



U.S. Fish & Wildlife Service

Fish & Wildlife News

Summer 2004

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Mexican Frogs Hop into Arizona Restoration Effort

Tarahumara frogs are hopping free in the United States for the first time in more than two decades. Biologists released more than 400 of the frogs and tadpoles in the Santa Rita Mountains about 50 miles south of Tucson, Arizona, in late June.

While populations of these frogs are still found in Mexico, biologists believe the last Tarahumara frogs in the U.S. died out in the early 1980s.

Thousands of the frogs lived in Arizona's Santa Cruz County in the 1970s. Biologists believe they may have disappeared because of disease, winter cold, flooding, or toxic fallout from copper smelters.

"Returning these frogs to the wilds of Arizona is one milestone," says Arizona Game and Fish Department herpetologist Michael Sredl. "The real achievement will come when we establish reproducing populations of Tarahumara frogs in Arizona."

The released frogs were collected as eggs in Mexico in 2000. They were reared at U.S. Fish and Wildlife Service facilities, the Kofa and San Bernardino National Wildlife Refuges, and the Arizona-Sonora Desert Museum.

The frogs and tadpoles were carried to the release site in plastic containers in the backpacks of biologists and volunteers. The scientists are members of a conservation team that has tirelessly worked to reach this landmark.

On the cover:

Leapfrog. An international collaboration is helping the Tarahumara frog hop back onto the map in the Santa Rita Mountains 50 miles south of Tucson, where it has not been seen in more than 20 years. Biologists collected hundreds of frog eggs in Mexico to then release the tadpoles north of the border. Photo courtesy Jim Rorabaugh.

"Planning, permitting, collecting, rearing, and releasing are complete," says Jim Rorabaugh, a Service herpetologist, "but the success of this project relies on monitoring this population to determine whether the threats they faced in the past are still present, and if necessary, addressing them."

The released frogs were treated against a fungal disease that has been killing off frogs around the world since the Tarahumara frog died out in the U.S. years ago. Also, bullfrogs, which are predators of Arizona native frogs, have not been found in surveys of the release area.

The Tarahumara frog is a 2½- to 4½-inch greenish-brown frog with small brown and black spots on its body. It prefers deep plunge pools in the rugged canyons of southeastern Arizona.

The Tarahumara frog release is part of a joint project involving the Service, Arizona Game and Fish Department, U.S. Forest Service, Arizona-Sonora Desert Museum, Phoenix Zoo, University of Arizona, and Instituto del Medio Ambiente y el Desarrollo Sustentable del Estado de Sonora. Several private citizens and biologists are also involved in reestablishing Tarahumara frogs in Arizona. The team has identified other potential release sites to help reestablish this frog.

*Jeff Humphrey, Public Affairs,
Phoenix, Arizona*

"Ironman" Eric Schradling To Enter World Championship



Fish and Wildlife biologist Eric Schradling will compete in the Ironman Championship on October 16.

Eric Schradling, a Northeast Region employee, has qualified to compete in the Ironman Triathlon World Championship in Kailua-Kona, Hawaii, on October 16. Schradling is a senior fish and wildlife biologist at the New Jersey Ecological Services Field Office in Pleasantville, New Jersey.

The ironman triathlon is one of the most grueling of athletic pursuits. It requires the competitor to swim 2.4 miles, bike 112 miles and run 26.2 miles in a 17-hour period. Training typically requires 18 to 24 hours per week for six to eight months to develop the required endurance for the event.

"This is a dream come true for me," Schradling says. "A few years ago, I was watching the event on television and thought, 'That's nuts! Who would compete in that?' And now I'm going to compete in it myself."

Refuge Manager John Magera Earns a Spot on U.S. Olympic Team

Eric has competed in ironman-style triathlon racing for six years, acting as his own trainer. He begins preparing for a race 12 weeks before the event. Race preparation starts with 18 to 20 hours of moderate-intensity workouts. Closer to the race date, the hours decrease and the intensity increases. Training peaks at two to three weeks, when he puts in eight to 10 hours per week of high-intensity workouts.

Eric qualified for the world championship by finishing third in his age group (28th overall) at the Eagleman Half Ironman Triathlon at Blackwater National Wildlife Refuge in Maryland. He qualified against 50,000 other competitors from 50 countries. Eric also finished 48th out of 2,000 and eighth in his age group at the Lake Placid, New York, Ironman USA Triathlon in July. He has competed in the Great Floridian and Duke Blue Devil triathlons as well as running in two Ironman half-triathlons this year.

Schrading, 38, previously competed in the world championship in 2002. He finished that race in 67th place for his age class with a time of 10:25:13.

Eric typically trains at night. He spends his early evening hours with his three children and only begins training after they've gone to bed. During winter months, he trains on stationary exercise equipment.

Eric finds triathlon training is excellent for stress relief and mental sharpness. He says he meets incredible people at races, among both the athletes and the race supporters. When asked how long he intends to keep on training and competing, he replies, "Until training isn't fun anymore."

Judging by the ages of some of his world class competitors, who are as much as 76 years old, that could take a lifetime.

*Ron Rothschadl, Public Affairs,
Hadley, Massachusetts*



American Archers in Athens. *John Magera, standing at the far right, poses with team members of the U.S. Archery team during opening ceremonies of the Olympics. Photo courtesy of John Magera.*

Last June, John Magera, bought his first Olympic-style recurve bow. A year later, the 34-year-old refuge manager at Middle Mississippi River NWR in Illinois headed to Athens, Greece, as a member of the U.S. Olympic Team.

By all accounts, Magera was an underdog who placed third at the five-day USA Archery Olympic trials which concluded mid-June in Mason, Ohio. John bested more than 70 other archers, many of them world-class competitors, to land a spot on the team. According to Dick Steinbach refuge manager at Mark Twain NWR, John's life has gotten pretty crazy since then.

Although he had been shooting traditional bows since he was three-years-old, his first Olympic style competition was the Prairie State Games in Illinois in June of 2003.

So far in 2004, Magera has only shot in five tournaments. He finished in 10th place at the Texas Shootout in April with a score of 647, which was good enough for him to qualify for the Olympic Trials. He also competed at the Gold Cup in Bloomfield, New Jersey before shooting the Olympic Trials and landing a spot on the U.S. Olympic Team. He competed in his first-ever international competition at the European Grand Prix in Antalya, Turkey, in July.

The American archers ultimately finished 4th, losing the bronze medal to the Ukraine team by only two points.

For Magera, it was nevertheless a dream come true. "My only goal was to get into the top 16 and if I did that, I would've been completely happy going home," said Magera. "In the back of my mind, I thought I might be able to make the top eight, but never expected this. I don't think it's really sunk in yet that I was on the Olympic Team."

John's wife, Karin, is a secretary at Crab Orchard NWR.

*Scott Flaherty, Public Affairs,
Fort Snelling, Minnesota*

International Paper Inks Innovative Aquatic Resources Agreement

International Paper signed the first-ever Aquatic Resources Conservation and Management Partnership Agreement, a landmark environmental partnership with the Fish and Wildlife Service that is expected to significantly improve freshwater ecosystems across the Southeastern United States.

The 10-year agreement, signed in May, covers 5.5 million acres of International Paper forestlands in nine Southern states: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee. Under the agreement, Service biologists will provide technical assistance as the company conducts extensive ecological surveys and conservation projects to help recover imperiled aquatic species and restore their habitat.

Freshwater mussels, which are widely considered to be prime indicators of water quality, are one of many aquatic groups that will be studied, managed and protected through this agreement. Management actions outlined in the agreement will benefit aquatic species well known to everyone such as the largemouth bass and channel catfish. They will also benefit imperiled species that rely on water quality like the boulder darter, a rare fish in Alabama and Tennessee; the flattened musk turtle, a rare reptile, and the Black Warrior waterdog, a rare amphibian, both in Alabama; and the dwarf wedgemussel, a rare mussel confined to the Atlantic Slope drainages.

"The protection agreement will extend beyond International Paper forestlands to promote awareness of the need for conservation of aquatic species and habitats within the private sector, through a series of workshops," Haines said. IP's director-sustainable forestry and forest policy. "The streams, rivers and lakes that exist on our forestlands are home to thousands of rare fish and water species, and we place tremendous importance on protecting water quality in our forests to provide a nurturing aquatic habitat. I'm very proud of our company and the Fish and Wildlife Service for agreeing to this first of its kind partnership. The protection agreement will make a tremendous difference for aquatic species throughout the South."

The cooperative conservation actions called for in the agreement include:

- Identifying areas on International Paper land to survey for presence of imperiled aquatic species where they might occur but have not yet been detected
- Implementing and measuring the effectiveness of Best Management Practices to protect water quality during forest operations
- Supporting propagation programs for imperiled aquatic species
- Re-introducing imperiled aquatic species within International Paper forestlands where there is suitable habitat
- Publicly promoting awareness of the needs of these species.

*Tom MacKenzie, Public Affairs,
Atlanta, Georgia*

U.S. Investigation Fuels Wildlife Trafficking Arrests in Brazil



Because of its teeth, the jaguar has become a target in the shady business of illegal wildlife trade. FWS photo: Gary M. Stolz.

A U.S. Fish and Wildlife Service investigation of wildlife smuggling that sent a Florida businessman to prison for 40 months helped Federal authorities in Brazil break up a criminal network illegally trafficking in tribal handicrafts made from protected species.

On May 14, 2004, the Brazilian Federal Police announced the arrests of 11 individuals linked to an international trafficking scheme and the seizure of 1,000 wildlife items. The arrests marked the culmination of an investigation that began after the Service notified the Brazilian government that tribal handicrafts decorated with feathers and other wildlife parts were being smuggled to the United States and possibly other countries from Brazil.

Assistance from the Brazilian Federal Police helped Service investigators document the wildlife trafficking activities of Milan Hrabovsky, the owner of two Florida businesses specializing in the sale of tribal art. Hrabovsky used contacts in Brazil to smuggle headdresses, masks, and other items, which he then sold over the internet and at markets and craft fairs.

New Law Boosts Sea Turtle Protections

Hrabovsky was indicted in March 2003 on 17 felony counts related to the illegal importation and sale of thousands of dollars worth of wildlife items. Last July, he pleaded guilty to one count of smuggling, one count of obstructing justice, and one count of violating the Lacey Act, which prohibits international and interstate commerce in illegally acquired wildlife. Species involved included red and green macaws, blue and gold macaws, scarlet macaws, and jaguars, which are also safeguarded under the Convention on International Trade in Endangered Species (CITES).

Charges were also brought against 10 of Hrabovsky's largest customers in the United States. These individuals paid nearly \$40,000 in fines for purchasing illegally imported wildlife items.

Information obtained by the Service about Hrabovsky's business contacts in Brazil prompted authorities there to launch their own investigation. Brazilian law generally prohibits the commercial exploitation and export of that country's native animals.

Those arrested in Brazil were employed by that country's National Indian Foundation, a government agency tasked with defending the interests and rights of Indian peoples in Brazil. The handicraft trafficking scheme capitalized on laws that allow Indians in Brazil to hunt animals and sell products for their own sustenance, to gain access to such materials as macaw feathers and monkey and jaguar teeth.

*Sandra Cleva, Law Enforcement,
Arlington, Virginia*



Nesting sea turtles contend with numerous threats including egg harvesting, poaching and habitat encroachment. FWS photo.

Protection of the international sea turtle through partnerships got a significant boost in July when President Bush signed the Marine Turtle Conservation Act into law.

Under the new law, sea turtles will be added to the list of species eligible for funding under the Multinational Species Conservation Fund.

This fund supports on-the-ground protection, research and education efforts. It provides comprehensive support, global coordination and collaboration in developing countries where resources and capacity are limited.

The National Oceanic and Atmospheric Administration (NOAA) and the U.S. Fish and Wildlife Service share jurisdiction for the conservation of marine turtles. The Service focuses conservation activities on nesting beaches while NOAA works to conserve and recover turtles in their marine habitats.

When funds are available, implementation of the Marine Turtle Conservation Act will be modeled on previous Multinational Species Conservation Act initiatives. Similar programs are funding conservation programs for elephants, tigers, rhinoceros, great apes and neotropical migratory birds.

Each project funded under the Multinational Species Conservation Fund is a cooperative effort with foreign governments, non-governmental organizations or the private sector. No in-country project is approved unless it has the full support of that government's officials, and has been identified as a project that will address the country's conservation priorities. Advisory committees assist the Service in reviewing projects.

The \$25 million in federal funds provided to date have been matched by over \$80 million in contributions from approximately 500 partner organizations.

Less than 60 years ago, marine turtles were abundant, and widespread nesting on beaches was common. Today, however, six of the seven marine turtle species—the Kemp's ridley, the Olive ridley, the Loggerhead, the Leatherback, the Hawksbill and the Green turtle—are listed as endangered under the Endangered Species Act (ESA). All seven are also listed under the Convention on International Trade in Endangered Species (CITES).

Overall, nesting populations for most species have declined worldwide with a few exceptions. Threats facing marine turtles include egg harvesting, poaching, trade in turtle parts and loss of habitat. In many cultures, people still harvest marine turtles and their eggs for food. Most countries have outlawed the killing of turtles and the taking of eggs, but resources for enforcement are inadequate.

*Mitch Snow, External Affairs,
Washington, DC*

Who Let the Pelicans Out?

Service biologists are trying to determine what caused the disappearance of thousands of white pelicans from nesting sites at Chase Lake National Wildlife Refuge in late May, and where the pelicans may have gone.

Population counts conducted by the Service on two of the three nesting sites at the refuge revealed a drop from about 27,000 pelicans on May 20 to 80 birds on May 28. A flight over the surrounding area on June 2 did not find any large numbers of pelicans. A third nesting site on the refuge is reportedly normal, with about 2,500 pelicans present.

The 4,385-acre refuge, located north of Medina, North Dakota, is home to the largest nesting colony of white pelicans in North America. The refuge also contains some of the most productive duck breeding habitat in the lower 48 states and provides important habitat for other migratory bird species such as Canada geese, shorebirds and dozens of songbird species including some rare grassland sparrows. In 2003, the American Bird Conservancy declared the refuge a Globally Important Bird Area.

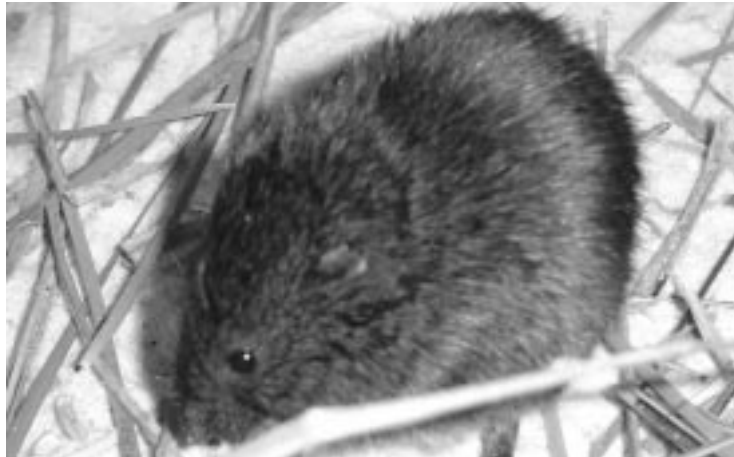
Biologists found a small number of sick and dead pelicans at the refuge. Preliminary tests on these birds did not indicate the presence of any toxins or diseases, including West Nile Virus. Additional testing is taking place at the National Wildlife Health Center in Madison, Wisconsin.

The probe has not ruled out harassment by either animals or humans. Biologists found a coyote den relatively close to one of the nesting sites, and there is ongoing scientific research on the refuge.

The Service has contacted refuges and other areas around the Nation that have nesting pelican colonies, but none of these sites report similar abandonment, unusual hikes in pelican populations, or abnormal mortality rates.

*Mick Erickson, Chase Lake NWR,
North Dakota*

Rare Voles Love Suwannee



*The salt marsh vole is rare, and very hard to spot. But the vole has apparently found some spots on the Lower Suwannee NWR to be ideal.
FWS photo:
Michael Mitchell.*

The salt marsh vole is so rare that before April of this year only 15 individuals of this subspecies had been found in the last 22 years, all at one site near Cedar Key, Florida. Since 1982, efforts by numerous researchers have been unable to document voles anywhere else within Florida's Big Bend region.

This spring, Steve Barlow, wildlife biologist, and Mike Mitchell, assistant manager at Lower Suwannee National Wildlife Refuge in Chiefland, Florida, conducted a methodical search on the refuge for voles. Because Florida salt marsh voles require habitat dominated by seashore salt grass, numerous sites were surveyed for this vegetative type and compared to an original capture location. A site with the best potential habitat was selected, and a trapping survey began in April. After four days of trapping, three Florida salt marsh voles were captured. The discovery of these voles marked the first time the subspecies had ever been captured at a location other than the original site near Cedar Key.

"These remarkable discoveries add new hope to the future of this critically endangered small mammal," Mitchell said. "This further amplifies the importance of preserving and protecting Florida's fragile salt marsh habitats."

The Florida salt marsh vole, a subspecies of its northern cousin the meadow vole, is larger in size, has smaller ears, and an overall darker coloration. It was listed as endangered in 1991. Voles can be active during the day and at night. They spend most of their time feeding on grasses, seeds, and probably some insects. The Florida salt marsh vole seems to prefer areas in the salt marsh dominated by seashore salt grass, especially where this grass is tall and dense. The voles form runways beneath the tall grass and are rarely, if ever seen. It is unknown exactly how the voles survive strong storms and floods. While voles are excellent swimmers, it is assumed they survive long periods of high water by clinging to the tops of vegetation. Voles have a life span of only six months, and they begin breeding at two months of age.

Recovery efforts for this subspecies call for continued surveys to document other isolated locations of voles and to complete more detailed life-history studies of the current known populations. The Service will continue to emphasize conserving Florida's Big Bend salt marsh region through management of public lands and cooperative opportunities with private landowners.

*Tom MacKenzie, Public Affairs,
Atlanta, Georgia*

Beluga Sturgeon Listed as Threatened

The Service announced in late Spring that it is listing beluga sturgeon as threatened, with the listing to take effect six months from its publication in the Federal Register. Female beluga sturgeon are considered the world's most valuable commercially harvested fish because they supply beluga caviar, one of the most highly-prized delicacies in the world.

"Unregulated overfishing, loss of spawning habitat, and poaching to supply the black market beluga caviar trade have all contributed to a notable decrease in the wild beluga sturgeon population," Service Director Steve Williams said.

The listing's delayed effective date gives the Service time to propose a special rule for beluga sturgeon to address measures it deems necessary to ensure the species' conservation.

The proposed rule provides specific exemptions from threatened species permits for trade in certain beluga sturgeon caviar and meat. It would allow continued trade in these products contingent upon Black

and Caspian Sea countries developing cooperative management plans, sharing information concerning policy decisions, and reducing the illegal trade.

Beluga sturgeon are long-lived and slow to mature. On average, male fish mature between 10 and 16 years of age and spawn once every four to seven years. Females mature between 14 and 20 years of age and reproduce only once every four to eight years.

Remaining wild beluga sturgeon populations are found only in the Black and Caspian Sea Basins. An Appendix II listing under the Convention on International Trade in Endangered Species (CITES) allows sustainable and controlled international trade for commercial and noncommercial purposes through a system of permits. All sturgeon and paddlefish and their byproducts must be accompanied by valid CITES documentation to be legally imported into or exported from the United States.

*Patricia W. Fisher, Public Affairs,
Washington, DC*

Conserving Eastern Brook Trout: An Historic Event

As the sun rises, the quiet is broken only by the sound of rushing water. A clear, cold mountain stream spills over a jumble of boulders as the early morning sun filters through the trees, creating a patchwork pattern on the forest floor. This is known as "brookie" habitat.

Eastern brook trout were once so common in the eastern U.S. that fish surveys noted their absence, rather than their presence. Their numbers began to decline in the early 1900s, as a result of increased logging, fishing, habitat degradation, and construction of impoundments. The introduction of non-native rainbow and brown trout increased competition, driving brookies from larger bodies of water to the headwaters of small Appalachian mountain streams.

Increased efforts to restore this species reached an historic milestone on June 2, 2004, when, for the first time, cold-water fisheries biologists and policy makers from 17 states, four federal agencies and 10 conservation groups met to join forces to save the brookie. In partnership with the International Association of Fish and Wildlife Agencies (IAFWA), the Service kicked off the Eastern Brook Trout Initiative with a keynote address by Fred Harris, Chief of Fisheries for the North Carolina Wildlife Resources Commission and President of the American Fisheries Society. Hannibal Bolton, Chief of the Branch of Fish and Wildlife Management and Habitat Restoration for the Service, described the "joint venture" concept and the relationship of this initiative to the National Fish Habitat Initiative. It was readily apparent that meeting attendees had overwhelming interest in and support of a brook trout initiative.

Based on the "Joint Venture" model, the Eastern Brook Trout Initiative is a key outcome of the Fisheries Strategic Vision and the draft Fisheries Strategic Plan. The Initiative will rely upon a collaborative approach to focus efforts and leverage resources to improve the status of this species on state, federal, tribal, and private lands from Maine to Georgia.



National Fishing and Boating Week, in June, introduces youngsters to the joys of fishing. FWS photo.

Brook Trout (continued)

Partners agreed to do several things including:

- Establish a steering committee and work groups to assist in developing a joint venture for brook trout,
- conduct an assessment of the status and distribution of brook trout in the Eastern U.S., coordinated by the USGS-NBII Program and funded by Trout Unlimited, and,

- form a work group to draft a "Collaborative Conservation Strategy for Eastern Brook Trout" by 2005.

In the end, the conservation of brook trout and its habitat will reap many benefits, allowing the Fisheries Program to fulfill its charge to ensure "Healthy Fish and Wildlife, Healthy Habitats, Healthy People, and a Healthy Economy." Cool, clear water will tumble through mountain streams and brook trout will once again claim their rightful place in the rushing waters of the Appalachians.

*Jarrad Kosa and Carol A. Pollio,
Fisheries and Habitat Conservation,
Arlington, Virginia*

You've Got Questions

While most of the public inquiries handled by the Customer Service Center are straightforward, we get a few that give us pause or make us smile. Following are some of the more interesting questions the Center has had during its first year:

"What is Director Williams' last name?"

"I have a creek that runs through my property. Normally, it's about 5 feet deep and there are lots of birds and fish and other animals. Now it's about 2 feet deep. Who can I call to get it refilled?"

"I have heard of a few cases of carnivorous squirrels and I'm wondering if I could teach them to eat meat, and if they would actually hunt other animals after doing this."

"If a refuge closes due to flooding, is it still open for fishing?"

FWS Scores a Home Run with Customer Service Center



Janet Miller (right) points the way toward improved customer service, conducting on-site training for Tier I agents headquartered in Indianapolis. Photo: Laurie Thompson, Aspen Systems.

On July 1, 2004, the U.S. Fish and Wildlife Service celebrated the Customer Service Center's first birthday. The Customer Service Center combines the 800/344 WILD telephone line, established in 1996 as a refuge system information line, and a specially designated e-mail address <contact2@fws.gov> to provide the general public with one-stop shopping for information about Service programs and other natural resource conservation topics. The Customer Service Center also fulfills publications requests through the clearinghouse in Pueblo, Colorado, and the Publications Unit at NCTC.

The Customer Service Center handles an average of 8,300 telephone inquiries and 400 e-mail inquiries per month.

Contract agents headquartered in Indianapolis are on duty 8 am to 8 pm EST to field inquiries from callers. Service staff periodically conducts on-site training for agents and provide them with tools such as the Employee Pocket Guide to help them respond to public inquiries. In addition, we conduct monthly monitoring sessions to assess performance and recommend improvements.

Depending on the volume of calls, there may be anywhere from three to 20 agents assigned to the FWS line. Inquiries run the gamut from species identification to Duck Stamps, and everything in between. Most of the calls can be handled by agents. However, when the public inquiries are complex or deal with more technical issues, the agents transfer the calls to trained FWS External Affairs staff at the Division of Conservation Partnerships located in Arlington, Virginia.

Occasionally, the Customer Service Center provides services other than simply responding to public inquiries and information requests. Recently, Customer Service Center agents received a frantic call from visitors at Mingo NWR. They were unable to exit the refuge because the gates were closed and the tripping device, designed to respond to the weight of cars and open the gates to allow exit, was malfunctioning. It was late in the evening, the refuge office was closed, the only telephone number the visitors had was the 800 number on the back of the refuge brochure, and their cell-phone battery was just about exhausted. The quick-thinking agent who received the call got in touch with one of the Tier II emergency contacts, who was able to contact one of the refuge employees. The agent called the family back to let them know help was on the way. The entire situation was successfully resolved within 30 minutes of the original call.

"I want to thank all the Service employees who help us respond to public inquiries," said National Outreach Coordinator Anita Noguera. "We have a lot of resources and can handle a wide variety of subjects but we also need the specialized knowledge that you so freely share with us. The Customer Service Center would not be so successful were it not for your help."

*Janet L. Miller, Customer Service Center,
Division of Conservation Partnerships,
Arlington, Virginia*

Atlantic Salmon Show Possible Longtime Exposure to Virus

In the Words of 'C.S.' Johnson



Carcasses of spawned-out salmon were tested for ichthyophonus.

Atlantic salmon in two New England rivers may have been exposed to a salmon virus as early as 1995, according to scientists with the U.S. Fish and Wildlife Service and the U.S. Geological Survey. The first indication of infectious salmon anemia virus in sea-run fish in this country was previously thought to be in 2001 when viral material was found in a Penobscot River salmon in Maine. The same year, the State of Maine reported the first confirmed case of ISAv in the United States in an aquaculture sea-pen salmon.

"Our hatchery fish have not been infected with ISAv, but we remain concerned that the virus can be destructive under the right conditions," the Service's Northeast Regional Director Marvin E. Moriarty said. "ISAv poses a threat to Atlantic salmon restoration in New England and the recovery of endangered Atlantic salmon in Maine."

There is no treatment for ISAv-infected fish. The virus can cause salmon to die; however not all infected fish do. The virus does not infect humans, and people cannot contract the disease from eating or handling infected fish, said John Coll of the Service's Fish Health Center at the Northeast Fishery Center in Lamar, Pennsylvania.

ISAv was first described in Norwegian aquaculture in 1984. It caused significant numbers of fatalities in Canadian fish farms in 1996. After Canadians found ISAv in their aquaculture sea-pens in 1996, Coll knew U.S. fish were at risk, and his team of fish health biologists began testing blood samples from salmon collected in the Penobscot River and taken to Craig Brook National Fish Hatchery in Maine for spawning. The team found positive results in a single fish in 2001, although there were no signs of disease.

Scientists with the USGS's National Fish Health Research Laboratory at the Leetown Science Center in West Virginia tested archived serum samples from more than 1,200 salmon. They found ISAv antibodies in serum from four Penobscot and 10 Merrimack River sea-run salmon taken between 1995 and 2002. Serum from Connecticut River salmon tested negative. The presence of antibodies suggests that the fish were either exposed to ISAv or vaccinated against the disease. The aquaculture industry in the United States began vaccinating salmon in 1999.

*Diana Weaver, Public Affairs,
Hadley, Massachusetts*



C.S. Johnson and his hunting dog "Duke" share a moment of mutual admiration.

Photo: Elizabeth Losey

Narrative reports have been the bane of many a National Wildlife Refuge manager, but one storied giant of the refuge system effectively employed the annual reporting system to record thoughts and impressions of life on his station in prose so evocative that, a half-century later, it retains its ability to charm and beguile the casual reader.

The writings of refuge luminary Clarence "C.S." Johnson have recently been compiled and reissued by the National Conservation Training Center in a small booklet edited by another contemporary star of the refuge system, 91-year-old Elizabeth Browne Losey.

In the Words of 'C.S.' Johnson—Gone From Seney Refuge, but Not Forgotten—has been painstakingly drawn from 14 years' worth of narrative reports at the famed northern Michigan refuge, crucible to so much applied wildlife research since its creation in 1935 and training ground for dozens of latter-day managers whose experiences at Seney continue to shape the destiny of the refuge system.

Continued on page 10

In the Words of 'C.S.' Johnson (continued)

The 29-page booklet records Johnson's successes and failures at coaxing the 153-square-mile landscape of burned and denuded Upper Peninsula pine forest back to health in the midst of the Great Depression. Johnson's frank and unvarnished frustrations with tight budgets, oversight from his regional office, and supervision of an especially contentious camp for conscientious objectors during World War II are related from journal entries that were faithfully recorded by a manager who lived by his wits and an innate common sense in an era of hardship and privation.

Elizabeth Losey has spent most of her professional life in and around Seney refuge, where she was hired in 1947 by refuge system chief J. Clark Salyer to become the Fish and Wildlife Service's first female field research biologist. An accomplished biologist, historian, and chronicler of the early North American fur trade, Losey continues as a volunteer at Seney and remains active in field research, writing and photography.

In the Words of 'C.S.' Johnson premiered at the recent Fish and Wildlife Service retirees meeting at NCTC in May. Single copies of the booklet are available from agency historian Mark Madison, based at NCTC.

*David Klinger, NCTC,
Shepherdstown, West Virginia*

Communication + Collaboration = Contaminant Cleanup

On a bright, crisp September day five years ago, Bill Koch wished a more pleasant task awaited him; instead, he'd be making a visit he'd been dreading for months. The refuge manager of Great Swamp NWR had to convey some difficult news to nearby Harding Township—news that would severely test, and possibly destroy the heartfelt spirit of cooperation it had taken them years to develop. However it turned out, Bill knew that he had no choice but to break the news now and deal with the consequences later.

Bill carried with him evidence from recent contaminant studies that was definitely not good news. On the refuge sat the former Harding Township Landfill, acquired from the town in 1969 as part of a larger land acquisition. Oozing toxic levels of cadmium, lead, and zinc, the landfill was very close to some of the Refuge's most important waterfowl habitat.

As a result of the high levels of toxicity, the site was designated a candidate Superfund site by the U.S. Environmental Protection Agency (EPA). The site was a ticking time bomb—the longer the contaminants remained, the more extensive the damage, and the greater the cost of cleanup. The bad news Bill brought to the Township, as the former owner, was that it would be partly responsible for cleanup costs, which were estimated at over \$3 million.

Bill knew that to be successful, the project needed a strong, cooperative foundation. From the beginning, the refuge maintained an open-door policy, granting access and tours of the site, and including the Township in all aspects of project planning. The multi-agency technical team, consisting of members from the Service, US Army Corps of Engineers, the EPA and New Jersey Department of Environmental Protection (NJDEP), began with a collaborative approach in developing the cleanup plan. Being an active participant in the planning process not only alleviated the Township's anxiety regarding financial liability, but also forged a stronger commitment to wildlife resources at the local level.

The most difficult aspect of the project was negotiating and recovering cleanup costs from a small community like Harding Township, which had limited financial resources. A creative solution was needed!

Fortuitously, a 62-acre parcel of land adjacent to the refuge was slated for intensive development and was available for purchase. Despite several attempts by the refuge to acquire this parcel, negotiations had reached an impasse. Using a land purchase and exchange strategy, the Township purchased the land, in lieu of a cash settlement, and transferred it to the refuge. The refuge then reimbursed the DOI Central Hazardous Materials Fund for a portion of the cleanup cost. These reimbursed funds are now available for other DOI cleanup projects.

All of these efforts culminated on May 18, 2004, in a ceremony to celebrate the fact that a vast expanse of wetlands was no longer marred by a toxic dead zone. Prime waterfowl habitat was saved from a terrible fate. Sludge piles associated with the landfill were transformed into thriving vernal pools, colonized immediately by state endangered blue-spotted salamanders and other species. The cleanup was completed under budget and ahead of schedule, and professional relationships not only survived, but were cemented through this collaborative process.

Project partners praised the effort. NJDEP described the remediation as "beautiful" and the handling of the negotiations as "elegant." But the Mayor of Harding Township said it best.

"Successes will more likely be like this one: People with diverse interests and from diverse perspectives working collaboratively and creatively on common visionary goals that transcend provincial interests."

Looking back on that September day nearly five years ago, Bill couldn't have imagined he'd be celebrating such an outstanding achievement today. It wasn't always easy, but all the hard work paid off.

*Dr. Michael T. Horne, Watershed
Contaminants Biologist, Great Swamp
National Wildlife Refuge, New Jersey*

*Craig R. Moore, Environmental
Contaminants Biologist, Division of
Environmental Contaminants,
Arlington, Virginia*

President Carter's Tour of Texas Adds Many Birds to Life List



Former President Jimmy Carter and wife Rosalynn made a stop at the South Texas Refuge Complex Headquarters while birding along the Lower Rio Grande Valley. Manager Ken Merritt introduced the Carters to the staff and gave them a tour of the complex. FWS photo.

Former President Jimmy Carter and Rosalynn Carter added 88 new bird species to their life list while birdwatching with Fish and Wildlife Service biologist Steve Labuda in the Lower Rio Grande Valley in Texas. Lee Zeiger, Chairman of the Board for the Brownsville Convention and Visitors Bureau, and local Audubon chair, assisted Labuda with the tour and with spotting birds.

With Secret Service agents in tow, Labuda led the Presidential motorcade to several hot birding spots in southeastern Texas over a five day period in April.

Sites varied from the colorful McAllen Sewer Ponds, where the Carters added five species of sandpipers, to Santa Ana and Laguna Atascosa National Wildlife Refuges. Santa Ana yielded four lifers—white-faced ibis, tropical parula, ladder-backed woodpecker and a clay-colored robin. Twelve new birds were sited at Laguna Atascosa including American avocet, Long-billed curlew, short-billed dowitcher and Bewick's wren.

Upon meeting the Carters, Labuda talked with them about the types of birds they could expect to see. He guaranteed them a Least bittern. It seems a birding friend of theirs in Georgia had seen one in a flooded field, and wouldn't let them forget that she's one up on them. But each day the bittern eluded them. It wasn't until the fourth day they found it.

"I had promised this bird to Jimmy and Rosalynn," said Labuda. "Every day we talked about it, and I kept reassuring them that we would see one on the Convention Center Boardwalk on South Padre Island. On our second try, with little daylight remaining, a man from Ohio came running up to us and said a Least bittern had just flown into the area of cattails near where we were standing. He had been with us earlier and knew that the Carters wanted this bird. We all looked assiduously for the bird. I walked a few yards farther up the boardwalk when I spotted one. 'Jimmy, Rosalynn, come here quick, I've found your bird!' I shouted. Even the Secret Service agents had been looking for it. The Carters got good looks at this bird from distances of only 10 to 30 feet as it walked through the cattails, and then flew to the open on the opposite side of the pond."

The Carters brought their life list to more than 1,100 over the course of five days.

Labuda is highly qualified to lead a bird-watching presidential motorcade. He has 2,213 species on his list culled from Australia (350), Caribbean (97), Central America (214), Mexico (763), U.S. and Canada, (789). When not escorting presidents he is the US/Mexico Coordinator for the South Texas Refuge Complex in the Southwest Region.

Elizabeth Slown, Public Affairs, Albuquerque, New Mexico

Partnership Brings Native Fish Back After 50-year Hiatus

The month of May is a pivotal season in Ohio, the fulcrum from the cold and wet spring, to the sweltering summer sure to follow. Dogwoods spatter their white blossoms across the hillsides, and the edges of upland streams are dotted with gravelly smallmouth bass nests. Turkey hunters take to the woods. It all happens about the same time every year—nature's clockwork. But beneath surface of the Scioto River this past May, something new may have transpired for the first time in half a century: sturgeon spawning.

Thanks to a public-private partnership, shovelnose sturgeon have come back to the Buckeye state after nearly a 50-year hiatus. It's considered an endangered species by the state of Ohio.

Water pollution and locks and dams eliminated the fish from the state. Not only did dams in the Ohio River prevent these highly mobile sturgeon from getting to upstream spawning habitats, the flat water impoundments behind them offer no habitat. If form follows function, then the shovelnose sturgeon is the prototype for a body form shaped for fast water. The spindly body and flat wedge-shaped snout allow the fish to take up station in fast-flowing chutes as it peruses the bottom for insects, snails, mussels and crayfish—prey quite vulnerable to water pollution.

But opportunity knocked.

According to state biologist, Scott Schell, who leads the effort to restore this native fish, the Scioto River is cleaner now than it has been in decades. Moreover, the section of the Scioto where the shovelnose sturgeon were stocked has more fish and macroinvertebrate species than any other Ohio stream—and that speaks to high-quality habitat. The first dam on the Scioto that can block fish movement is 153 miles above its mouth on the Ohio River in the city of Columbus, and that means the shovelnose sturgeon will have room to roam.

The Service's Carterville Fishery Resources Office routinely monitors shovelnose sturgeon populations in the lower Ohio and Mississippi rivers, where the species is much more abundant, and even affords commercial and recreational fishing opportunities. It's these surveys that provide a source of sturgeon.

Partnership (continued)



Form follows function. *The shovelnose sturgeon, with its spade-like head, is built for life in fast water. The shovelnose sturgeon had been absent from Ohio waters for about 50 years. Photo: Ohio Division of Wildlife.*

The five-year reintroduction effort is in its third year. Only 35 shovelnose sturgeon made it to the Scioto River in 2002; this spring 153 fish made the trip from near Paducah, Kentucky, to Circleville, Ohio. Last year, the Service shipped sac-fry to Ohio's Kincaid State Fish Hatchery where the sturgeon were grown out and stocked into the Scioto.

Those young fish were the product of an unusual partnership involving state and federal governments, private enterprise and academia.

"The U.S. Fish and Wildlife Service has been the ligament—the connective tissue that pulled this partnership together," said Greg Conover, a Service fishery biologist who leads sturgeon surveys on the Ohio and Mississippi rivers.

Conover provided adult fish to Logan Hollow Fish Farm in Murphysboro, Illinois, a private commercial hatchery working with Southern Illinois University on early life history studies of shovelnose sturgeon. Some of the offspring went to university researchers, the others went to the ODOW. The partnership will provide more young fish over the next two years.

All of the young fish put in the Scioto River will be marked with an injected liquid-plastic tag visible just under the skin on the snout. Three years from now when biologists seek to measure success, they'll look for young shovelnose sturgeon without marks—fish spawned in the wild.

"Biologists almost always want to get returns on tagged fish," said Conover. "But in this case, when shovelnose sturgeon show up without those little fluorescent tags on their snouts, we'll know our partnership has paid dividends: wild sturgeon."

While it may be a number of years before Ohio anglers can set a trot line or deadline fish for shovelnose sturgeon, this public-private partnership is large step forward.

But first things first says Scott Schell: "After five years of transplants and stocking, I hope a few adult fish find each other on a riffle and spawn. That's when we'll know things are working and we're on track."

And that could be the fulcrum in returning this native fish to native waters, and an opportunity for Buckeye anglers to catch a swimming dinosaur.

Craig Springer, Division of Fisheries, Albuquerque, New Mexico

Southern Sea Otters Gain International Audience in MD



Greg Sanders, Service biologist at the Ventura, California field office holds a sea otter pup.

While southern sea otters floated peacefully among the kelp off the California coastline, advocates for this Federally threatened marine mammal gathered in June in the far western reaches of Maryland to discuss conservation issues facing all species of river and sea otter. The Ninth International Otter Colloquium, held at Frostburg State University, brought together scientists and field researchers studying the 13 otter species found worldwide. Two special sessions were held on the southern sea otter—evidence that this species, managed by the Service, is gaining international recognition.

In recent years, the southern sea otter of California gained the attention of U.S. policy makers, conservationists, fishermen, and the general public because of its high visibility, competition for food sources, charismatic fuzziness, and fluctuating, but significantly low population levels.

Bringing concerns associated with the species to an international audience of experts is seen as important by NGOs and government agencies, including Defenders of Wildlife, The Otter Project, California

National Fish Habitat Initiative Gains Momentum

Department of Fish and Game, U.S. Geological Survey, and the Service's Ventura, Anchorage, and Arlington offices, all of which attended the colloquium.

Presentations included up-to-date information on the status of the southern sea otter, translocation of southern sea otters, foraging ecology, movement patterns, disease, permit requirements, policy implications and marine ecosystem health. Angie Doroff, a biologist from the Anchorage Regional Office, told of alarming declines in the southwest Alaska stock of northern sea otters, which the Service proposed to list as a threatened species under the Endangered Species Act (ESA) on February 11, 2004.

Greg Sanders, Service biologist and southern sea otter recovery coordinator at the Ventura field office, spoke about current sea otter recovery efforts in southern California. Since 1977, the southern sea otter has been listed as a threatened species under the ESA. A standardized survey methodology was adopted in 1983 and is conducted annually, then averaged over a three year period to account for abnormal rises and decreases in the population in any given year. The good news is that 2,825 sea otters were spotted during the May 2004 survey, the highest count in more than two decades.

Since last year, the population has increased from 2,505 to 2,825, a total of 12.8 percent. The three-year average increased 9.9 percent. Otter populations must achieve a 3-year average of 3,090 individuals to be removed from the Endangered Species list.

Prior to the sea otter fur trade boom of the late 1700s, there were about 16,000 southern sea otters along the coast of California. Although the current surveys indicate that the otter population has increased, much more research is needed to determine the many factors that affect them. Forums like the Otter Colloquium are an important step toward the conservation of these species, because they foster collaboration between the Service and existing partners, and lay the groundwork for the formation of new partnerships.

Colleen Corrigan, Sea Grant Fellow, Division of Fisheries and Habitat Conservation, Branch of Resource Management Support, Arlington, Virginia

It started as a simple concept: What worked for ducks could work for fish. The premise—that healthy habitats support healthy populations of species—never had been applied to fish and aquatic species at a scale similar to the North American Waterfowl Management Plan (NAWMP). But that could change, thanks to a new effort known as the National Fish Habitat Initiative (NFHI).

“Back in the 1980s, creating the NAWMP took a lot of dedication, cooperation and perspiration. It was a long haul, but it was worth it,” said Gary Myers, executive director of the Tennessee Wildlife Resources Agency and an early NFHI advocate. “Ducks and numerous species are benefitting from this locally driven, nationally focused waterfowl plan, and I think we can achieve the same kinds of successes for fish and aquatic species under the NFHI.”

Many fisheries and natural resource professionals around the country agreed with Myers during a series of national stakeholder meetings held throughout year. The need to unite fisheries interest groups to find a better way to concentrate programs, dollars and professional skills was a consistent theme emerging during the meetings, sponsored by the Sport Fishing and Boating Partnership Council. Support for the concept of the NFHI was nearly unanimous among attendees. As these meetings were conducted, the partnership base supporting the NFHI began to expand dramatically.

For example, at its September 2003 annual meeting, the International Association of Wildlife Agencies (IAFWA) voted to take a lead role in developing the NFHI. The IAFWA also moved to adopt the NFHI as a “national need” category for funding proposals under the multi-state grant program. The grant program funnels Sport Fish Restoration Program dollars toward activities that address topics of concern to a number of states. The IAFWA is submitting a three-year proposal to receive a multi-state grant to support further development of the NFHI.

A working session at the 2004 American Fisheries Society (AFS) meeting in Madison, Wisconsin, will help begin to establish national scientific criteria for measuring aquatic habitat health throughout the United States.

“Work to make the NFHI dream a reality has just begun,” said Doug Hansen, South Dakota's Director of Wildlife, who also serves as SFBPC Vice Chairman and Chairman of the IAFWA Fisheries and Water Resources Policy Committee. “The big challenge will be to develop a framework that translates well to the local level and enhances existing projects. It will be a long process, but it will be worth it. Frankly, with the crises for aquatic habitats looming larger than ever, despite our best efforts, the NFHI is the best shot we have to make a difference.”

Information about activities, accomplishments and news about the NFHI is being updated continually on the Web site: < www.fishhabitat.org > .

Phil Million, Division of Conservation Partnerships, Arlington, Virginia

Finding Hosts for an Endangered Mussel

Once found throughout many Midwestern rivers, the winged mapleleaf mussel, is now a federally-listed endangered species with just three populations that are known to exist—and the only one known to be reproducing is found in a 10-mile stretch of the St. Croix National Scenic Riverway bordering Minnesota and Wisconsin.

Among the risks the species faces are an incomplete knowledge of its life history. Since 1997, a team of biologists working at the University of Minnesota (UMN) has conducted research to identify suitable host fish species crucial to the reproduction of this endangered mussel.

They were joined in 2001 by colleagues working at the Service's La Crosse Fishery Resources Office and Genoa National Fish Hatchery, the National Park Service's St. Croix National Scenic Riverway and the U.S. Geological Survey's Upper Midwest Environmental Sciences Center in cooperative annual efforts to expand and accelerate the laboratory host fish identification program.

Before 2003, more than 60 species of fish from 14 families had been investigated as potential host fish for winged mapleleaf glochidia—an early stage in its life cycle. These early efforts achieved limited success with only certain catfish species.

In the summer of 2003, an interagency dive team stockpiled adult winged mapleleaf in the St. Croix River into small groups to increase chances for successful reproduction. Divers returned early in the fall and collected several pregnant females that later released large numbers of viable glochidia for testing. These glochidia were used to infest the gills of four species, blue catfish, channel catfish, flathead catfish and slender madtom. Some eight to 12 weeks after the

fish were infested, a total of about 11,000 living juvenile winged mapleleaf mussels were recovered from 20 blue catfish and about 10,000 juveniles were recovered from 25 channel catfish, with a group of five larger-sized channel catfish accounting for 94 percent of the juvenile mussels.

In mid-November, dive team members placed most of the juveniles into cages that were submerged at sites near existing mussel beds in the St. Croix River, and also placed seven of the larger-sized channel catfish infested and their attached glochidia in a cage that was submerged in a pond to overwinter. Surviving fish were retrieved from the pond in early spring and placed in laboratory aquaria where water temperature will be regulated daily to mimic that of the St. Croix River to promote and document mussel transformation under more natural temperature conditions.

The laboratory test results achieved in 2003 conclusively indicate that both blue catfish and channel catfish are suitable hosts for glochidia of the endangered winged mapleleaf mussel. These findings may soon be used to artificially propagate winged mapleleaf juveniles to augment existing populations and for reintroduction at Mississippi River basin sites within the species' historic range where populations have long been absent.

Partnership efforts of Interior Department colleagues who continue to work on this endangered species project highlight the rewarding resource benefits and professional satisfaction that can occur when Service employees are actively engaged in achieving scientific excellence.

Mark Steingraeber, La Crosse Fishery Resources Office, LaCrosse, Wisconsin

New Database Systems for Wetland Resource Analysis

The Division of Fisheries and Habitat Conservation released a newly designed, integrated wetlands mapping tool, the Wetlands Master Geodatabase (MGD). Developed in cooperation with the U.S. Geological Survey, the MGD allows the Service to provide fast, efficient and scientifically sound digital information. Using these newer geographic information system technologies means that digital wetland map data can be more easily used to resolve resource management issues.

There were two important yet distinct purposes for the creating the Wetlands Master Geodatabase. The first was to improve the editing, storage and distribution capability of the wetlands digital data. The second was to enhance the Service's capability to use supporting GIS data sets and integrate digital map data with other resource information to produce timely and relevant management and decision support tools.

The MGD provides a seamless digital wetland data layer and standardized parameters for improved data quality and integrity. Some of the older wetland attribute codes have been updated and there are metadata links for both the project level and supplemental wetland information. Currently the MGD contains over 28,000 maps in a seamless ArcSDE geodatabase. This represents wetland map data for approximately 45 percent of the conterminous U.S. and 13 percent of Alaska.

Data from the new MGD can be accessed through the Service's Wetlands Mapper at <wetlandfws.er.usgs.gov> or by accessing The National Map at <nationalmap.usgs.gov>. Collectively, these developments enable the Service to keep pace with growing demands for wetland resource information and enhance customer service using readily accessible technology.

Thomas E. Dahl, Fisheries and Habitat Conservation, Branch of Habitat Assessment, Arlington, Virginia

Event Celebrates Acquisition of National Wildlife Refuge Land on South Padre Island



South Padre Island hosts the celebration in typical business-beach style.

The Service joined The Nature Conservancy and many other partners in May to celebrate the one-year-old purchase of 23,300 acres of barrier island habitat on the north end of South Padre Island.

The property, known as the South Padre Island Unit for Laguna Atascosa National Wildlife Refuge, was purchased from The Nature Conservancy. It conserves important coastal habitat for both wildlife and human visitors, and protects the biological diversity found on the island. Island mud flats, beach, and washover areas provide nesting, roosting and feeding areas for shorebirds and other wildlife. The island provides nesting habitat for endangered sea turtles and Aplomado falcons, and wintering habitat for endangered piping plovers. Neotropical migrants use the island habitat as a stopover, particularly during inclement weather. The bird fallout that cold weather causes, brings hundreds of tourists to South Padre Island every spring and fall.

The South Padre Island Unit is part of a barrier island system that stretches along the Texas Gulf Coast and south into Mexico, protecting the coast from storms and hurricanes. The Refuge now includes land on both sides of the Laguna Madre, one of only three hypersaline lagoons in the world and the only one in the U.S.

“Many people put in long hours to appropriate the funds and worked toward making this purchase a reality. We want to thank them and let the public know why this refuge addition is so important,” said Geoff Haskett, Deputy Regional Director of the Service’s Southwest Region. “The dedicated partnership efforts of The Nature Conservancy and many others accomplished the purchase of the South Padre Island Property for the U.S. Fish and Wildlife Service. My thanks to all those involved in the acquisition of this important barrier island property.”

Carter Smith, Texas State Director for The Nature Conservancy, and Robert Potts, Vice President of the South Central Division, explained the role of The Nature Conservancy in preserving this unique habitat. Smith, who was a key negotiator in the Conservancy’s purchase of the land, said, “Our partnership with the Refuge and with the U.S. Fish and Wildlife Service has been both productive and gratifying. The South Padre Island land acquisition adds a tremendous natural resource to be treasured by Texans and other Americans.”

Patty Alexander, South Texas Refuge Complex, Alamo, Texas

FWS-NRCS Make History

History was made June 2 and 3, 2004, when top officials of the Natural Resources Conservation Service (NRCS) and the U.S. Fish and Wildlife Service met for the first time in each agency’s 100-plus-year history. Incredibly, despite sharing major conservation responsibilities and a considerable presence on the rural landscape, the agencies never before had met formally to discuss their missions, goals and strategies.

“This meeting recognizes our mutual interest in conservation... especially on private lands,” said Service Director Steve Williams in opening remarks at the meeting, hosted at the National Conservation Training Center. Williams also said he hoped the meeting would enable both agencies to learn about each other, share successes, discuss issues of common concern, identify opportunities for future collaboration, and, last, but not least “get to know each other informally during sessions at the hydraulic laboratory and social institute” (aka the NCTC lounge).

“Steve and I kept running into each other on podiums in various places across America and eventually decided we needed to look closer at mutual goals,” said NRCS Chief Bruce Knight. “While we knew there were isolated examples of excellent cooperative effort, we felt we needed to bring both agencies together to have a conversation and learn each other’s culture and, dare I say, weaknesses.”

The audience numbered about 40 top officials from both agencies. NRCSers heard about the Service’s humble beginnings during the “fish car” era. In turn, Service folks learned that NRCS was first incarnated as the Bureau of Soils before 1900 when 68 percent of the American people lived on the land.

NRCS’s size: 12,000 employees, and budget: \$2.8 billion, definitely caught the attention of Service participants. NRCS’s budget has grown \$1.8 billion since 1996, largely as a result of an infusion of funds for a historic suite of conservation programs. But despite the full coffers, said Weber, “If we can’t get through the farm or ranch gate, we can’t do anything.”

FWS-NRCS Make History (continued)

The roster of conservation programs managed by NRCS has grown rapidly since the 1995 Farm Bill and includes Conservation Reserve Program (35 million acres enrolled), Environmental Quality Incentives Program, Conservation Security Program, Farm and Ranch Land Protection Program, Wetlands Reserve Program, Grasslands Reserve Program, Wildlife Habitat Incentives Program, Conservation Technical Assistance, Watershed Rehabilitation, and National Resources Inventory.

Like all natural resource agencies, NRCS is worried about a looming explosion in retirements. Twenty five years ago, a "farm background" was nearly essential to getting a job at NRCS's predecessor agency, the Soil Conservation Service. Today, the agency has direct hire authority and is restructuring to meet the "brain drain" issue head on. The agency needs roughly 500–600 new hires a year to stay level and holds "conservation boot camps" to introduce new employees to the realities of working effectively out there on gravel road America with farmers and ranchers.

Today, NRCS employs about 130 wildlife biologists and the Endangered Species Act (ESA) is one of the major intersections for contact between NRCS and Service employees. NRCS conducts an environmental evaluation every time it spends money. If, for instance, it determines there will be an effect (good or bad) on a threatened or endangered species it tells the landowner about the need to consult with the Service. If the landowner says "no," NRCS "walks," said Randy Gray, the agency's National Wildlife Biologist. Gray also said that back in the 1980s Swampbuster and the ESA were viewed within NRCS as "keeping us from walking through the farm gate."

Two examples of successful collaboration between the Service and NRCS were highlighted during the meeting. The first detailed a partnership involving the Service, NRCS, the two state wildlife agencies and a host of other organizations to conserve mixed-grass prairie and maintain ranch lands across 5 million acres in the Red Hills region of Kansas and Oklahoma. The second showcased excellent cooperative efforts between the Service and NRCS in Louisiana.

Congress has asked NRCS to measure the environmental benefits of the many conservation programs it now manages. According to Dr. Maurice Mausbach, Deputy Chief, Soil Survey and Resource Assessment, this daunting new effort, known as the Conservation Effects Assessment Program (CEAP), will use the Natural Resources Inventory as a framework and will eventually cover water quality, soil quality, water conservation, wildlife habitat, grazing lands and wetlands.

In closing the meeting, Director Williams and Chief Knight asked the attendees to identify two or three areas of possible cooperation between the two agencies that could be accomplished in the next three to six months. Twenty-two potential topics were then identified during a brainstorming session. In a final comment, Chief Knight said, "This meeting exceeded my expectations in terms of getting our two agencies together to work more smoothly and more efficiently."

Phil Million, Division of Conservation Partnerships, Arlington, Virginia

Weather in Your Watershed



Director Steve Williams gets ready to be interviewed by DC meteorologist Bob Ryan (NBC4) for a weather broadcast late last May at Patuxent Research Center.

The Service's Chesapeake Bay Field Office teamed up with Washington, DC's NBC4 to distribute environmental information, on a national basis, through interactive web activities and TV weather broadcasts.

Weather In Your Watershed was created by the National Environmental Education and Training Foundation to increase public awareness about basic environmental concepts and problems. As part of our developing partnership, StormCenter Communications and NBC4 in Washington, DC are hosting an interactive website for partners, which include the Forest Service, the Environmental Protection Agency, National Oceanic and Atmospheric Administration (NOAA) and National Aeronautic and Space Administration (NASA).

While the pilot program focuses on the Chesapeake Bay watershed, the goal is to expand the project format to other major media markets across the country. By combining easily accessible web-based activities with understandable environmental information in weathercasts, people can better grasp the importance of environmental issues affecting their everyday life.

King Named Assistant Director for Sport Fish and Wildlife Restoration

As part of the Service's partnership with *Weather in your Watershed*, Bob Ryan, the weatherman for NBC4 in Washington, DC, came to Patuxent Research Refuge and interviewed Service Director Steve Williams and Patuxent NWR Manager Brad Knudsen. Ryan welcomed viewers to the new website, invited visitors to participate in activities at the National Wildlife Visitor Center, and highlighted educational information about local wildlife.

Among the many features of the web site, located at <wrc.iewatershed.com> is an interactive map of 15 National Wildlife Refuges in the Chesapeake Bay watershed. Defining a watershed is a concept difficult to convey to both adults and youth. One innovative technique StormCenter used to visually describe how changes on land can affect a body of water is through NASA Landsat imagery and GIS tools.

The largest component of the website is Wildlife and their Habitats, which provides information on plants and animals of the Chesapeake Bay habitats: freshwater streams and rivers, wetlands, forests and shallow water. The website explains the role each habitat plays in the Chesapeake Bay ecosystem, the benefits each habitat provides to people, causes of habitat decline, and how you can help protect and conserve the Bay.

The Wildlife Portal is another feature on the website. It features a one-minute video clip about the Service's hawk-banding program and the Service's work on migratory birds and our partnerships to conserve bird habitat. Additional video clips will be posted seasonally.

Valerie Fellows, Chesapeake Bay Field Office, Annapolis, Maryland



Mitch King, currently Deputy Regional Director for the Southeast Region, is taking the helm as the first Assistant Director for Wildlife and Sport Fish Restoration.

As Assistant Director, King will be responsible for managing the Service's Federal Assistance programs that provide millions of dollars in excise taxes on firearms, ammunition, archery equipment, fishing tackle and related products to state fish and wildlife agencies for wildlife conservation.

A native of Kentucky with more than 27 years of federal service with the wildlife agency, King's present position involves leadership of Fish and Wildlife Service activities across the southeast.

After graduating from the University of Tennessee, King began his career with the Service in 1977 as a biologist stationed at Vicksburg, Mississippi. There, he worked on wetland issues in the Mississippi River Valley. Since that time, he has worked for the Service in Cookeville, Tennessee; Washington, DC; Denver, Colorado; Bozeman, Montana; and Brunswick, Georgia. His responsibilities have included the preservation and restoration of wetlands, working with Congress on Farm Bill legislation, providing wildlife management assistance on Indian Reservation in Montana, resource planning and budget management on National Wildlife Refuges and carrying out the responsibilities of the Endangered Species Act. While in DC, King served in a liaison position with the International Association of Fish and Wildlife Agencies where he worked directly with State and Provincial Fish and Wildlife Agencies on the implementation of the North American Waterfowl Management Plan.

King has also served as the Southeast Region's Assistant Regional Director for Migratory Birds and State Programs. In that capacity, he supervised the management of the Southeast Region's Federal Assistance Program and all activities associated with Migratory Birds, including the North American Waterfowl Management Plan, Partners in Flight, and the North American Bird Conservation Initiative. He also served as the Acting Chief of the Southeast Region's National Wildlife Refuge System.

Mitch Snow, External Affairs, Washington, DC

Fish & Wildlife Honors

Tim Santel, resident agent in charge of the U.S. Fish and Wildlife Service's law enforcement office in Springfield, Illinois, has been named Officer of the Year by the North American Wildlife Enforcement Officers Association. He is the first Service special agent to receive the award. Santel earned the award for his lengthy undercover investigation of the illegal killing of endangered species, specifically tigers, leopards, snow leopards and the commercialization of their meat, hides and other body parts. The investigation, dubbed "Operation Snow Plow," lasted more than six years, covered more than six states and resulted in the conviction of 16 individuals and one business charged with violating several federal wildlife protection laws. Combined, the defendants' sentences have resulted in 80 months in federal prison, 52 months home detention, 2,200 hours of community service, \$75,000 in fines and \$226,000 in restitution to the Fish and Wildlife Federation's Save the Tiger Fund.

Just prior to his retirement, Secretary of the Interior Gale Norton presented **Dick Pospahala**, Region 7's former Assistant Regional Director for Budget and Administration with the Department of Interior's highest honor, the Distinguished Service Award. Pospahala began his career with the Fish and Wildlife Service in 1969 as a Research Wildlife Biologist in Maryland.

His other positions Regional Migratory Bird Coordinator in Alaska, Alaska's first Assistant Regional Director for the Office of Subsistence Management, Assistant Regional Director for Fisheries and the Geographic Assistant Regional Director for Northern Alaska.

Coastal America 2004 Partnership Awards were awarded in recognition of three Service Coastal Program projects. The first, the Bridge Creek Project (Barnstable, Massachusetts) successfully restored 40 acres of tidal salt marsh within a State-designated area of critical environmental concern.

Supported by a Coastal Wetlands Conservation Grant, a partnership of public and private groups leveraged more than \$1 million in State and private funds to implement the project and purchase conservation restrictions on an additional 75 acres. The Service project team consisted of **Sue Essig**, Chief, Division of Habitat Conservation and Regional Coastal Program Coordinator, **Bob Houston**, Coastal Program, Gulf of Maine, **Dan Leahy**, Federal Aid Division, and **Andrew Milliken**, Atlantic Coast Joint Venture Coordinator.

A second award went to the **Barn Island Project** (Stonington, Connecticut) where a Service Coastal Wetlands Conservation Grant was used to acquire 144 acres of private property adjacent to the Barn Island Wildlife Management Area. The property, described as "the finest wild coastal area in Connecticut," when combined with the wildlife area, will become the largest coastal land holding in the state. The Service project team consisted of **Don Henne**, **Julianna Wyman**, and **Andrew MacLachlan**, Coastal Program's New England Office, as well as, Sue Essig, Dan Leahy, and Andrew Milliken.

Project team members were instrumental in developing the public-private partnership that leveraged nearly \$1.4 million to preserve a significant coastal area. The third award recognized a partnership between the State of Alaska, the National Oceanic and Atmospheric Administration, and the Service that reopened eight miles of stream for use by salmon, trout and other aquatic species. The Silver Salmon Creek Restoration Project now has more than a dozen partners and has leveraged additional financial and in-kind contributions from multiple public and private sources. **Michael Roy**, FWS Regional Coastal Program Coordinator in Alaska, and **Mary Price**, Service Anchorage Field Office, led the project.

As a recipient of the new "Paul Gleason Lead by Example Award," **Curtis Heaton** of Buenos Aires National Wildlife Refuge is among a group of six national winners from the Bureau of Land Management, Bureau of Indian Affairs, U.S. Forest Service and the Ventura County Fire Department. The award was established this year by the interagency National Wildfire Coordinating Group (NWCG) Leadership Committee to recognize outstanding achievement and

accomplishment. Heaton won in the award's Initiative and Innovation category based on his providing learning and development opportunities to future leaders. Heaton is the Service's Regional Wildland Urban Interface Coordinator for Region 2 and is stationed in Sasabe, Arizona.

Flyway biologists/pilots **Carl Ferguson**, **Karen Bollinger** and **Jim Wortham**, of the Division of Migratory Bird Management, Waterfowl Population Surveys Section, Laurel, MD, were presented with Certificates of Appreciation from the Roanoke-Tar-Neuse-Cape Fear Team and Region 4. In 1996, the ecosystems biologist group and the North Carolina Migratory Bird office began coordinating the collection of aerial waterfowl survey data. The Atlantic Flyway Biologists/Pilots agreed to assist in this undertaking. Since 1996, well over 400 individual refuge aerial waterfowl surveys have been completed and over 600 hours logged on surveys alone. As a result of this effort, a centralized website database with eight years of data exists that has provided us with a better understanding the wintering distribution of waterfowl; timing of their movements; an invaluable public outreach tool; and an ability to better define and evaluate habitat management actions.

Each year, the Service's Regional Office in Denver names the Fisheries Employee and Manager of the Year. **Patty Covas** is the 2003 employee of the year and both **Herb Bollig** and **Frank Pfeifer** were recognized as managers of the year. Covas is the Administrative Assistant at Ennis National Fish Hatchery in Ennis, Montana. Bollig is the Hatchery Manager at the Gavins Point Dam National Fish Hatchery. Bollig is a world renowned experts on endangered pallid sturgeon propagation. Pfeifer is the Manager of the Vernal Fisheries Office, and is responsible for directing improvements on the entire infrastructure and fish nurturing methods to ensure that the razorback sucker propagation program plays a role in the overall Colorado River Recovery program.

The Secretary General of the Convention on International Trade in Endangered Species (CITES) awarded that treaty's Certificate of Commendation to the Office of Law Enforcement and the Department of Justice's Wildlife and Marine Resources Section for their efforts to combat illicit trade

Transitions... Who's Coming and Going

in caviar. The Secretary General praised Service special agents, wildlife inspectors, and forensic scientists and Federal prosecutors for their exemplary commitment to uncovering CITES violations and bringing offenders to justice. Since January 2000, the Service has secured more than 25 successful prosecutions for caviar smuggling.

Special Agent **Bruce Toloski**, who works for the Office of Law Enforcement in Los Angeles, received the Federal Law Enforcement Officers Association's (FLEOA) 2004 Award for Heroism—the highest honor that Federal agents can bestow on a colleague. Special Agent Toloski was seriously injured in April 2003 when he stopped to assist a trapped victim of a highway car accident. Struck in the head by flying debris after a drunk driver hit the stranded motorist's overturned vehicle, Agent Toloski emerged from a six-week coma to begin a long process of recovery and rehabilitation that is still underway. The FLEOA award recognizes his courageous and selfless rescue attempt as well as his heroic struggle to recover from life-threatening brain injuries.

NCTC's **Dawn Lagrotteria** was selected as Employee of the Year in the Manager category by the West Virginia Eastern Panhandle Federal Executives Association.

Leopoldo Miranda-Castro received a Service to America Medal for his work in bringing the Service's Partners for Fish and Wildlife Program to the Caribbean. Miranda-Castro launched this voluntary program in 1999 in Puerto Rico, and since that time, he has developed more than 60 partnerships with private land-owners, restoring more than 2,000 acres of tropical habitat. In addition, Miranda-Castro also introduced innovative techniques to bolster coffee production in the islands. He recognized that traditional shade coffee plantations were decaying, giving way to less hospitable sun coffee habitats. This was destroying perhaps the best sustainable agriculture in the tropics. He established the first shade coffee restoration in the United States, which provides excellent habitat on private lands while enhancing the agricultural production of the same parcel of land. This program is currently being replicated in both Hawaii and the Pacific Islands.

Jim Gale, a 12-year veteran of the U.S. Fish and Wildlife Service, formerly the Special Agent in Charge of the Division of Law Enforcement Operations in Washington, DC, is the new Special Agent in Charge of Law Enforcement in the Southeast Region.

Pete Benjamin is the new Field Supervisor of the Service's Ecological Services Field Office in Raleigh, North Carolina. He comes to Raleigh from his position as Assistant Field Supervisor of the Jacksonville, Florida Ecological Services office.

Mattamuskeet National Wildlife Refuge in Swan Quarter, North Carolina is now under the direction of **Bruce Freske**. Prior to his position as manager of Mattamuskeet, he worked at the new 7,500-acre Marais des Cygnes NWR, which was established by Congress in 1992. Freske also served as a Refuge Operations Specialist at Rainwater Basin Wetlands Management District in Kearney, Nebraska, and at Illinois River National Wildlife and Fish Refuges in Havana, Illinois. He began his refuge career as a Refuge Manager Trainee at Crab Orchard National Wildlife Refuge in Marion, Illinois.

Tom Prusa was selected to manage the seven-refuge Savannah Coastal Refuges Complex, headquartered in Savannah, Georgia. For the last six years Prusa has served as an Assistant Refuge Supervisor in Fish and Wildlife Service's Regional Office in Atlanta, Georgia. He was also the first Refuge Manager of the newly established St. Catherine Creek National Wildlife Refuge in Natchez, Mississippi, and has worked at the Attwater Prairie Chicken National Wildlife Refuge in Eagle Lake, Texas; Shiawassee National Wildlife Refuge in Saginaw, Michigan; Iroquois National Wildlife Refuge in Alabama, New York; DeSoto National Wildlife Refuge in Missouri Valley, Iowa; and Brigantine National Wildlife Refuge in Oceanville, New Jersey.

Clarke Dirks is the new refuge manager of Piedmont National Wildlife Refuge in Round Oak, Georgia. He has served as refuge manager at Reelfoot and Lake Isom National Wildlife Refuges in Union City, Tennessee, as well.

Former project leader at Ottawa National Wildlife Refuge, **Dan Frisk**, has been named project leader for Crab Orchard National Wildlife Refuge in southern Illinois. Before his assignment to Ottawa NWR in 2001, he served as project leader at Pee Dee NWR in North Carolina.

Rita J. Blakeslee has just joined the Service as its new Human Resource Officer. Prior to joining the Service, Blakeslee was served as the Classification and Resource Management Branch Chief, Civilian Personnel Division, HQs Air Combat Command (ACC), Langley AFB, VA. There, she was responsible for the classification and civilian resources management policies, program and objectives supporting 10,000 ACC civilian employees located worldwide, their commanders and supervisors, and the seventeen operating-level Civilian Personnel Flights in the command.

Blakeslee, born in Chicago, Illinois, has been a Federal employee with the U.S. Air Force since June 1979. She earned her undergraduate degree in Law Enforcement/Political Science from Southern Illinois University, Carbondale, Illinois, and a Masters in Public Administration from the University of Dayton, Dayton, Ohio, in 1979.

Meeting Future Challenges

As we work together to address increasingly complex challenges of conserving biodiversity and ecological function for the environment, I am honored to be able to join U.S. Geological Survey (USGS) Director, Chip Groat, in an enormously important cooperative project. The Future Challenges Project was launched with a scientific workshop (August 10–12) at the National Conservation Training Center.

At this workshop, professionals from both agencies explored four environmental drivers that will affect our work and missions in the future: water resources; invasive species; climate change; and biotechnology for their potential long-term impacts in managing biological resources and the systems that support them over the next 10 to 20 years. Our ultimate goal is to determine the management strategies and scientific knowledge, capabilities, and tools that USGS and Service will need in addressing these issues. Aimed at ensuring we develop an excellent science base for use in resource management and decision-making, the workshop was the first step in our joint initiative.

The next step in the Future Challenges Project will be to share the specific ideas emerging from this workshop with our USGS and Service employees. In October, four Challenge Summaries, one on each of the topics addressed at the workshop, will be available to USGS and Service employees for consideration and comment. A small planning team from the workshop will meet in mid-September to develop follow-up steps to engage a broad cross-section of USGS and Service employees in discussions of actions needed on these issues.

It is our goal to begin an expanding dialogue between managers and scientists that will define and direct our combined effort to address these Future Challenges. As this initiative matures, we will move beyond our agency boundaries and engage our partners in the scientific, natural resource, and NGO communities.

One of the most inspiring thoughts that emerged from the Future Challenges workshop was that the USGS and the Service are two bureaus with one mission—a commitment to the use of good science in resource management. It is in this spirit of partnership that we will continue this journey, recommitting ourselves to scientific excellence in addressing the challenges of the future of conserving America's vast heritage of biological resources.

Steve Williams



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