



U.S. Fish & Wildlife Service

Fish & Wildlife News

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Region 1 Employees Killed in Plane Crash

Two Region 1 employees died on November 6 after their aircraft went down in the Columbia River near Washington state's Hanford Reach.

Kathy Cheap and James (Mike) Callow, both from the Mid-Columbia NWR Complex in Umatilla, Oregon, were conducting waterfowl surveys at the time of the accident. The plane's pilot, Cliff Dyer of Kennewick, Washington, was hospitalized.

In a message to all Service employees following the accident, Pacific Regional Director Anne Badgley said, "The passing of these two dedicated individuals is a tragic loss and our hearts go out to their families and friends, their co-workers and their communities."

Cheap, 47, was a wildlife biologist at the Mid-Columbia NWR Complex and had worked with the Service for 20 years. She came to Umatilla in 1991 from Region 3, where her last assignment was at the Upper Mississippi River NWR.

A native of Vallejo, California, Cheap received her master's degree in wildlife sciences from New Mexico State University. She is survived by her husband, Mike Hayes, a biologist with the Oregon Department of Fish and Wildlife.

Callow, 50, recently had taken the post of Refuge Manager at Umatilla NWR after being with the Service for 12 years. Callow also came to the Northwest from Region 3, where he had been the assistant manager at Squaw Creek NWR in Mound City, Missouri, since 1991.

He also worked at the Chase Lake Prairie Project in Woodworth, North Dakota, and the Northern Prairie Wildlife Research Center in Jamestown, North Dakota. Born in Maryville, Missouri, he had a bachelor's degree in wildlife ecology from Northwest Missouri State University. He was a veteran of the U.S. Navy and received three medals for his service in Vietnam.

Callow is survived by his wife, Dawn, his son, Clay, 9, and daughter, Shannon, 6.

As the *News* went to press, the National Transportation Safety Board was investigating the cause of the accident. Badgley said she hoped "the investigation will provide us with information that can be used in the prevention of future accidents."

Service Director Jamie Rappaport Clark expressed her sorrow and concern over the deaths.

"This is a terrible loss for the Fish & Wildlife Service and I know that everyone who knew these two committed people will miss them as friends and colleagues," she said.

The families suggested that condolences be sent to Gary Hagedorn, Refuge Manager, Mid-Columbia NWR Complex, P.O. Box 700, 830 Sixth Street, Umatilla, OR 97882-0700. An education fund for Mike Callow's children has been established at UMB Bank, 1015 State St., Mound City, MO 64470.

Editor's note: The News will publish tributes to Kathy Cheap and Mike Callow in its January, 1999, issue.

Jim Hautman Scores a Triple with 1998 Duck Stamp Win



A winner once again. Jim Hautman joined an elite group when he won his third Federal Duck Stamp Contest in November. His acrylic rendering of greater scaup bested 336 other paintings. USFWS photo.

Jim Hautman of Plymouth, Minnesota, took first place in the Federal Duck Stamp Art Contest November 5, becoming only the fourth artist in the 65-year history of the program to win the contest three times. His acrylic portrait of two greater scaup flying across a windswept sea, with a hunter and his dog in the background, topped 336 other entries and will become the 1999-2000 Federal Duck Stamp, which goes on sale July 1, 1999.

Hautman also made Duck Stamp history in 1989 when he became the youngest artist ever to win the contest. He took second in 1993 and won again in 1994. That same year, his brother Robert placed second and, in 1996, took top honors. Meanwhile, brother Joe won the contest in 1991.

Jim Hautman, who was taught by his mother but has had no formal wildlife art training, said that the hunter in his painting is modeled after his brother Bob. "I thought about the Duck Stamp and the fact that mostly hunters purchase it," he said. "So I put a hunter in my design."

Second place in the contest went to John Nelson Harris of Groveland, Florida, for his acrylic portrait of a pintail in flight. Greg Farrell of Lexington, North Carolina, took third place, also with an acrylic rendering of a pair of pintails.

On the Cover. Setting free the pallids. *Biologist Mark Dryer, Region 6 Deputy Regional Director Terry Terrell, Representative Earl Pomeroy and Senator Kent Conrad, both of North Dakota, prepare to release a pallid sturgeon at a stocking event in August. See story, page 10. Photo by Eric Eckl.*

In addition to the greater scaup, eligible species for this year's contest were the pintail, green-winged teal, ruddy duck, and black duck. Eligible species for next year's contest will be the black scoter and the mottled duck; by the year 2002, all North American waterfowl species will have appeared on the Duck Stamp at least once.

All waterfowl hunters age 16 and older are required to purchase and carry Duck Stamps. Ninety-eight percent of the proceeds from the \$15 Duck Stamp goes into the Migratory Bird Conservation Fund, which purchases wetlands for the National Wildlife Refuge System.

Increasing numbers of stamp collectors, wildlife art lovers, and conservationists are also buying it to add to their collections, enjoy as a miniature work of art, or as a simple way to support conservation. Duck Stamps can also be used to gain admission to those national wildlife refuges that charge entry fees.

The Duck Stamp office also announced that it will auction a set of design proofs for the self-adhesive Federal Duck Stamp, which debuted July 1, 1998. These two design proofs used the 1996-97 Federal Duck Stamp engraving plates to check the integrity of the self-adhesive paper under the extreme pressure of the intaglio printing process. The printers produced only two sets of three different design imperforates, hand-cut to simulate the die-cut process and demonstrate the quality of the "peel and stick" feature of the new format.

Only one set will be auctioned. The other set was presented to the Smithsonian Institution's National Postal Museum last July. The Federal Duck Stamp office will be accepting bids by mail or by fax, with the opening bid set at \$25,000. The winner was announced December 23.

*Rachel F. Levin, Public Affairs,
Washington, DC*

A Look at the 1999 Budget

Here's a look at the Interior portion of the Omnibus Appropriations bill.

Interior Department (\$ in millions)

1998 Actual	1999 Enacted
8,121	7,906

Fish & Wildlife Service

Total budget
\$802.2 million

\$29.7 million above 1998 enacted
\$16 million below President's

Operations (Resource Management)

\$661.1 million

\$66.5 million above 1998 enacted
\$14.7 million below 1999 President's

Endangered Species

\$110.8 million

\$33.6 million above 1998 enacted
\$2.1 million below 1999 President's

Refuges

\$237.2 million

\$17.7 million above 1998 enacted
\$8.1 million below 1999 President's
(Maintenance: \$43.7 million; \$8 million above 1998 enacted, \$2.9 million below 1999 President's)

Migratory birds

\$19.1 million

\$1.8 million above 1998 enacted
\$450,000 above 1999 President's

Fisheries programs

\$73.6 million

\$2.6 million above 1998 enacted
\$1.7 million below 1999 President's

Construction

\$50.5 million

\$26.2 million below 1998 enacted
\$13.5 million above 1999 President's

Land Acquisition

\$48 million

\$14.6 million below 1998 enacted
\$12.5 million below 1999 President's

Cooperative Endangered Species Fund

\$14 million

same as 1998 enacted
\$3 million below 1999 President's

North American Wetlands Conservation

\$15 million

\$3.3 million above 1998 enacted
\$300,000 million above 1999 President's

When more detailed information is released, it will be available on the Interior Department website at <http://www.doi.gov/budget/>.

U.S. Proposes to List Koala



Cute, cuddly and... threatened? *Koalas, marsupials more closely related to kangaroos than bears, may be proposed for threatened status under the Endangered Species Act. These koalas live at the San Diego Zoo. Photo ©San Diego Zoological Society.*

In September the Service proposed to list the koala as threatened under the Endangered Species Act. Citing habitat destruction as the primary threat to the survival of koalas in the wild, the Service is seeking additional information and invited public comment on the proposal, which was based on a petition submitted by Australian and U.S. conservation groups.

The proposed listing of the koala would prohibit U.S. importation, exportation and interstate or foreign commerce by anyone subject to U.S. law, except under permits issued in advance by the Service. Such permits would be issued only for purposes that would contribute to the conservation of the species. In addition, the United States would assist in conservation programs for koalas.

The koala, a bearlike tree-dwelling marsupial mammal indigenous to Australia, is totally dependent for food and shelter on certain kinds of eucalyptus trees found in the forests and woodlands of the Australian states of central and eastern Queensland, eastern New South Wales, Victoria, and southeastern South Australia. Beloved worldwide because of its cuddly appearance, the koala was first put at risk due to intensive market hunting for its fur up through the 1920s.

By the 1930s, in response to global protests, Australia took steps to stem direct killing. Conservation programs by Australian government agencies contributed to the species' recovery in some areas, with populations estimated to range from 40,000 to 400,000. Today, however, human encroachment and ensuing changes in the koala's habitat are responsible for a population decline.

Nearly two-thirds of the koala's eucalyptus forest and woodland ecosystem has already been lost, with the rest rapidly disappearing due to logging, agriculture, and urbanization. In addition, the koala is threatened by widespread fires, domestic dogs and disease.

In a May 1994 petition to the Service, Australians for Animals and the U.S. Fund for Animals requested listing of the koala. If this proposed listing is made final, the koala would join the African elephant and the southern African leopard as foreign species listed as threatened under the Endangered Species Act.

*Patricia Fisher, Public Affairs,
Washington, DC*

Service Hails Volunteer-Partnership Enhancement Act

On October 5, President Clinton signed a new law allowing the Service to expand the use of volunteers and partnerships and simplify donations made to specific national wildlife refuges.

"This is a very significant piece of legislation for this agency because volunteers are critically important to our ability to meet our wildlife conservation mission," Service Director Jamie Rappaport Clark said of the National Wildlife Refuge System Volunteer and Partnership Enhancement Act of 1998. "It will allow the Service to take giant steps in recruiting and using volunteers, in expanding partnerships, and in simplifying the rules governing financial donations to specific refuges."

The law, introduced in the Senate by Senator John Chafee and in the House of Representatives by Congressman Jim Saxton, will:

- Enable the Service to implement pilot projects using up to 20 volunteer coordinators who will recruit, train and supervise volunteers in each region;
- Authorize establishment of a Senior Volunteer Corps focusing on people over the age of 50, paying some incidental expenses, and allowing the Service to make cash awards, not to exceed \$100 each, to outstanding volunteers;
- Provide authority for organizing and collaborating with partner organizations and streamlining the requirements for establishing community partner organizations such as the Friends of the Refuge Initiative;

Excitement Follows Eagle Discovery in North Dakota

■ Clarify that gifts or bequests made to a particular refuge may be spent by that refuge, while allowing federal funding to match (but not exceed) the amount of gifts or donations. Individual refuge managers will have the opportunity to use discretionary funds already available to help secure additional funds in the form of cash, property or in-kind services; and

■ Require the Secretary of the Interior to develop refuge education programs to provide outdoor classroom opportunities for students on refuges that combine educational curricula with the personal experiences of students, to promote understanding and conservation of resources of the refuges, and to improve scientific literacy in conjunction with both formal and informal education programs.

The Service's reliance on volunteers dates back to 1903 when the first refuge was established at Pelican Island in Florida and staffed initially by volunteers. The Volunteer and Partnership Enhancement Act strengthens the Fish and Wildlife Improvement Act of 1978, through which Congress authorized the Secretary of the Interior to recruit and train volunteers.

Today there are more than 28,800 volunteers donating more than 1.5 million hours of their time on refuges. Almost 20 percent of all work performed on refuges is done by volunteers, amounting to about \$14 million worth of services that cost the government only \$780,000.

*Ken Burton, Public Affairs,
Washington, DC*



Cause for celebration. *This bald eagle chick is the offspring of the first pair of eagles to nest at Devils Lake since 1923. Photo by Jim Alfonso.*

Excitement is a feeling not easily generated in veteran wildlife biologists.

One small bird stirred up a lot of that rare commodity this past summer when a pair of bald eagles nested and fledged one young on Devils Lake in North Dakota. No bald eagles had nested there since 1923, and only eight active breeding pairs lived in the state.

Until July.

Biologists Jim Alfonso and Will Meeks of the Service's Devils Lake Wetland Management District confirmed the nest after an angler alerted them. Then the hard part began.

"We knew this was going to be big news, but we needed to keep it a secret until the fledgling was ready to leave the nest," said Alfonso. He wanted to avoid repeating what happened when the birds first spied the biologists: "The adults kept shrieking at us and the young bird kept walking around the outside of the nest," Alfonso told reporters. "We were afraid that it would fall out and into the water." After that, biologists kept a safe distance, returning to the area only a few times.

Historians say bald eagles were common in the Devils Lake area until the mid-1800s, when encroaching civilization had a negative impact. DDT and other pesticides were largely to blame for the bird's decline to 417 breeding pairs nationwide and the Service added the bald eagle to the endangered species list in 1978.

After the government banned DDT the eagle began to make a comeback, and the Service upgraded the bird's status from endangered to threatened in 1995 when the U.S. population surpassed 4,000 pairs. In North Dakota, the first breeding pair of bald eagles to successfully fledge young in modern times was documented in 1988 along the Missouri River.

Biologist Roger Collins of the Service's Bismarck office has followed the birds' progress. "It's been real exciting to watch the number of active nests on the Missouri River grow so much in such a short time," he said. "And the re-establishment of nesting bald eagles at Devils Lake is an unexpected bonus."

Alfonso believes the pair will return to Devils Lake next year. "I think there's a good chance they'll be back after the ice goes out in the spring," he said.

He's also encouraged by the apparent youthfulness of the adults. "Since they nested about a month later than normal, we believe they're a young pair. If that's the case, they could keep coming back here and producing young for many more years," noted Alfonso.

That would be *really* exciting.

*Ken Torkelson, North Dakota Wetland Habitat, Office/Field Office,
Bismarck, North Dakota*

Undercover Work Constricts Illegal Reptile Trade



Rare dragon. A juvenile Komodo dragon was among the endangered reptiles smuggled into this country during Operation Chameleon. These lizards, which grow up to 10 feet long, are found only on a handful of islands in Indonesia. Photo by Ernest Mayer.

In September, the Office of Law Enforcement closed out the undercover phase of Operation Chameleon, a five-year probe of the illegal international reptile trade. The investigation snared one of the world's best known wildlife dealers and resulted in charges against 20 other individuals in the United States and abroad.

The case represented the first time the Service was able to address the world reptile market on a significant scale, according to Ernest Mayer, the head of Law Enforcement's Branch of Special Operations.

"We suspected that large quantities of protected reptiles were being taken from the wild and sold on the black market," explained Mayer. "We took on this investigation because we had the expertise to infiltrate the trade."

Service special agents posed as wildlife importers and reptile collectors, ran a reptile import business, negotiated crucial international assistance, and broke up smuggling rings trafficking in some of the world's rarest reptiles.

Special Agent Kenneth McCloud, who had been working undercover on reptile cases since the late 1980s, operated as a private collector and broker and documented an international smuggling conspiracy that brought hundreds of rare snakes and tortoises out of Madagascar into Germany. From there, the animals were smuggled into the United States and Canada.

The smuggled reptiles included highly prized Madagascar tree and ground boas, radiated tortoises and spider tortoises. These animals, which occur only in Madagascar, an island off the southeastern coast of Africa, are protected under international trade agreements and U.S. law.

Among the key figures arrested were a German citizen, now serving a four-year prison term for his role in the smuggling conspiracy, and a Florida reptile dealer, who was expelled from Belize in August and returned to the United States to face wildlife trafficking charges. The case also prompted charges against individuals in Germany and Canada and a string of other U.S. prosecutions.

In a second major investigation, the Service targeted Keng Liang "Anson" Wong, the operator of a wildlife import/export business in Malaysia. Long an active player in the wildlife trade, Wong was indicted in Florida in 1992 for reptile smuggling, but had stayed out of the United States.

In 1996, however, Wong began dealing with the operator of a reptile import company in the San Francisco area called PacRim Enterprises. That American "businessman" was really Service Special Agent George Morrison.

Through phone calls and fax exchanges with Morrison, Wong negotiated deals that allegedly delivered illegally imported Komodo dragons, plowshare tortoises, Chinese alligators, radiated tortoises (all endangered species), and other prized exotic reptiles to PacRim. At one point, Wong boasted of his ability to secure any animal Morrison desired, saying, via fax, "I can get anything here from anywhere. It only depends on how much certain people get paid. Tell me what you want, I will weigh the risks, and tell you how much it'll set you back."

Some of the 300 reptiles allegedly smuggled by Wong are so rare they can fetch as much as \$30,000 a piece on the black market. "It's a business fueled by greed," Mayer said.

Wong's deals with the Service went so well that he agreed to meet Morrison in Mexico on September 14 to discuss new business opportunities. He was taken into custody at the airport in Mexico City by Mexican police and now awaits extradition to the United States, where he is wanted for conspiracy, smuggling, money laundering, making false statements and Lacey Act violations.

Service agents credit both assistance from the U.S. Department of Justice Wildlife and Marine Resources Section and international cooperation as crucial throughout the case. Government officials in Mexico, Canada, Germany, The Netherlands and Belize played key roles.

*Sandy Cleva, Law Enforcement,
Arlington, Virginia*

Service and EPA Tackle Deadly Oil Pits

Some two million migratory birds die each year when they become trapped in oil and mining wastewater ponds. Pits and open tanks used to store oil and associated water are fatal attractions to migratory birds, bats and other wildlife which often cannot distinguish oil pits from pristine wetlands.

In an attempt to curb these losses, the Region 6 law enforcement and environmental contaminants programs and the U.S. Environmental Protection Agency joined forces in 1996 to form the Problem Oil Pits team. As a result of the team's outreach efforts and law enforcement measures, many oil companies have taken successful preventative measures, reducing migratory bird deaths in oil pits in several states.

Pits are used in some oil fields to contain spills and catch drips from flare stacks. Skim pits and open tanks separate water from oil once they are extracted from the ground but ineffective separation results in oil-covered ponds, creating death traps for migratory birds.

Traditionally, the oil industry used deterrents such as colored flagging to keep birds from landing in oil pits. After finding that flagging, metal reflectors and other deterrents were ineffective, Region 6 hosted several workshops for oil operators and regulators in Wyoming, Montana, North and South Dakota, Kansas, and Nebraska to discuss the bird mortality problem and prevention of bird deaths in the oil fields.

In response to the Service's outreach and subsequent law enforcement efforts, oil companies in Nebraska, New Mexico, Texas and Wyoming covered their waste pits with more effective netting while other companies eliminated pits altogether.

Because a handful of special agents could not enforce action at thousands of oil pits, the Service's efforts were limited. Special Agent Gary Mowad of the Service's Lakewood, Colorado, field office located oil pits in Kansas, Colorado and Wyoming from a plane, logging the locations using the global positioning system.



Ineffective method. *Flagging, strobe lights and other deterrents have not stopped birds from landing in oil pits, where they become trapped.* USFWS photo.

However, Mowad had difficulty locating the pits once on the ground, and he also had to face the limited effect that enforcement of the Migratory Bird Treaty Act had on some operators.

"I found that in some cases, operators did not clean up or net their pits in spite of repeatedly being fined under the MBTA," said Mowad.

During his aerial surveys Mowad also found spills and discharges of oil and oily water into wetlands and riparian areas. In 1996 he asked for assistance from EPA Region 8, which covers Colorado, Montana, North and South Dakota, Utah and Wyoming, and the Problem Oil Pits team was formed.

EPA can take enforcement action under the Clean Water Act or under Section 7003 of the Resource Conservation and Recovery Act, which prohibits a waste site from posing "imminent and substantial endangerment" to human health and the environment. Under Section 7003, responsible parties can be fined up to \$25,000 per day of violation.

The team includes staff specializing in oil spill cleanup, prevention control and countermeasures; outreach; water quality; and environmental law. Pedro Ramirez, a Service environmental contaminants specialist from Cheyenne, Wyoming, also is a member of the team.

The team approached state and federal oil industry regulators in Wyoming, Colorado and Kansas and requested their help in bringing problem oil pits into compliance with environmental laws.

Based on Mowad's aerial survey, the Bureau of Land Management and the state oil and gas conservation commissions determined whether the sites were on private, state or federally-owned lands and what company operated the fields, and described the sites in legal terms.

In Wyoming, multi-agency teams composed of representatives from the Service, EPA, BLM, and Wyoming's Oil and Gas Conservation Commission and Department of Environmental Quality, conducted follow-up ground inspections of 216 out of approximately 400 oil pits Mowad had identified from the air as having serious environmental problems. The multi-agency teams conducted follow-up ground inspections in June 1997 and identified sites for follow-up action.

In Colorado and Wyoming, the oil industry has responded dramatically to the problem. "When we started our surveys in Colorado during the summer of 1995, 77 percent of the pits were either completely or partially covered with oil and posed a threat to migratory birds," Mowad said. By the end of that year the number was down to 10 percent, and Mowad has seen a comparable response in Wyoming.

The Problem Oil Pits team recently received an environmental achievement award from the EPA in Denver. EPA Regional Administrator Bill Yellowtail said "While big environmental conflicts make more news, the real work of environmental protection goes on more quietly, day in and day out. For every newsy confrontation, there are hundreds of quiet successes. That's what we celebrate with our awards, those successes and the people responsible for them."

Whooping Crane Migration Soars to New Levels



Spectacular journey. Whooping cranes such as these yearly make the long trek across the Great Plains from Canada to Aransas NWR in Texas. USFWS photo.

One of nature's most spectacular and closely watched events, the migration of the endangered whooping crane, unfolds across America's heartland during October. Nearly 200 whooping cranes trek across the Great Plains, migrating from Wood Buffalo National Park in Canada's Northwest Territories to Aransas NWR on the Texas Gulf Coast.

The story of the whooper's recovery from a low of only fifteen birds in the winter of 1941-42 has been celebrated across the world. Progress continues this year with near record numbers of cranes reported in the wild and in captivity.

More than 190 cranes in the Aransas-Wood Buffalo flock are expected to arrive in Texas this fall, including 24 chicks that survived through mid-August. Biologists counted a record 49 pairs nesting at Wood Buffalo National Park in late May. Last fall, 182 birds, including 30 young, made the fall migration.

The first whooping crane arrival at Aransas refuge occurs around October 16. In the Rocky Mountains, three of four whoopers began their migration south from Yellowstone National Park in late September to the Rio Grande Valley of central New Mexico.

Two of the cranes are the only remaining survivors of an experiment in which biologists placed whooping crane eggs in sandhill crane nests and the adult sandhills

taught the whoopers to migrate. The other two were raised in captivity last year by researcher Kent Clegg, who led them on a migration route between his ranch in southeastern Idaho and Bosque del Apache NWR in New Mexico.

Whooping cranes migrate during the day, making regular stops to feed and rest away from human activity. They travel as singles, pairs, family groups or flocks of four to five, sometimes joining sandhill cranes for part of the migration.

Captive populations of whooping cranes include 98 adults and 35 chicks at three breeding centers: Patuxent Wildlife Research Center in Maryland, the International Crane Foundation in Wisconsin, and the Calgary Zoo in Canada. Whoopers are on display at the San Antonio zoo.

The only other whooping cranes in the world include 56 in a non-migratory flock being established in Kissimmee, Florida, just south of Orlando, and 132 in captivity, for a total captive population of about 375.

Crane recovery efforts are coordinated by a Whooping Crane Recovery Team appointed by directors of the Canadian Wildlife Service and the Fish & Wildlife Service. At its last meeting, the team recommended that future recovery efforts focus on building the non-migratory flock in Florida and establishing a migratory flock of whooping cranes east of and completely separate from the Aransas-Wood Buffalo flock.

Suggested locations included marsh habitat in central Wisconsin and a wintering area at the Chassahowitzka NWR on the southwestern coast of Florida. Chassahowitzka, about 65 miles north of Tampa, Florida, was recommended after several years of evaluation. But the rare and beautiful birds won't be there any time soon, according to Service wildlife biologist Linda Finger. The Service must first coordinate with the state and gauge the attitude of local residents about having a flock of whoopers in their city.

*Tom MacKenzie, External Affairs,
Atlanta, Georgia*

*Hans Stuart, External Affairs,
Albuquerque, New Mexico*

Display Honors FWS Employees and Partners



Visual tribute. Jeff Graves of the Division of Information Resources Management checks out the photo display on the Director's corridor in the Main Interior building. The exhibit depicts the work of Service employees around the nation. USFWS photo.

A new display honoring the work of Service employees, volunteers and partners now spans the length of the Service's Directorate corridor at the Main Interior Building in Washington, DC.

Assistant Director for Administration Paul Henne, who headed up the project, said the goal of the display was to photographically represent the dedication of the Service's employees and partners, as well as serve as an interpretive opportunity for visitors.

The National Conservation Training Center designed and installed the display. NCTC and Public Affairs worked on the display's concept and fabrication, producing a layout of photos and text reflecting the broad range of wildlife management activities conducted by the agency. The final design is an arrangement of photo groupings illustrating Service employees, volunteers and partners at work, interspersed with images of wildlife, plants, and scenic views.

"If you happen to be in Washington DC," said Henne, "drop by and take a look, and pat yourself on the back for being one of the many hardworking Service employees."

*Nan Rollison, Public Affairs,
Washington, DC*

Go Back in Time at NCTC



A trip through time. The museum at the National Conservation Training Center features a "conservation time line" with a display of signs that have graced Service facilities over the years and an exhibit on the life and works of *Silent Spring* author Rachel Carson. Photos by Jeanne Harold.

Do you want to know what the Service was like 25, 50 or even 100 years ago? Students and visitors at the National Conservation Training Center in Shepherdstown, West Virginia, can take a self-guided tour through the Service's rich history when they stop by the newly-completed 4,000-square-foot museum in the center's entry and registration building.

The contributions of conservation heroes spanning the decades—from C. Hart Merriam to Rachel Carson—are highlighted in exhibits including videos and photo-murals, both in the museum and in satellite displays around the campus. The museum features numerous historical objects, from the roll-top desk belonging to the first U.S. Fish Commissioner to a collection of Service uniforms donated by retired Refuge Manager John Wilbrecht.

National wildlife refuges, national fish hatcheries and private donors contributed most of the items in the displays.



A large collection of artifacts from D.C. Booth National Historic Fish Hatchery includes fish cans and crates, nets, egg pickers, raceway pipe, and floats. Chincoteague National Wildlife Refuge supplied waterfowl decoys and the National Elk Refuge contributed an assemblage of signs spanning the years from the beginnings of the Bureau of Biological Survey to the modern-day Fish & Wildlife Service.

The museum features a conservation history time line that begins with objects made by members of the Pikuni or Blackfeet Tribe of Montana depicting life in North America before Western settlers arrived. All of the artifacts were made from buffalo, or American bison, and all demonstrate how efficiently and completely Native Americans utilized their natural resources. Everything from hoof to horn was used in making the buffalo objects.

Next the time line examines the era of specimen collection by Service naturalists and other conservationists as mandated by Spencer Fullerton Baird, director of the Smithsonian Institution and the first U.S. Fish Commissioner. Further along, the display depicts the inception of national wildlife refuges and national fish hatcheries beginning with Pelican Island NWR and D.C. Booth NFH.

The life of one of the conservation movement's greatest heroes, Rachel Carson, is highlighted in a display detailing the nation's growing awareness of the natural world as an "environment," and the interconnection of natural resources and human influences.

The conservation time line ends with a digital display of the earth's human population, which increases by three people every second, and a computerized sign-in pad which allows the new generation of conservationists attending training at NCTC to pledge to carry on the stewardship of our natural heritage.

Satellite displays in instructional buildings and lodges around the campus include original artwork by J.N. "Ding" Darling, who created the first Federal Duck Stamp in 1934, and exhibits on Pelican Island refuge and on the role of law enforcement in the evolution of the Service.

Future exhibits will include a history of the introduction of carp into the United States and a display on the Endangered Species Act of 1973 and its precursors.

The Service's Heritage Committee was influential in the creation of the museum, and hopes to continue to inspire Service employees to preserve and protect the agency's cultural heritage.

Jeanne Harold, National Conservation Training Center, Shepherdstown, West Virginia

Ancient Sturgeon Swim Boldly into the Future



The first step. Fisheries biologists load nets with juvenile pallid sturgeon in preparation for the stocking of more than 1,500 juvenile pallids in the Missouri and Yellowstone rivers. Photo by Eric Eckl.

The endangered pallid sturgeon, one of the world's most ancient fish species, has a new lease on life.

Biologists released more than 1,500 juvenile and four adult sturgeon into the Yellowstone and Missouri rivers near Williston, North Dakota, on August 11 and 18. The fish appear to be adapting well to life outside the hatchery. Most of the 100 juveniles that were fitted with transmitters have survived and sought out sandbar habitat off the main river channel.

"No doubt about it, we're pleased," said Mike Olson, the Service's endangered species coordinator for North Dakota. "Survival of the fish fitted with transmitters has been excellent, and we assume that survival of the fish without transmitters is at least as good."

The Service listed the pallid sturgeon as endangered in 1990 after biologists concluded that the population was declining drastically toward extinction. A strategy was developed to boost the population with young sturgeon raised in hatcheries, allowing time to restore pallid sturgeon habitat. The 1,520 young pallids released in August are offspring from a remnant population of aging wild sturgeon captured in the Missouri and Yellowstone rivers.



Modern day dinosaur. Fisheries biologist Steve Krentz displays a pallid sturgeon. These contemporaries of dinosaurs were listed as endangered in 1990. Their release into rivers was part of a major recovery effort. Photo by Mike Olson.

"The few adult sturgeon that are left in the river are in good health," added Steve Krentz, a fisheries biologist with the Service's Missouri River Fisheries Assistance Office. "But no young sturgeon have survived to adulthood in at least 30 years. The information we're getting back now will help us figure out why that is."

Contemporaries of the dinosaurs, pallid sturgeon have survived more than 150 million years of geological turmoil since the Jurassic Age. They have bony plates instead of scales, and a reptile-like tail. Grayish-white on the back and sides, pallid sturgeons can weigh up to 80 pounds and reach six feet in length. Their mouths are toothless and positioned under the snout for sucking small fishes and invertebrates from the river bottom.

As recently as the 1940s, more than 100 pallids inhabited each river mile in the upper Missouri and Yellowstone rivers, supporting a lively fishery.

In 1937, the era of dam-building along the Missouri and Mississippi rivers began. The federal government transformed most of the pallid sturgeon's 3,000 miles of natural river habitat into a series of reservoirs connected by deep, straight channels to provide water supplies, facilitate shipping, and control flooding.

The pallids, which require warm murky water with a variety of depths and currents, have been in decline ever since. Biologists are now trying to determine which of the changes to the river are preventing young pallids from surviving.

"The pallid sturgeon is still the only listed fish species in the Missouri, Yellowstone and Mississippi rivers, but many of its neighbors are in trouble, too," said Mark Dryer, leader of the pallid recovery team. "Restoring habitat and modifying dam operations for the benefit of the pallids will also help out species such as the sturgeon chub, sicklefin chub and sauger."

The August 11 pallid stocking at the confluence of the Yellowstone and Missouri rivers was held within sight of a campsite once used by explorers Lewis and Clark. Senator Kent Conrad and Representative Earl Pomeroy, both of North Dakota, attended the event along with Dr. Joseph W. Westphal, assistant secretary of the Army for civil works; Kirk Koepsel of the Sierra Club; representatives of the fish and game departments in Montana and North Dakota; and about 150 residents from the local community.

*Eric Eckl, Public Affairs,
Washington, DC*

*Ken Torkelson, North Dakota Wetland
Habitat Office/Field Office,
Bismarck, North Dakota*

Ennis NFH Tackles Whirling Disease Threat

Science vs. Extinction: Rearing the Pallid Sturgeon

"Raising new species is a trial-and-error process, but with so few pallids left, we didn't have much room for error," said Herb Bollig, project leader at Gavins Point NFH near Yankton, South Dakota, where most adult and juvenile pallid sturgeon are held, spawned, and reared.

To learn how to spawn and rear the pallid sturgeon, Bollig and other Service biologists consulted with Russian experts on the beluga sturgeon, California aquaculturists rearing white sturgeon, and hatchery managers in Missouri, who had experienced some success spawning pallids. Meanwhile, Bollig's team and David Erdahl and Rick Barrows of the Service's Bozeman Fish Technology Center, experimented with the shovelnose sturgeon as a surrogate for the pallid. After each successive breakthrough, the team ran into a new obstacle, inching forward until after six years of attempts, Bollig found himself with 18 tankfuls of tiny pallid sturgeon.

The Service spent more than \$1 million to modify Gavins Point hatchery to prepare the precious fingerlings for rearing and release. Two new buildings were built to house the fish, the water delivery system was adjusted to use both filtered lake water and well water, and a new backup generator was installed to ensure survival in the event of a power failure.

Gavins Point sent 150 pallids to Matt Bernard at nearby Valley City NFH in North Dakota, who raised the fish in warmer water until they were large enough to carry a transmitter.

"Now that the first batch has been released, the team is breathing a little easier," said Bollig, noting that stocking will continue for several years. "But we can still expect to learn about the tolerances of young pallids the hard way for a while."

Eric Eckl



Preventative measures. Barriers prevent wild fish infected with whirling disease from making their way into Ennis NFH. Photo by Eric Eckl.

Ennis NFH in Ennis, Montana, has risen to a very serious challenge—preventing whirling disease from infecting the hatchery's holding ponds and raceways, although the disease is firmly established in Madison River just two miles away.

Whirling disease, an exotic parasite originating in Europe, is devastating trout populations in a growing number of waters. Rainbow trout are particularly susceptible.

Federal hatcheries raise more rainbow trout than any other fish, some 11 million in 1996. Ennis, a broodstock hatchery, is the largest source of rainbow eggs for federal hatcheries and also supplies more than 20 million eggs each year to state and tribal facilities. Federal hatcheries raise rainbows to provide fishing opportunities in the cold tailwaters below major dams and in other locations where the native fishery has been destroyed by a federal water project.

About 9 million anglers pursue trout each year, pumping billions of dollars into local communities where the fishing is good.

"If whirling disease were to make its way into this hatchery, it would be a major blow to the entire national fish hatchery system and to dozens of state and tribal hatcheries, as well," said Ennis's Manager Wesley Orr. "So we have moved quickly to prevent infection."

Orr and his staff have closed off the most likely routes of infection—fish-eating birds transporting the parasite into the water supply and infected fish making their way into the hatchery ponds. Upstream, large metal buildings have been constructed to shield the hatchery's two springs from airborne disease. Downstream, barriers have been installed in the creek and at all outflow drains to prevent fish from entering the hatchery.

"We're feeling pretty secure from wild animals bringing whirling disease into the hatchery," said Orr. "But we get a lot of visitors here, some of them coming straight from the Madison River, so ongoing public outreach is now a top priority."

To reduce the likelihood of anglers bringing the disease inside the hatchery, boats are not allowed into the facility. Hatchery staff have spread the word about the threat of whirling disease around town and they ask visitors to stow waders and other fishing gear in the trunk of their cars before exploring the grounds.

"So far, no hatchery in Montana has tested positive for the disease," said Orr, and noted that a number of state hatcheries are picking up on Ennis's techniques to protect their own water supplies from the disease. "We're doing everything we can to see that it stays that way."

*Eric Eckl, Public Affairs,
Washington, DC*

Celebrating 40 Years of Raising Trout



Waiting for release. Jackson NFH in Jackson, Wyoming, raises juvenile Snake River cutthroat trout and releases more than 400,000 of them into their native waters each year. Photo by Eric Eckl.

Forty years after releasing its first fish in 1958, Jackson NFH in Jackson, Wyoming is still going strong. This year the hatchery will raise and release into their native waters more than 400,000 Snake River cutthroat trout.

The hatchery's nearly half-century as a trout incubator has benefitted both fish and people, according to Manager Kerry Grande.

"Jackson Hole is the gateway to the Grand Tetons and Yellowstone national parks, and trout fishing is a big part of the local economy," Grande said. "We work closely with the Wyoming Game and Fish Department to support its goal of maintaining a unique native trout fishery."

Federal support for the state's recreational fishery management began with a large irrigation project constructed by the Bureau of Reclamation in the early 1950s. The Palisades Reservoir provides water for crops in southern Idaho, but the project inundated critical spawning areas for cutthroat trout along the Snake River in Wyoming. The Service stepped in to mitigate for the lost fishing opportunities.

"According to the state's management plan, we stock adults ready for the cooler in waters that are easy for anglers to access," said Grande. "By stocking catchables in these waters, angling pressure is reduced on wild populations in other, more remote streams."

If it is determined that wild populations in a particular stream are depressed, the hatchery will also stock subcatchables or place eggs into hatching boxes, structures placed in the stream that shelter the eggs, increasing the percentage that eventually hatch. This technique increasingly is used to restore other cutthroat populations where broodstock and hatchery facilities are lacking.

"We raise fish that are essentially wild," Grande said. "In some cases, these fish are being used to re-establish populations of spring spawning cutthroat, so preventing the strain from becoming domesticated is critical."

The Wyoming Game and Fish Department brings fresh genetic material from the wild every three or four years and holds these eggs at a quarantine facility until they are determined to be free of infectious diseases before delivering them to Jackson NFH. The hatchery raises fish at lower densities than many federal or state hatcheries and the fish are fed a custom diet by mechanical feeders to prevent them from imprinting on humans.

Jackson's wild trout program costs a bit more than a domestic trout program of comparable size, but at about 65 cents each the fish are still a bargain. A recent study by the Wyoming Department of Game and Fish indicates that each trout is worth about \$88 to the local economy because of the equipment, food and lodging that visiting anglers buy.

"We are co-located with the National Elk Refuge, so a lot of people tour the refuge and the hatchery at the same time. During the peak season, about 4,000 visitors stop by each month," said Mike Clark, a biologist at the hatchery. "We are fortunate enough to have a dedicated volunteer who greets visitors and explains what we are doing. We have some aquaria so visitors can compare the Snake River cutthroats to other trout species."

Although populations of the Snake River cutthroat are in good shape, many native fish species throughout the West are in jeopardy due to habitat degradation, exotic diseases, scarce water supplies and competition from introduced predators, Grande noted. Captive propagation, when used hand-in-hand with habitat restoration, is an extremely effective method to restore troubled populations. Federal hatcheries have even begun to apply their expertise to other aquatic species such as toads and mussels.

"We have a strategic location, an excellent water supply, a pretty modern facility, and 40 years of experience working with native fish," Grande said. "If we can bolster our in-house quarantine capabilities, we will be in position to work with a variety of native species."

*Eric Eckl, Public Affairs,
Washington, DC*

Paddlefish Make A Comeback in Oklahoma

Oklahoma anglers beam if you ask them how paddlefish are doing. They have good reason to smile.

Thanks to the efforts of the Oklahoma Fishery Resources Office, Tishomingo NFH in Oklahoma, Uvalde NFH in Texas and Neosho NFH in Missouri, paddlefish are on their way back. Service biologists are working hard to expand the range of this ancient big-river fish.

The prehistoric behemoth was once widely distributed throughout the big rivers of the Great Lakes and Mississippi River basins. From Ohio to Montana and Minnesota to the Gulf Coast, paddlefish migrated every spring to their spawning grounds.

Then dams got in the way and water development projects altered river flow and water temperature. Commercial harvest for roe was excessive, as well, and in the end, survival just got too tough. In Oklahoma, paddlefish dwindled to just two self-sustaining populations by 1975.

But the tough keep going. In 1992, Bob Pitman, project leader at the Oklahoma Fishery Resources Office organized paddlefish restoration efforts with the cooperation of state fisheries agencies in Oklahoma, Kansas and Texas. Once a paddlefish broodstock was certified disease-free by the Service's Pinetop Fish Health Center in Arizona, production began in earnest at Tishomingo hatchery. Offspring now make their way into Oklahoma waters every autumn.

Biologists stocked nearly 80,000 paddlefish in the upper Arkansas and Verdigris rivers over a five-year period. Those efforts are now bearing fruit. What were twelve-inchers a few years ago now weigh over 75 pounds and measure five feet long. In the next ten years anglers can expect these new residents to reach 100 pounds.

Stocked paddlefish are nearing maturity and appear to be making spawning migrations. Oklahoma fisheries biologists have yet to find evidence of successful spawning—young paddlefish—but are confident they will appear in survey nets soon.

On the Red River, the natural boundary between Oklahoma and Texas, Oklahoma Fishery Resources Office personnel work with biologists from both states to improve the paddlefish population. Next spring they plan to gather gravid adults from the Red River below Lake Texoma and spawn them at Tishomingo NFH. By autumn the progeny should be large enough to survive most Lake Texoma predators. With many miles of free-flowing river above Lake Texoma, the Red and Washita rivers may soon harbor the next restored paddlefish population.

"Fossil records show that paddlefish have been swimming rivers of the Midwest since before dinosaurs ruled. We're working hard to see that paddlefish don't go the way of dinosaurs," said Nancy Kaufman, Southwest regional director.

According to Pitman, the future looks good for paddlefish. "Our plan is to stock fish in each system for six years then wait for signs of reproduction. Seeing the big, mature fish that we stocked a few years ago returning to the creel is very promising," he said.

This prehistoric prize can give anglers all they can handle. The newly established populations offer fishing opportunities and more are on the way. Pitman and his cooperators plan to expand stocking to two other Oklahoma rivers in 1999.

Craig L. Springer, Division of Fisheries, Albuquerque, New Mexico

Setback Hinders Endangered Mussel Recovery

Efforts to recover endangered freshwater mussels suffered a tragic setback late in August when a tanker truck spilled about 1,250 gallons of Octocure 554, a rubber accelerant, into the Clinch River at Cedar Bluff, Virginia.

The spill resulted in the largest take of endangered species since passage of the Endangered Species Act in 1973 as biologists from the Southwestern Virginia field office recovered the remains of 242 endangered mussels, including tan riffleshell, purple bean and rough rabbitsfoot mussels. Service biologists also collected some 6,000 dead non-listed mussels. In all mussels from 17 species were killed.

The driver of the truck was cited for reckless driving.

After the spill the Clinch River in southwestern Virginia ran a snowy white color, a water filtration plant at Richlands, Virginia was shut down, and most aquatic organisms over at least a 6.6 mile stream reach died, said Roberta Hylton of the Southwestern Virginia Field Office in Abingdon. Some 3,000 to 4,000 fish were killed, as well as aquatic insect larvae, snails, crayfish, turtles and mussels.

"The spill devastated snail and mussel populations," Hylton said. "The Service and our partners working to protect and restore aquatic fauna of the upper Tennessee River basin fear that the total number of individuals of listed and non-listed species killed is likely much higher. A storm event could resuspend particles that may have settled or precipitated out in pools, potentially resulting in further die-offs of mussels and other aquatic fauna further downstream."

The Service, The Nature Conservancy, and other conservation organizations recognize the Clinch River as one of the most ecologically significant freshwater river systems in North America. Take of endangered tan riffleshells resulting from the spill represents a significant loss from the world's only known reproducing population of this species, Hylton said.

Giving Sea Turtles a Chance



On her first visit to Caribbean National Wildlife Refuge Complex, Service Director Jamie Rappaport Clark contributed to the conservation of endangered leatherback turtles on a night that she later called "one of those life events that will be forever etched in my memory."

Clark and Southeast Regional Director Sam Hamilton assisted leatherback project directors and staff at Sandy Point NWR, on the southwestern tip of St. Croix, in collecting 87 leatherback sea turtle eggs in an erosion zone on the beach and moving them to a safer and more stable area that will not wash away.

Director Clark's unforgettable night was just one part of a leatherback project that is making strides toward recovering the Sandy Point nesting population by helping the Service to determine the number of nesting female turtles through tagging and photo identification. Biologists also will record the number of nests laid and maximize hatchling production by protecting nests from repeated tidal inundation, erosion, predation and poaching.

These efforts are making a positive difference in the recovery of the leatherback population at Sandy Point NWR. The refuge, established in 1984 specifically to protect leatherback turtles, supports the largest and best-studied population of leatherbacks in the United States and northern Caribbean.

Since the Service and the U.S. Virgin Islands Department of Planning and Natural Resources began the leatherback project in 1981, population monitoring has shown an increase in nesting while many other leatherback nesting colonies worldwide are in steep decline.

Leatherback numbers at Sandy Point have risen from a low of 82 nests in 1986 to a record 720 nests in 1997. The turtle population there has been increasing steadily since 1991.

Sandy Point refuge is home to a variety of other species. The inland scrub/woodland areas and salt ponds of the refuge host more than 100 bird species, including five that are federally listed as endangered or threatened. Endangered hawksbill and threatened green sea turtles also nest on the refuge and its adjacent beaches.

*Sandy MacPherson,
Jacksonville Field Office,
Jacksonville, Florida*

Cooperative Research Units Get the Job Done

Based at academic institutions around the nation and staffed by federal biologists, university faculty and student researchers, cooperative fish and wildlife research units have undergone several transformations in the 63-year history of the cooperative research program. In recent months, the Service once again became a signatory to unit cooperative agreements, a result of efforts to re-focus the unit program toward Service needs.

These days the program, though now organizationally part of the U.S. Geological Survey's Biological Resources Division, remains valuable to the Service for a variety of important uses: mission-oriented research, continuing education opportunities for Service employees and as a source of well-educated new employees.

The ultimate in effective partnerships, cooperative research units established a blueprint for working federal alliances long before that concept came into vogue. State fish and game agencies work more closely with Service programs through the cooperative research program, and universities provide multiple resources for unit support.

Cooperative research units can facilitate almost any natural resource research effort, yielding the most current information available to assist the Service in its activities while producing university graduates who are fully prepared to enter the natural resource conservation profession.

In 1935, the Department of Agriculture's Bureau of Biological Survey established the Cooperative Research Unit Program. Oversight of the cooperative units shifted to the Interior Department in 1939 and became part of the Fish & Wildlife Service when it was formed in 1940.

Congress breathed increased effectiveness into the program in 1978 by providing for the Service to directly fund unit research projects. In 1993 management of the cooperative research program moved to the National Biological Survey, which is now the USGS Biological Resources Division.

*Reid Goforth, External Affairs,
Arlington, Virginia*

Directorate Goes Back to Class



Training opportunity. *Members of the Directorate spent a week immersed in the ecosystem approach at the National Conservation Training Center. Photo by Doug Canfield.*

Just as many varied parts make up a whole ecosystem, so too does the Service's approach to ecosystem conservation have many components.

A number of these key components came together for an intensive immersion in ecosystem conservation in August, as the Service's directorate attended the National Conservation Training Center's week-long training session on the subject.

Though the course, "An Approach to Ecosystem Conservation," had been offered ten times previously for biologists, land managers and planners, the August session marked the first time the Service's twenty national managers undertook such training as a group. Service Director Jamie Rappaport Clark said she looked forward to the course as an opportunity to review the concept of ecosystem conservation and address employee concerns.

"I intend to spend a week regrounding myself with some of these resource issues, and addressing how to respond to the many 'campfire' notes I've received on the subject of ecosystem conservation," Clark said.

The directorate's participation in the course was not a coincidence; it signified the Service's continued commitment to ecosystem conservation, said training center Director Rick Lemon, also a course participant.

"You as an agency directorate said you wanted to take the ecosystem course, and you're receiving it the same way everyone else is," said Lemon at the beginning of the week's session.

The directorate renewed its support for training opportunities in the ecosystem approach in response to the ecosystem management survey of agency employees by Ohio State University.

Course instructors confirmed that what they teach is valuable for Service employees at all levels in the agency. "People's experience with ecosystem conservation is uneven," said course instructor Larry Nielsen from Pennsylvania State University. "The majority of folks are at least psychologically on board. But some folks want to know, 'What am I going to do Monday morning?'"

"There are no recipes," said instructor Dennis Schenborn of the Wisconsin Department of Natural Resources. "They [the participants] are the ones who have to figure out how to apply ecosystem conservation within their own landscape."

The course integrates principles of conservation biology, landscape ecology and conservation planning used in devising a framework for ecosystem conservation. Ecological theory, public involvement and adaptive management all are addressed as part of the curriculum.

In essence, ecosystem conservation is "learning to live on a piece of land without spoiling it," according to Schenborn, borrowing a quote from famed conservationist Aldo Leopold. "We're going to have to move forward with ecosystem management and we're going to have to do it across agencies."

Course participants echoed those thoughts throughout the week. "It's really good that we're taking a common training course on ecosystem conservation," said Region 4 Regional Director Sam Hamilton, "so that we can help to bring commonality among all of the Service's ecosystem teams."

"The people of the Fish & Wildlife Service are expecting that the leadership of the agency clearly articulate these concepts in a more consistent way," said David Allen, Alaska regional director. "They want a better sense of where we're going in this agency on ecosystem management and a greater sense of operational direction."

The August ecosystem training drew instructors from a diverse group of cooperating universities, including the University of Florida and Colorado State University. Former West Virginia Governor Gaston Caperton, who lives near the training center, also addressed the group, saying that he hoped courses such as this one, and the center itself, would bring people from government, business and environmental organizations together to address tough environmental issues.

The Service encourages other employees engaged in the shift to ecosystem conservation to attend this course, Lemon said. Another next course session was offered at the training center in November and a session is planned for May 1999, probably in Savannah, Georgia.

David Klinger, National Conservation Training Center, Shepherdstown, West Virginia

Beginning with this issue, the *News* will devote one page to reporting on the Service's implementation of the ecosystem approach and highlighting the activities of ecosystem teams around the nation. We encourage you to send your articles and photos to: Editor, Fish & Wildlife News, 1849 C Street, NW, Room 3024, Washington, DC 20240, fax 202/219 9463, e-mail: rachel_levin@fws.gov.

Calling All Books! (And Letters and Maps, too)

The conservation library at the National Conservation Training Center in Shepherdstown, West Virginia, wants your books, journals, maps and letters.

According to NCTC Director Rick Lemon, the library is actively building its collection and is seeking books and materials related to the center's courses, as well as collections of Service documents and materials tracing the development of conservation efforts by the Service and its partners.

"If a Service employee is about to retire," Lemon said, "we hope that person might consider the value of their collection to other conservation professionals who use this facility. If future retirees would like to donate to the library, we're grateful to receive donations."

The library is especially interested in duplicate copies or first editions of classic conservation texts. "We ask people to please submit a book list first so that we can determine which books should be added to the collection," said Anne Post Roy, conservation librarian at the training center.

The library is looking for clean, dry and unmarked editions of classic conservation texts and Service documents important in the context of landmark conservation efforts, Roy said. For example, recovery or restoration plans, enactment documents for key fish and wildlife laws, and certain environmental assessment documents would be of interest, as well as old library copies of books and documents.

Roy reminds potential donors to look closely at NCTC's training catalogue to see how discarded books might be helpful. Subject areas could include environmental education, conservation law enforcement, environmental toxicology and natural resource law. Publications on general biology, aquaculture, endangered species, computer and geographic information systems, and management and leadership also are appropriate.

Materials also may include books, journals, computer files or databases, maps and other publications. Unfortunately, the conservation library cannot house all materials due to limited space. However, "thanks to the miracle of modern digital access and storage the library can scan and store many items," Roy says.

"And I'd like to give a big thanks to those folks who have already donated items," she said.

Already the Service's Media Services office in Washington, DC, has loaned back issues of all agency news releases since 1914 for scanning and storage at the library, both for historical reference and as a backup for the master collection permanently housed at the Main Interior building.

Back issues of journals and periodicals will be considered and the library is collecting a limited quantity of older Service publications.

Despite its relatively short time in existence, the library has proven useful to students, meeting attendees, course leaders and visiting instructors who can learn about the Service in a comfortable atmosphere.

In addition to an area where each region may showcase its recent publications, the library soon will house a display highlighting refuge "friends" groups and partner organizations through newsletters, brochures, patches and other items, Roy said.

Most importantly the library, with its quiet reading area overlooking a wooded ravine, serves as a sanctuary from the intense learning environment at the training center and is considered by some to be the best spot on campus.

For more information about donating to the library, contact Anne Post Roy by phone (304/876 7399) or fax (304/876 7213), or e-mail at anne_roy@fws.gov. You may send a book or document list to Roy at U.S. Fish & Wildlife Service, National Conservation Training Center, Conservation Library, Rte. 1, Box 166, Shepherdstown, WV 25443.

What's doing at the conservation library?

Hours

Mon.–Thurs. 7 am–8 pm
Fri. 7 am–3:30 pm

Access to the Internet, a library catalog, word processing and searchable databases

Photocopier and fax available

Full reference services including document delivery and fast information retrieval

Borrowing privileges for all students while on campus and extended by special arrangement

Regional and national publications; more than one hundred periodical titles

A nature observation post featuring species sightings by students and staff; articles and conference announcements; and local news of interest to naturalists, local touring information and topographic maps of the area

A growing "Classic Conservation Collection" and the "Librarian's Choice" collection of comprehensive management plans, environmental impact statements and other plans

Service Honors Refuge System Heroes



Hail, conquering "heroes." Director Jamie Rappaport Clark presented the 1998 Refuge Heroes awards to tireless supporters of the National Wildlife Refuge System. Pictured, left to right, Jack Payne, David Cline, Clark, Frank Wolff and Lonnie Williamson. USFWS photo.

The Service honored three citizens and a private conservation organization in September for their contributions to the National Wildlife Refuge System and for their "passion and commitment to the conservation of wildlife, fisheries and plant resources."

Director Jamie Rappaport Clark presented the "Refuge Hero" honors at a Washington, D.C., reception sponsored by Senator John Chafee of Rhode Island, and Congressmen Jim Saxton of New Jersey, John Dingell of Michigan, John Tanner of Tennessee and Ralph Regula of Ohio.

"Our purpose in being here tonight is to celebrate the growing support we see across the United States for the National Wildlife Refuge System," Clark said. "The 93 million acres making up this vast network of wildlife lands belongs to all Americans, and we always welcome a chance to say thank you to those who have become special friends. The four we honor here today are special friends. We could not do our job without them, and thousands more who help us every day, 365 days a year. They are invaluable."

Clark presented Service Citizen Awards to:

Frank J. Wolff, of Cordova, Maryland, past president of Friends of Blackwater NWR in Cambridge, Maryland. Wolff was cited for serving "vigorously" to engage refuge managers and private citizens in organizing "Friends" groups to support area refuges. Wolff is credited with singlehandedly starting three such groups in Maryland and Delaware. As a current member of a national Friends mentoring team, Wolff travels extensively across the country instructing others on how to organize new groups.

Lonnie Williamson, of Washington, D.C., vice president of the Wildlife Management Institute and outdoor writer, who helped raise awareness of the refuge system among outdoor media because of the Wildlife Management Institute's leadership role on the Cooperative Alliance for Refuge Enhancement group and his membership in the Outdoor Writers Association of America. Williamson secured continuous coverage of the refuge system through the OWAA publication *Outdoors Unlimited* for a full year, helping to raise public awareness of refuge funding issues as well as the system's contributions to conservation and public recreation.



Ducks Unlimited of Memphis, Tennessee, accepted by Jack Payne, national director of conservation. Over the past 15 years Ducks Unlimited has constructed more than 470 projects worth more than \$21 million on scores of refuges, often funding the projects wholly or in partnership with the Service. Without DU's assistance, innumerable wetland and upland restoration and enhancement projects including construction of water control structures, dikes, water delivery systems, and nesting islands would have been delayed well into the next century.

David R. Cline, of Anchorage, Alaska, past regional vice president of the Alaska National Audubon Society. Cline is also the chairman of the Kodiak Brown Bear Trust and he successfully advocated for the largest purchase of refuge inholdings in the history of the refuge system, using \$90 million of the Exxon Valdez oil spill settlement to return 211,000 acres to Kodiak NWR. During his 18 years as regional vice president for Audubon in Alaska, Cline provided funding and personal promotion of the popular Goose Conservation Calendar, which was prompted by the decline of four Arctic nesting species of geese.

Ken Burton, Public Affairs, Washington, DC

How d'ya do? About 50 Service employees in Arlington, Virginia, had the chance to greet live wolves recently as they were treated to an afternoon with wolves (and humans) from *Mission:Wolf*. Dedicated to preserving wild wolves and educating the public about the dangers of interbreeding wolves and dogs, *Mission:Wolf* biologists travel around the country for several months of each year with their "ambassador wolves," Sila (pictured) and Merlin. The rest of the year, the two wolves live with 45 others on *Mission:Wolf*'s refuge in Colorado. Photo by Rachel F. Levin

Service Trains Tribes in Enforcement



Nature's caretakers. Tribal conservation law enforcement agents practiced shooting under the watchful eye of Service instructors at recent training held in Montana. USFWS photo.

It was far from your typical classroom scene—but then this wasn't your typical classroom.

Dozens of students listened raptly as Service law enforcement agents conducted a firearm certification course, part of the week long training program for tribal law enforcement personnel. The course, held in Bozeman, Montana, last July, was one in a series offered by the Service in partnership with Native American Fish and Wildlife Society.

Forty-six officers from nearly 20 tribes, including the Blackfeet, the Jicarilla Apache, and Confederated Tribes of Warm Springs, attended.

Course instructors recognized the importance of teaching the basics to the growing number of tribal law enforcement officers.

"As more and more tribes become self governing, the need for special training in wildlife law enforcement becomes increasingly important," said Commodore Mann from the Region 6 Law Enforcement division, lead instructor for the course.

"Conservation law enforcement training is number one on many tribal wish lists," agreed Ron Skates, director of the Service's Montana Fish and Wildlife Management Assistance Office. "Indian lands are being increasingly targeted for trophy animals, animal parts, and even walrus ivory in Alaska."

This rapidly growing interest in wildlife resources has many tribes hard-pressed to keep up. From the beginning, as each tribal officer introduced himself, it was apparent many of the attendees had just recently been assigned to protect natural resources on their tribal lands. Skates noted that in many instances, individuals charged with wildlife-related violations on tribal lands were able to escape sentences because of legal technicalities.

Mann and fellow agents Doug Goessman, Bob Prieksat, Roger Gephart, Rick Branzell, Mark Webb and Tim Eicher conducted training in search and seizure, forensics, evidence collecting, jurisdictional issues with tribal lands, interview and interrogation techniques, and laws relative to tribal lands, such as the Migratory Bird Treaty Act, Lacey Act, and the Bald and Golden Eagle Protection Act. Along with the classroom lectures, practical exercises were conducted in road blocks and game check stations.

To date, the instruction team has trained and certified 136 officers, and there is a long waiting list to participate. Three more courses are planned in the upcoming fiscal year, including one in Alaska.

*Eric Eckl, Public Affairs,
Washington, DC*

Go Abroad and Do Good



Taking in the scene. Members of the Service's International Conservation Corps and their Chinese counterparts survey coastal marshes near Panjin, Liaoning Province, near the Yellow Sea, where wetlands also contain oil wells and agricultural developments. USFWS photo.

The delicate Monarch butterfly overcomes incredible odds on its annual journey from the United States to Mexico and back, providing valuable lessons on migration.

On the other side of the world, the Javan rhino hovers at the brink of extinction, inciting the interest of Americans who want to halt the decline of this majestic beast.

The Service has a long and successful history in international wildlife conservation. Increasing attention to the plight of foreign species is taking conservation partnerships to new dimensions. In August the Service established the International Conservation Corps, a first-of-its-kind initiative which will draw upon the expertise and international experience already within the agency's ranks.

The wildlife ambassadors of the corps will help the Service meet its growing needs for skilled technical personnel to assist international conservation efforts. Enhanced communications and information exchange between the Service's international and domestic programs will be an added benefit.

Inspector Helps to “Free Willy”

To date more than 100 Service personnel have applied to the International Conservation Corps. Assignments will typically last a month or less and will take corps members to Central and South America, Africa, or Asia, where most of the Service’s international efforts are focused. The Office of International Affairs will fund all travel and per diem costs and the employee’s duty office pays his or her salary while on assignment.

Potential assignments include short-term projects in refuge management, scientific exchanges and educational initiatives. International Conservation Corps members may find themselves educating foreign specialists who visit national wildlife refuges and other Service field sites; taking part in exchanges of refuge personnel to do specific resource management, wildlife survey and enhancement projects; or providing technical support for activities promoting environmental awareness and research applications to solving conservation problems.

A recent visit by Service representatives to China’s nature reserves illustrates the spirit of the corps. The delegation visited a number of wetland conservation sites which provide critical habitat for many rare and endangered species. Service delegates advised Chinese land managers on wetland protection, research and monitoring; international cooperation; and environmental education.

The Office of International Affairs anticipates sending International Conservation Corps members on assignments by the end of 1998. Members will be notified well in advance of potential assignments to determine their availability and willingness to participate. The Office of International Affairs will keep all corps members up to date on their colleagues’ experiences abroad.

To receive an International Conservation Corps application, call Jean Schlegel in International Affairs at 703/358 2125.

*Irene James, International Affairs,
Arlington, Virginia*



How’s my paperwork coming? Wildlife Inspector Toni McLaughlin (right) and Jeff Foster of the Free Willy Keiko Foundation review the export papers that allowed the whale to leave the country legally as Keiko looks on. McLaughlin’s inspection was one of the final hurdles Keiko had to clear before being returned to Iceland in September. Photo by Debbie Saxon.

Service Wildlife Inspector Toni McLaughlin can truthfully say she helped to “free Willy.”

McLaughlin, who works with the Division of Law Enforcement in Portland, Oregon, processed the wildlife export paperwork that allowed Keiko, the 9,050-pound celebrity killer whale who starred in the 1993 movie “Free Willy,” to leave the United States on a journey that may be the beginning of his return to the wild.

Keiko, who was captured off the coast of southern Iceland in 1979, was living in a theme park in Mexico when he got his “big break” in Hollywood. His hit movie, however, turned the spotlight on his less-than-ideal living conditions.

In 1996, the Free Willy Keiko Foundation brought the orca to the Oregon Coast Aquarium in Newport, Oregon, to restore his health and rescue him from his life in captivity. In September, Keiko was moved to an open water holding pen near the Westman Islands in Iceland, where scientists hope that he will eventually readjust to life in the sea.

Before the orca’s much publicized departure could occur, the foundation, like any exporter of wildlife in this country, needed to comply with Service wildlife import/export regulations.

“Keiko required a re-export permit under CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora),” explained McLaughlin. “The foundation also had to file a wildlife import/export declaration form with the Service.”

A few days before Keiko’s scheduled flight, McLaughlin went to Newport to check his paperwork. She validated the whale’s CITES re-export permit, which had been issued by the Service’s Office of Management Authority, as well as his Service declaration form.

“We reviewed the papers in a monitoring room that allows aquarium staff to watch Keiko when he’s underwater. He was there at the window where I was working, as if he knew what I was doing,” McLaughlin said.

Clearing a whale for export was probably a “once-in-a-career” experience for McLaughlin. Service wildlife inspectors examine wildlife and wildlife products at U.S. ports of entry, monitoring an annual trade worth more than \$1 billion and ensuring that wildlife imports and exports comply with U.S. laws and international treaties that protect species worldwide.

*Sandy Cleva, Law Enforcement,
Arlington, Virginia*

Enjoy Public Lands but “Leave No Trace”

The instructors gave us a dozen or so small plastic bags filled with staples such as flour and dehydrated beans. This was to be food for three days for our group of four large men. They had to be kidding. Four guys would inhale that stuff as an appetizer the first day. Where were the steaks and potatoes?

Then they sent us into the George Washington National Forest in Virginia to backpack for three days. We had one overall objective: to leave absolutely no trace that we had ever been there.

Four guys usually can't watch a football game without trashing a living room—how could they expect us to tramp through the wilderness, bathe, eat, and take care of the other business of life without anyone knowing we had been there? But we did it. In doing so, we learned how to teach others to camp and backpack on public lands without disturbing the land, plants, wildlife or enjoyment of others.

The expedition was part of “Leave No Trace,” a training program that originated with the U.S. Forest Service but now is supported by the Bureau of Land Management, the National Park Service and the Fish & Wildlife Service. The program, incorporated as Leave No Trace, Inc., in 1993, is administered by the National Outdoor Leadership School, a nonprofit outdoor training school in Lander, Wyoming. A number of private partners, including wilderness schools, conservation organizations, and sporting-good manufacturers, participate in the program.

In addition to conducting training courses, LNT Inc. produces and distributes pamphlets, books and videos to educate wildlife user groups, federal land managers, and the public on the best minimum impact techniques for a variety of environments, including alpine areas, coasts, deserts, rivers, and lakes. The program's goal is to create a new wilderness backpacking and camping ethic through intensive training in proper techniques and practices.

The ten people in our class quickly discovered that even experienced backpackers, which most of us were, have a lot to learn about “leaving no trace.”

“Leave No Trace” emphasizes six principles: 1) plan ahead and prepare; 2) concentrate use in popular high-use areas; 3) spread use and impact in pristine areas; 4) pack it in, pack it out; 5) properly dispose of what you can't pack out; and 6) leave what you find.

Some techniques involved in following these principles are common sense, such as properly hanging food in trees overnight to keep bears from eating it. Others are less obvious, such as determining where to set up campsites that will have the least long-term impact on the land and vegetation.

Still other techniques increase enjoyment of the outdoors. The four men in my group didn't starve during our three day trek; instead, we learned how a few staples can make for tasty, filling meals, including a delicious pizza made from scratch and cooked over a portable gas stove. (By building a small fire on the lid of the cooking pot, we turned it into an oven.)

“The vision of ‘Leave No Trace’ is to instill outdoor ethics in all visitors on public lands to protect both the environment and the quality of the outdoor experience,” said Jeffrey Marion, a researcher with Patuxent Wildlife Research Center, who served as one of the instructors on the course. “With more and more usage of public lands, we have no choice but to use education to promote responsible behavior. To the extent we can succeed in this, we can avoid the need for more heavy handed regulation of recreational use down the road.”

Students in the course included representatives of the Fish & Wildlife Service and the U.S. Forest Service, volunteer leaders of the Boy and Girl scouts, and a staff member from the Appalachian Trail Conference. Each course graduate is qualified as a “master” of Leave No Trace and trained to teach others the principles.

Every year, 30 million people visit national wildlife refuges and other public lands. It will be easier to conserve these lands and their wildlife for the benefit of all Americans if our visitors learn to enjoy themselves while they “leave no trace.”

*Hugh Vickery, Public Affairs,
Washington, DC*

New Special Agents Take the Field



Learning experience. *New Service special agents complete motorboat maneuvers at Harris Neck NWR in Georgia. USFWS photo.*

Nineteen weeks of training at a former military base in southern Georgia may not sound like the start of a “dream job.” It is a dream job, though, for 14 new federal wildlife law enforcement officers who graduated from basic training at the Federal Law Enforcement Training Center in Glynco, Georgia, on September 4.

The special agent class of 1998, a group selected from more than 980 applicants, includes four former wildlife inspectors, two refuge officers and eight state wildlife officers. Like all Service special agents, they began their new careers by completing two intensive, back-to-back training programs at the Georgia training center, a Treasury Department facility that trains all federal law enforcement officers except FBI and Drug Enforcement Administration agents.

The first course covered the fundamentals of being a federal criminal investigator. The curriculum included constitutional and criminal law; firearms policy and basic marksmanship; nonlethal control techniques; interviewing techniques; surveillance; search and seizure; court testimony; and physical conditioning.

After completing that nine-week program at the end of June, the 14 new Service special agents moved on to their own agency-specific “basic school.” They studied the intricacies of the nation's wildlife conservation laws and regulations, polished their migratory game

Curious Condors Cavort in Colorado

bird and raptor identification skills, covered the fundamentals of aircraft safety and wilderness survival, earned certification as motorboat operators, reviewed Interior Department and Service law enforcement policies and procedures, and received additional training in important aspects of investigative work, such as interviewing and interrogation.

Many members of the class already have professional law enforcement experience. But for most, receiving their special agent credentials was the fulfillment of a long-held career goal. "I enjoyed my work as a wildlife inspector," Neil Mendelsohn said. "But I wanted to be an agent from the time I first read about what they do at my college placement office."

For some, the job builds on an interest in environmental issues and wildlife conservation that dates back to childhood. "It's a way of putting your money where your mouth is," said Sheila O'Connor, who spent more than seven years as an Illinois state conservation officer.

"Service law enforcement is more focused on the big picture for conservation," Steve Stoinski said. The former Utah and Wisconsin state conservation officer picked his future career at age 11 when he saw poachers take a deer.

"We like to think that we hire 'the best of the best' because so many well-qualified people apply for agent openings," explained Rick Thornton, who heads up the Office of Law Enforcement's Branch of Training and Inspection. "The performance of this group at FLETC supports that claim."

During their interagency criminal investigator training, Service special agents took several top honors. Bob Snow, a former refuge officer, turned in the best academic performance and was recognized as the program's "Honor Graduate" (a distinction he also earned in the special agent basic program). Ken Dulik, another former refuge officer, and Terry Thibeault, a former wildlife inspector, tied for highest firearms qualification score.

*Sandy Cleva, Law Enforcement,
Arlington, Virginia*

The human desire to fly is well documented. Permeating Greek mythology, Native American lore and the tales of countless other cultures are fables in which humans take flight or merge with the spirit of a bird. To fly like a bird is a dream that has inspired the creation of mythological heroes and cartoon superheroes.

Perhaps birds similarly aspire to be human. Bird folklore may be full of tales of shopping excursions at the mall or watching football games on TV with five-toed feet propped on coffee tables and five-fingered hands clapping cans of cold beer.

The desire to be human may have prompted three California condors to take a trip to Colorado's Grand Mesa in late August, startling a visitor center volunteer who reported that "some huge birds just walked in here." The birds, each about three feet tall with featherless heads distinctive of the species, strolled nonchalantly into the visitor center; one of them even gazed admiringly at its reflection in the window, reported Service biologist Barb Osmundson.

The three-and-a-half-year-old endangered condors are part of an experimental flock released in May 1997 on the Vermillion Cliffs in northern Arizona. The trio of curious condors flew 250 miles north to the Grand Mesa, the second longest voyage for any of the 19 birds introduced more than a year ago, according to Robert Mesta, the Service's California condor recovery coordinator. Days before, a single bird journeyed to Flaming Gorge National Recreation Area in Wyoming. In just one day, the solitary condor flew the entire 305 miles home.

"On the one hand we like to see such dramatic movements that indicate the strength and health of the birds," said Mesta, "but of course, it makes it pretty difficult to monitor."

Arizona's condor population is classified as experimental and nonessential under the Endangered Species Act, allowing for fewer restrictions than normally provided under the act. All of the birds that have strayed have returned soon after their journeys, as expected, because they are social birds and need interaction with other condors.

Interaction with people is discouraged, according to Shawn Farry, of The Peregrine Fund, which works closely with the Service on condor recovery. "If you are concerned at all about the birds and having the birds stay in the wild, it's imperative to stay away and don't feed them," Farry said. "If these birds get fed or any other reinforcement, it's just going to result in the birds being returned to captivity."

Will Service biologists follow if other condors take lengthy "road trips"? Mesta said that the cost of chasing the birds several hundred miles would be too high. "We plan to keep people in a network partnership effort to keep tabs on the birds should they make movements like this in the future," he said.

Sounding like a mother seeing her children off to school for the first time, Mesta explained that successful species reintroduction means putting down monitoring gear. Though it may be difficult, he said, "there will be a time to let go."

*Ben Ikenson, Student
Conservation Associate,
Albuquerque, New Mexico*



Service Celebrates Proposed Peregrine Delisting Nationwide



The Boise event was a celebration appropriate for such a momentous occasion. Falconers who gave up their own birds for the first captive breeding efforts and members of the peregrine recovery team joined the Service and Peregrine Fund staff, volunteers and families for a morning press conference and reception. The announcement attracted quite a few elected officials as well, including Idaho Senator Dirk Kempthorne, Governor Phil Batt of Idaho and Mayor Brent Coles of Boise.

Clark presented Bill Burnham, president of The Peregrine Fund, with an award in recognition of the Fund's leadership in captive breeding and release programs that helped to make the celebration possible.

Awards also were given to the Raptor Center of the University of Minnesota and the University of California's Santa Cruz Predatory Bird Research Group. Through a cooperative effort with the Service, these groups have been responsible for the majority of the 6,000 peregrine releases back into the wild since 1974.

Falconers involved in the recovery effort around the country made the most of the national announcement by highlighting recovery efforts in their states. Media outlets in California covered the work of the Santa Cruz Predatory Bird Research Group; Maryland press covered the work of the Service's own Craig Koppie, who helped nurse the birds in the Chesapeake region back to health; and in New Mexico, folks hosted their own event with retired Service employee Tom Smylie, a dedicated falconer.

The multiple celebrations clearly illustrated the importance of partnerships in recovering endangered and threatened species.

*Cindy Hoffman, Public Affairs,
Washington, DC*

Making a comeback. Thanks to a variety of cooperative conservation efforts, peregrine falcons have rebounded and recently were proposed for removal from the endangered species list. Photo by Craig Koppie.

September 17 was an exciting day for the Service as the agency announced that the first species in three years had been fully recovered and was ready to be removed from the endangered species list.

The peregrine falcon, once so close to extinction, now resides in almost every state. Director Jamie Rappaport Clark announced the proposal to delist the peregrine in Boise, Idaho, at The Peregrine Fund's World Center for Birds of Prey. Interior Secretary Bruce Babbitt made a simultaneous announcement in Atlanta, Georgia.

Outdoor Laboratory All Aflutter



I spy a butterfly. Admiring zebra swallowtail butterflies in the NCTC butterfly garden are (left to right) Carolyn Thomas, president of the Potomac Mecklenberg Garden Club; Mimi Westervelt of NCTC; and Cathy Murray, also of the Garden Club. Photo by Doug Canfield.

This summer students and visitors at the National Conservation Training Center could watch butterflies nectaring from Mexican sunflowers in the center's butterfly garden. Planted outside the Division of Education building, the garden was created with partners from the Potomac Mecklenberg Garden Club, the oldest garden club in West Virginia.

The NCTC butterfly garden is receiving recognition beyond the appreciation of the local butterfly population. The garden was recently awarded the Imogene Riely Community Service Award by the West Virginia Garden Clubs, recognizing it as "the best community project" of 1998.

The club plans to use the butterfly garden to educate students about the native plants and butterflies of West Virginia.



Fish and Wildlife...In Brief

Schmidt is New Deputy AD for Refuges and Wildlife

Paul Schmidt, former chief of the Office of Migratory Bird Management, was named Deputy Assistant Director for Refuges and Wildlife in September and will oversee the Office of Migratory Bird Management, the North American Wetlands and Waterfowl program, and the divisions of Refuges and Realty. Schmidt, who holds a bachelor's degree in biology from the College of William and Mary in Williamsburg, Virginia, joined the Service in 1978 at Back Bay NWR in southeast Virginia. He was acting Assistant Regional Director for Refuges and Wildlife in Alaska before transferring to Washington in 1992.

Sea Turtle Takes Long Island by Surprise

Hundreds of miles north of its usual range, a 350-pound green turtle nested in August on Napeague Beach on New York's Long Island. These endangered sea turtles usually lay their eggs on beaches in Florida and the Caribbean. When Hurricane Bonnie threatened the coast, scientists dug for the eggs around the nest, but came up empty-handed. It is unlikely that hatchlings could have survived cold autumn beach and ocean temperatures. Other tropical species have unexpectedly been reported in the area, including a manatee, brown pelicans, bluefin tuna, and other sea turtles.

Chinese Fishery Experts Tour Southeast Region

The world may be shrinking thanks to cellular phones and Internet access, but most folks will agree that nothing beats face to face meetings. That's what happened in the Southeast region in September when three members of the Chinese Academy of Fishery Sciences met with Regional Director Sam Hamilton, Assistant Regional Director for Fisheries Columbus Brown, and other officials to talk—face to face—about the fisheries issues affecting both countries. The group discussed a wide array of Service fisheries programs including fish restoration and recovery, fish pathogen identification, applications of new technologies such as using cryogenic principles for gene-banking, and regulatory and enforcement concepts.

The Chinese fisheries experts also visited Service programs in the Southeast, learning about captive shortnose sturgeon culture strategies at the Bears Bluff fish technology center in South Carolina and participating in Gulf sturgeon tracking with staff at the Panama City, Florida, Fisheries Resources Office



USFWS photo.

R1 Outreach Specialist Hooks Excellence Award

Judy Maule, outreach specialist for Fisheries and the Columbia Basin Ecoregion in Region 1, received the first-ever Excellence in Outreach Award from the American Fisheries Society at its annual meeting in August. She was recognized for her outstanding contributions to fisheries outreach during her many years as an AFS member and more recently in her role developing outreach activities for hatcheries in the Columbia Gorge in Washington and Oregon (see photo). A long-time editor of *Piscatorial Press*, the award-winning newsletter of the AFS Oregon chapter, and a technical editor for other fisheries articles, Maule has created portable displays on Columbia River fish, and organized teacher workshops and special events.

Upper Mississippi Refuges Count the Miles

The Dubuque, Iowa, chapter of the Friends of the Upper Mississippi River Refuges has launched a unique membership drive called "Friends Per Mile," which aims to gain one new member for each of the 261 miles of the Upper Mississippi refuges. Formed about a year ago, the Friends of the Upper Mississippi River Refuges recently began forming chapters in cities and towns along the 261-mile length of the refuge.

1997 Angler, Hunter Numbers Down

Although the number of anglers and hunters who bought licenses fell slightly from 1996 to 1997, their expenditures continued to rise, the Service announced in September. Anglers bought 29.3 million fishing licenses in 1997 compared with 29.9 million in 1996. They paid \$498.4 million for their licenses, tags, permits, and stamps, compared with \$447 million in 1996. Meanwhile, 14.9 million hunters bought licenses in 1997, down from 15.2 million in 1996. However, hunters spent \$564.9 million on licenses, up from \$542.8 million the year before. License sales figures are compiled annually by the Service from information submitted by state fish and wildlife agencies.

Find a Job on the Web

Looking for a public affairs specialist position in Pittsburgh? A wildlife biologist job in Boise? You can find all of the latest job vacancies—where else?—on the World Wide Web. Both the Service and the Interior Department have integrated their vacancy listings into the government-wide listings through the Office of Personnel Management's home page (<http://www.usajobs.opm.gov>).

Interpretive Specialist Receives Partnership Award

Gary Stolz, an interpretive specialist at the National Conservation Training Center in Shepherdstown, West Virginia, recently was recognized for his work as a member of a team dedicated to the health of America's coastal and marine environment. As a member of the Coastal Ecosystem Team Learning Center Workgroup, Stolz and representatives from other federal agencies and several aquariums received the 1998 Coastal American Partnership Award from Coastal America, a non-profit organization which runs coastal ecosystem learning centers around the nation.

HCPs: Sound Policy for Wildlife and People

The administration of the Endangered Species program is one of the most challenging and rewarding tasks we in the Fish & Wildlife Service face. Balancing the needs of wildlife with the demands of an ever growing human population takes creativity and patience. Fortunately, Congress had the forethought to create a flexible Endangered Species Act that provides tools such as habitat conservation plans to help private landowners use their lands while protecting endangered and threatened species.

Habitat conservation planning is causing people to consider the impacts of development and encouraging them to plan wisely. As more and more communities are seeking a balance between growth and conservation, they are using new planning tools such as HCPs to map out a vision for the future. HCPs provide a process that is flexible, can accommodate numerous stakeholders, and gives those involved a forum to explore the choices that lie before them.

San Diego recently became a model to the nation for how to plan for and balance the needs of people and nature. Home to more threatened and endangered plants and animals than any other county, the region also is experiencing one of the highest growth rates in the country, resulting in extraordinary development pressures. Though the development of a "Multi-Species Conservation Plan" covering 85 species of vulnerable plants and animals, the residents of San Diego have truly demonstrated that the preservation of ecosystems and the unique plants and wildlife they support can be compatible with growth and development.

The centerpiece of their plan is the agreement to protect key parcels of native habitat totaling 171,900 acres for the long term biological needs of 85 rare plants and animals. The plan also provides certainty and predictability for land use planners and landowners by providing a blueprint that defines areas appropriate for conservation and development.

These types of successes are being duplicated all over the country, as communities are creating innovative ways to protect endangered and threatened species while achieving economic goals. There are more than 200 habitat conservation plans covering over 6 million acres. Throughout the creation of each of these HCPs, Service employees were there at the table with diverse partners, mapping out a road to the future for conservation and development that will avoid the conflicts of the past and promote the protection of endangered and threatened species and the ecosystems they rely on for years to come.

HCPs are coming in all shapes and sizes. Creative Service employees are forging innovative agreements such as the numerous plans for the red-cockaded woodpecker spanning the southeast from Louisiana to North Carolina. Not only are these agreements allowing for growth to continue, but the woodpecker populations are increasing!

HCPs are protecting vital habitat with partners who would have been considered unapproachable just a few years ago. Plum Creek Timber Company in Washington state is protecting 170,000 acres of habitat for the northern spotted owl, the marbled murrelet, the grizzly bear and the gray wolf. The HCP gave Plum Creek assurances that no additional regulatory restrictions would be placed upon it for the species covered by the agreement. In exchange, Plum Creek is managing its property on an ecosystem-wide basis, protecting wildlife habitats in 23 watersheds and maintaining current levels of old growth forests. By monitoring large-scale, long-term efforts like this, the Service can learn much about prospects for the eventual recovery of these species.

Increasingly, HCPs are helping the Service develop new conservation partnerships and avoid the ESA "train wrecks" we so often encountered just a few years ago. We have shown that with a little innovation and cooperation we can provide a program that meets the economic needs of landowners while providing long-term benefits to the species. That is a legacy that should make us all proud.



Jamie Peppert Clark

Fish & Wildlife News

Executive Editor: Megan Durham
Editor: Rachel F. Levin

Submit articles and photographs to:

Rachel F. Levin
U.S. Fish & Wildlife Service
Room 3024
1849 C Street, NW
Washington, DC 20240
202/208 5631
Fax: 202/219-9463
E-mail: rachel_levin@fws.gov

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