.



At left are MMS volunteers **Ralph Ainger** and **Edgar Vega**. Above is the entrance to the MMS exhibit. Above left is the official patch for this year's jamboree.



Scouts learn gold panning at a USGS exhibit at the National Jamboree. USGS initiatives at the encampment are featured on page 14.

Reports of other Interior agencies' activities and accomplishments at the national jamboree will be carried in next month's issue of *People, Land and Water*.

Peregrine Continues Recovery in Eastern Range

Peregrine falcons are defending nesting territories in Acadia National Park, Maine, and establishing new nests in Great Smoky Mountains National Park, Tennessee.

The return of the nesting falcons to Acadia's Mount Desert Island this year underscores the success of Maine's recovery program for the peregrine, an endangered species, with the establishment of three nesting pairs and the rearing of 21 chicks over the last six years.

In Tennessee, a peregrine nest with three chicks was discovered atop a 4,800-foot peak in Great Smoky Mountains National Park—the first successful nesting activity reported in the park since 1943. This discovery and the sighting of another nest near Chattanooga represent the first reported reproduction of peregrine falcons in the Tennessee wilds since 1947.

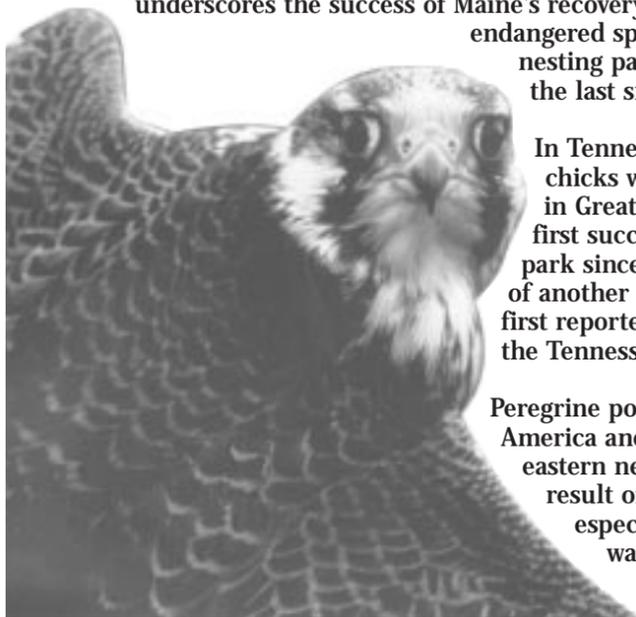
Peregrine populations declined throughout North America and were extirpated from their entire eastern nesting range by the mid-1960s as a result of the widespread use of pesticides, especially DDT, and habitat loss. The falcon was placed on the endangered species list in the early 1970s. Reintroductions

from captive breeding programs began in the early 1970's and have reestablished the falcon as a breeding bird over much of its former range in the northeastern United States.

In Maine, the first pair of peregrine falcons nested successfully on the east face of Champlain Mountain in 1991. A second pair of falcons established a nest site on Beech Cliffs above Echo Lake in 1995, and were active again in 1996 in producing one chick. A third pair of falcons unsuccessfully attempted to nest at Jordan Cliffs in 1996. In order to protect the birds from inadvertent disturbances at Acadia National Park, the Precipice Cliff and Jordan Cliff Trails and the Beech Cliff Loop Trail were closed to hikers until late August.

Since the June 8 find in Tennessee, the State Wildlife Resources Agency has reported another nesting site near Chattanooga on a railroad trestle below Chickamauga Dam. This pair of falcons has been observed carrying food into an apparent nest site. Forty-four peregrine falcons have been successfully fledged in the state. Thirteen of those were hacked (a falconer's term for the gradual release of young or adult captive birds to the wild) at Greenbrier Pinnacle in Great Smoky Mountain National Park.

The contacts at Acadia National Park are **Bruce Connery** or **Dave Manski** at (207) 288-5463. At Great Smoky Mountains National Park, contact **Bob Miller** or **Nancy Grey** at (423) 436-1208.



Endangered Sea Turtle's Nesting Sites Continue to Increase for Third Year

A record number of Kemp's ridley sea turtle nests have been found this year on south Texas beaches, primarily at Padre Island National Seashore, adding to the evidence that a two-decade, multi-agency program is working. Canon USA, Inc. is a major supporter of the Padre Island project, which works to restore the U.S. population of the most endangered sea turtle in the world.

Nine nests containing 970 eggs have been found this year by park employees, volunteers, and visitors. These nestings include the first-ever arribada (a group of three or more sea turtles that nest on the same day) in the United States, and are the only confirmed nestings by this species in the United States so far this year.

The presence of the first arribada at Padre Island gives researchers great hope that the restoration program will continue to be successful, adding substantially to chances for long-term survival of this species. Park personnel incubated eggs collected from all nine nests. Hatchlings were released in mid-July and August of this year. For three consecutive years, the numbers of Kemp's ridley nests found on south Texas beaches have increased (1995 - four nests, 1996 - six nests, 1997 - nine nests).

A variety of human-related threats caused the decline of this species and by the 1970s, the number of nesting Kemp's ridley sea turtles worldwide had dropped to the hundreds. In 1978, to help preserve Kemp's ridley sea turtles, an international experimental project was launched at Padre Island National Seashore to establish a secondary nesting colony of Kemp's ridleys. The



species' only major nesting site has been near Rancho Nuevo in Mexico.

For the past three years, Canon U.S.A., Inc., has helped support the Kemp's ridley sea turtle restoration project at Padre Island. Canon has given a total of \$95,000 to the turtle project under the auspices of the Expedition into the Parks program. This multi-year partnership between Canon, the National Park Foundation, and the NPS conducts inventories and monitors species in the national parks nationwide. The program contact is **Donna Shaver-Miller** at (512) 949-8173 x226.



Above left, U.S. Geological Survey research biologists **Donna Shaver-Miller** and **Cynthia Rubio** release a portion of this year's 99 Kemp's ridley sea turtle hatchlings on the beach at Padre Island National Seashore. Above, Padre Island Superintendent **Pat McCrary**, at podium, accepts a donation from Canon U.S.A. representative **Tabatha Sturm** as **Heidi Beall** of the National Park Foundation looks on. NPS photos by **Ricardo Lewis**



Fish enter the ladder just downstream of the Redlands Diversion Dam on the Gunnison River and travel the 325-foot long, U-shaped passage that wraps around the dam. The ladder, constructed by the Bureau of Reclamation, was the first of its kind to be built in the Upper Colorado River Basin and is helping to restore endangered fish species, including the Colorado squawfish.



Colorado's Gunnison River Speeds Recovery of Endangered Fish

Connie Young

U.S. Fish and Wildlife Service biologists have discovered that ten more endangered Colorado squawfish have made their way up the Redlands fish ladder since August 1 on the Gunnison River near Grand Junction, Colorado. That brings to 15 the number of endangered fish that have used the ladder to date, along with 15,000 other native fish. The squawfish ranged in size from 15 to 30 inches.

The ladder was built last year by the Bureau of Reclamation to allow the rare fish to migrate around a 12-foot-high diversion dam. Enabling the fish to reach upstream spawning areas in the Gunnison River is expected to speed their recovery.

"These are just the kind of results we have been looking for," said Service biologist **Bob Burdick**. "They are giving biologists more information about the potential success of other fish passageways under consideration on the Colorado and Gunnison rivers."

"I'm very encouraged by the results at the Redlands fish ladder and am eager to proceed with additional passageways that will re-open more Colorado squawfish habitat," said **Henry Maddux**, acting director of the Upper Colorado River Recovery Program.

The program is a coalition of public and private organizations working to recover endangered Colorado squawfish, razorback suckers, bonytail chubs, and humpback chubs while allowing development of water resources for human uses.

Service biologists have also found an 18-pound, 36-inch female Colorado squawfish in post-spawning condition in the Gunnison River about 30 miles upstream of the Redlands fish ladder. When this and other squawfish spawn in the upper Gunnison River, their young are carried downstream by the current and may spill over the Redlands Diversion Dam.

Previously, the fish were blocked from returning to upstream spawning sites. With the ladder in place, the fish can move freely up and down the river, recreating a more natural river system that benefits the environment as a whole, biologists say.

PRESERVING NATURE IN THE NATIONAL PARKS

Gary E. Davis, senior scientist at Channel Islands National Park, reviews *Preserving Nature in the National Parks: A History*.

The concept of national parks, setting aside unbroken tracts of land and sea for the enjoyment of people, has been called America's best idea. In *Preserving Nature in the National Parks*, **Richard West Sellars** meticulously traces the evolution of the national park concept and America's national park system from 1870 to the present.

From beginning to end, he confronts readers with evidence that disputes tradition. Among other beliefs, he authoritatively challenges the romantic campfire myth of an altruistic birth of Yellowstone National Park and the national park concept. He offers in its place a pragmatic rationale more consistent with the times.

This book is a scholarly presentation of carefully researched and documented facts, woven into an unbroken story. The tale unfolds from the perspective of the National Park Service, the primary governmental agency responsible for conserving parks. It starts with the campfire myth and renowned landscape architect Frederick Law Olmsted crafting and shaping the National Park Service's mission "to conserve the scenery and the natural and historic objects and the wild life [in parks] unimpaired for the enjoyment of future generations."

It ends with the 1993 creation of the National Biological Survey and the sweeping reorganization of the National Park Service in 1995. Throughout, readers get an insider's view of America's favorite government agency. As the story approaches the present, it necessarily shallows to encompass ever more territory, losing its rich historical texture, but gaining a journalistic perspective that serves readers well.

Great new ideas always create tension and elicit vigorous debate. Sellars skillfully draws our attention to a series of tensions created by the national park idea that shaped the concept and its manifestations in the 20th century. Born as a dream of profit from limitless recreational tourism, the creation of national parks was an attempt to resolve the conflict over how to wrest the greatest good and profit from the land: consumption through private exploitation or through public tourism.

Sellars also examines the tension between development in parks to facilitate access, lodging, and consumptive recreation versus wilderness preservation. Landscape architects, engineers, and biologists expressed conflicting interpretations of "unimpaired" during the 1920s and 1930s. This tension has evolved into a continuing discussion of scenery or facade versus ecosystem management.

Clearly, early promoters of national parks had no qualms about developing facilities in parks and consuming park resources. In promoting creation of the National Park Service in 1916, Robert Sterling Yard wrote in *The Nation's Business*, "We want our national parks developed. We want good fishing. We want our wild animal life conserved and developed."

The first two directors of the National Park Service, businessman **Stephen Mather** and lawyer **Horace Albright**, both believed the public needed to be enticed into parks with roads, lodges, and enhanced fishing, in addition to the parks' scenery and other natural assets. They set about building facilities, including fish hatcheries, and planting alien fish in parks as their first order of business for the new agency. They also believed they should "enhance" the parks by suppressing fires, eradicating predators, and controlling forest pests and diseases, which they did vigorously.

At its inception, national park management was a new human endeavor. No one before had tried to preserve intact large tracts of wild land and seascapes for public enjoyment and to pass them on to future generations. Unlike forest and fisheries management that had centuries of precedent and practice, what park managers needed to do had no precedent. They were truly exploring the unknown and relied on extant professions for guidance.

Foresters, landscape architects, and engineers who used land to produce commodities and who molded landscapes to fit human perceptions of idyllic and pastoral settings came the closest to fitting the new paradigm so they got the job: directed by businessmen and lawyers. However, national park management is more than a simple combination of these early professions. It also requires applied sciences, particularly ecology. Adding ecologists to this mix was like combining oil and water. We're still looking for an emulsification agent.

Sellars makes it clear that the tension between scientists and non-scientists regarding national park management was the same in the 1930s as it is today. In part, the differences arise from non-scientists' reliance on untestable, belief-based consensus versus scientists' adherence to a testable knowledge-based system of learning from experience. If one believes that fire destroys forests, or that wolves threaten elk populations, there is no reason to waste time and money testing the concepts. One simply acts on these beliefs and suppresses fire and kills wolves. Testing such beliefs threatens the belief and the believers, and thus creates a perception that science would make park management more costly, difficult, and time consuming. This may be at the root of the issue that creates the tension between so-called traditional and ecological approaches to park stewardship.

Science as a way of knowing should make attainment of the National Park Service mission more certain and cost effective. The true costs of ecological restoration and of losing America's heritage to unfounded beliefs is vastly greater than the costs associated with learning first how ecosystems work and doing the job right the first time. We paid dearly for early misguided forest fire suppression. First we paid the unnecessary costs of suppression. Now we are paying the costs of restoring fire, with the risk of losing the very assets we sought to protect if we delay any longer. We paid to eradicate wolves and other predators, then paid to reduce elk and deer, lost soil and vegetation, and now we must pay to restore wolf populations.

This kind of cost dwarfs the minimal costs of using science to learn what is in parks, how to restore impaired assets, how to maintain restored parks, and how to protect parks from pollution, unsustainable uses, fragmentation, and alien species. In short, using science to learn from our experience reduces uncertainty and costs.

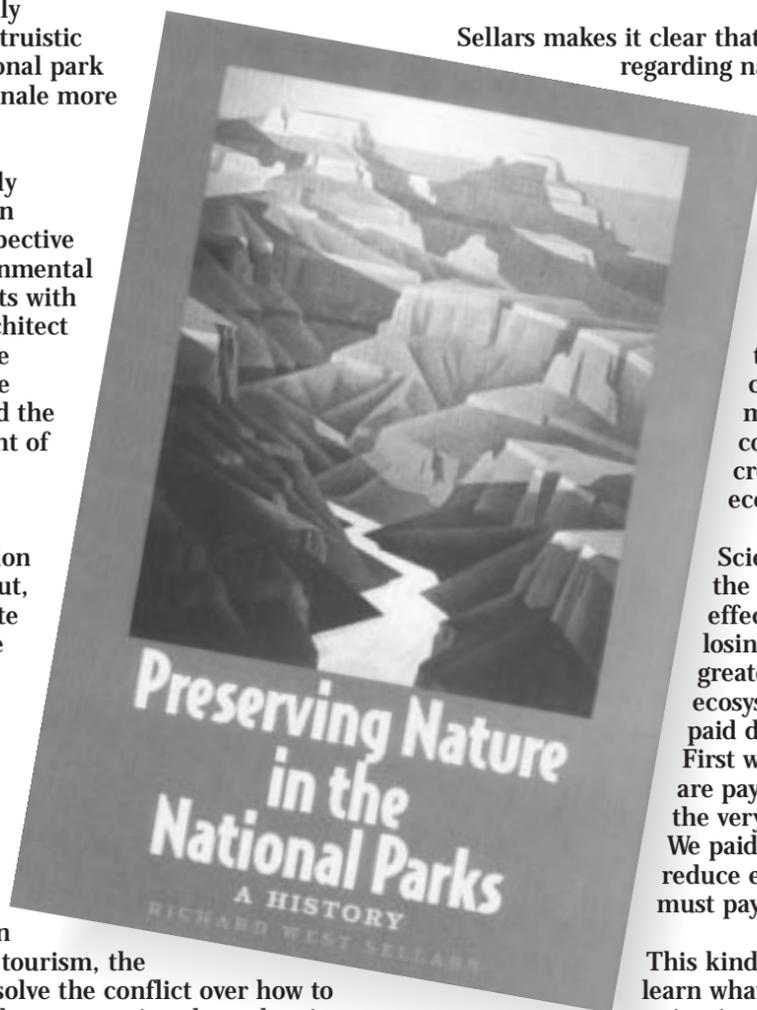
In the last century, the parks could afford the boosterism, "enhancements," and facilities of Mather and Albright and still recover, because parks were not the islands in a fragmented and diminished landscape they are today. Few refugia exist today, outside legislated wilderness, from which to find replacement genomes and species to repair the damage wrought by misguided policies. We are already beginning to lose our heritage in the marine environment where we have no wilderness, no refugia, and denial of human impact is rampant even in the national park system. Time is short. Options to conserve and pass unimpaired parks on to future generations become more limited every year.

Change is inevitable. Will we use science to learn from experience, or continue to blindly accept and act on unsubstantiated beliefs? The National Park Service will not accept a change from its primary goal of recreational tourism to science-guided resources protection until its leaders personally experience success with science. As a result, people such as Richard Sellars run great risk of being attacked by opponents vested in the old system and only moderately supported by skeptics of the new, science-based system. Because the national park concept is new and unique, few have the necessary personal experience, yet. Perhaps the introspection in this book will lead to trying new ways to conserve parks.

In interpretive jargon, scenery is the hook. Once enticed into the parks by the scenery, the public can personally experience the wonders they contain, beyond the view. Mather and Albright believed they had to entice the public to visit parks and to support the park concept. The National Park Service did that during the 20th century. The public has found and loves the park system and the National Park Service. Now the hard work begins—learning what is in the parks and how they work, restoring impaired assets, maintaining impaired processes, and protecting parks as islands of wilderness in a landscape dominated by human activities.

Until we learn our history, how we came to where we are, and where we thought we were going, we risk endlessly repeating the same mistakes. Sellars account illuminates our path. Read it. You will like it. You may not agree with everything in it, but you will learn from it. We and our national parks will be better for it.

Gary Davis recently received the 1996 National Park Service Director's Award for Natural Resource Research for his work in marine biology. His address is 1901 Spinnaker Drive, Ventura, CA 93001-4354. Phone (805) 658-5707, Fax 658-5799, Net: gary_davis@nps.gov



Richard West Sellars, the author of *Preserving Nature in the National Parks: A History*, is a historian with the National Park Service in Sante Fe, New Mexico. The book is published by Yale University Press and costs \$35. Orders should be sent to Yale University Press, P.O. Box 209040, New Haven, Connecticut, 06520-9040. Phone (800) 987-7323; Fax (800) 777-9253. Examination copies for instructors are available. ISBN 06931-6

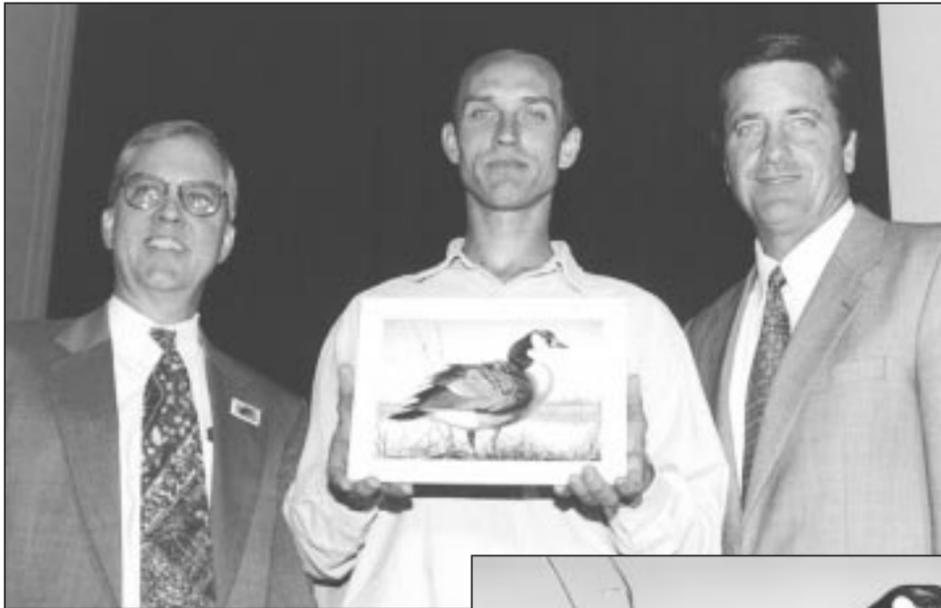
Minnesota Honors Artists Who Help Fund Habitat Conservation

Susan Dreiband

Minnesota is a big state for ducks, duck hunters, and Federal Duck Stamp artists. The Service's Federal Duck Stamp Program has had a major impact in the state, and Minnesotans, in turn, have been leading contributors to the program. So, it is a natural that Federal Duck Stamp artist **Bob Hautman's** original paintings, limited-edition prints and state duck stamp prints have raised thousands of dollars for wildlife conservation in Minnesota.

When the Minnesota artist was honored in a ceremony at the Minneapolis Convention Center on July 19, his image of a lone Canada goose, standing on a mat of cattails near the edge of a mirror-smooth wetland, had already begun supporting wetland conservation efforts throughout the United States. Hautman's design graces the 1997-1998 Federal Duck Stamp.

The Canada goose is the most identifiable goose species to many Americans because of its widespread distribution, honking call, and its unmistakable appearance: a large gray bird with a black neck and head and distinctive white cheek patches.



Robert Hautman displays his winning entry in last year's Federal Duck Stamp Contest. He is congratulated by John Rogers, at left, the former acting director of the Fish and Wildlife Service, and by Deputy Secretary John Garamendi, at right.



The celebration, cooperatively sponsored by the Minnesota Waterfowl Association, Lake Minnetonka Stamp Club, U.S. Postal Service, and the U.S. Fish and Wildlife Service, showcased one of this country's most successful conservation efforts.

"The Federal Duck Stamp program joins principle to practice by acquiring lands for the National Wildlife Refuge System," said **Bill Hartwig**, FWS regional director. "And these are the world's most outstanding collection of lands and waters dedicated to wildlife. We are very proud of this program and of the many thousands of Americans who have helped build the national wildlife refuge system through their purchase of the Federal Duck Stamp.

"Bob Hautman joins the cadre of Minnesota Federal Duck Stamp artists who have united to restore wetland habitat in the state," Hartwig pointed out. "Bob is a uniquely talented artist who paints from the heart and from much experience in the outdoors. He is dedicated to conserving the land he loves. I am thrilled that he is this year's winning Federal Duck Stamp artist."

"I'm very happy that I can play a role in national wetland conservation by serving as the Federal Duck Stamp representative during the next year," Hautman responded. "Since I use wetland habitats extensively to study and reference waterfowl, this provides an excellent opportunity for me to expand and promote wetland conservation."

As an integral part of this event, the Minnesota Waterfowl Association hosted a silent auction. Funds raised there will be dedicated to the Bob Hautman Habitat Restoration Project and matched by the Service to restore ten wetlands and associated native grasslands on the Lake Lillian Waterfowl Production Area in southeastern Kandiyohi County. The regional office is also seeking other partners to either match or contribute to the funds, and is applying for a North American Wetlands Conservation Act Grant in support of this project as well.

The Lake Lillian area was acquired earlier this summer by the Service with Federal Duck Stamp dollars. The site, about 310 acres in size, features 45 acres of restorable wetlands and 125 acres of original wetlands, 55 acres of restorable grasslands, 75 acres of native grasslands and ten acres of woodlot. The property, purchased by the Service from three willing landowners, is near the Big Kandiyohi Waterfowl Production Area (761 acres) and a 60-acre Reinvest in Minnesota tract.

Waterfowl production areas (open to public hunting and other wildlife-oriented activities) typically contain small, natural wetlands with associated native grasslands. They are mainly located in the Prairie Pothole Region of Minnesota and the Northern Plains states. During 1996, using Federal Duck Stamp revenues, the Service acquired new waterfowl production areas amounting to almost 6,000 acres in Minnesota.

Previously, **Jim Hautman** and **Bruce Miller**, former Minnesota Federal Duck Stamp artists, were honored with similar habitat projects. Hautman's project, in 1995, restored 12 wetlands amounting to nine acres and 17 acres of grasslands for six landowners in Carver and Hennepin counties. Miller's project, in Hennepin County on land owned by the Vinland Center, restored ten wetlands totaling six acres and 100 acres of grasslands in 1994.

There have been nearly 60 Federal Duck Stamp artists since the program began in 1934. Bob Hautman is the 14th national winner to have been born and raised in Minnesota, or resided in the state at one time. Three of these artists have won the contest more than once, including Hautman's brother Jim who won both in 1989 and in 1994. Another Hautman brother, Joe, won the contest in 1991. In fact, Bob Hautman placed second in the 1994 contest and has been a finalist in five Federal Duck Stamp contests before taking first place this year.

In 1990, four of the top five artists were from Minnesota; and in 1993 and 1994, four of the top ten were. In 1994, all three top winners were from Minnesota. In 1996, two of the top 20 were from Minnesota and this again year four of the top ten winners are from the state. Minnesota-born Federal Duck Stamp artists, or those who at one time resided in the state, include: **Francis Lee Jaques**, 1940-41; **Roger Preuss**, 1949-50; **Harvey Sandstrom**, 1954-55; **Les Kouba**, 1958-59 and 1967-68; **Ed Morris**, 1962-63; **Arthur Cook**, 1972-73; **David Maass**, 1974-75 and 1982-83; **Richard Plasschaert**, 1980-81; **Phil Scholer**, 1983-84; **Dan Smith**, 1988-89; **Jim Hautman** 1990-91 and 1995-96; **Joe Hautman**, 1992-93; **Bruce Miller**, 1993-94; and **Bob Hautman**, 1997-98.

In recognition of the accomplishments of Minnesota artists to this program and the impact the program has had on the state, **Governor Arne Carlson** proclaimed July 19 Robert Hautman's Federal Duck Stamp Day in Minnesota.

"I didn't feel any pressure to win the federal contest because two of my brothers were previous winners," Hautman said. "However, I realized that the artists who preceded me as Minnesota winners had established an enduring tradition and that they are among the finest wildlife artists in North America. To be considered in their class is truly an honor. To be able to influence waterfowl and wetland conservation by winning the federal contest is a great honor," he added. "Not many artists have such an excellent opportunity to influence conservation through art and to help people realize just how important wetlands are in the scheme of our natural world."

Susan Dreiband is the assistant regional director for External Affairs at the Fish and Wildlife Service's Region 3.

The Worth of a Wild Goose

In his speech at Bob Hautman's hometown ceremony, FWS Regional Director **Bill Hartwig** noted that **Aldo Leopold** wrote: "What is a wild goose worth? I have a ticket to the symphony. It was not cheap. The dollars were well spent, but I would forgo the experience for the sight of the big gander that sailed honking into my decoys at daybreak this morning....Is it impious to weigh goose music and art in the same scales? I think not....and, when the dawn-wind stirs through the ancient cottonwoods, and the gray light steals down from the hills over the old river sliding softly past its wide brown sandbars...what if there be no more goose music?"

"As we watch those images of the mars landscape on our televisions—the rover Sojourner exploring the Mars habitat," said Hartwig, "some of us may be driven to dream of the here and now of that shadow cast on our earth's landscape by even one lone goose making her way across the fields and the music of the honkers as they journey past us, predictable as the sunrise, and, we know that each of us, working shoulder to shoulder, committed to the earth and its critters, will help nature keep that symphony, that goose music, playing strongly, loudly in the skies."

Minnesotans Buy 10 Percent of Duck Stamps

Annual sales of approximately 1.5 million Federal Duck Stamps have raised in excess of \$500 million that has been used to acquire more than 4.7 million acres of important fish and wildlife habitats on national wildlife refuges. Much of that acreage is in the Prairie Pothole Region, including Minnesota, which supports about 50 percent of the nation's entire breeding duck population. The Service manages about 518,000 acres of habitat in Minnesota, 85 percent of which has been acquired with Duck Stamp dollars.

Minnesotans purchase an average of about ten percent of all Federal Duck Stamps sold each year. Out of the total of 1.5 million stamps sold in 1995, Minnesotans bought 132,546. Preliminary sales figures for 1996 indicate that 1,581,759 stamps were sold nationwide and Minnesotans purchased 142,353. Four of Minnesota's 11 national wildlife refuges, encompassing 75,000 acres of the total 208,000 acres of refuge lands in the state, have been acquired wholly or partially using Duck Stamp revenues. All of these refuges are excellent waterfowl breeding or migration habitat.

Still Working After All These Years

The Douglas DC-3, N34 aircraft built in 1945 for the U.S. Navy has finally found a full-time job—on the National Register of Historic Places. The monoplane, constructed by the Douglas Aircraft Company in Oklahoma City, Oklahoma, has been in continuous use for the past half century, first with the U.S. Navy and later with the Federal Aviation Administration's safety inspection program.

Still in operational condition today, the vintage DC-3 is housed at Hangar 10, Federal Aviation Administration, Mike Monroney Aeronautical Center, Oklahoma City, Oklahoma, when not in use. It was listed in the register on May 29.

The airplane came to life in 1945 and was modified throughout its life span. The plane was built for the U.S. Navy and placed into storage until December 1945, due to the end of World War II. The Navy then used it at various worldwide locations as a transport aircraft. Among the assignments were London, Rome, Naples, Paris, Algiers, Frankfurt, Brussels, Oslo, Stockholm, Dublin, Cairo, Kuwait, and Baghdad.

It is highly probable that later in its life the N34 flew into Berlin in support of Operation VITTLES, which supplied the city with food and material entirely by air during the Soviet blockade. Anything that flew in that area of the free world during that time was pressed into support of the airlift operation.

Since 1985, the aircraft has been used in the FAA's educational programs, promoting aviation and displaying the FAA's historic heritage. The N34 has been seen and visited by hundreds of thousands of aviation enthusiasts as it has been flown to air shows, special events, and aviation education related functions around the country (including Alaska) and Canada. The program contact is **Beth Boland** at (202) 343-9545.



Above, students at the Floyd Bennett School in Brooklyn learn the basics of flight at the controls of flight simulators in the computer laboratory. At top, Bill Signs, holding Floyd and Bennett, embarks for Paris, recreating the historic 1927 flight of Charles Lindberg.



Floyd Bennett School: A Natural Connection

John Lanco, Gateway NRA

Some relationships are just natural. Take the close connection between the Floyd Bennett School in Brooklyn, New York, and Floyd Bennett Field, headquarters for the Jamaica Bay Unit of Gateway National Recreation Area.

The field and the public school in Brooklyn are named after the same aviator and Medal of Honor recipient and both have aviation as their themes. The school even has a learning laboratory equipped with computerized flight simulators, while at the field, vintage aircraft are on display, relating the history of the former civilian airport and military airfield. It was only natural, therefore, that when the school approached Gateway's Division of Interpretation to assist with an aviation-related project, we were more than happy to assist them.

During the past school year, first grade teachers **Peggy Hayes** and **Maureen Garland**, as well as their students, have been family to two teddy bears named Floyd Wilbur and Bennett Orville. These bears traveled around the world as part of a federally funded program to teach students about aviation, geography, and other cultures and lands. The bears travel with the assistance of volunteer chaperons.

On their first trip last fall, the two stuffed animals were taken to Germany, Norway, Iceland, England, and the North Pole in the company of an Air Force colonel and his wife. On their return, Gateway staff welcomed them back at a ceremony with students from the Floyd Bennett School at Floyd Bennett Field's William F. Ryan Visitor Center.

The bears subsequently traveled with Gateway Park Ranger Historian **John Gallagher** and his wife Wilda to Santa Monica Mountains NRA in California and Casa Grande National Monument in Arizona. Casa Grande Superintendent **Don Spencer**, incidentally, is former district ranger at Gateway. On Gallagher's return, the teddy bears hitched a ride with the Coast Guard on a three-week deployment to the Caribbean.

Most recently, Floyd and Bennett accompanied pilot **Bill Signs** as he recreated Charles Lindbergh's historic 1927 solo flight from Long Island, New York, to Paris. The bears got a rousing *Bon Voyage* as they took off from Floyd Bennett Field for Republic Airport on Long Island for the start of Signs' trip. Gateway staff were on hand to greet the bears on their return to Brooklyn on June 11. The volunteers who have carried the stuffed animals with them have kept written logs and diaries which have been used by Ms. Hayes and Ms. Garland to teach their students geography.

In addition to the teddy bear program, the Division of Interpretation and the Jamaica Bay District jointly provided aviation history programs for other local public and parochial schools which included visits to and interpretive programs centering around the vintage aircraft on display at Floyd Bennett Field's Hangar Row.

Plans are now underway to formalize our partnership with the Floyd Bennett School under the Park Service Partner School Program. We hope to have more opportunities to enrich the lives of local and area school students and further their understanding of the park's rich aviation history and the world.

John Lanco is an environmental education specialist at Gateway National Recreation Area.

Refurbishing to Close Landmark

The Washington Monument will undergo two years of extensive restoration work, beginning next year, thanks to a \$5 million fund raising effort by Target Stores.

Secretary Babbitt announced the agreement, noting that the project will require closing the popular monument for up to four months. Target Stores donated \$1 million and raised \$4 million from other corporate sponsors over the past 14 months.

The work, scheduled to begin in late winter of 1998 and be completed by 2,000, includes constructing scaffolding around the monument's exterior, repointing interior and exterior joints, sealing, repairing, and cleaning cracked, chipped, and patched stones, and restoring 193 commemorative stones that are inserted into the interior walls. The scaffolding will surround the 555-foot obelisk.

Beginning in the fall, the Department also will begin to improve the structure's heating, ventilation, and air conditioning systems, as well as replace the elevator. The monument, which receives about 2,500 visitors daily or about one million a year, will be closed to the public because of the elevator repair work. American architect **Michael Graves** will be the design adviser on the restoration project and will help to develop design criteria for the scaffolding.

The project represents the first major renovation of the structure's stonework. Begun on July 4, 1848, the monument was not completed until December, 1884.



The Washington Monument, the most widely recognized symbol of the nation's capital, is headed for major refurbishing next year. NPS photo by Rosa Wilson

It had stood unfinished—at a height of about 150 feet—for 25 years, from 1854 to 1880, because of funding problems, the American Civil War and the era of Reconstruction.

The monument was first opened to the public in 1888 when a steam-hoisted elevator went into service to lift visitors to the top. An iron stairway of 897 steps and 50 landings also is open to the public but because of the exertion required in ascending it, the stairway has been used primarily for guided walk-down tours.

Home Sweet Home

Historic furnishings can be a simple, powerful, and timeless means of interpreting people's lives or historic events. Therefore, the **National Park Service Division of Historic Furnishings** plans and produces exhibits of interiors for National Park sites across the country. The Division has planned and produced rooms in historic homes, stores, taverns, and commercial and military offices. The period rooms designed have ranged from the 16th to 20th centuries.

To conceive the rooms, the staff curators first research historical sources for written and visual documentation. Next they develop a written plan of what should be acquired for an exhibit. Then curators locate furnishings called for in the plan—period furnishings come from dealers and reproductions from contract specialists. Finally, curators install furnishings in their exhibit areas.

Recent examples of projects include the Lighthouse Keeper's Quarters at Cabrillo National Monument, California; the Lemon House Tavern at Allegheny Portage Railroad National Historic Site, Pennsylvania; the Dry Goods Store at Harpers Ferry National Historical Park, West Virginia; and the Moore Cabin at Klondike Gold Rush National Historical Park, Alaska. Contact **John Brucksch**, (304) 535-6119, for more information.

YELLOWSTONE

A N A P P R E C I A T I O N



Lower Falls, Grand Canyon
of the Yellowstone River

Yellowstone—the first national park established in the United States—marks its 125th birthday this year. The following article provides a unique “outsider’s” point of view on Yellowstone. Entitled “Returning Home From Distant Travels to the Land of Geysers and Unfrightened Animals,” the article was printed in the April 4 edition of the newspaper Bryanskiy Rabochiy and translated by Steven G. Kohl, Office of International Affairs, U.S. Fish and Wildlife Service.

*Igor Shpilenok, Director
Bryanskiy Les Nature Reserve, Russia*

When I returned home to Russia from Yellowstone Park some of my compatriots refused to believe my stories until I had developed the slides from the trip. Come to think of it, I had a hard time believing my own eyes when I first saw Yellowstone! For decades no one in the United States gave credence to tales recounted by the first white men to visit the area that is now Yellowstone Park at the beginning of the 19th Century. To verify the persistent rumors of those natural splendors the U.S. Congress sent an expedition there in 1870, led by General Washburn.

Everything turned out to be true: giant geysers, deep canyons, towering waterfalls, and animals unafraid of humans. A second expedition was dispatched the following year to confirm the report from the first, this time including a photographer named Jackson and an artist named Moran. These two expeditions led to the creation of the world’s first (and still best known) national park “for the benefit and enjoyment of the People”—words taken directly from the Act of Congress establishing the Park.

Let me go back to how I got invited to Yellowstone in the first place. In May 1996 an American delegation visited Moscow. Among them were two high-ranking administrators from the U.S. Fish and Wildlife Service, and the Superintendent of Yellowstone National Park, **Michael Finley**. The visitors expressed a desire to see typical protected areas of central Russia, so they traveled first to Okskiy Nature Reserve (near Ryazan), then to Bryanskiy Les Nature Reserve. These are the two such areas closest to Moscow.

Our guests were extremely lucky. I have spent my whole life in Bryanskiy Les, and had only twice gotten a glimpse of a bear. As soon as the American group entered the Reserve, we caught sight of a huge brown bear, who allowed our vehicle to approach to within about 15 meters. May is the mating season, and male bears lose some of their usual caution. We were also fortunate enough to encounter another Bryanskiy Les wonder—the black stork. Boating down the Nerussa River en route to the City of Trubchevsk, we saw a rare sight in the

From Russia With Love

*Igor Shpilenok, director of
Russia’s Bryanskiy Les
Nature Reserve, captures
some of Yellowstone’s beauty
during his visit to America’s
first national park.*



lowland marsh area: several black storks standing in the shallow water among large white herons. Both these species are inhabitants of southern wetlands and are thus unusual for Bryanskiy Les.

It gets even better. After arriving in Trubchevsk we encountered a group of people dressed in traditional Russian costumes. It turned out they were the renowned local folk ensemble Drema on their way to a professional engagement. We inquired whether they would pose for pictures with us; they not only obliged, but also gave an impromptu song-and-dance performance. Standing on a bluff overlooking the river and woods on the opposite bank our guests were sufficiently impressed that they asked me and the accompanying city officials why, considering the area’s scenic beauty, history and ethnic culture, there was no national park there.

As we made our way back upriver to Bryanskiy Les Reserve, our visitors joked that it had probably cost me a lot of money to arrange for the bear, black storks, white herons, and folk ensemble, adding “...but you seem to have forgotten about the professional side of things, because we haven’t yet run into any poachers. What’s the matter, are you trying to save money by scrimping on them?!” Not five minutes later we came upon some inflatable boats on the Nerussa’s shore and spied three men in hip boots fleeing from us. We caught up to them, and our American colleagues got a first-hand look at how lawbreakers are detained, identified, written up, and their nets confiscated.

In the evenings we held extensive conversations about our work. It was particularly interesting for us to listen to Mr. Finley. Before coming to Yellowstone, he was superintendent of Yosemite and Everglades, among America’s finest national parks. As things turned out, our two countries have many problems in common: for example, finding funds to keep protected areas operating (although the size of the shortfall in the U.S. can’t be compared to that in Russia). Especially interesting for us was to learn about U.S. experience in engendering popular support for parks and refuges and protecting these unique natural areas. Our American guests shared their experiences freely, and before they departed invited us to travel to the U.S.

Five months later four of us visited Michael Finley at Yellowstone. The park is located where three states come together: Wyoming, Montana, and Idaho; it is mountainous (average altitude 2,300 meters) and volcanically active. The current exotic landscape was formed by three volcanic upheavals, the most recent of which occurred 600,000 years ago.

The park is about 9,000 square kilometers in area, or one-fourth the size of our Bryansk Province. Among the park’s unique features are more than 3,000 geysers and hot springs; mud lakes and volcanoes; the Grand Canyon of the Yellowstone more than 360 meters deep; the Yellowstone River itself, cascading over waterfalls, the highest of which is 94 meters; and finally, the large calcium carbonate deposits around the hot springs. When we approached the latter, our guide’s voice was drowned out by the sounds of wild animals: coyotes and male elk, who were at the height of their mating season.

We spent the first night at a small guest house in Mammoth Hot Springs. I didn’t fall asleep right away due to the large time difference between Yellowstone and Bryansk. But how could you sleep anyway with ten elk settling in for the



Toasting the Russian group’s arrival in Yellowstone NP are, from left, Igor Shpilenok, Yellowstone Superintendent Mike Finley, Natalia Danilina (director of Moscow’s Zapovedniki Environmental Education Center), Victor Popov (director of Russia’s National Park System), and Vsevolod Stepanitskiy (director of Russia’s National Nature Reserve System). Photo by Steve Kohl

Of Geysers and Hot Springs

night outside your front door, scratching themselves and banging their horns against the side of the building until midnight? The elk had scarcely quieted down when the building's water pipe outside my window began rattling. I opened the blinds and saw a porcupine climbing up! He reached the roof and then was silent.

We were invited to Michael's home for breakfast at 7:00 the next morning. Although it was only 100 meters from the guest quarters, we weren't sure how to navigate our way through all the elk lying on our front porch—should we make them move, or walk through them? At first we tried making them move, but after they got up on their feet, they sensed the hesitancy in our voices and chased us back onto the porch for amusement. Finally a park employee in a ranger uniform looked out a window and saw our plight. Emerging with broom in hand, he waved it in the air and chased away the elk with a loud yell. (This was an unusual situation for us, with a ranger defending people from animals instead of the other way around.) In any case he left the broom on the porch for our use, and seeing that we were "armed," the elk didn't terrorize us any further.

After breakfast we left by jeep and drove along the Grand Loop, as the road through the park is called and from which can be seen its main attractions. The park receives three million visitors a year driving about one million automobiles, but the landscapes looked surprisingly pristine, as they were hundreds of years ago. This is because people and their cars stay on the trails, roads, and scenic overlooks. Animals periodically emerge onto the roads. In two days of riding on the Grand Loop, we occasionally encountered traffic jams caused by herds of bison lying on the asphalt chewing their cud. It sometimes becomes necessary for rangers to intervene in patrol cars with flashing lights and make the bison move.

Seeing bison by the hundreds made it hard to believe these huge animals were brought back from the brink of extinction. Their meat and hides were the basic subsistence of the Indians, whose arrows and spears had a low overall impact on millions of bison. But the white man with his firearms managed to destroy virtually all the herds by the beginning of the 20th Century, to the point where only 800 bison remained. The species is closely related to the European bison, which was also eliminated from the wild and is now found only in zoos and special breeding centers.

A project to re-establish a wild bison population in Bryanskiy Les Reserve is underway, so I was especially interested in asking my American colleagues about the interactions of people and bison in Yellowstone Park. The bison are almost completely unafraid of people, and allow visitors to approach closely. I myself photographed a huge male bison at a distance of five meters and probably could have approached even closer, although I felt like a piece of fluff compared to this one-ton giant. However, at that point a young ranger trainee rode up on a bicycle and requested that we move away from the animal.

You can find bison herds grazing everywhere: in park villages, scenic overlooks, near the geysers—all the places where visitors gather. Sometimes conflicts arise. We were shown a film taken of a photographer who had walked right up to a bison and taken a flash picture; the bison reacted by tossing him three meters into the air, but the fellow got away without a scratch. We also learned that, on the day before our arrival, another photographer had approached a bison too closely and was chased into a hot geyser and seriously burned. There have been no incidents of unprovoked bison attacks on humans. Fortunately, there is almost no poaching in the park—the well-fed Americans have no need of bison meat. In Russia the main threat to bison wouldn't come from overeager photographers; it would come from roving bands of poachers clearing out every living thing.

From the car windows we saw nature as it was a thousand years ago. The animals and birds behaved as if their main enemy on earth—man—didn't even exist. Otters playing in the rivers didn't stop at our approach; Canada geese feeding in the meadows didn't bother turning their heads to look at us; and elk, deer, or bison had the right of way, forcing visitors to walk or drive around them. As an accomplished photographer, I was in a state of shock as I thought about how much time and energy I spend walking around Bryanskiy Les Reserve getting a decent shot of an animal. In Yellowstone you don't even have to try!

We spent the next night at Old Faithful Inn. The geyser gets its name from the enviable regularity of its eruptions. Once an hour from deep under the ground a



Above, the main terrace at Mammoth Hot Springs is constantly changing as travertine (porous calcite) deposits grow. Algae and bacteria growing in the water make the pools a colorful spectacle. At left, Yellowstone's geysers have become the best known geologic feature of the park.

column of boiling water and steam rises to a height of 65 meters. Hundreds of tourists view the spectacle from a safe distance. There are also shops where thousands of different Yellowstone souvenirs are sold—from semi-precious stones to tee-shirts with pictures of local animals, birds, and plants.

At the visitor centers you can obtain all kinds of information about the park, ranging from simple pamphlets to lavishly illustrated picture books. Videos and recordings of animal and bird sounds and geyser eruptions are also available. However, the revenue from sales of souvenirs and \$10-per-car entrance fees are not nearly enough to maintain the park; the federal budget provides about the same amount. Wealthy visitors also donate large sums. For example, CNN owner Ted Turner gave \$50,000 to a program to reintroduce wolves whose populations were decimated in the last century. Those unable to contribute large amounts of money donate their time and labor. At the time of our visit a new group of wolves had just been brought in from Canada, and we saw volunteers looking after them, doing so for free. Volunteers were usually students and retired people.

The top leaders of the U.S. Government also take an interest in the park. During the past two years **President Clinton** has visited the park twice and contributed his help as well by taking measurements of dust from a nearby gold mining operation. While we were at Yellowstone, Michael received a personal letter from the President thanking him for a superb job of preserving the park and recounting the President's delight with Yellowstone's natural beauty. In Russia our politicians would use a vacation in the wild to shoot a bear and her cubs in their den!

Our visit to this 125-year-old American park made us think a lot about how to conserve Bryanskiy Les Reserve. For 15 years there have been feeble attempts to establish a national park in the Bryansk region. Sochinskiy was established in 1983 and there are currently 31 national parks in the country. In 1994 our neighbors in Orel succeeded in setting up a park, which is located in the Khotynetskiy area on the Bryansk border. The park's buffer zone is actually in the Karachevskiy area of Bryansk Province.

Just as every American knows Yellowstone, every Russian knows Bryanskiy Les; however, for all its natural, historical, and cultural significance, Bryansk still has no national park. Bryanskiy Les Reserve is doing a good job of protecting a small part of the Bryansk forest, but it can't take the place of a park, because a reserve has different goals and allows no visitors. But we feel the time has come to establish a national park and know the idea has many supporters, including current users of the land where the park would be located.

Yellowstone Wildlife

- | | | | |
|-----------------|-------------------------|-------------------|--------------------------|
| 1 Coyote | 5 Bull Elk | 9 Black Bear | 13 Yellow-bellied Marmot |
| 2 Osprey | 6 Grizzly Bear and cub | 10 Pelican | 14 Pika |
| 3 Mule Deer | 7 Bull Moose | 11 Lesser Scaup | 15 Trumpeter Swans |
| 4 Bighorn Sheep | 8 Uinta Ground Squirrel | 12 Bison and calf | 16 Green-winged Teal |
| | | | 17 Pronghorn |



Illustration by Robert Hynes



Dr. Mark Shaefer, Interim Director
Diane Noserale and
Kathleen Gohn, Bureau Editors

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Director Eaton Retires



Gordon P. Eaton

Director Gordon P. Eaton, who guided USGS through one of the most difficult reorganizations in its history, retired October 1. Eaton was appointed by President Clinton in 1994.

Dr. Mark Shaefer, who has been serving as deputy assistant secretary for Water and Science, was named interim director until a new director is selected and confirmed.

“Under Dr. Eaton’s guidance, the USGS has expanded to become the preeminent science bureau for the Department, one that now encompasses the disciplines of biology, geology, hydrology and

mapping,” Secretary Babbitt said. “In addition, he has been a tireless advocate for the Survey through difficult periods of downsizing, funding uncertainties, and transformation of its mission. I accept his retirement with regret and a great deal of respect.”

“It has been my goal to ensure that the USGS provides relevant science to the American people,” Eaton said in announcing his retirement on September 10. “I believe my job of transforming the USGS into a streamlined, cohesive agency and leading its employees into a more dynamic future has been accomplished. It has been a tremendous privilege for me to serve this Administration, and I have particularly enjoyed working with the very capable employees of the Survey. I leave them with deep respect and heartfelt gratitude.”

As director, Eaton overcame attempts to abolish the USGS while leading the bureau through a significant downsizing and restructuring. Establishing an integrated approach to science, he oversaw the incorporation into the USGS of the former National Biological Service and part of the former Bureau of Mines. A key priority of Dr. Eaton’s was to provide an increased emphasis on the bureau’s responsiveness to customers. Dr. Eaton is the 12th director in the 118-year history of the USGS.

Dakota Flood Workers Lauded

Rebecca Phipps

The flood may be over but the hydrologic work goes on and is more critical than ever. That was the message that Director Eaton gave to the troops in Bismarck on August 1.

In North Dakota to speak to USGS employees, Eaton applauded the work of water resources personnel in the midst of the March-April flooding of the Red River of the North and presented them with a commemorative plaque marking their efforts. The springtime snowmelt flooding broke all previous Red River records by far and kept on rising, causing some of the worst-ever flooding in the state of North Dakota.

“In recent years, the nation has spent roughly \$50 billion dollars annually in loss and recovery from all types of natural disasters,” Eaton said. “This economic cost is a terrible burden, a disaster tax, if you will, that every citizen must pay.”



An important part of the national and international role of the USGS, Eaton stressed, is to learn from past hazards, whether floods, earthquakes or other natural events, to monitor what is happening right now, and to combine all that

Hannah Hamilton

Scientists recently discovered a unique reef in the Florida Keys National Marine Sanctuary. During a reconnaissance survey in a remote area west of the Dry Tortugas National Park in late August, a multiagency search team, organized and sponsored by the U.S. Geological Survey, discovered a deep-water coral reef with spectacular coral cover.

Deep Water Coral Reef Discovered in Florida Keys

Scientists aboard the M/V Tiberun out of Key West were surprised by the reef size and the extremely high (80 percent) coral cover. The reef was unexpected considering its depth at 60 to 100 feet and its location in the Gulf of Mexico. The discovery upsets conventional thinking that coral reefs are restricted to relatively shallow areas of the Florida Keys.

The reef has been overlooked in the past because it appears to be relatively flat on depth sounders and is too deep to see from the surface. The reef was previously known to only a handful of divers, who dubbed it Sherwood Forest because during early morning dives the corals looked mysterious and reminiscent of a forest canopy.

“This far exceeds anything I have seen in the Florida Keys,” said USGS biologist **Steve Walsh**. “It’s a beautiful and healthy system.”

Low light conditions at these depths cause corals to grow in a unique flat plate-like form. The remarkably uniform reef profile at first gives a false impression of a flat bottom, which is in fact five feet above the real bottom. The subsurface of the reef is a maze of valleys and intricate caves and tunnels between corals.

“The corals look like gigantic mushrooms gone wild,” said **Dr. Jim Bohnsack** from the National Marine Fisheries Service in Miami, “but the structural complexity of the reef made ideal fish habitat. When we first descended, it appeared that there were hardly any fish present, but after a few minutes they began popping out of the reef everywhere.”

Researchers were able to conduct only a preliminary survey of the site because of the depth, remoteness, and the high densities of stinging jellyfish in the upper 50 feet of the water column. Several divers suffered painful stings.

Scientists believe that the reef is very old and exists only because of the unique local conditions. Normally clear water allows sufficient light for coral growth, and the depth of the reef apparently protects it from storms and extreme hot summer or cold winter surface waters in the Gulf of Mexico.

Scientists mapped and collected data on coral, sponge, and fish populations from many sites in the Dry Tortugas National Park and the western Florida Keys National Marine Sanctuary. Participating researchers included scientists from the USGS; three agencies of the National Oceanographic and Atmospheric Administration—the Florida Keys National Marine Sanctuary, the National Marine Fisheries Service, and the NOAA Corps; the Southeast Fisheries Science Center; and the Florida Marine Research Institute of the Florida Department of Environmental Protection.

Hannah Hamilton is with the USGS Florida Caribbean Science Center in Gainesville, Florida.

information and real-time data and make it part of the front-line defense that protects public safety and resources all across the country.

“Here in North Dakota, USGS employees were on the front lines, in the deep water providing the information needed by other agencies to provide downstream flood warnings,” Eaton said. “Far away from the television cameras, the USGS employees from North Dakota and eleven other states were in the field and at the computers, working around the clock to keep the information flowing and the gauges working.”

As the nation’s largest water information and science bureau, the USGS maintains about 7,000 measuring stations to provide flood and drought information across the country in cooperation with more than 1,100 federal, state, and local agencies. Nearly 3,000 of these stations are linked by satellite communication to the World Wide Web, www.usgs.gov, where real-time streamflow data are accessible.

Haseltine is Deputy Chief Biologist

Duncan Morrow

Dr. Susan D. Haseltine, a zoologist and former research administrator with the U.S. Fish and Wildlife Service, has been named principal deputy of the Biological Resources Division of the U.S. Geological Survey.

"Sue Haseltine has been a leader in environmental research for years," said Chief Biologist **Dennis B. Fenn**. "We are fortunate to have her skills and experience to draw on." As the new deputy chief biologist for science, Haseltine will provide leadership for research and monitoring programs of the division, which has 16 scientific research centers, numerous field stations, and about 40 campus-based cooperative research units.

Haseltine, a wildlife science graduate of the University of Maine, attained her graduate degrees, in zoology, at Ohio State University. Much of her professional experience was with the U.S. Fish and Wildlife Service, which was then responsible for most of the research facilities now managed by the Biological Resources Division.

She was a researcher, research supervisor, and branch chief in environmental contaminants research at Patuxent Wildlife Research Center in Laurel, Maryland. She has been director of the Northern Prairie Wildlife Research Center in Jamestown, North Dakota; served as assistant regional director of the Fish and Wildlife Service for Refuges and Wildlife in the upper Midwest; and was chief of the FWS Office of Quality Assurance.

Her most recent assignment was as regional chief biologist for the Biological Resources Division's eastern region, which encompasses the entire United States east of the Mississippi River as well as its Caribbean possessions and dependencies.



Sue Haseltine

APPOINTMENTS



Richard Witmer

Witmer Tapped for Chief Geographer

Karen Wood

Director Eaton has announced the appointment of **Richard E. Witmer** as chief geographer and chief of the USGS National Mapping Division. Dr. Witmer, who has been serving as the acting chief of the National Mapping Division, will head the nation's largest civilian mapping program, responsible for providing geographic, cartographic, and remotely sensed information, maps, and technical assistance, and conducting related research in response to national and local needs.

"Dick Witmer has demonstrated outstanding leadership and management capabilities over the last 23 years," said Eaton. "His extensive background and expertise in USGS mapping programs and activities, along with his vision for the future, will help lead the revolution in meeting the national needs for basic cartographic and geographic spatial data."

The National Mapping Division consists of about 1,400 employees in six principal offices nationwide. Over the years, the work has evolved from producing hand-engraved topographic maps to providing computer-based information using rapidly advancing technology such as geographic information systems.

Witmer joined the USGS in 1974, serving as the Geography Program coordinator, where he supervised geographic research projects and interactions with other federal and state agencies. He later served as the chief of the Office of Geographic and Cartographic Research. He has led the USGS in improving access and providing technical assistance for national classified assets to other federal agencies.

Witmer holds a master's and doctorate degrees in geography and geology from the University of Florida.

USGS Joins Lake Tahoe Presidential Forum

Elinor H. Handman

The USGS joined other federal, state, and local agencies and interested citizens in June and July to participate in the Lake Tahoe Presidential Forum—a series of workshops on the Lake Tahoe Basin that culminated in visits by President Clinton and Vice President Gore and the signing of an Executive Order by the President.

The workshops addressed water quality, forest ecosystem restoration, recreation, tourism, and transportation, as they relate to water clarity. Secretary Babbitt co-hosted the forest ecosystem workshop and visited a USGS streamflow gaging station as part of the proceedings.

USGS representatives at the forum included **Tom Casadevall**, regional director for the Western Region, and **Mike Shulters** and **Jon Nowlin**, state representatives for California and Nevada. The forum focused on the Lake Tahoe Basin because its majestic alpine setting and clear water have been affected by human activity.

Lake Tahoe's environmental problems stem from 1858, when clear-cut logging began in support of nearby Comstock Lode mines. Subsequent

population growth resulted in loss of wetlands, erosion, discharge from septic systems, and emissions from automobiles and woodburning stoves. As development increased, an interstate management agency—the Tahoe Regional Planning Agency—was formed, and land-use regulations went into effect. The clarity of the lake, however, continued to diminish.

Since 1987, the USGS, in cooperation with the agency and other organizations, has been monitoring nutrients in stream sediments, streamflow, and ground water tributary to Lake Tahoe. Resource-management agencies use information from the USGS to assess the effectiveness of projects and regulations in the Lake Tahoe Basin. Additional information on Lake Tahoe and USGS work there is available on the Website at www.water.usgs.gov/public/wid/index-state.html#NV

On July 26 President Clinton signed an Executive Order to expand and strengthen coordination among federal agencies, the states of California and Nevada, the Tahoe Regional Planning Agency, and the Washoe Tribe in the basin. The USGS will



President Clinton and Vice-President Gore joined local, state, and other federal officials at the Lake Tahoe forum that discussed ways to better coordinate government and private sector efforts to save the lake.

coordinate the exchange of geographic information system coverages and other digital data and will continue monitoring and disseminating information on the basin's land, water, and biological resources.



GSA, USGS Break Ground for Water Lab

Heidi Koehler

The General Services Administration and U.S. Geological Survey united to break ground on the new USGS National Water Quality Laboratory on August 7. This \$22 million project constitutes the largest addition to the Denver Federal Center in more than 30 years. It will be located in the southwest corner of the complex and is set for completion in June 1999.

"There is an ancient Oriental saying that many a false step is made by standing still," said **Doug Posson**, the USGS central regional director. "It should be clear with the focus of our ceremony today that we are not standing still. Together with our partners and supporters, we begin to take these positive steps to maintain the work and the reputation of the USGS: Science for a Changing World."

When GSA completes the water lab, it will be a state-of-the-art facility for the National Water Quality Assessment Program, which analyzes the quality of our nation's water, and the only facility of its kind in the United States.

The new 145,000-square-foot structure will replace the existing lab in Arvada, Colorado, providing flexibility to serve the USGS mission well into the 21st century. The contemporary design incorporates energy efficiency, functionality, safety, and convenience for the building's 180 occupants.

Representatives from the offices of Congressman **Dan Schaefer**, Senator **Wayne Allard** and Senator **Ben Nighthorse Campbell** attended the ceremony along with more than 200 USGS and GSA employees. **Alden Naranjo**, a member of the Southern Ute Tribe, blessed the site.

From left, Keith Johnson, representing Senator Ben Nighthorse Campbell; Andree Krause, the district director for Congressman Dan Schaefer; (background) Doug Posson, USGS regional director; Barbara McTurk, area director for Senator Wayne Allard; and Polly Baca, GSA regional administrator.

Running with the Wolves

For eleven summers, **David Mech** has “run with the pack.” A wildlife biologist with the USGS Midcontinent Ecological Science Center, Mech is a specialist on wolf biology, ecology, and social behavior.

Since 1986 he has spent his summers observing a pack of arctic wolves in northern Canada to learn how the behavior of individuals within wolf packs affects the dispersal of young wolves. By understanding the social factors affecting dispersal, researchers may be better able to forecast population trends among recolonizing and reintroduced wolf packs.

The study area is located on Ellesmere Island in Canada’s Northwest Territories, about 600 miles from the North Pole. The wolf pack studied contains two to eight adults and yearlings, plus pups, each year. Typically, a wolf pack consists of an alpha male and female, their pups, and several young wolves from previous litters.

Because the Ellesmere Island wolves are isolated from humans contact, they are quite tolerant of human presence and Mech has been able to observe them daily at close distances. This has allowed him to gain several insights into the wolves’ daily activities and social interactions.

The composition of the pack changes annually as pups are born and others disperse. Wolves born into the pack rarely remain longer than three years.



To ensure enough prey to keep their pack going, the wolves on Ellesmere Island maintain a territory of at least 1,000 square miles. They defend their territory by howling, scent-marking, and occasionally chasing off and killing intruders.

Before dispersing, young wolves often attend the den and provide food for the pups. The amount of food these wolves are able to procure for the pups may determine how long they are allowed to remain in the pack—those providing adequate amounts of food for the pups might be allowed to stay with the pack, while others might be driven away.

When the pack does not produce pups, the adults treat the yearlings as pups, keeping them at rendezvous sites part of the time and feeding them. These activities most likely postpone the dispersal of some young wolves.

The information gained from the Ellesmere Island wolf pack has helped the USGS, the U.S. Fish and Wildlife Service, and the National Park Service predict the dispersal trends of newly released

wolves in Yellowstone National Park and other areas, as well as advise on related management decisions involving reintroduced wolves.

This information has also proven useful in selecting individual wolves from packs for restoration efforts. Based upon these behavioral studies, researchers now know it is not necessary to capture both the alpha female and male when relocating packs. A lone male or lone female with pups will often re-mate after being separated from its partner.

Additional wolf research includes studies of genetic diversity, disease, predator-prey relationships, and wolf predation on livestock. Information from these studies assists in the management and restoration of gray wolves in many areas of North America.

Scouts Storm A.P. Hill for National Jamboree



Marion Fisher

The USGS helped educate thousands of Boy Scouts in the earth and biological sciences at the 1997 National Scout Jamboree at Fort A.P. Hill near Fredericksburg, Virginia.

Thousands of scouts and their leaders visited USGS tents in the Conservation Area during the July 28 to August 5 encampment. USGS employees and volunteers discussed birdbanding, well drilling, electrofishing as a research tool, surface water flow, and water quality in the Chesapeake Bay.

The central theme of the USGS exhibit at the quadrennial event was conservation of the Chesapeake Bay. Scouts learned that activities in its watershed, which extends up to central New York, affect water quality and the ecosystem of the bay.

Visual aids included a live American kestrel named Jazz, a drilling rig which dug a well on site, an electrofishing boat, a surface water flume, and a Chesapeake Bay sediment core.

Scouts also participated in chemical testing of the well water and gold panning. The USGS distributed 30,000 birdbands, CD-ROMs describing the work of USGS, and special edition topographic maps of the Fort A.P. Hill area.



At top right, scouts learn the technique of gold panning at a USGS Conservation Area exhibit. At right, Barbara Ryan, USGS associate director for Operations, discusses USGS National Scout Jamboree CD-ROM with Jamboree participants. Above, Hannah Hamilton, USGS Florida Caribbean Science Center, Gainesville, explains the benefits of birdbanding.



More Scouting News, Pages 4-5

Office of Surface Mining



Kathy Karpan, Director
Jerry Childress, Bureau Editor

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Karpan Pledges Strong, Consistent Leadership



Kathy Karpan is congratulated by Secretary Babbitt and Assistant Secretary Bob Armstrong following her formal swearing-in ceremony at Interior. Photo by Tami Heilemann, ISC

confirmed her nomination on July 31. "I intend to earn that confidence by providing strong, consistent leadership for the Office of Surface Mining."

As head of the agency, she has policy and executive responsibility for developing and enforcing surface coal mining regulations under the surface mining law. OSM operates with an annual budget of \$271 million and a work force of 650 employees nationwide. Secretary Babbitt called Karpan "a no nonsense administrator" with the integrity and professional qualifications to carry out the vigorous program at OSM. Karpan served as Wyoming's secretary of state, worked in the state's attorney general's office, and directed Wyoming's largest agency—the Department of Health and Social Services

In one of her first public acts as the new director, Karpan addressed the Association of Abandoned Mine Land Programs annual meeting in Davis, West Virginia, on August 19 and presented the 20th Anniversary Abandoned Mine Land Reclamation awards to regional and national winners, including:

National and Appalachian Region—Pennsylvania Bureau of Abandoned Mine Reclamation's Upper Leigh Project, which reclaimed an abandoned anthracite mining site containing dangerous underground mine openings, highwalls, water pits, and large spoil banks that posed a threat to citizens of the area; **Mid-Continent Region—Texas Surface Mining and Reclamation Division's ALCOA Project**, which has reclaimed more than 1,000 acres of mine spoil and dangerous impoundments into valuable land that today is a prime source of hay for local livestock; and, **Western Region—Utah Abandoned Mine Reclamation Program's Silver Reef Project**, for reclaiming the historic mining district with more than 500 mine openings. Reclamation included installation of grates which preserved the habitat of a large colony of Townsend's big-eared bats.

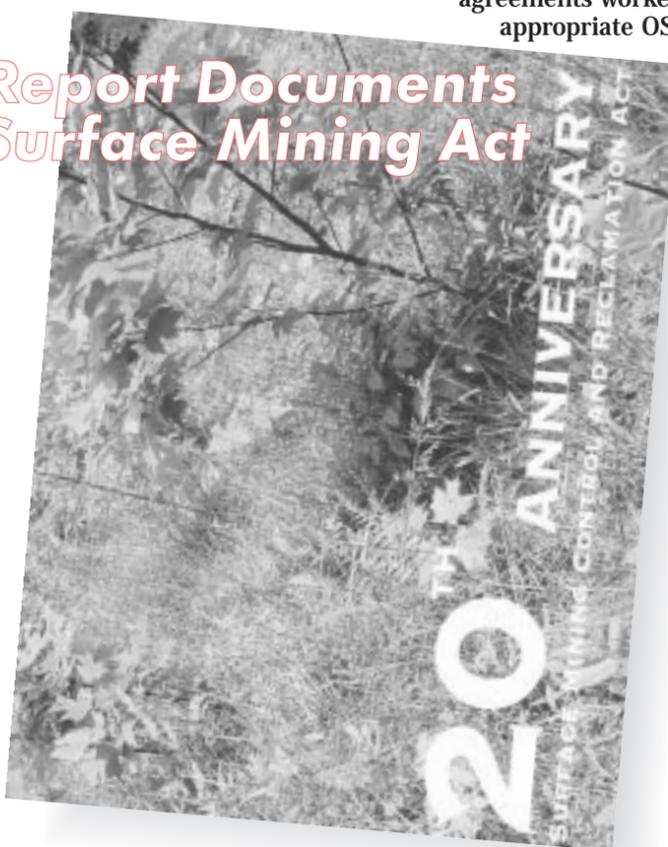
20th Anniversary Report Documents Successes Under Surface Mining Act

OSM is distributing a *20th Anniversary Report* which describes the accomplishments of the Surface Mining Control and Reclamation Act's regulatory and abandoned mine reclamation programs.

Part One of the full-color, 36-page report presents chapters on the Surface Mining Law, how its programs are carried out, and short case studies showing active mining operations that have achieved or surpassed what the act's architects envisioned. It presents a view illustrating on-the-ground conditions of surface coal mining at the 20th anniversary mark.

Part Two, *Surface Coal Mining Reclamation: 20 Years of Progress, 1977-1997*, which will be published in November, provides statistical information, including state and national statistics for coal production, number of mines, enforcement actions, inspections and citations issued, acreage permitted, acres of reclamation bonds released, and abandoned mine land reclamation accomplishments.

For copies, write to the OSM Office of Communications, 1951 Constitution Avenue N.W., Washington, D.C. 20240; or call (202) 208-2719. The report, which is at OSM's World Wide Web site—www.osmre.gov—may also be ordered electronically at the web site.



OSM's 20th Anniversary Report details the protection and restoration of the nation's land and water resources under the surface mining law.



OSM's award-winning oversight team includes, from left, Michael J. Sponsler, James F. Fulton, Gregory E. Conrad, (Assistant Secretary Armstrong), James W. Carter, (former acting director Henry), Ervin J. Barchenger, Richard G. Bryson, Mary Josie Blanchard, Arthur W. Abbs, and Daniel L. Schrum. Photo by Tami Heilemann, Interior Service Center

OSM Team Honored

OSM's new results-based oversight strategy is "a model of what President Clinton and Al Gore have in mind when they talk about reinventing government," said Bob Armstrong, assistant secretary for Land and Minerals Management.

Armstrong presented OSM's Oversight Steering Committee, which developed the initiative, with Vice President Al Gore's Hammer Award at ceremonies in the OSM director's office. Armstrong also presented each member with a hammer lapel pin and certificate signed by the Vice-President. Team members are: **Mary Josie Blanchard, Arthur W. Abbs, Richard G. Bryson, Michael L. Sponsler, James F. Fulton, Gregory E. Conrad, James W. Carter, Ervin J. Barchenger, and Daniel L. Schrum.**

Made up of seven OSM employees and three state surface mining regulation representatives, the team reinvented the process OSM uses to meet its responsibilities for oversight of state regulatory programs. The government-wide reinvention program is coordinated by the Vice President's National Performance Review (NPR). Armstrong pointed out that the initial NPR recommendations in 1993 called for OSM, in consultation with state surface mining regulators, to develop national standards of excellence for regulatory programs, establishing goals, performance measures, and a process for evaluating effective performance.

OSM's initiative to reengineer its oversight policies and procedures took off in May 1995 when an OSM/state team developed the framework of a new oversight strategy. Under the new strategy, which went into effect in 1996, oversight is no longer rigidly formulated or driven primarily by centralized mandates based on arbitrary processes and procedures. Instead, based in part on comments OSM seeks from various interest groups and the public, OSM and the states develop specific evaluation plans tailored to the unique conditions of each state program and governed by performance agreements worked out by each state and the appropriate OSM field office.

Under the new results-based strategy, OSM's oversight evaluation activities focus primarily on end results and the on-the-ground success of states in meeting the surface mining act's environmental protection standards.



Former OSM Acting Director Kathrine L. Henry receives a Special Recognition Award for her leadership during the transition period between the resignation of former Director Bob Uram in September of 1996 and the recent appointment of Kathy Karpan. Photo by Tami Heilemann, ISC

Clean Streams Team Praised

OSM's Appalachian Clean Streams Initiative Team was nominated for the 1997 Department of the Interior Environmental Achievement Award for its activities aimed at cleaning up thousands of miles of streams polluted by acid mine drainage.

According to **Willie R. Taylor**, director of Interior's Office of Environmental Policy and Compliance, an awards committee consisting of representatives of Departmental bureaus and offices (including **Suzy Hudak** from OSM's Division of Technology Support) reviewed more than 25 nominations.

Though OSM was not an award recipient, Taylor commended the team members for their efforts in support of pollution prevention, waste reduction, recycling, and acquisition of environmentally preferred products and

National Wildlife Refuge Week

Janet Tennyson

From the icy Arctic Slope of Alaska to the gentle waterfalls of Hawaii's Kauai island; From the vast yucca forests of Nevada to the moss-draped cypress stands of Louisiana; From the prairie pothole-studded Dakotas to the eerie Okefenokee swamp on the Georgia-Florida border; The 92-million-acre National Wildlife Refuge System hosts some of the most remarkable landscapes on Earth.

The diversity of these habitats is matched only by the variety of wildlife that depend on them. Wildlife spectacles abound on the 511 refuges and 38 wetland management districts in the United States, most notably on the scores of strategically located waystations along the four major migratory bird flyways that cross the nation.

About 60 of the national wildlife refuges also are havens for 200 plant and animal species that are protected under the Endangered Species Act. Other national wildlife refuges are home to populations of big game like bison, elk, antelope, big horn sheep, and caribou. Countless other species make their homes on refuges, from wildflowers to Kodiak brown bears, turtles to trumpeter swans, salmon to white-tailed deer.

This combination of Wild Places and Wild Things draws nearly 30 million visitors annually to enjoy wildlife-watching, hiking nature trails, fishing, hunting, nature photography, and environmental education. Many of the refuges are within a hour's drive of major cities.

"National wildlife refuges offer some of the most outstanding ways for Americans to enjoy the outdoors," says Jamie Rappaport Clark, director of the U.S. Fish and Wildlife Service.

The National Wildlife Refuge System, begun in 1903 by President Theodore Roosevelt, is the only network of federal lands specifically dedicated to wildlife. It also is the largest and most diverse system of its kind in the world—a model for other nations that are developing wildlife refuges and preserves.

A high point of the visitor year for refuges is National Wildlife Refuge Week, October 12-18, when the Service showcases the critical role the refuges play in conservation and recreation and builds public understanding and appreciation for this unique part of our natural heritage.

"We hope the American people will consider National Wildlife Refuge Week an open invitation to come learn about and enjoy our rich wildlife resources on the refuges," says Clark. "I'd like to think people also will come away with a respect and appreciation for the system and its wildlife conservation mission. I'm convinced that as people better understand the connection between ecosystem health and quality of life, our success at managing for ecosystems and ensuring economic viability will continue to increase."

Hundreds of America's national wildlife refuges will host special events to mark Refuge Week, including fishing derbies, nature walks, birding tours, special hunts, nature photography, wildlife art contests, and environmental education programs. But in case you can't make it to any of these Wild Places, we'd like to bring some of them to you. Imagine you've decided to take a two-week tour to several refuges around the country and to keep a journal. It might read like this:

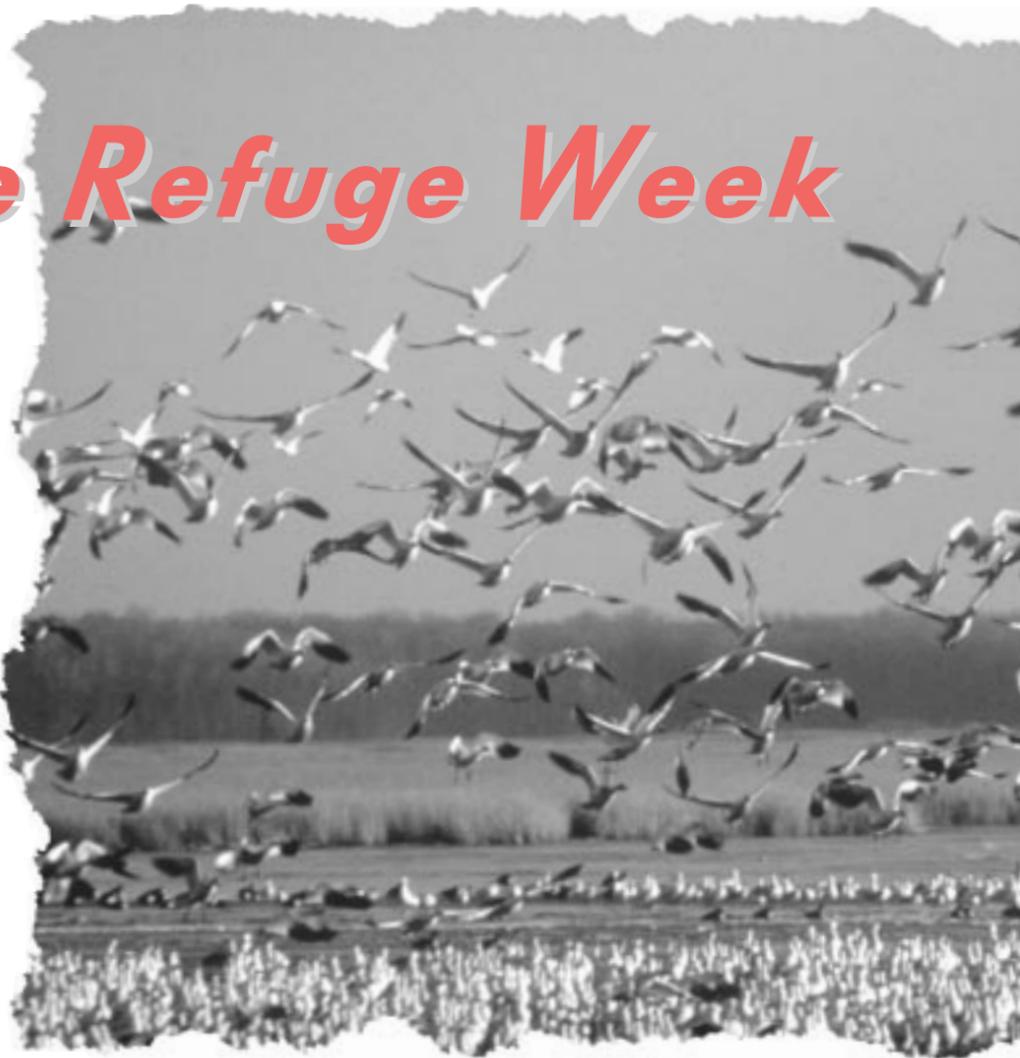
North to Alaska

Day 1: Decided to begin my National Wildlife Refuge System tour at **Izembek National Wildlife Refuge** in Alaska, where nearly the entire world's population of black brant stopover before heading south for winter. Packed my rucksack, flew into Cold Bay, and headed for Izembek.

Day 2: Arose just before sunrise to a cool misty morning, packed up and set out for Izembek Lagoon. Sat on a bluff watching the thousands of brant grapple and honk at one another while feeding in the eelgrass beds. Thousands more blacked out the skies overhead as they looked for open space below. Their sheer numbers were a spectacle to behold, both in sight and sound. Thought about what might have become of these geese if the refuge—their stepping stone—hadn't been here. In a couple of months, they'll be stopping over at California refuges on their way to Mexico where they'll spend the winter.

Day 3: Trudged through fog-filled valleys of Frosty Peak listening to whistling in the wings of snipe and the clucking of ptarmigan, but what I thought about more was what sounds I didn't hear—traffic, airplanes, and televisions. Came across several porcupine and even a red fox. At one point, I could hear howling in the distance. Photographed dozens of songbirds, including golden-crowned sparrows, hermit thrushes, fox sparrows, savannah sparrows, yellow warblers, and Wilson warblers.

Day 4: Packed up my fishing gear and hiked over to Frosty Creek, which was clean and clear from glacial runoff. There I meditated at the swoosh of my fly rod while casting for pink salmon. But I wasn't the only one interested in them. Had to keep an eye out for Alaska's huge brown bears, and sometimes I stopped casting and watched what must have been dozens bald eagles soaring overhead, listening to their piercing high-pitched cry.



Fall and spring are the best times to see annual spectacles at national refuges that serve as waystations for waterfowl and other birds on their migrations.



Above, the scenic beauty of Izembek NWR draws visitors from around the world. At right, more than a million hunters are drawn to the refuges by recreational hunting programs. Below, four national wildlife refuges are home to the bison—the National Bison Range in Montana, Fort Niobrara National Wildlife Refuge in Montana, Wichita Mountains National Wildlife Refuge in Oklahoma, and Walnut Creek National Wildlife Refuge in Iowa. At far right, the eerie beauty of a wooded refuge.



Above, snow geese take flight at Bombay Hook National Wildlife Refuge in Delaware. The refuge also is an excellent place for hunting snow geese, ducks, and white-tailed deer.

South by East to the Heartland

Day 7: Drove along the self-guided auto tour route through an exhibition pasture at **Fort Niobrara National Wildlife Refuge** in Nebraska, where I saw enormous herds of buffalo kicking up dust on the prairie grasslands just as they did hundreds of years ago.

Heard the courtship bugling of bull elk, and watched the carefree meandering of one of the last remaining herds of Texas longhorn cattle. Took a few minutes to tour the old hay barn—an historic landmark and the only remnant of the old frontier fort. Continued my drive along the rushing Niobrara River, taking in the brilliant oranges, yellows, and reds of cottonwoods, fir oak, and ash. Stopped at the canyon overlook next to Fort Falls, the second largest waterfall in the state.

I was thinking how unique this refuge is as I gazed for a long time over the Fort Niobrara wilderness area, studying the unique geological formations where six different ecosystems come together. In one spot you can see eastern deciduous forest, western coniferous forest, northern boreal forest, tallgrass prairie, mixed grass prairie, and the sandhills. Took a short hike on the nature trail, where I saw several scurrying porcupine, a loping, lone coyote, and lots of deer, whose white tails mockingly waved at me as they bounded away.

Day 8: Drove west a few miles to hit **Valentine National Wildlife Refuge**, considered one of the best fishing hotspots for trophy bluegill and northern pike in the state. Spent the early morning fishing at 800-acre Pelican Lake. Managed to land a 36-inch northern on a swimming plug and a bluegill in the two-pound range.

Day 9: Walked the seemingly endless rolling and ruggedly beautiful sandhills in pursuit of sharp-tailed grouse and prairie chicken. The solitude of my trek was interrupted only by the raucous flocks of ducks and geese overhead.

The Great Lakes and Bay States

Day 12: Arrived at **Seney National Wildlife Refuge** in Michigan's Upper Peninsula after a peaceful drive from Marquette. Drove the seven-mile Marshland Wildlife Drive under sunny blue skies intensifying the brilliant fall golds and scarlets of aspens, birches, tamaracks, and maples. A lot of different habitats are here—marshes, pine forests, meadows, and open water.

Stopped several times along the route at pools to watch the graceful loons, but caught mostly just glimpses of them before they dove underwater. Saw several sandhill crane groups foraging in the mudflats, trumpeter swan families tipping for underwater plants, and a bald eagle in a tree near its nest. It was easier to see a lot of this because observation decks with telescopes were built along the drive.

Day 13: Today I decided to take a long hike along the gravel roads through the more remote areas of the refuge where I was told I'd see lots of wildlife. Ruffed grouse whirred their wings as they flushed, and several otters seemed oblivious to my presence. The grand finale occurred when, just as I was heading back, a black bear crossed the road not 50 yards in front of me. I was so surprised, I stood agape for several minutes as it sauntered away.

Day 14: Today I headed for one of the most visited refuges, **Chincoteague National Wildlife Refuge** in Virginia. Was amazed at how much the refuge seemed to be such an integral part of the community as I walked through the town of Chincoteague.

Day 15: Rose early and rented a bike so I could take the circular road around the refuge's huge water impoundment. Spent the better part of the morning taking photographs of the large concentrations of snow and Canada geese, brant, northern shovelers, mallards, and green-winged teal. Saw several threatened peregrine falcons and red-tailed hawks in the skies overhead.

Later, took a walk on one of the many nature trails, heading for the beach. On the Woodland Trail I watched the famous wild ponies—remnants of Spanish shipwrecks in the 1500s and the inspiration for the book, *Misty of Chincoteague*. Several of them grazed side-by-side with small sika deer. On the beach, chatted with some surf-fishermen about the day's catch, and watched groups of dolphins diving in the surf before heading for the Assateague Lighthouse for a tour. On the way back, I thought I saw an endangered Delmarva Peninsula fox squirrel—much larger than I had thought—scamper through the forest.

Day 16: I wish my refuge tour wasn't over, just thinking about all the other beautiful national wildlife refuges yet to see. But even if I don't get the opportunity to see many more, I'm glad to know there are special places all across the country where wildlife reigns supreme. Thinking back on it, **President Teddy Roosevelt** had amazing foresight to understand the importance of setting aside areas for conservation—to preserve as a priceless heritage for future generations all of the delicate beauty of the lesser, and burly majesty of the mightier, forms of wildlife.

Special thanks to **Tina Dochat, Patricia Fisher, Royce Huber, Craig Rieben, Mike Tansy, Angela Tracy, and Tracy Schafer** for their assistance with this feature. Janet Tennyson is a public affairs specialist at FWS headquarters in Washington, D.C.

For more information on the National Wildlife Refuge System, call (800) 344-WILD. You also can visit the Service's homepage at www.fws.gov and click on the National Wildlife Refuge System.



Above, left to right, whooping cranes take flight over Aransas National Wildlife Refuge in Texas, while a North American wolf surveys its domain. Black-footed ferrets and the moss-draped cypress stands of Louisiana offer a spectacular experience for visitors. Many refuges are home to elk and big horn sheep. Others abound in wildflowers and nature photographers. Grizzly bears and manatee are among the threatened and endangered species that find a home at national refuges.



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A Great Day at Black Rock

June Gray

The renovation of a tribally owned dam by a tribally owned construction company that is staffed entirely by tribal members is the type of cooperation Native Americans want to see more of in the future.

The Zuni Pueblo's \$13 million renovation of Black Rock Dam in northwestern New Mexico is one of the largest Safety of Dam Projects ever attempted under the Indian Self-Determination Contract Act (Public Law 93-638). Tribal and BIA officials believe this landmark project can be used as an example by other tribes and government agencies to strengthen and develop their government-to-government relationships.

The most significant aspect of the initiative is that the Zuni Pueblo subcontracted the construction work to the Laguna Construction Company, a wholly tribally owned corporation of the Laguna Pueblo. The subcontract is the largest undertaking and one of the most complex ever entered into by two tribes. There also are economic benefits for Zuni tribal members, as about 35 Zuni laborers were hired for the project.

Black Rock Dam was built in 1908. Originally known as Zuni Dam, it stores irrigation water for the Zuni Pueblo. Located just upstream from the Pueblo on the Zuni River, the dam and its accompanying reservoir were one of the most expensive early 20th century projects undertaken by the U.S. Indian Irrigation Service for the Pueblo people. Black Rock Dam is technically significant because it is one of the few hydraulic-fill storage dams built outside of California.

Unfortunately the structure was plagued by an unstable foundation and extraordinary level of siltation. These problems were not only a safety concern for many years but also limited the ability of the dam and reservoir to fully support the irrigation-based agricultural economy of the Zuni Pueblo.

"Farming has been a strong Zuni tradition for more than 2,000 years," explained Councilman **Augustine A. Panteah** at a March 21 ceremony marking the start of the project. "Some of our people are going back to farming and we're going to need a lot of water to irrigate our fields."

The project has been a top BIA priority for the past year. The two affiliated superintendents, **Michael Hackett** from Zuni, and **Arthur (Butch) Blazer** from Laguna, helped to initiate the dialog between the two Pueblos. **Donald Whitener**, BIA deputy area director, provided invaluable technical assistance during the preliminary planning stages by signing the Major Agreement. **Rob Baracker**, BIA area director, supported the project with all of the area office's resources.

"New levels of cooperation and partnership have been accomplished as the Tribes move toward self sufficiency, by supporting and working with each other

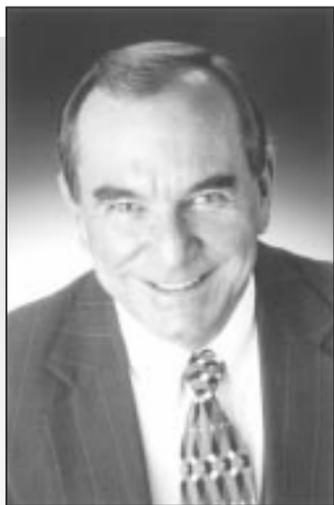
Toya Elected Chairman of Education Commission

Ronald Toya, a management analyst in BIA's Albuquerque office and a member of the Jemez Pueblo, was recently elected chairman of the New Mexico State Commission on Higher Education.

The 15-member commission sets policy and makes budget recommendations for the state's higher education system. That responsibility encompasses establishing the overall vision and direction for the system and assuring equitable funding, including the approval of institutional operating budgets. There are 25 schools in the system, including four-year universities, two-year community and branch colleges, and vocational schools. The system also is responsible for licensing and overseeing private schools.

The commission is appointed by the governor and confirmed by the state senate. Ron was appointed by **Governor Bruce King**, a Democrat, in 1990 and reappointed by **Governor Gary Johnson**, a Republican, in 1995. Toya's term expires in 2001.

Under Toya's chairmanship, the commission sponsored an historic meeting on the higher education issues of Indian students in New Mexico. The September 12 gathering at Acoma Pueblo was the first commission meeting held on an Indian reservation in the state.



'By Indian People For Indian People'



Zuni Tribal Councilman Gus Panteah, center foreground, leads a delegation of Zuni and Laguna Pueblo officials at the March 21 ground-breaking ceremony for the Black Rock Dam. In back row, from left, are Jo Beth Mays, Carleton Quetawki, Neal Kasper, Michael Hackett, Harry Chimoni, and Bob Baracker.



in a highly technical field," said Baracker, emphasizing the significance of this partnership.

The other BIA office actively involved was the Zuni Agency. The office's roads and natural resources branches have worked closely with the Zuni Tribe in performing preparatory work for the renovation. **Ernie Mackerl**, BIA roads foreman, directed the construction of the access and haul road for the project. **Steven D. Davis**, natural resource manager, helped in obtaining the necessary permits and completing the required environmental documentation. Without the agency's hard work and dedication, the start of the project would have been significantly delayed.

Superintendent Hackett best characterized the overall feeling about the project when he described it as a win-win situation for both Pueblos. "It has been a tremendous team effort as it provides for the completion of a major construction project through the use of a tribally owned company and the utilization of a large number of Zuni tribal members," Hackett said. "It clearly shows that the Zuni Tribe supports the concept of self-determination and has the technical abilities to complete the task."

The governor of Zuni, **Donald F. Eriacho**, called the partnership "a first and historic occasion, where two tribes have gotten together to undertake a project of this importance. A project conducted by Indian people for Indian people. It has been a long time coming, we are glad that the dam will finally be renovated for the safety and well being of our people. The renovation will ensure the continuation of our Zuni farming tradition."

Roland Johnson, governor of Laguna Pueblo, agrees. "We hope to keep this working relationship on-going," he said. "It represents an excellent example of how tribes have begun coming together."

June Gray is with the BIA office in Albuquerque, New Mexico.

The Problems with Black Rock Dam

The renovation will correct four principal problems: excessive seepage of water through the dam and underlying foundation; inability of the existing spillway system to safely pass the magnitude of floods generally considered appropriate by today's engineering standards; deterioration of the existing intake tower and the outlet conduit beneath the dam; and limited operating capabilities due to siltation in the reservoir.

Engineering and design services are being provided by GEI Consultants, Inc. A Historic American Engineering Record report of the dam was conducted. All renovations are being planned for minimal impact on the appearance of the structure. The original, historic rock face of the dam will be preserved.

The project is expected to take about a year to complete. Irrigation water will not be available to the Zuni Pueblo while the dam's tower and tunnel are renovated. Although irrigation concerns were important, the primary reason for the renovation is to correct safety problems. There are several farms in the flood plain beneath the dam. For more information about the project, please contact the office of the governor of Zuni Pueblo at (505) 782-4481.

New Mexico Gaming Pacts Up the Ante

New Mexico's Indian tribes won a key victory recently when **Secretary Babbitt** allowed state compacts legalizing tribal casinos to become law without his approval. Rejecting the compacts might have forced the casinos to close, while approving them would have tied the tribes to paying New Mexico's demand for a large share of tribal gaming profits.

The Secretary's action allows the casinos to stay open while tribal and state leaders consider options, including negotiating new terms for the compacts. Under the Indian Gaming Regulatory Act, the Secretary was authorized to approve or disapprove the state's proposed gaming agreements with eleven tribes.

"I believe the decision to let the 45-day statutory deadline for approval or disapproval of the compacts expire is, on balance, the most appropriate course of action," Babbitt said in his August 23 announcement, citing the unique history of federal, state, and legislative actions and court cases that have shaped the course of Indian gaming in New Mexico.

"I have strong concerns about the legislatively-mandated compacts that appear to put New Mexico tribes in an untenable situation," Babbitt explained. "On one hand, they are expected to agree to a number of burdensome conditions that go well beyond the scope of any of the 161 [gaming] compacts that are now approved between states and tribes in this country.

"On the other hand, if the tribes do not agree to these conditions or if the compacts are disapproved, existing gaming establishments may be threatened with closure, causing them to suffer immediate and enormous economic hardship," Babbitt said. "Shut-downs would also create hardships for non-Indian employees and threaten the economic well-being of surrounding communities."

Babbitt's most serious concern is the state's insistence that the tribes make large gaming-profit payments. In a letter to New Mexico **Governor Gary Johnston**, Babbitt's objected to the state's requirement that the tribes pay 16 percent of their slot machine profits (an estimated \$34 million



annually), in addition to a \$6 million a year regulatory fee.

"These payments seem to go well beyond Congress' intent in the Indian Gaming Regulatory Act," Babbitt said, pointing out that the law prohibits states from imposing taxes, fees, charges, or other assessment upon Indian tribes, beyond reimbursement for the cost of regulating Indian gaming activities.

"A major Congressional purpose in passing the Act was to better the economic conditions of some of this nation's poorest citizens," the Secretary noted. The Act explicitly provides that proceeds of Indian gaming activities be dedicated to governmental and social services for the tribe.

To date, the Department has approved gaming-related payments to a state in only a handful of cases. In those instances, the state has agreed to provide the tribe substantial "exclusivity," by

prohibiting non-Indian gaming from competing with Indian gaming or by agreeing to relinquish payments if non-Indian gaming is permitted by the state in the future. The New Mexico pacts do not offer the tribes significant competitive advantage, because the state permits slot machine gambling at race tracks, veterans and fraternal clubs.

"It is my hope that the detailed explanation of the Department's objections and concerns will encourage the state and tribes to enter into genuine negotiations to seek a satisfactory resolution of these issues," Babbitt said.

New Mexico tribal leaders, who had signed the proposed compacts under protest, welcomed Babbitt's decision. "The state process did not allow negotiations as to whether the tribes agree to that 16 percent," said **Frank Chaves**, co-chairman of the New Mexico Indian Gaming Association. New Mexico Governor Johnston has urged the state legislative to accept less money from tribal casinos, rather than risk losing all such payments if the courts subsequently rule against the state.

Indian gaming has been in dispute in New Mexico for the past decade. Fourteen tribes signed compacts in 1995, providing for a 3 to 5 percent state share of gaming profits. Those pacts were ruled illegal by state and federal courts. Indian casinos have been allowed to remain open while the tribes appeal those rulings to the U.S. Supreme Court. Other states where Indian tribes operate casinos are watching the controversy closely because it could set a precedent on tribal gaming profits going to state coffers.

Five Named to Repatriation Committee

Secretary Babbitt has named five members to the Native American Graves Protection and Repatriation Review Committee: **Dr. Tessie Naranjo, Dr. Martin Sullivan, Dr. James Bradley, Mr. Armand Minthorn, and Dr. John O'Shea.**

The appointees were selected from among nominations the Secretary received from Indian Tribes, Native Hawaiian organizations, national museums, and scientific organizations. Drs. Naranjo and Sullivan, who were original members of the committee, were reappointed for three year terms to ensure continuity. Drs. Bradley and O'Shea and Mr. Minthorn are new members appointed for six year terms.

The seven-member committee, which includes **Mr. Lawrence Hart**—a Southern Cheyenne traditional religious leader appointed in 1996, helps to carry out the Native American Graves Protection and Repatriation Act. The law requires federal agencies and museums that receive federal funds to provide information about Native American human remains and cultural objects in their collections mandates that those items be returned to family or tribal members when the circumstances warrant.

Naranjo, who is a member of the Santa Clara Pueblo in New Mexico, is a founding board member of the Keepers of the Treasures, a native cultural council dedicated to the preservation, celebration, and enhancement of Native American cultural heritage. Sullivan is the director of the Heard Museum in Phoenix, Arizona, and a founding trustee of the American Indian Ritual Object Repatriation Foundation. Bradley is director of the Robert S. Peabody Museum of Archaeology at Phillips Academy in Andover, Massachusetts.

Minthorn serves on the board of the Confederated Tribes of the Umatilla Indian Reservation and is a traditional religious leader of the Umatilla Longhouse. O'Shea is curator of Great Lakes Archaeology and Professor of Anthropology at the University of Michigan Museum of Anthropology.

Cherokee Leaders Agree to Resolve Constitutional Crisis for Oklahoma Nation

Principal Chief Joe Byrd, members of the Cherokee Nation Council, and Secretary Babbitt signed a landmark agreement at Interior Headquarters on August 25, establishing a framework to resolve six months of conflict that divided the Cherokee Nation and government.

The agreement was negotiated under the leadership of Secretary Babbitt and included a marathon eight-hour negotiating session on August 22. Babbitt expressed his fervent hope that this common-sense and rational approach would ultimately prevail. The Cherokee Nation is America's second largest tribe with 182,000 members.

The crisis began in February, when Principal Chief Byrd dismissed most of the tribal police force, obtained the impeachment of the tribe's three-judge tribunal, and closed the courthouse. His actions, taken in response to investigations into alleged financial wrongdoing in Byrd's administration, were denounced as illegal by tribal factions opposed to Byrd. The chief said there had been no wrongdoing in his offices and that the allegations came from disgruntled allies of candidates he had defeated in a 1995 election for principal chief.

Chief Byrd and the tribal leaders endorsed the agreement, urging citizens of the Nation to use the Cherokee National Holiday celebration as "an appropriate occasion to mark the beginning of a process of reconciliation and healing." They also urged citizens to avoid political demonstrations or

other unrest, and Chief Byrd agreed to forego political speeches during the celebration.

Major provisions of the agreement include the reopening of the Cherokee Courthouse in Talequah, Oklahoma; the acceptance by Chief Byrd of the opinion of the independent Massad Commission that that the Chief's removal of the tribal justices from office was improper; and an agreement to permit the justices to reoccupy their chambers and exercise the powers accorded the tribunal. The commission concluded that a legal quorum was not present at the May meeting in which eight members of the 15-member Tribal Council voted for the judges impeachment.

The Interior-brokered agreement also includes a moratorium on writs, suits, and other legal actions related to the present Cherokee constitutional crisis until the Council acts upon the Massad Commission Report.

In addition, the agreement provides that Chief Marshal **Pat Ragsdale** would be reinstated with back pay and placed on administrative leave pending final action on the Massad Report. Marshals who served under Ragsdale would be offered tribal employment as marshals with back pay. The BIA would undertake a routine certification process, authorized under the Indian Law Enforcement Act, for all Cherokee tribal marshals and begin an orderly transition from the law enforcement it had been providing to the Cherokee Nation.

National Park Service



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The award-winning visitor center at the Martin Luther King Jr. National Historic Site in Atlanta, Georgia.

The 1996 Director's Awards



The 1996 Director's Award For Natural Resource Management was presented to **Kenneth J. Czarnowski**, hydrologist at Rocky Mountain National Park. Ken has been extremely effective in resolving numerous complex natural resource issues, primarily dealing with water rights. He has been creative in addressing issues at the park, which included negotiations with the Bureau of Reclamation and other parties. His efforts resulted in the ultimate redirection of water to its natural drainage and restoration of a high altitude wetland in the park.

The 1996 Director's Award For Superintendent of the Year for Natural Resource Stewardship went to **Alan O'Neill**, superintendent, Lake Mead National Recreation Area. Alan has provided outstanding leadership in building a professional resource management program at Lake Mead. He has also provided leadership in the initial phases of the California Desert Ecosystem Management Initiative, a complex interagency framework for over 25 million acres of public lands.



The 1996 Director's Award for Natural Resource Research was awarded to **Gary E. Davis**, for his efforts as research marine biologist at the USGS Biological Resources Division, California Science Center. Gary has since returned to the NPS as a senior scientist at Channel Islands. Gary has inspired and led his scientist and land management colleagues to advance ecological monitoring and scientifically based ecosystem management as a reliable and cost effective tool.

The 1996 Director's Appleman-Judd Award for outstanding service in cultural resource management went to **John M. (Jake) Barrow**, supervisory exhibit specialist at the Intermountain Cultural Resource Center in Santa Fe. Jake has been instrumental in a series of important multi-year projects and field schools for structural conservation at parks such as Fort Union and Hot Springs. Jake's accomplishments address cultural resource issues of preservation and conservation at many parks throughout the U. S. Southwest, where issues of the deterioration of cultural resources—primarily earth, stone and wood—are critical.



The first *Trish Patterson-Student Conservation Association Award* was presented to **Zandy Marie Hillis-Starr**, biological technician at Buck Island Reef National Monument in the U.S. Virgin Islands. This new award, which was created this year in conjunction with the Student Conservation Association, honors the achievements of those who work with limited budgets and staff to understand and manage resources at smaller parks. They do so with little recognition and often with less ability to compete for fiscal resources and outside assistance.

Zandy Marie's contributions include the establishment of a sea turtle monitoring program that has received national and international recognition. She instituted a program with volunteers and visiting scientists to document the effects of Hurricane Hugo (1989), establish baseline conditions, and monitor subsequent reef recovery. Information derived from her sea turtle program has been used to support continued listing and protection of the hawksbill sea turtle under the Endangered Species Act. The honor also benefits the park in which the recipient works. As part of the award, the Student Conservation Association will cover the expenses of a seasonal resource assistant in the award recipient's park.

The award is named for former NPS employee **Trish Patterson**, a Southeast Regional Office employee who made special efforts to assist the numerous small parks in her region. She died in a 1995 automobile accident.



King Site Honored For Excellence

The **Martin Luther King Jr. National Historic Site** (located in Atlanta, Georgia) has been honored with two design excellence awards for new visitor facilities that opened last summer. **Ralph Applebaum Associates**, the New York firm that designed exhibits in the park's visitor center, received a 1997 Industrial Design Excellence Award at the annual conference of the Industrial Designers Society of America in Washington, D.C., in late June. National award winners—142 in all—were featured in the June 2 issue of *Business Week* magazine. And at its annual awards ceremony, the Atlanta Urban Design Commission gave the park its Award of Excellence for restoration of Atlanta Fire Station No. 6, now a fire museum complete with a 1927 Le France fire engine and upstairs office space for the park's interpretive staff. The public affairs contact is **Paul Winegar** at (404) 562-3103.

AROUND THE PARKS

Moving Cape Hatteras Light

For more than 125 years the **Cape Hatteras Lighthouse** helped provide safe passage to sailors and their ships. However, over time, with island migration and storms, the ocean has inexorably moved closer to the lighthouse, threatening the historic structure. The ocean once stood 1500 feet from the structure. It now stands within 120 feet. Steps must be taken to preserve the lighthouse. The National Park Service, the National Research Council of the National Academy of Sciences, and North Carolina State University all agree that moving the lighthouse and other historic structures in the light station complex is the best long term solution. If funding is available in fiscal year 1998, the target date for the lighthouse's relocation is April-May 1999. Meanwhile, the structure will need to withstand two more hurricane seasons and an additional two nor'easter seasons. The program contact is **Andrew Kling** at (919) 995-4474.

Gran Quivira Visitor Center

The Gran Quivira Visitor Center in **Salinas Pueblo Missions National Monument**, New Mexico, embodies the latest in sustainable design concepts. The walls of the new building are constructed from blocks manufactured from a mixture of recycled Styrofoam and cement. Voids within the blocks were filled with concrete and re-bar for thermal mass and strength. The 1800-square-foot visitor center and adjacent restroom building incorporate a passive solar design, low voltage lighting, recycled floor tiles, and high efficiency windows. The facility, which opened June 26, incorporates a 1.5 KW photovoltaic system, to convert solar power to electricity to operate the building. The program contact is **Mike Schneegas** at (505) 847-2290.

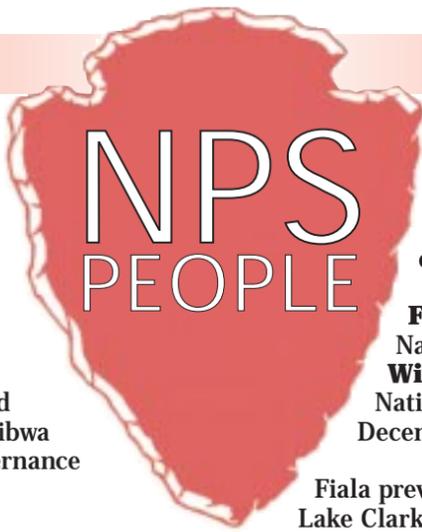
Knoxville Visitor Center Underway

The **Gateway Pavilion**, a new multi-agency, regional visitor center in downtown Knoxville, Tennessee, is the result of a partnership between the National Park Service, the City of Knoxville, the U.S. Department of Energy, Lockheed Martin Corporation and the American Museum of Science and Energy. It will be operated by the Park Service, through the Great Smoky Mountains Natural History Association, with additional staff support from the other partners. Exhibits will feature natural and technological resources in the region and supply visitors with information on nearby park sites and other tourist attractions. The visitor center, which is expected to open next May, is being constructed by the City of Knoxville. Work began June 17. Lockheed Martin is making a substantial donation to fund the center's operational expenses. The public affairs contact is **Bob Miller** at (423) 436-1208.

Special Recognition

Mountaineering ranger **Roger Robinson**, Denali National Park (Alaska), received the Oregon American Alpine Club's Washburn award at the Talkeetna Mountaineering Center on June 14th. Robinson is the first recipient of this award. He was chosen by the club for his long-standing reputation as a world class mountaineer and for outstanding climbing leadership. Robinson has been patrolling Mt. McKinley for 18 years; on June 4th, he reached the mountain's summit for the seventh time—but the first time since receiving a kidney transplant four years ago.

New Superintendents Appointed



Timothy Cochrane, an anthropologist for the National Park Service's Alaska Region, is the new superintendent of Grand Portage National Monument (Minnesota). Midwest Regional Director **Bill Schenk** said that Cochrane's "understanding of Native American issues and lifeways will be a real asset to Grand Portage. He has researched and written about Lake Superior Ojibwa traditions, customs, and history, and is experienced in self-governance matters."

Prior to his Alaska assignment, Cochrane served as a cultural resources specialist at Isle Royale National Park (Michigan). He has researched and written about commercial fishermen and fishing culture on Lake Superior; the Valdez Oil Spill in Alaska; and peoples' ties to places such as Isle Royale, Glacier Bay, and the Wind River Valley in Wyoming. Cochrane has a diverse work experience: he has worked for the Wyoming state government as an independent contractor on grants and fellowships, for universities, as well as the National Park Service.

Cochrane received a bachelor of arts from the University of Montana, Missoula; a master of arts from Western Kentucky University, Bowling Green; and a doctorate from Indiana University, Bloomington. He is a member of the George Wright Society, Cultural Survival, Inc., Environmental History Society, Society of Applied Anthropology, American Anthropology Society, and American Folklore Society.



Kathleen Lidfors Miller

Cochrane is a native of St. Paul, Minnesota. He and his wife Jean have three children, Andy, Cory, and Maddy. The family enjoys camping, canoeing, and traveling, and looks forward to being closer to family in the Upper Midwest.

Kathleen (Kate) Lidfors Miller has been selected as superintendent of Effigy Mounds National Monument (Iowa). Miller succeeds **Karen Gustin**, who transferred to Alaska as unit manager for Katmai National Park and Preserve, Aniakchak National Monument and Preserve, and Alagnak Wild River. Miller, was formally the chief, Division of Resources Education, at Apostle Islands National Lakeshore (Wisconsin).

"Kate's career has provided broad experience both inside and outside of the Service," said Schenk. She has an excellent background in cultural resources management, interpretation, history, and natural resource issues."

Prior to her assignment at Apostle Islands in 1995, Miller was the executive director of the Sigurd Olson Environmental Institute and vice president, Northland College (Wisconsin), for four years. As a volunteer consultant for the National Marine Fisheries Service in Alaska, Miller developed a plan for an interpretive and cultural center on St. George Island (Alaska).

She has served in assignments as the National Park Service's regional historian, and National Register historian, in Anchorage, Alaska; assistant chief, Resources Management, and historian, at Apostle Islands National Lakeshore (Wisconsin); and as an associate professor of English, Prince George's Community College (Maryland). She received the Roy E. Appleman-Henry A Judd Award for outstanding contributions to history in the NPS, in 1984.

A native of St. Louis Park, Minnesota, Miller received a bachelor of arts in English from Wheaton College (Illinois), and a master of arts in English from Loyola University. Miller's husband, Pat, is a retired National Park Service superintendent. Their daughter, Jessica, is a recent graduate of Northland College.

Frank C. Fiala has been appointed superintendent of Keweenaw National Historical Park, Calumet, Michigan. Fiala succeeds **William O. Fink**, who accepted an assignment working for the National Park Service regional office in Omaha, Nebraska, last December.

Fiala previously spent the last six years as the management assistant at Lake Clark National Park and Preserve, (Alaska). Fiala also served two years as a management assistant at Wrangell-St. Elias National Park and Preserve (Alaska), where he supervised the park's visitor center and was a founding board member for the local Economic Development District.

After serving as a medic in the U.S. Air Force, Fiala attended the University of Iowa and received a bachelor of science degree in 1976. He also has studied park management at Colorado State University, Fort Collins, Colorado. Fiala began his NPS career in seasonal park ranger positions in Colorado at Dinosaur National Monument and Rocky Mountain National Park. His first permanent assignment was at Carlsbad Caverns National Park, New Mexico, followed by park ranger positions at Rocky Mountain Park before transferring to Alaska. A native of Mason City, Iowa, Fiala and his wife, Emily, have two children. Their son, Boone, is 14 and their daughter, Maia, is 11.

Keweenaw National Historical Park was established in 1992 to commemorate the many stories of copper mining and the copper mining life on the Keweenaw Peninsula of Michigan. Jutting into Lake Superior, the Keweenaw contains the only place in the world where commercially abundant quantities of pure, native copper occurred. It has the oldest metal mining heritage in the western hemisphere, dating back 7,000 years.

Andrew E. (Andy) Banta has been named superintendent of Fort Union Trading Post National Historic Site, North Dakota. Banta replaces **Paul Hedren**, who was promoted and transferred to the Niobrara/Missouri National Scenic Riverways, Nebraska, in January. Banta has been the chief ranger at Fossil Butte National Monument, (Wyoming), for the last nine years. He began his NPS career in 1997, working as a seasonal employee at Grand Canyon National Park, (Arizona), and at Rocky Mountain National Park, (Colorado). Banta attained permanent status as a park ranger at Fort Laramie National Historic Site, (Wyoming), followed by a stint as a ranger at Badlands National Park (South Dakota).



Andrew E. Banta

While at Fossil Butte, Banta worked with numerous park neighbors and cooperating agencies on resource management projects. He was instrumental in building a diverse support network for park development projects. A native of Denver, Colorado, Banta graduated from Colorado State University with a bachelor of science degree in natural resources management. He was named Resource Manager of the Year by the National Park Service Intermountain Region in 1995, and in 1996 was a finalist for the Harry Yount Award which honors park rangers for their outstanding achievements. Banta and his wife, Mary, have five sons; Tom, Myron, Scott, Christopher, and Andrew. An outdoor enthusiast, Banta's favorite activities include camping, backpacking, fishing, hunting, canoeing, and skiing.

On the Move in NPS

Andy Leszczykowski, assistant chief of interpretation at Crater Lake National Park, to park geologist at Mojave; **Rick Clark**, chief of resources at Congaree Swamp National Monument, to chief of resources at Katmai; **Dennis Ditmanson**, superintendent at White Sands, to superintendent at Dinosaur.

Donna Emmons, management analyst with the Bureau of Land Management in Denver, to the Office of the Regional Director in the Intermountain Region as a management analyst, replacing **Terry Hallahan** who retired at the end of March; **Patrick Carnahan**, park ranger at Lowell National Historical Park, to special agent, FBI; **Kent Cave**, from chief ranger, Fort Pulaski National Monument, to staff ranger, interpretation, Great Smoky Mountains National Park.

Allen King, chief, resource and visitor protection at El Malpais National Monument to fire management officer, Pueblo Parks Group, duty stationed at Bandelier National Park; **Sandy Taylor**, personnel management specialist at Virgin Islands National Park, to training officer for the Southeast Region

John K. Kilpatrick, assistant chief of maintenance at Rocky Mountain National Park, to facility manager/chief of maintenance at Glacier National Park; **Dan Greenblat**, seasonal park ranger at Denali National Park, to permanent visitor use assistant at Mojave National Preserve; and **William E. (Bill) Wellman**, superintendent at Great Sand Dunes National Monument, to superintendent at Organ Pipe Cactus National Monument.

Make a Call—Save a Park

American Express and the National Park Foundation have teamed up to offer a new series of prepaid phone cards entitled *National Parks—America's Legacy*. The cards, which are rechargeable and replaceable if lost or stolen, will be available initially at select National Parks or by calling 1 (888) AXP-PARK. For every card purchased, American Express will donate \$1 to the National Park Foundation for funding priority projects throughout the more than 370 sites in the National Park System. The public affairs contact is **Jacqui Handly** (202) 208-6843.

New Plates Benefit Big Bend National Park

Texas **Governor George W. Bush** has signed a bill authorizing a special Big Bend National Park license plate. The legislation was introduced into the Texas House with the support of the Friends of Big Bend National Park. The law took effect September 1 and the license plates should be available in late fall or early winter. The fee for the special plates will be \$50 for an original issuance and \$40 for renewal. Of that fee, \$5 may be used by the State of Texas to defray the cost of administering the program. The remaining fees will be transferred to a designated non-profit organization whose primary purpose is to support improvement or preservation of the park. It is anticipated that the Friends of Big Bend will be the designated non-profit organization, according to **Superintendent Jose Cisneros**. "More than 65 percent of the visitors to Big Bend are from Texas," Cisneros said. "This is an exciting opportunity for Texans to show support for the park." The park contact is **Valerie Naler** at (915) 477-2251x107.



Director Stanton Outlines Goals and Priorities, Page 3



Jamie Rappaport-Clark, Director
Janet L. Miller, Bureau Editor

Charles Kuralt: An Appreciation

David Klinger

I'd like to think it wasn't just my name that made me interesting to **Charles Kuralt**, the nationally known journalist and host of *CBS Sunday Morning*. But I know otherwise, because he told me so. About 15 years ago, in fact, when he and I were at the same appreciation dinner in Chapel Hill honoring the college journalism professor we both shared.

He mentioned another **David Klinger** who once worked at CBS News. A very important person, Kuralt related, because Klinger was the guy that he (Kuralt), **Walter Cronkite**, and **Dan Rather** had to see to get their travel vouchers paid. Was I any relation?

I accepted the reflected glory . . . but I really believe we had more in common than that. We both grew up in the same state. We both worked in the same job on the same college newspaper. We both knew some of the same people who turned up on his *On the Road* segments on *CBS News*. And we both kept coming back to wildlife for our avocation and for our inspiration.

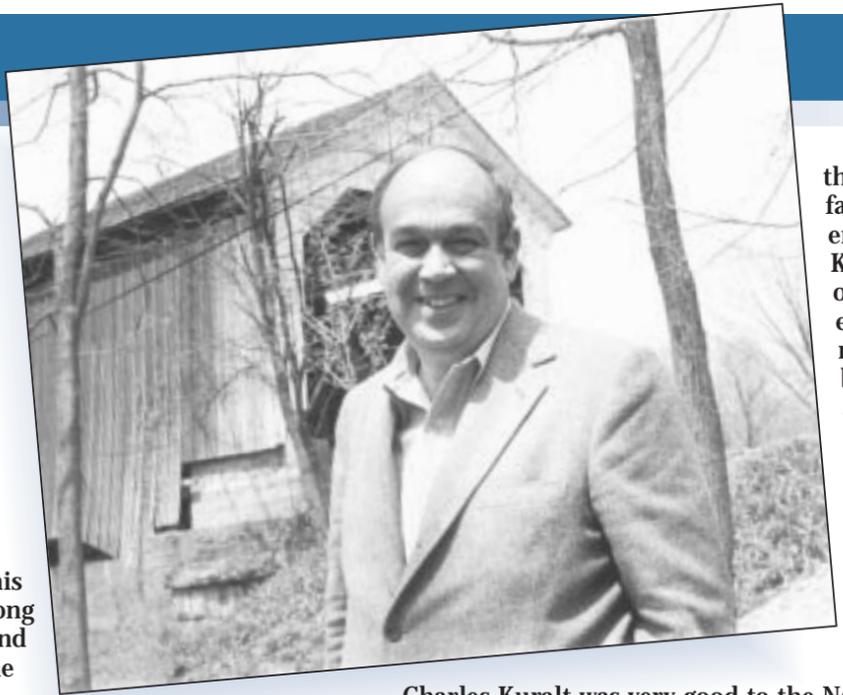
Fish and Wildlife Service employees in Portland marked Kuralt's death this past July 4 with a recent rearing of his remarks to the annual meeting of the Outdoor Writers Association of America in Salt Lake City seven years ago. There, he spoke eloquently and at length of his love for the

Intermountain West, his sense of the region's long and colorful history, and his appreciation for the small and intimate aspects of an otherwise riotous natural western landscape. "It's not enough to love nature," Kuralt told his audience. "You've got to learn something from it, too."

And through such vehicles as *CBS Sunday Morning*, Kuralt and the U.S. Fish and Wildlife Service enjoyed a long and productive relationship acquainting the public with the natural world. Places such as Protection Island and Midway Atoll and Hopper Mountain and Grays Lake all had their minutes of silent respect at the end of each week's broadcast, along with a lot of other refuges and wild places over two decades.

Controversies such as the reintroduction of the California condor in 1992 somehow settled to their rightful equilibrium, as when Kuralt opened one *Sunday Morning* with a small ark in his hands, explaining the Biblical significance of what had happened the previous week in the hills overlooking Los Angeles.

My colleague **Tom Smylie**, former FWS public affairs officer in Albuquerque, once let Kuralt hold one of his falcons as part of a story he was doing on the remarkable bond between man and bird that



the sport of falconry embodies. Kuralt talked of that experience repeatedly before many audiences, magnifying his appreciation for falcons and the wild places where they are found.

Charles Kuralt was very good to the National Wildlife Refuge System in a variety of ways. He and I most recently had been conspiring to get him out to Ridgefield refuge in Washington State to see the remains of a Chinook village along the Columbia River visited by Lewis and Clark nearly 200 years ago. The rediscovered site was right about where Meriwether Lewis' journal said it would be and the opportunity offered an irresistible blend of history and refuge as he contemplated writing a book in time for the bicentennial of the famed expedition.

A year ago, Kuralt donated his time to preparing a public service announcement for the refuge system in anticipation of its 100th anniversary in 2003. I would hope that there is already some visionary in our midst who's working on some way in which we can return the favor in his memory by the time we mark our agency's century of refuge management . . . because it's not enough to appreciate the contribution Charles Kuralt made to the National Wildlife Refuge System. We've got to learn the value of what he did for us, in front of the biggest audience we'll probably ever have.

David Klinger is the assistant regional director-Public Affairs for the Fish and Wildlife Service in Portland, Oregon.

Service Wins ACI Awards

Several Fish and Wildlife Service products earned awards in the Association for Conservation Information's recent annual communications awards competition.

Receiving a first place in the internal communications category was the Pacific Region's quarterly outreach newsletter *Out and About*. The publication took top honors over 12 other entries from seven state natural resource agencies, including entries from such perennial favorites as the Texas Parks and Wildlife Department and the Missouri Department of Conservation. The newsletter received 293 of a possible 300 points and was praised by judges for being "visually coherent and inviting" and "fostering positiveness through the text and through the design and layout." *Out and About* was created in 1995 to inspire greater and more creative interaction between the public and the 1,500 employees of the six-state region.

The Service's new hunter safety television public service announcement won first place in the TV Public Service Announcement category over seven other entries from five agencies. In addition, the Izaak Walton League presented its Outdoor Ethics Communications Award

to the Service for this PSA, citing "exceptional contribution to the nationwide effort to enhance the quality of outdoor recreation through improved behavior by all outdoor recreationists." Fourth in a series, this PSA features Olympic trap-shooting gold medalist Kim Rhode. Kim attributes her Olympic success to her parents teaching her how to shoot and how to hunt safely and ethically. The winning PSA was produced with assistance from the International Olympic Committee and NBC Sports.

In the one-time publications category, *The National Wildlife Refuge System: Promises for a New Century* won third place and *Tallgrass Prairie*

Challenge tied for 11th place in the field of 51 entries. Both of these brochures were produced by the Great Lakes-Big Rivers Region's Refuges and Wildlife Division. *Promises for a New Century* was developed to simplify the inherent complexity of a 92-million-acre system of public lands by focusing on history, wildlife, habitat, people, challenges, and actions. It celebrates and reaffirms the heritage and value of the National Wildlife Refuge System while communicating a vision of what the system is and where it needs to be heading (our promises).

The Tallgrass Prairie Challenge ties the natural history of both prairie and people together through words and text to inform the audience about the prairie and why it is important to the heritage of both people and wildlife, lay out a simple course of action, and inspire people toward helping with those actions. The brochure was used during the public involvement stages of planning the Tallgrass Prairie Habitat Preservation Area, which seeks to preserve, restore, and manage up to 70,000 acres of remaining tallgrass prairie in Minnesota and Iowa.

The Association for Conservation Information is a professional association of information and education specialists and communications with state and federal natural resource agencies.



Clark Stresses Partnerships, Courage, and Responsibility

Janet L. Miller

On a beautiful late-summer day, in a Maryland meadow bordered by forest and wetland, as employees, volunteers, invited guests, and family members looked on, **Jamie Rappaport Clark** was formally sworn in as director of the U.S. Fish and Wildlife Service by Secretary Babbitt.

In his remarks at the September 16 ceremony at Patuxent Research Refuge in Laurel, the Secretary related a conversation he had with the late Service Director **Mollie Beattie** shortly before she died. She was looking to the future of the Service and charged him with choosing the next director from within the ranks of the Service.

"And today," he said, "we honor that request and her memory as we prepare to swear in Jamie Rappaport Clark as director of the U.S. Fish and Wildlife Service." Babbitt noted that **Rick Schwolsky**, Mollie's husband, was in the audience, confirming that this step fulfilled her vision.

Babbitt also acknowledged the contributions of Deputy Director **John Rogers**, who, as acting director, guided the Service through the extended transition period. Following the swearing-in, Clark took the podium. While noting the problems that still face conservationists and the Service, Clark said she is optimistic about the future of wildlife management.

"If you asked me what the Service's direction would be in coming years, I would answer with one word: partnerships," she said. "We have been more successful than any country on earth in conservation because of the willingness of the American people to cooperate with each other, to sit across a table and work it out, to join forces to solve a problem, to compromise, to form partnerships."

She also pledged that, while the Service's preferred method of operation will be to meet conservation goals through partnerships, "we will not compromise the well-being of any trust species for the sake of avoiding confrontation or reaching consensus. We will stand steadfast when necessary."

As she concluded her remarks, Clark recognized that people enter the fields of biology and conservation not for the money or prestige but because "conserving fish and wildlife is, at its deepest level, a sacred responsibility. I look forward to working alongside all of you, in the field and here in Washington, D.C., to champion the needs of our most important constituents: wild things."

And as folks walked back from the swearing-in to the visitor center for a reception and tram tours of the refuge, an eagle circled the building several times, white head and tail gleaming in the sun.



Jamie Rappaport Clark is sworn in as director of the U.S. Fish and Wildlife Service by Secretary Babbitt at a September 16 ceremony at Patuxent Research Refuge near Laurel, Maryland. Photo by Tami Heilemann, Interior Service Center

Adopt-A-Salmon Family: It's Really About Connections

Matt Poole

Connections. Touching hearts. Stewardship. These are the words often used to describe *Adopt-A-Salmon-Family*, the U.S. Fish and Wildlife Service's New England-based watershed education program. Conceived in the fall of 1993 to develop public awareness and support for Atlantic salmon restoration, the program has evolved into a popular vehicle for students, teachers, parents, and other members of the community to be involved in maintaining the ecological health of watersheds.

The simple act of raising a family of Atlantic salmon in the classroom, coupled with a schoolyear-long exploration of the interplay of human culture with the environment, allows students to understand and feel their connections to the natural world. With the spring release of young salmon into local streams, the students' sense of ownership extends from fish to river to watershed. And so are sewn the seeds of watershed stewardship.

While the program is conducted in classrooms across New England (46 schools during the 1996-97 school year), perhaps its greatest impact is on youth from inner cities where the separation of people from the natural world may be the greatest.

Take for example students in **Judy Robinson's** special education class at Phyllis Wheatley Middle School in Boston. After learning about the program through a television news story, Robinson inquired about obtaining salmon eggs for her classroom. On a crisp November day, a truck from the Nashua National Fish Hatchery arrived at the school and students and parents watched the spawning of adult salmon.

In May, when the salmon fry were ready, the class trekked to the Souhegan River in southern New Hampshire to release their young aquatic progeny into the wild. With wide smiles, wonder-filled eyes, and enthusiastic questions, students bid farewell to their salmon from the banks of a stream far removed from the more familiar concrete, skyscrapers, and traffic noise of the city.

Every year, similar experiences are repeated in places as divergent as Lowell, Lawrence, and Salem, Massachusetts; Manchester, New Hampshire; and Burlington, Vermont. Such experiences are qualitative measures of the program's success.

And the initiative continues to grow. With a new program on the western shores of Lake Champlain beginning this fall, the borders of New England have been breached. Because Atlantic salmon have a limited geographic range, Central New England Anadromous Fish Program staff are looking for ways to expand the program.

A similar program for trout would provide potentially unlimited expansion. In time and provided adequate resources, there may indeed be an Adopt-A-Trout-Family program. In the meantime, New England students are tuning in and turning on to watershed stewardship!

Matt Poole is an outreach specialist with the Central New England Anadromous Fish Program in Nashua, New Hampshire.



Above, Lowell, Massachusetts, fifth-graders look at developing Atlantic salmon eggs in a classroom incubator. Below, Lawrence, Massachusetts, students release Atlantic salmon fry into a stream. Photos by Matt Poole



New Recovery Program Director

Connie Young

Service biologist **Henry Maddux** has been named director of the Upper Colorado River Recovery Program, a multi-agency program aimed at recovering endangered fish while allowing for future water development. He began his duties August 18, replacing **John Hamill**, who took another position with the Service earlier this year.

Maddux's new job involves working with fishery managers from federal, state, and local government agencies and private organizations in Colorado, Utah, and Wyoming.

"This is a complex job requiring knowledge of endangered fish recovery and Western water law and the ability to work well with a wide array of people," said Regional Service Director **Ralph Morgenweck**. "I am confident Henry has what it takes to do the job well."



Henry Maddux

One of the issues facing Maddux involves identifying ways to control the impact of non-native fish while maintaining sport-fishing opportunities. Another pressing concern for the recovery program and its participants involves meeting future water needs for endangered fish and for people, especially with continued human population growth, Maddux said. "I believe that protecting our natural resources provides long-term benefits for the country and that partnerships like this program give us the best chance to accomplish that."

Maddux got his start with the Arizona Game and Fish Department working with trout and endangered fish in the Grand Canyon. In 1991, he joined the Fish and Wildlife Service in Salt Lake City, working on endangered species issues. Maddux has worked in the Service's Grand Junction, Colorado, office as a fishery biologist dealing with endangered Colorado River fish.

The Upper Colorado River Recovery Program was established in 1988 to recover the endangered Colorado squawfish, razorback sucker, and bonytail and humpback chubs while providing water for human use. Participating agencies and groups provide funding for endangered fish recovery through research, acquiring stream flows, improving habitat, building hatcheries, and stocking the rare fish and through working to limit the impact of non-native fish species.



Cynthia Quarterman, Director
Rolando Gächter, Bureau Editor
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MMS Research Discovers Ice Worms in the Gulf of Mexico

Scientists working under an MMS-funded study recently discovered a new animal living in the cold, deep depths of the Gulf of Mexico—a type of worm that thrives in an area unlike any other yet seen.

A team of university scientists photographed and sampled the pink, half-inch long “ice worms” living on and within mounds of methane ice on the floor of the gulf about 150 miles south of New Orleans.

The discovery builds on work MMS commissioned about ten years ago. Then, a contractor for the MMS Environmental Studies Program discovered a new community type, known as chemosynthetic communities, in the deep waters of the gulf. These newly discovered communities derive their energy from chemical sources, unlike most ecosystems on Earth which derive their energy either directly or indirectly through the Sun and the process of photosynthesis.

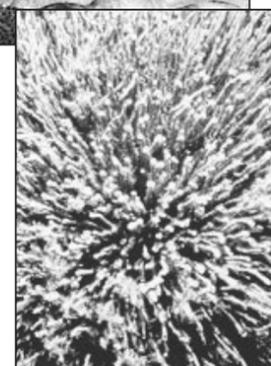
The previously documented chemosynthetic communities are dominated by tube worms, mussels, clams, and a variety of associated species. The primary energy sources, methane gas and hydrogen sulfide, are normally toxic to marine life, but are used in these communities to fuel life. Many of these communities also contain gas hydrates, and

these communities are only now becoming well known through the efforts of many researchers.

These gas hydrates are actually natural methane-water ices, which form under conditions of high pressure and low temperature in many areas worldwide. Gas hydrate is a crystalline solid consisting of gas molecules, usually methane, each surrounded by a cage of water molecules. It looks very much like water ice. Methane hydrate is stable in ocean floor sediments at water depths greater than 300 meters and, where it occurs, it is known to cement loose sediments in a surface layer up to several hundred meters thick.

A second MMS-funded study on the continental slope of the gulf was designed to understand the biogeochemical processes and interactions that support lush chemosynthetic communities in complex gulf geological settings. This year, on a July 15 research dive using a Johnson-Sea-Link submersible, **Dr. Charles Fisher** of Penn State University discovered the new species of polychaete worm living on the exposed surface of a methane gas hydrate mound.

These pink worms are about 1/2 inch in length, and apparently sculpt the surface of the gas hydrate by



At left, ice worm colonies on mounds of methane ice on the floor of the Gulf of Mexico were discovered by Dr. Charles Fisher under an MMS-commissioned study. Left are tube worms in the Gulf of Mexico. Photos courtesy of Dr. Charles Fisher

the hundreds. It is not yet known to what extent the worm colonies use the hydrate mounds for protection or nutrition, but they are at present the only animals known to inhabit this unique habitat.

Although scientists had hypothesized that bacteria might colonize the gas hydrates, this is the first time animals have been found living in the methane mounds. It is not known what influence these dense colonies of marine worms, called polychaetes, have on these energy-rich gas deposits.

The Minerals Management Service funds marine research on the U.S. Outer Continental Shelf to protect the natural resources and manage the development of the shelf. Additional information on chemosynthetic communities in the gulf can be found at the Gulf of Mexico Environmental Information Page.

MMSers Walk Their Way to Better Health

Steve Shaffer

Don't be surprised to see dozens of MMS employees in Herndon, Virginia, gathering each day for the daily noon-time meeting of the Atrium Walking Club. The MMS Employee Association recently organized the club to promote better health and physical fitness among employees.

“Besides better health, the club has allowed me the opportunity to interact with my fellow employees that I would not normally work with,” reports Intermar’s **Mary Ann Milosavich**. The Leasing Division’s **Jane Roberts** said that her walking exercise program helps her keep up with two very active sons.

According to the experts, a regular walking program can help you lose weight and reduce your risk to coronary artery disease, although you shouldn't expect any quick results. Research shows a half-hour walk at your target heart rate range can lead to a slow, steady shedding of 16 to 18 pounds per year.



This may not sound like a lot of weight, but think of it this way. If you don't start a fitness walking program or do any other form of exercise, your sedentary lifestyle could very well put an extra 18 pounds on you by next year. You can expect another 18 pounds the next, and the next, as your metabolism slows over the years.

This gradual creeping up the scale is the real weight gain culprit for most people. Therefore, a half-hour walk is perhaps the easiest way to ward off creeping

obesity and ensure long-lasting weight control. The President's Council on Physical Fitness and Sports reports that like other forms of exercise, walking appears to have a substantial psychological payoff as well. Beginning walkers almost invariably report that they feel better and sleep better, and that their mental outlook improves.

Walking is the exercise most recommended by physicians and a superlative way to achieve cardiovascular fitness. Convenient, inexpensive, and easy on your joints, walking helps to reduce stress, burn fat, and speed up your metabolism according to the Aerobics and Fitness Association of America.

Despite the summer heat, walking groups have been very popular among MMS employees. In fact, small groups of employees have grouped with colleagues and have established daily walks at more convenient times. For more information about the association's Atrium Walking Club, just e-mail the club at **MMSEA@mms.gov**.



Napoleon Kaufman

L.A. Raider Drafts MMSer

When he's not inspecting offshore platforms near northern Santa Barbara County, MMS Santa Maria District inspector **Roy Bobbitt** donates his time coaching championship football at Lompoc High School in Lompoc, California.

Recently he assisted in a three-day football clinic coordinated by Oakland Raider, and Lompoc native, **Napoleon Kaufman**. Kaufman and several of his Raiders teammates were on hand to work with local youth on football techniques and strategies.

“It was great...it's not everyday that local youth can get coaching from professional football players,” said Bobbitt. “The joy in the kids faces was phenomenal.”

New Catalog Lists MMS Publications

MMS has a new publication to help its customers: *Catalog of Royalty Management Program Statistical Publications*. This free publication lists and describes the Royalty Management Program's publications related to collecting and distributing revenues associated with minerals on federal and Indian lands. Both the catalog and its listed documents are available via the MMS website, **www.mms.gov**, specifically, in the Statistical Facts Room of the Royalty Management Program Library. Printed copies of the catalog are available by contacting **Steve Rawlings** at (303) 231-3213.

MMS Employees Honored

Exemplary Act Award for Celeste Mullally

Saving lives may not have been in her career description, but coworkers of **Celeste Mullally** sure are glad she knows how. **Ms. Carole deWitt** recently awarded Ms. Mullally, of the Information Resources Division in Herndon, the MMS Exemplary Act Award for her prompt action in a life threatening situation.

On May 17, Ms. Mullally noticed that Ms. deWitt was choking and having trouble breathing. She assessed the situation and administered the Heimlich Maneuver to dislodge a piece of food from Ms. deWitt's throat. Ms. deWitt recovered quickly. Headquarters staff are proud of Celeste and wish to add their congratulations.



Celeste L. Mullally, right, receives the MMS Exemplary Act Award from Carole A. deWitt.

Denver Federal Executive Board Honors Janet Courtney

A Denver-area MMS employee, **Janet Courtney**, has been named Outstanding Technician/Assistant/Aid Employee of the Year for 1997 by the Denver Federal Executive Board. Courtney, a native of Colorado and Phi Beta Kappa 1980 graduate of the University of Colorado, is a management support specialist for the MMS Royalty Management Program's Valuation and Standards Division.



Janet Courtney

Selected from several hundred of her peers, from all agencies in the Denver area, Courtney serves as staff assistant to more than 40 engineers, geologists, economists, and accountants. With the federal government for nearly 14 years, Courtney spent a brief time with the U. S. Geological Survey and was a civilian employee with the U.S. Army before joining MMS ranks.

Known for her friendly customer service, Courtney commented that she, "was honored by the nomination, but to be actually named Outstanding Technician/Assistant/Aid Employee for the entire Denver area was incredibly flattering."

Said one of her coworkers of her cheerful, helpful ways, "She epitomizes the annual award's theme, *A Challenge and a Dream: Public Service Today and Tomorrow.*"

Two MMS organizations—the Personnel Branch of the Western Administrative Service Center and the Compliance Verification Branch of the Royalty Management Program—received Certificates of Achievement from the Denver Board. They were recognized in the category of Federal Team Award for Outstanding Public Service.

Deborah Gibbs Tschudy Named Trustee

The Denver-based Rocky Mountain Mineral Law Foundation has named **Deborah Gibbs Tschudy** as Trustee-at-Large for the next year. Ms. Gibbs Tschudy, who heads the Royalty Valuation Division for the MMS Royalty Management Program, is only the second federal government employee to be named as a trustee in the foundation's 43-year history. As Trustee-at-Large, Gibbs Tschudy will provide expertise and perspective guidance about the foundation's current and future activities.

The Rocky Mountain Mineral Law Foundation is a non-profit, educational organization that studies legal issues surrounding mineral and water resources. It develops publications and conducts a variety of institutes, workshops, and courses to meet the practical needs of natural resource professionals.

Responding to her appointment, Gibbs Tschudy said, "I am both pleased and honored to be named to this position. I think it will provide me with both additional challenges and an opportunity to work even more closely with this important body of resource professionals."

A native of Colorado, Gibbs Tschudy has a Bachelor of Arts Degree in Mathematics from the University of Colorado and a Master of Science Degree in Mineral Economics from the Colorado School of Mines. Before joining the MMS in 1984, she worked for a mineral resources company and the Bureau of Reclamation.

Gibbs Tschudy has recently overseen the development of several new valuation regulations governing federal leases. She chaired MMS's Federal Gas Valuation Negotiated Rulemaking Committee, and was a member of Interior's Indian Minerals Steering Committee.



MMS' Deborah Gibbs Tschudy is the newest member of the Rocky Mountain Mineral Law Foundation.

Interest in Gulf Sales at an All Time High

Oil and gas industry activity in the Gulf of Mexico continues its upward spiral as indicated by Western Gulf of Mexico Lease Sale 168 in August. The sale attracted \$616 million in high bids, surpassing all Western Gulf sales since 1984. MMS received a total of \$939,196,128 on a record 1,224 bids submitted for a Western Gulf sale. The 82 participating companies offered \$616,212,490 in high bids on 804 tracts offshore Texas and in deeper waters offshore Louisiana.

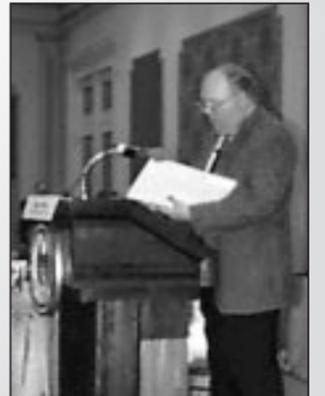
This was the second sale in the Western Gulf of Mexico, and the fourth sale overall, in which tracts receiving bids in water depths of 200 meters or more were eligible for consideration under provisions of the Deep Water Royalty Relief Act of 1995. There were 674 tracts receiving bids in water depths of 200 meters or more.

Before the bid is officially accepted, the highest bid on each tract will go through an evaluation process to ensure the American taxpayer receives fair market value.

This sale, along with the record-breaking Central Gulf Sale earlier this year, are clear indicators that the Gulf of Mexico continues to be an area of great interest to the oil and gas industry. It is also evident that gulf sales are of great interest to the media, as indicated by the large number of reporters attending the sale, the tremendous increase in the number of inquiries received by the Public Affairs Office, and in the number of "hits" on the Internet.

In addition to the cadre of national reporters and financial analysts who have been covering the sales with ever increasing enthusiasm, there has been an increase in international interest. Of particular note was the request made by a team of French TV journalists for assistance in gathering information about the MMS and its mission for a documentary they are making on the oil and gas industry.

The Gulf of Mexico Outer Continental Shelf Region supplied a good deal of background information for the story and granted the team permission to visit the regional office to interview the regional director and to film Sale 168. The crew left with what its members felt was exciting footage of the capacity crowd, as well as **Regional Director Chris Oynes** sporting the now familiar red coat—the sign of a record-breaking sale.



Above, Regional Director Chris Oynes presides over the record-breaking Western Gulf of Mexico Lease Sale 168.

Alaska Resources Library Opens

The Coalition Library Reinvention Lab, now officially known as the Alaska Resources Library & Information Services (ARLIS), is nearing the end of its long and complex planning stage. New, centrally located space, has been leased and the team anticipates opening to both agency staffs and the public in October.

ARLIS is a unique solution to the problems facing many government agency libraries. A true partnership, the new library is a single access point, or one-stop shop, for cultural and natural resource information and data unique to Alaska. ARLIS ultimately will offer access to Alaska-specific data collections and publications via the Internet. The virtual aspect of the library will allow for digital collections that can be distributed nationwide. Users will have access to both the library catalog and full-text data and information, thereby serving students, researchers, and the general public.

Partners in this venture include the Minerals Management Service, Bureau of Land Management, Fish and Wildlife Service, National Park Service, U.S. Geological Survey, Oil Spill Public Information Center, State of Alaska Department of Fish and Game, University of Alaska Anchorage, Joint Pipeline Office (Alaska Department of Natural Resources/Bureau of Land Management), and the Arctic Environmental Information and Data Center.



Coming in the next issue of People, Land and Water.

MMS interns were flown to Chevron's Platform Gail as part of their summer work experience with the service.



Eluid Martinez, Commissioner
Carrie C. Kemper, Bureau Editor

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Restoring A Little House On the Kansas Prairie

Bob Blasing, Nebraska-Kansas Area Office

On the treeless Central Plains of Kansas, in Prairie Dog State Park, sits the only known 19th century adobe structure in the state, still on its original site—a silent tribute to the pioneers' resourcefulness.

The five-room, one-story house was built by **John F. Spencer**, whose American dream began to take shape in 1892 when he bought a small piece of land in north central Kansas. Because trees and stone were in limited supply in the area, he decided to use a mixture of straw and local clay, which he packed into wooden forms to make adobe (rammed earth) walls.

Spencer made the walls 16 inches thick to provide his family, and those to follow, with a warm fortress against the howling winter winds and a cool sanctuary from the blistering heat of the Kansas summers. While adobe is not generally thought of as a long-term building material, the house still stands at its original location 105 years and 12 families later.

The last inhabitants left the sanctuary of the house in 1944 and the property currently sits on Reclamation land. Over the years several small renovations have taken place. Recently, a wall leaning at least ten inches out of alignment caused concern at the Kansas Department of Wildlife and Parks.

Assistant Park Manager **Jim Ray** contacted several local, state, and federal agencies, including Reclamation, seeking assistance in preserving the structure. Recognizing the opportunity to preserve a fragile piece of history, a partnership quickly formed to raise money.

Reclamation's Nebraska-Kansas Area Office contributed \$25,000, which helped pay for an architect to renovate the house, retaining its identical appearance. As the formerly crumbling structure has been strengthened, more local universities, agencies, and citizens, recognizing the value of saving this piece of history, have become involved. Their contributions are being used to help redecorate and refinish the interior.

Reclamation is also negotiating a cooperative agreement with the Museum of Anthropology at the University of Kansas to assist with interpretive displays and possibly excavate around the site.

Engineer's Invention Patented

Janet Harp

The world did not beat a path to his door, but then **Greg O'Haver** didn't invent a better mouse trap. The mechanical engineer in the Reclamation's Northern California Area Office developed a new type of fish screen that was recently patented. And that could reap the federal government enough royalty payments to pay for the cost of developing the device, fund other inventions, and reward O'Haver.



Greg O'Haver

The Universal-Stream-Bottom-Retrieveable Fish Screen, which looks like an inverted canoe with a screen in the bottom, can be floated into place on the river bottom and sunk onto a discharge pipe supplying water to a pump or canal.

It is floated back to the surface by filling it with air. It will provide a more versatile screening system than most present fish screens and, because it is a modular unit, can be mass-produced at a lower cost.

O'Haver spent the last four years working on his invention which, after receiving final approval from the Fish and Wildlife Service, the National Marine Fisheries Service, the California Fish and Game, and Reclamation, will be turned over to a private company for manufacturing and distribution.

The contractor, River Solutions Company, will provide royalties on its profits to the federal government, which will use them to further other inventions and defray the screen's development costs. Reclamation also has a program that shares some of its royalties with the inventor.



At left, the walls and roof of the John F. Spencer adobe house were in fragile condition when restoration started this year. Above, work is well underway to restore the walls to near-original condition under the original roof line. The little house, now listed in the National Register of Historic Places, no longer stands as just a silent tribute to western pioneers. It has become, and will remain, a lasting reminder of the significant accomplishment that is possible when separate agencies work cooperatively as one.

Water Raises Havasupai Horizons

Terri Edwards, Lower Colorado Region

A new water supply developed by Reclamation in partnership with the Havasupai Indian Tribe will provide the Tribe an enhanced quality of life and allow for greater economic growth.

The 3,110-foot-deep well, completed in January 1996, was drilled on the Coconino Plateau near where the Havasupai currently live— deep in Cataract Canyon on the South Rim of the Grand Canyon. The Havasupai Tribe occupies one of the most isolated reservations in the United States— about 90 miles northwest of Flagstaff, Arizona.

The only land access to Supai, the secluded village on the reservation, is by an eight-mile dirt trail into the canyon. The Havasupai, as well as an increasing number of tourists, can travel only by foot or on horseback. Supai is the only town in the United States that still gets mail by mule.

In recent years, an expanding tribal population has put pressure on the limited land area on the canyon floor. With the return of lands on the Coconino Plateau, the Havasupai developed a master plan to expand their residential community and establish tourist facilities there. With no known water supplies on the plateau within a reasonable distance of the proposed development, the tribe asked Reclamation in 1993 for help in identifying and evaluating water supply possibilities.

In 1994, the Tribe and Reclamation signed an agreement for the drilling of a groundwater exploration hole, with Reclamation providing one-half the funding and all design and contract oversight. Over the past two years, **Dennis Watt** of the Lower Colorado Region's Resource Management and Technical Services Office worked closely with the Tribe to develop and oversee the drilling and well development contract. The



Havasupai Tribal Chairman Lester Crooke, left, and Commissioner Martinez survey the site of the future tribal community. Photo by Andrew Pernik, Lower Colorado Region

total cost of the new well, not including the pump, was \$377,430.

Commissioner Martinez, Havasupai Tribal Council **Chairman Lester Crooke**, members of the Tribal Council, and other Reclamation personnel conducted a brief dedication ceremony at the well site on July 9 to recognize the partnership effort.

Crooke spoke of how the new water supply will allow the tribe to realize greater

economic growth and an enhanced quality of life beyond the canyon walls.

Lower Colorado Region **Director Robert Johnson** presented Chairman Crooke with a framed copy of the project's report cover, which depicts the site of the new community and the Tribal seal. The cover design was created by Regional Office illustrator **Christina Robinson**.

WaterWiser

The Water Efficiency Clearinghouse



www.waterwiser.org

Rico Aguayo, Reclamation Service Center

Ensuring that the nation's limited water resources are used efficiently and wisely is a goal that most Americans support. It makes sense for both drinking water and wastewater treatment operations. Conservation is a vital element but efficient water use also involves many other activities, including water policy, metering, rates, reuse, leak detection, landscaping, and education.

While many private organizations and government agencies have valuable information that can help communities develop comprehensive water use policies and programs, coordinating this information and getting it from those who have it to those who need it has been a problem. In 1992 conservation professionals formally expressed the long-standing need for agencies to develop one source of information in the Long's Peak Working Group document on National Water Policy.

The U.S. Environmental Protection Agency then proposed a grant for establishing such a clearinghouse. EPA coordinated its efforts with the American Water Works Association to **WaterWiser**—a cost-sharing partnership aimed at becoming the preeminent resource for water efficiency and conservation information. Reclamation became a sponsor of WaterWiser in 1995 by providing a \$600,000 grant, administered in \$100,000 yearly increments, to help the clearinghouse improve the circulation, dissemination, and collection of information a efficient water use for irrigation and landscaping.

Penny Howard, Reclamation's Mid-Pacific regional environmental officer who sits on WaterWiser's steering committee, noted that the clearinghouse can reduce the amount of time that the staffs of other government and private agencies spend answering basic water use and conservation questions. For water conservation professionals, this can free up their staffs to work on future programs and enhancements.

The ease of using WaterWiser also allows new water conservation professionals to quickly learn the basics. Increasing the number of people with this knowledge can bring new ideas to advance the field of water conservation. Reclamation's support of WaterWiser has allowed the addition of agricultural information to the clearinghouse, besides expanding the municipal and industrial information originally available, Howard pointed out. WaterWiser is becoming an essential link to create cooperation between these competing water users, Howard added.



The American Water Works Association recently received a water conservation award from Reclamation. From left are Conservation Division member Liz Gardners, American Water Works Association President Rocky Wiley, Reclamation Commissioner Martinez, and WaterWiser Manager John Wright.

Fargo Cultivates Xeriscapes

Using drought-resistant grasses and plants as a water conservation technique for residential landscapes has been extremely successful in the West. But it's a new way to increase water conservation awareness in Fargo, North Dakota, where Reclamation's Regional Director **Neil Stessman** recently kicked off a cooperative project with the city to demonstrate the xeriscape technique.

Under the partnership, about 165 single-family homes can participate in the three to five year study, qualifying for up to \$2,000 in xeriscape benefits, including a cash rebate, design assistance, education, and discounts on materials.

Fargo can benefit from this form of residential water conservation because the city often becomes water-short during dry summers. Water Conservation Coordinator **Tom Sawatzke** of the Dakotas Area Office and Water Use Specialist **Jon Medina** of the Denver Technical Center will administer the project, which is part of Reclamation's Water Conservation Field Services Program.

At right, those helping make the Reclamation-Fargo xeriscape partnership a success include, from left, City Forester John Wesolowski, Xeriscape Project Manager Vern Quann, Great Plains Regional Director Neil Stessman, and Fargo Mayor Bruce Furness. The ceremony was held July 16.



Reaching Kids with Water Education

Paula Sunde, Eastern Colorado Area Office

You Otter Be Hugged



John Gierard as Otto Otter makes a new friend while helping children learn about water conservation. Photo by Paula Sunde

The Water Simulator Model gives students a chance to operate a reservoir year-round and experience firsthand the complexity of balancing water for all types of uses within the state. It is one of the most successful education programs for Reclamation's Eastern Colorado Area Office in Loveland and is displayed at the annual water festivals in the Front Range Area.

In addition to the hands-on activity provided by the model, Loveland office employees also distribute water conservation literature to students and teachers at the festivals. The effort is part of the educational outreach initiative in support of Reclamation's Water Conservation Field Service Program.

One of the larger festivals Reclamation attended, in cooperation with the Denver Technical Center Education Group, was the New Education Expo. Reclamation displayed two models: Nonpoint and Point Source Pollutants, and Groundwater. A special appearance was made by Reclamation's helpful water conservation friend, **Otto Otter**, played by **John Gierard**.

The Western Colorado Area Office in Grand Junction also co-sponsored an educational outreach pilot program with the State Office of Water Conservation and the National Energy Foundation. This pilot program, Learning to be Water Wise & Energy Efficient, is administered through the National Energy Foundation in Glenwood Springs. About 1,500 students within the seven major water basins in Colorado will be participating in this program.

Yuma Office Helps San Diego to Test Water Quality Improvements

The Water Quality Improvement Center of Reclamation's Yuma, Arizona, office has a new customer—San Diego's Olivenhain Municipal Water District. Reclamation's **Larry Johnston** and **Paul McAleese** are working with the district to develop a cooperative research and development agreement for a water storage and treatment project.

The pact will define the research work needed to determine the effectiveness of treatment technologies for Colorado River water. The agreement also will provide for cost-shared technology transfer between Reclamation and the district. The goal of the joint project is to conduct pilot testing of membrane (thin sheets of flexible plastic) and associated processes on Colorado River water to compare the different membrane treatment alternatives in order to meet regulatory

requirements and water quality and esthetics objectives.

The water district's Olivenhain Water Storage Project, located in north San Diego County, California, includes a dam and open reservoir, a water treatment plant, pipelines, a pump station, and flow control facilities. Water from the San Diego County Water Authority's regional aqueduct system will be delivered to the open reservoir and treatment plant. From the plant, water will be delivered to the district's potable water distribution system. The project will provide both emergency and operational storage needs.

Reclamation's Water Quality Improvement Center is a designated National Center for Water Treatment Technology and provides a special and unique facility to accomplish this pilot scale research.



Pat Shea, Director
Patrice Junius, Bureau Editor

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Secretary Babbitt swears
in Michelle Chavez



Shea Names New State Directors & Deputy Director

BLM Director **Pat Shea** recently announced the appointment of four new state directors and a new deputy director.

Michelle Chavez of Albuquerque, New Mexico, will serve as the next BLM New Mexico state director. Chavez will oversee activities on 13.1 million surface acres and 29.1 million subsurface acres of BLM land in New Mexico, Oklahoma, Texas, and Kansas. She will have an operating budget of about \$46 million and employ about 680 staff in 13 offices.

Chavez most recently served as the BLM district manager in Rock Springs, Wyoming, where she oversaw considerable oil and gas development activities, similar to those in New Mexico. Prior to that, she served in the Department's Office of the Assistant Secretary for Land and Minerals Management. From 1989 to 1995, she served as manager of the Taos Resource Area in New Mexico. From 1981 to 1989, she worked in the BLM New Mexico state office. Chavez replaces **Bill Calkins** as the state director. In June, Calkins was named by then BLM Acting Director **Sylvia Baca** to the position of executive officer of Hispanic American Colleges and Universities.



Ann Morgan

Ann Morgan will serve as the new BLM state director for Colorado. Morgan, currently BLM Nevada state director, will oversee the management of 8.3 million acres of BLM land and 27.3 million acres of subsurface mineral estate in Colorado. She will supervise the operations of 17 offices that employ 534 staff. Morgan will have a \$35 million budget to carry out her responsibilities. In Nevada, she oversaw activities on 48 million acres of public lands covering about 68 percent of the state.

Prior to joining the BLM, Morgan was manager of the Washington State Department of Natural Resources, Division of Aquatic Lands, where she was responsible for the multiple use management of more than two

million acres of lands. She directed leasing, resource inventories, and harvesting, public access and recreation, habitat protection and restoration, and statewide aquatic lands enhancement programs.



Robert Abbey

Robert Abbey will serve as the BLM Nevada state director. Abbey will oversee activities on 48 million acres of the nation's public lands located in Nevada. He will carry out those responsibilities with a staff of 680 employees in eight field offices and the state office in Reno, with an operating budget of about \$51 million. In his new position, Abbey will oversee the mining of 67 percent of the gold produced in the United States, half of the nation's wild horse population, as well as grazing and recreational activities on BLM-administered land in the state.

Prior to his current position, Abbey served as associate state director in Colorado where he oversaw



W. Hord Tipton

8.3 million acres of surface estate and 27.3 million acres of subsurface estate. Earlier positions with BLM included district manager in Jackson, Mississippi; assistant district manager in Yuma, Arizona; and budget analyst in the Washington, D.C., office.

W. Hord Tipton will serve as the new director for BLM Eastern States. Former Eastern States Director **Pete Culp** will be the assistant director of Minerals, Realty, and Resource Protection in the Washington, D.C. office. As director, Tipton will manage the exclusive surface estate on about 30,000 acres of land plus another 39 million acres of subsurface reserved mineral estate in the 31 states east of, and bordering upon, the Mississippi River. His jurisdiction includes not only state office activities, but three administrative field offices which are located in Jackson, Mississippi, Milwaukee, Wisconsin, and Rolla, Missouri. Tipton will also have responsibility for the maintenance and protection of the official land records and cadastral surveys for Interior.



Pete Culp

Tipton's federal government experience spans more than 18 years with the Department, including his most recent position for the last three years, as assistant director of Minerals, Realty & Resource Protection. Prior to that he served as director of Marine Minerals and International Programs for Interior's Minerals Management Service. Tipton also served with the Office of Surface Mining as acting director and deputy director, was director of the Kentucky field office, and acting regional director and deputy regional director for the Knoxville, Tennessee, office.

In addition to the state directors, Shea announced **Tom Fry** as a second deputy director. Fry, who joined the BLM in January 1997, has been handling various programs, including the National Petroleum Reserve-Alaska. He has also been overseeing land exchanges and improving the BLM's internal processes.



Tom Fry

In addition to working on the 1992 Presidential campaign, Fry has served as a consultant and as attorney adviser to the National Park Service in finding ways to solve the housing shortage for NPS employees. From March 1993 to August 1994, Fry was the director of Interior's Minerals Management Service. In that capacity, Fry was responsible for overseeing the oil and gas outer continental shelf leasing program, administering the offshore environmental and operational safety program, and ensuring the collection of more than \$4 billion in oil and gas leasing revenues for the Treasury.

Minerals Workshop Promotes Partnerships

Mona Schermerhorn, New Mexico

A measure of success of the National Solid Minerals Workshop held June 2-6 in Reno, Nevada, was visible during the last three hours of the workshop: The attendance of 90 percent of the participants for the final presentations.

The national workshop, the first since 1993, was a report on and discussion of results— including large scale environmental undertakings carried out through partnerships. The collaborative efforts involved not only the BLM, state and local governments and the mining industry but also cooperation among BLM state offices and with other Interior agencies.

Early in the conference, keynote speaker Richard L. Lawson, president and CEO of the National Mining Association, talked about the importance of partnerships between private sector firms and public agencies, especially in the planning stages of projects and initiatives. And panel discussions focused on a step-by-step approaches to making these partnerships work.

Mark Chatterton, BLM Las Vegas, Nevada, discussed in detail BLM's role, as a partner, in the unprecedented commercial and residential growth in the Las Vegas area—the nation's largest urban development—in recent years. That development significantly affected BLM-administered and land and mineral resources and Chatterton described the complex coordinating, planning, and consensus-building that was required.



From left, Mitch Leverette, BLM-California, Mark Chatterton, BLM-Las Vegas-Nevada, and Al Birch, BLM-Arizona share their partnership experiences with private sector companies and other government agencies at a National Solid Minerals Workshop panel discussion. Photo by Mona Schermerhorn

"We leaned on the Washington office for guidance," Chatterton said, "and integrated that into our plan. Our past and future success depends on partnerships we have implemented with the local community, regional transportation board, and private communities," Chatterton said.



BLM Director Pat Shea, right, presents a service award to Larry Bembry, special assistant to the deputy director in BLM Denver, Colorado, at an August 18 diversity workshop. The BLM hosted the Blacks in Government Pre-Conference Workshop at the Capital Hilton in Washington, D.C. Director Shea was a member of the panel that discussed BLM's major diversity initiatives and future partnerships during the conference.

Lowering the Temperature

"We are going to lower the temperature and engage in meaningful and productive dialogue," said Pat Shea, the new director of the Bureau of Land Management. "We will focus on being good neighbors, practicing good science, and being productive partners."

Shea, a prominent Utah lawyer, educator, and businessman, spent a large part of his first six weeks as BLM director visiting several western states and addressing most of the agency's 9,000 employees. His message stressed the need to rely on science and compromise in setting BLM policies on resource management, rather than politics and litigation.

Shea was confirmed by the Senate on July 31. In his testimony before the Senate Energy and Resources Committee, which unanimously approved his nomination, Shea, 49, described his 22 years of legal practice and relevant experience this way:

"I have represented oil and gas companies and served on the Nature Conservancy Board for Utah. I have represented mining companies while starting a 15,000-acre nature park in City Creek Canyon in Salt Lake City."

Secretary Babbitt, describing Shea as "a westerner with a keen understanding of the issues facing the federal landscape," welcomed his experience in dispute resolution. "Pat will bring all those with an interest in the public lands to the table so that we continue to develop and implement common-sense land management policies that ensure a proper public land heritage for present and future generations to enjoy," Babbitt said.

As the 15th director of 51-year old BLM, Shea has policy and administrative responsibility for 270 million acres of land and 570 million acres of mineral estate. He oversees an annual budget of more than \$1 billion and a work force of about 9,000 employees.

In addition to practicing law in Salt Lake City and the District of Columbia, Shea is an Adjunct Professor of political science at Brigham Young University Law School. Among his many public service activities, Shea served on the Board of Advisors for the Wharton School of Business' global competition center, chaired the Salt Lake City Airport Authority, and was director of the University of Utah's Natural History Museum. He received his law degree from Harvard University, master's degree from England's Oxford University (as a Rhodes Scholar), and his bachelor's degree from Stanford University.

BLM-California Sees Golden Opportunity

Sonya Cox, California State Office

One hundred fifty years ago, pioneers flocked to California in search of riches, fame, and fortune. Some found it; others did not. But the discovery of gold set into motion the prosperity that has made the state rich in natural and cultural diversity, established dynamic trends in technology and personal opportunity, and created eloquent memories. That process has led to numerous "firsts" that are uniquely Californian—the mountain bike, Disneyland, Hollywood, and a reputation for a laid-back lifestyle.

During the next three years, California's sesquicentennial celebration will provide another golden opportunity—for BLM programs to shine and to bring visibility to the role the agency plays in the management of the public lands throughout the state. The 150th anniversary commemorates the discovery of gold in the Coloma Valley of California (on January 24, 1848), the Forty Niner's Gold Rush (during 1849) as well as the signing of the state's original constitution (on October 13, 1849), and California's statehood proclamation (on September 9, 1850).

Between January 24, 1998, and September 9, 2000, Californians will be called upon to remember the historic events on which the state was built—some admirable, some not so admirable. The sesquicentennial not only commemorates California's past but also celebrates the state's future. As BLM incorporates its programs into the state-wide events of the Sesquicentennial Commission, BLM-California's theme will be *Understanding the Changing Landscape*. Heading into the next millennium, this focus will emphasize that actions taken 150 years ago affect our life today, and actions taken today will affect life 150 years from now.

A sesquicentennial guide to BLM-California's programs and accomplishments throughout the state will be available on the internet, and in catalogues and other venues for the next three years. The Discovery-to-Statehood events provide a unique opportunity to remember California's riches of yore, apply lessons learned to actions of today, and acknowledge with pride the role that each and every BLM-California employee plays in setting the stage for the future of these special lands for generations to come.



Placer mining in California during the Gold Rush years is depicted in this contemporary Currier & Ives print.

BLM Taps the Wonder of Youth at the National Scout Jamboree, Pages 4-5

PHOTO GALLERY

Meeting at Molas—Secretary Babbitt and Cal Joiner, manager of BLM's San Juan Resource Area, listen to BLM and USGS employees describe a national pilot project to clean up abandoned mine sites and improve water quality in the Upper Animas River watershed. Joiner also serves as associate forest supervisor of the San Juan-Rio Grande National Forest. In the background is a view of Molas Pass. The presentation was part of a Secretarial Retreat at the southwest Colorado site in June.



Scouts Trek to BLM Exhibit—Jerry Ballard, of the BLM Roswell field office, greets scouts at the BLM exhibit—Trails to Adventure—at the National Boy Scout Jamboree in Fort A.P. Hill near Fredericksburg, Virginia. From July 2 through August 21, about 35,000 Scouts trekked through the exhibit. More on Interior activities at the Jamboree, page 5. Photo by Elizabeth Rieben

Office of Insular Affairs



Allen P. Stayman, Director
David S. North, Bureau Editor

Labor and Immigration Problems in the Northern Marianas Detailed

The labor, immigration, and law enforcement problems in the Commonwealth of the Northern Mariana Islands, recently the subject of a letter from **President Clinton** to the islands' governor, are described in a comprehensive report issued by the Department's Office of Insular Affairs.

The Northern Marianas' own immigration and labor policies have led to a self-imposed population explosion and unusually high U.S. citizen unemployment rates, both caused by a labor market flooded with temporary alien workers, the report states. The study also describes an increase in organized crime in the islands caused in part by an immigration system which does not require the issuance of visas prior to an alien's arrival.

The analysis further details a growing loophole in the trade system, which allows thousands of workers from the People's Republic of China to sew in "Made in USA" labels on more than half a billion dollars worth of garments shipped to the U.S. mainland every year. Moreover, the Northern Marianas' minimum wage (\$3.05 an hour) is considerably below the U.S. minimum (currently \$4.75 an hour).

The problems are severe enough that President Clinton has called on Congress to extend certain basic federal laws (e.g. the Immigration and Nationality Act and the Fair Labor Standards Act) to the Northern Marianas as allowed in the Covenant—the U.S. public law that established the islands as an insular commonwealth. U.S. immigration laws were not applied in full when the islands joined the U.S. family to protect the indigenous population from an influx of aliens; U.S. minimum wage laws were not applied to promote private sector jobs for local workers.

"Despite the best efforts of several federal agencies, the Northern Marianas continue to pursue immigration and trade policies that are inconsistent with the intent of the Covenant between the United States and the islands," said **Allen P. Stayman**, director of Interior's Office of Insular Affairs. "Congressional action is necessary on immigration, trade, and minimum wage issues."

The analysis of these problems, officially released in July, is the third annual report on the situation in the Northern Marianas. The reports were required by the Congress as part of a reform initiative, after the Reagan, Bush, and Clinton Administrations had issued repeated warnings to the islands' elected leaders regarding these problems. In 1994, the Congress directed the Secretary of the Interior to create a Northern Marianas Initiative to work with the island government to seek a solution to these labor and immigration problems. The reports annually describe the status of that initiative.

Copies of the *Third Annual Report* can be obtained by calling (202) 208-6816.



Islands Added to North American Telephone Numbering System

Thanks, in part, to the work of the Office of Insular Affairs, people dialing Guam and the Commonwealth of the Northern Mariana Islands can now do so more quickly and cheaply.

These two U.S. Pacific islands used to be regarded by the U.S. phone system as foreign destinations, requiring the "011" prefix for international calls. Now the islands can be dialed direct as a simple long-distance domestic call with a "1" and the area code—671 for Guam and the Northern Marianas.

The new North American Numbering System provided this domestic dialing feature for the islands beginning on July 1. Protests from Canada, which feared its telecommunications firms will lose some international business because of the move, were overcome by the U.S. Government. Earlier this year, recent U.S. telecommunications legislation provided the islands' consumers with lower long distance rates to the United States.

"This provides a tremendous economic development opportunity for the islands to become a communications gateway between the United States and Asia," said OIA Director Stayman, "and confirms, further, the identity of Guam and the Northern Marianas as parts of the U.S. family."

In the Caribbean, the U.S. Virgin Islands, formerly in the 809 area code with several other islands, now has area code 340. There will be a transition period for both the Pacific and Caribbean U.S. islands when the old codes and the new ones will be honored by the dialing system.



Students from the U.S.-affiliated islands meet representatives of the Office of Insular Affairs to discuss insular and national issues as part of the Junior Statesman Program. OIA Director Allen P. Stayman, seated at head of the table, explains the office's role in insular affairs. Photos by Tami Heilemann, ISC

Junior Statesman Program Brings Island Students to U.S. Universities

Scores of island high school students visited the United States this summer in a program inspired and partially funded by the Interior Department. They studied at major universities, and observed American government at work.

The students, most of whom were rising juniors in high school, were selected locally to participate in the Junior Statesman Program, a national activity which the Department's Office of Insular Affairs has brought to the U.S.-affiliated islands.

The program is designed to give the teenagers a chance to study at major American universities, to pay attention to governmental operations, and to stimulate thinking about seeking admission at mainland colleges and universities. For many of the students, it was their first trip to the United States, and their first glimpse of higher education.

The 117 insular students were from the Commonwealth of the Northern Mariana Islands, Guam, American Samoa, Palau, the Federated States of Micronesia, and the U.S. Virgin Islands. Each student spent several weeks attending classes and other activities at one of the following universities: Stanford, University of Texas, Northwestern, Georgetown, Princeton or Yale. These visits and activities encouraged the bright young people to think about their futures, both their college years and their careers thereafter.

Many of the students were given a chance to see the U.S. Government in action, talking with congressmen, senators, and executive branch officials. During the visit of a delegation of 20 students to the Department in July, for example, they had an opportunity to ask questions about how laws and appropriations are made, and how public policy is formed.

A Northern Marianas' student, while meeting with Allen P. Stayman, director of the Office of Insular Affairs, asked about the Clinton Administration's policies regarding immigration and labor matters in the Marianas. Stayman replied with a brief analysis of how the current situation there discourages the employment of U.S. citizens there and on the mainland, and created a self-imposed population explosion in the islands, creating strains on schools, hospitals, water and power service, as well as roads and housing.

The group visiting Stayman that day included 14 from Saipan, three from American Samoa, two from the U.S. Virgin Islands, and a single student from Guam; most of these twenty were attending sessions at nearby Georgetown University.

The other 97 students in the program were visiting and studying in other parts of the United States. In addition to stimulating island participation in the program generally, the Office of Insular Affairs provides scholarships for many of the Junior Statesmen each year.

"This is a remarkably useful program," Stayman told the students and their mentors. "I am delighted that this office, together with many private and public sources of funds, has made it all possible." He urged local jurisdictions, foundations, private firms, and other sources of funding to help OIA expand the program in the future.

CITES NATIONS EXPLORE NEW APPROACHES

Patricia W. Fisher

A record-breaking 96 percent of the party nations to the Convention on International Trade in Endangered Species (CITES) participated in the 10th Conference of the Parties held in Harare, Zimbabwe, this past June.

In opening remarks, CITES **Secretary General Izgrev Topkov** noted that for the first time, the number of delegates exceeded that of observers, an unprecedented level of attendance. With impending contentious discussions and decisions on the status of the African elephant and a possible lifting of the ivory ban threatening to consume the attention of the delegates, Topkov warned participants that COP10 (10th Conference of the Parties) should not become a one-species conference. He challenged the media to write about little-known CITES species since each, Topkov explained, should be of equal concern.

The United States delegation was comprised of representatives from several government agencies who lent their special expertise on the many species and issues up for debate. The Secretary of the Interior, through the U.S. Fish and Wildlife Service, has responsibility for U.S. implementation of CITES. Leading the delegation was **Don Barry**, Interior's acting assistant secretary for Fish and Wildlife and Parks.

Other federal agencies also played critical roles in the process. For example, the Department of State provided great assistance in all foreign policy matters and the U.S. Embassy in Harare became the delegation's home away from home. Delegates from the Departments of Agriculture and Commerce and the U.S. Agency for International Development made vital contributions to U.S. positions on such issues as whales, sea turtles, elephants, mahogany, and domestic U.S. species. The U.S. also relied on the states for significant input and help through the participation of the International Association of Fish and Wildlife Agencies.

In a first for the United States, two members of Congress and their staff participated in the conference as congressional observers. California **Congressmen George Miller** and **Richard Pombo** lent their perspectives to the negotiations while gaining a better understanding of how CITES works.

In addition, 118 participants representing 51 nongovernment organizations were certified by the Service to attend as U.S. national observers, and several more U.S.-based organizations were approved as international observers by the CITES Secretariat. The U.S. delegation held nightly briefings to help keep these groups informed as well as to gain their perspectives.

As anticipated, the most visible and controversial issues were the proposals by Botswana, Namibia, and Zimbabwe to downlist their elephant populations to Appendix II to allow for limited trade in stockpiled ivory to Japan, exports of sport-hunted trophies for non-commercial



Although the issue of downlisting African elephant populations to allow for trade in stockpiled ivory dominated this year's CITES conference, attempts to water down restrictions and reopen commercial trade on other endangered species were defeated. The endangered Siberian tiger is the largest living cat in the world. Poachers have reduced the population of rare mountain gorillas to dangerous levels.

purposes, exports of live elephants to appropriate and acceptable destinations, and (in the case of Zimbabwe) exports of hides, leather goods, and ivory carvings for non-commercial purposes.

The U.S. position, announced at a June 3 House Resources Committee hearing, firmly opposed all these proposals because of the Administration's concern that, ". . . an airtight system of export and import controls for ivory does not exist . . . thereby increasing the possibility that illegal shipments of ivory might be blended with lawful shipments from Namibia, Botswana, or Zimbabwe."

Prior to the start of the conference, the African elephant range states held a meeting chaired by the World Conservation Union to discuss the three proposals. Many West, Central, and East African countries still had concerns about the potentially harmful effects on their own elephants from any resumption of trade. South Africa offered a compromise amendment to the proposals to try to address these concerns; however, it was defeated, falling three votes short of the required two-thirds majority.

Although the vote was secret, it is U.S. policy to make public its vote and the reasons for it. The U.S. explained it could not support any downlisting proposal because of serious concerns about the potential for renewed poaching in other countries if limited trade in ivory were resumed in southern Africa. For the next day and a half, the proponent countries and a working group of representatives from other parts of Africa, Europe, and Canada negotiated other changes to the original proposals which were again put to a secret vote. This time all three proposals as amended passed. (See related article on page 32.)

Following the final vote, the U.S. announced it had voted against the amended proposals because of continuing concerns about poaching and a possible renewal of the illegal ivory trade. However, in explaining this country's vote, Barry said that, ". . . the United States is prepared to work cooperatively with . . . the proponent elephant range countries to help ensure that this decision is implemented effectively and in a manner that minimizes . . . the risks to elephant populations throughout their range. For the sake of the elephants, we all cannot afford to fail."

The concerns expressed by the U.S. played a significant role in affecting the thinking of those countries that negotiated the compromise. It is not even assured that there will be an ivory trade in 18 months since the CITES standing committee must first determine that a number of important improvements have been implemented before it can allow these sales to take place.

Overall, the U.S. was pleased with the outcome of many key issues including the rejection of unsound attempts to reopen commercial trade in whales, sea turtles, and white rhinos; to water down restrictions on commercial trade in Appendix I species; and to change the relationship between CITES and the International Whaling Commission.

In an unexpected move, the parties unanimously adopted a discussion paper, *Trade in Alien Species*, submitted by the U.S., Argentina, and New Zealand. Recognizing that alien species are second only to habitat loss as a threat to the world's biodiversity, this paper contained several measures countries might take to stem the spread of invasive wildlife species. "Based on conversations we've had with various delegations, it is painfully clear that no country is safe from the serious harm introduced species can pose to native wildlife," said Barry. "As international trade and travel continue to expand at a rapid rate, so does the potential for disaster."

The U.S. also succeeded in gaining new CITES protection for sturgeon when the parties adopted a joint U.S.-German proposal to list all of the world's species of sturgeon in Appendix II. The Caspian Sea species were listed because of their seriously declining populations and large volumes of illegal trade, and the remaining species were listed because of the difficulty in distinguishing caviar and meat from other species with those from the Caspian Sea. In order to allow more time for range countries (including both Russia and the U.S.) to make necessary preparations for implementation, the listing does not take effect until April 1998.

The parties also accepted the U.S. proposal to include goldenseal, a woodland herb, in Appendix II. Goldenseal, which provides a well-known medicinal product, is found in the Eastern broadleaf forests of this country and southeastern Canada. It is now considered uncommon to critically rare in at least 17 of the 27 states within its range. With some 150,000 pounds of goldenseal root collected annually from the wild and with escalating domestic and international trade, this listing ensures goldenseal is carefully monitored and that healthy wild populations are sustained. One of the U.S.' biggest successes for conservation involved a species proposal rejected by the parties.

The original proposal submitted by Bolivia and the United States to list bigleaf mahogany, a highly traded tropical timber, in Appendix II was not adopted. However, in the waning hours of the conference, the U.S., Bolivia, and Brazil forged an agreement to work with all mahogany range states and with key importing nations to improve and ensure the sustainability of mahogany management and trade.

In what may prove to be an even more effective way to protect wild stands of mahogany, this agreement envisions a working program to produce a report and recommendations on the status, management, and intent to improve sustainability of harvest and trade. Brazil also announced it would list its population of mahogany in Appendix III and asked other range states to do the same. Bolivia and Mexico immediately agreed to follow suit. Since this is to be a cooperative effort by all of the leading exporting and importing countries, the U.S. believes the results will truly benefit mahogany conservation.

IVORY IMPORTS INTO U.S. STILL BANNED

Patricia Fisher

If you are planning to travel abroad, take note: all imports of ivory into the United States are prohibited under the Endangered Species Act and the African Elephant Conservation Act except:

Bona fide antiques more than 100 years old, which can be imported for any purpose with a valid permit;

Personal and household effects of African elephant ivory registered with U.S. Customs upon exportation and now being re-imported; and

African elephant ivory items acquired for non-commercial use prior to February 4, 1977 (first listing under CITES), when accompanied by a valid special pre-convention permit.

A recent decision to relax some trade controls for African elephants does not change these restrictions on ivory imports into the United States. Under this decision, taken at the June 1997 Conference of the Parties to the Convention on International Trade in Endangered Species (CITES), elephant populations in Botswana, Namibia, and Zimbabwe will be downlisted from the treaty's highest level of protection, Appendix I, to Appendix II, which allows the possibility of international commercial trade under a system of permits. The downlisting is effective September 18, 1997.

Elephant populations of the 34 other African elephant range countries remain on Appendix I, as does the Asian elephant. All populations of African elephants remain listed as threatened under the



The trade in illegal wildlife products, particularly debate on the ivory ban, was a major focus of the 10th Conference of the Convention on International Trade in Endangered Species (CITES). A report on the conference is on pages 31. Above are examples of worked ivory brought into the U.S. illegally. Photo by Bill Fitzpatrick

U.S. Endangered Species Act, with Asian elephants listed as endangered.

If Botswana, Namibia, and Zimbabwe fully satisfy conditions designed to protect elephants against poaching and illegal trade and ensure the health of wild populations, a limited international trade in raw ivory may be resumed beginning March 18,

1999. At that time, the three countries will be allowed to export an experimental quota of raw ivory only to Japan, which has a traditional domestic market for ivory.

This trade will be closely monitored and, as an additional safeguard, Japan will prohibit export or re-export of any ivory for commercial purposes. If these conditions are not met or if illegal hunting of elephants or trade in elephant products escalates, the three elephant populations can be returned to Appendix I.

The three countries also agreed to direct all net profits from the sale of this ivory into African elephant conservation through enhanced monitoring, research, law enforcement, and more support for community-based management programs.

Even if this extremely limited trade is permitted, the importation of ivory into the United States is still banned. Some limited exportation of souvenir ivory carvings was approved for Zimbabwe, but these items may not come in to the United States. Any ivory purchased abroad (other than properly documented antiques) could be confiscated upon importation into this country. If your purchase is seized by Customs or wildlife inspectors, you will not be refunded the purchase price and you might be subject to monetary fines.

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Interior, Drug Czar Expand Efforts Against Drug Dealers On Public Lands

The Office of National Drug Control Policy will give the Department \$320,000 for the National Park Service and the Bureau of Land Management to conduct joint methamphetamine investigations in California and Nevada. A Memorandum of Agreement between the two agencies was signed by Deputy Secretary **John Garamendi** and Drug Control Policy Chief of Staff **Janet Crist**.

In May of this year, the Office of National Drug Control Policy gave the Department \$1 million to carry-out a marijuana eradication program on lands managed by the Bureau of Indian Affairs, Bureau of Land Management, National Park Service, and Fish and Wildlife Service.

"These efforts are aimed not only at safeguarding our children but also at safeguarding the lands that we hold in trust for our children," Garamendi said. "We're sending a message to the drug dealers: no matter how remote your operation may be, you cannot hide."



General **Barry McCaffrey**, director of the Office of National Drug Control Policy, recently conducted a national conference on methamphetamine, which he refers to as "the poor man's cocaine."

Interior is responsible for vast areas of rural U.S. lands. Between 1990 and 1995, law enforcement divisions within the Department's bureaus seized more than three million commercial-grade marijuana plants growing on public land, making more than 30,000 arrests. During the same period, the Department seized numerous methamphetamine laboratories on or adjacent to public lands.

MOU For Spanish Projects



Commissioner Martinez, left, and Center for Studies and Experiments of Public Works Director General Felipe Martinez sign the "Martinez Agreement" to improve water management in Spain. BOR photo by Dick Ives, Washington Office

Following discussions on future joint cooperative activities with counterpart Spanish Government officials, **Commissioner Martinez** signed a Memorandum of Understanding with the Government of Spain's public works research agency to permit the continuation of Reclamation's cooperative program through 2002. The projects include improved water management and environmental issues. Following his May 19-23 working visit to Spain, Martinez delivered a paper at the International Commission on Large Dams Congress on changes occurring within Reclamation, particularly those relating to the reoperation of bureau projects to address environmental issues. More than 1100 water resource managers and officials representing 71 countries attended the Congress in Florence, Italy.