U.S. Fish & Wildlife Service

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Inside: Hurricane Recovery Efforts

Service Among First Responders for Hurricane Katrina Relief

The U.S. Fish and Wildlife Service, along with other Interior and Department of Agriculture agencies, rescued more than 4500 citizens in coastal Louisiana and Mississippi when Hurricane Katrina struck the Gulf Coast. At the same time, the agency cleared miles of roadways, supported local police and fire department officials, established emergency corridors to speed the delivery of relief aid, opened access to the Louisiana Heart Hospital in Lacombe and provided critical help to Red Cross relief workers.

"The support that the U.S. Fish and Wildlife Service provided to Lacombe has been outstanding," said Charles Flynn, Fire Chief of St. Tammany parish Fire District 3. "I want to thank all of you for the great help—from feeding us to clearing our roads. It has been a blessing to have you here."

Employees of the Service normally are involved with the management of wildlife and natural resources and with management of National Wildlife Refuges. Here, they were focused on assisting the people and communities of Louisiana and Mississippi ravaged by the Hurricane.

A team of about 200 U.S. Fish and Wildlife and U.S. Forest Service heavy equipment operators, chain saw operators, law enforcement personnel and support specialists conducted recovery efforts in the towns of Slidell and Lacombe, Louisiana. The team established a full-service base of operations with food services, temporary housing, shower facilities for the incident command team, local law enforcement, other emergency services personnel, displaced employees and hurricane relief workers. The team also cleared flood canals at Bay St. Louis, Mississippi of tons of rubble from destroyed houses, stores and churches.

"Our employees were motivated to help here," said Tom Crews, incident command team leader. "We were a small part of this huge task, but we played a vital role here. From the highest levels to the people on the ground, we received total support to help us with this mission."

Southwest of New Orleans another response team based out of the Mandalay National Wildlife Refuge conducted search and rescue missions. Service employees worked with the St. Bernard Parish Fire Station in Arabi, Louisiana. The Mandalay group cleared several sections of the parish by going house to house searching for survivors. In addition, they assisted a mortuary team dealing with 35 fatalities at a nursing home, and responded to 911 calls in Bernard Parish.

"I am not surprised by the commitment our employees are demonstrating to our fellow citizens in this difficult time. We are a 'can do' organization."

Sam Hamilton, Southeast Region Director

Tasks accomplished by the Service's recovery efforts since Hurricane Katrina struck the Gulf Coast include:

■ Service law enforcement agents helped rescue the crew of a downed helicopter while rescuing two national guardsmen who were moving to assist. The guardsmen were thrown into the water when their airboat was blown over by rotor wash from another helicopter.

■ Within 24 hours, the Service accounted for the safety and whereabouts of all its roughly 150 employees and their families stationed along the Gulf Coast.

■ The Service supported the overall recovery effort, working with the Louisiana Department of Wildlife and Fisheries to clear roads and driveways in local neighborhoods. During this operation, service teams freed families in five homes trapped by fallen trees and debris.

■ Service crews cleared more than 300 driveways; fourteen and one-half miles of roads; four major facilities, including access to the Louisiana Heart Hospital; ten miles of fire breaks; and seven miles of drainage ditches in Bay St. Louis, Mississippi because of flooding concerns. Debris was 20- to 30-feet high.

■ Teams conducted reconnaissance on 65 miles of roadways including more than 100 streets.

■ The response team which set up at Big Branch Marsh National Wildlife Refuge provided food, water, shelter, fuel, showers and laundry facilities to displaced Service employees and their families, 100 Red Cross volunteers, 50 FEMA employees, local police and fire departments, and National Guard servicemen.

■ More than 20,000 meals were provided, including 200 meals each day sent to Louisiana Heart Hospital.

"We have developed a great deal of experience in the past few years responding to the aftermath of hurricanes," said Sam Hamilton, regional director for the Service's Southeast Region. "I'm proud of the way our employees responded and were among the first to be on the scene to help start putting people's lives together. I am not surprised by the commitment our employees are demonstrating to our fellow citizens in this difficult time. We are a 'can do' organization."

Tom MacKenzie, Jim Rothschild and Jeff Fleming, External Affairs, Atlanta, Georgia

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On the cover:
Glen Stratton from Merritt Island NWR in Florida supervises an FWS crew at Bay St. Louis, Mississippi clearing flood control canals of rubble. FWS photo: Tom MacKenzie.

Eleven Gulf Coast Refuges Closed After Katrina and Rita

Storm damage was extensive at refuges along the coast and well inland. Preliminary damage estimates to refuges from Katrina and Rita approach $150 million.

Seven of the 16 Gulf Coast national wildlife refuges temporarily closed after Hurricane Katrina remained closed a month after the storm. Initial damage assessments to Fish and Wildlife Service facilities from Katrina exceed $62 million. In addition, Bayou Teche National Wildlife Refuge in Franklin, Louisiana, and three national wildlife refuges in the Southwest Louisiana Complex—Sabine in Hackberry, Lacassine in Lake Arthur, and Cameron Prairie in Bell City—were closed after Hurricane Rita.

Early damage assessments for Hurricane Rita exceeded $40 million for Fish and Wildlife Service facilities, levees and dikes.

"Once we are able to thoroughly assess the damage to each refuge and can eliminate safety hazards, the refuges will reopen to the public," said Sam Hamilton, Southeast Regional Director. "The hardest hit refuges may take months to recover."

On Saturday, October 1, two of the five refuges in the Southeast Louisiana Refuge Complex opened to hunters for the fall season with some modifications. Both refuges remain closed to all other public access. All hunting seasons scheduled for Bogue Chitto NWR in Pearl River opened as planned. These include the archery and gun deer hunts, small game, turkey, hog, and waterfowl seasons.

On Big Branch Marsh Refuge in Lacombe, only the waterfowl season opened as planned. This was because of the fire danger posed by the large amount of downed fuels and leaf litter on the refuge, as well as a large number of hanging and hazardous trees which pose a danger to hunters.

Three of the five refuges in the Southeast Louisiana Refuge Complex are still closed from Hurricane Katrina to all public access. The most heavily damaged refuge, Bayou Sauvage in New Orleans, faces numerous environmental challenges. Significant water quality degradation in Lake Pontchairtrain is expected as the pumping of New Orleans floodwaters continued. The other closed refuges are Breton NWR in the Gulf of Mexico; and Delta NWR in Venice.

In Alabama, Bon Secour NWR in Gulf Shores remains closed. Most of the refuge has been closed since September 2004 following Hurricane Ivan. In Mississippi, the Mississippi Sandhill Crane NWR in Gautier remains closed.

Eight of the national wildlife refuges that were closed after Hurricane Katrina have now reopened. Grand Bay NWR in Mississippi has reopened, but some of its areas are still closed to public access. Other Gulf Coast refuges that have reopened in Mississippi are St. Catherine Creek NWR in Sibley and Noxubee NWR in Brooksville. In Alabama, Choctaw NWR in Jackson has reopened. In Louisiana, the following Gulf Coast refuges are now open: Atchafalaya NWR in Whiskey Bay; Cat Island NWR in St. Francisville; Mandalay NWR in Houma; and Tensas NWR in Tallulah.

Elsie Davis, External Affairs, Atlanta

FWS Law Enforcement and Special Agents Assist in Rita Operations

It's not often that crisis hits a community, but this year was definitely an exception. While Hurricane Rita churned a path toward the Texas Coast a command center was formed in the Southwest Regional Office that would provide emergency support to its Texas facilities, their staff and families.

Simultaneously, a Service Incident Command Team was preparing to deploy to Texas to provide emergency response. One of the many units of the team were the "SORT" law enforcement officers or "Special Operations Response Team" originally formed in the Southwest Region and trained in Texas by the FBI. Team members are nationally certified by the FBI following an intensive training program that prepares them for various law enforcement situations including natural disasters such as Rita.

The Southwest Area SORT Team rolled into Balcones National Wildlife Refuge within 24 hours to join up with other incident team members. Not wasting any time, several advance law enforcement teams were dispatched into the Anahuac and Atwater Prairie Chicken NWRS to conduct damage assessments.

The LE Team's primary responsibilities were to provide security at the Incident Command Post (ICP), local refuge facilities and employee housing, as well as provide assistance to local law enforcement agencies.

Escorting a caravan of 40 vehicles belonging to the ICT proved challenging in the face of post hurricane debris, evacuation traffic and gas shortages. Despite those challenges, an ICP was set up in the vicinity of the Texas Chenier Plain Refuge Complex. That refuge complex was the hardest hit.

An unprecedented number of Region 2 and Region 6 refuge law enforcement officers and SORT Team members were deputized by Jefferson and Chambers County law enforcement, Service officers along with county law enforcement averaged an estimated 150-assist calls a day covering a wide range of incidents such as looting, drug use, assaults, motorist assists, accidents as well as conducting a suicide prevention.

A local Texas Sheriff described the deputizing of the refuge SORT Team and Region 6 law enforcement that came to assist as "historic." Service law enforcement provided much needed assistance to authorities of Jefferson and Chambers counties in the face of law enforcement challenges—all of which were met with very successful results. The show of force greatly deterred a potential criminal element following the hurricane, and helped make life a little safer for everyone within the impacted area.

Vicki Fox, External Affairs, Albuquerque, New Mexico

Hurricane Rita Blasts Southwest Louisiana Refuges

Hurricane Rita made landfall at Sabine Pass, Louisiana as a strong Category 3 storm on Saturday, September 24, 2005. The hurricane damaged 22 national wildlife refuges, one national fish hatchery and several Service administrative facilities. Initial damage estimates as a result of this storm were placed at $43 million.

A 30-person Fish and Wildlife Service response team provided immediate recovery for the affected refuges, employees and the surrounding communities with storm recovery efforts from covering roofs with tarps to opening up roads and driveways for emergency and personal access to homes and facilities in Cameron Parish, Louisiana and the city of Hackberry, Louisiana.

Impacts on wildlife were widespread along the coastal areas with significant fish loss because of salt water storm surge and loss of land-based wildlife because of flooding and wind-related impacts.

Facilities damage summary:

- Sabine National Wildlife Refuge, Hackberry, Louisiana: The eye wall passed over this station at landfall with 110- to 130-mph sustained winds and a massive storm surge, which caused flooding. This coastal marsh refuge remained under floodwaters for an extended period. Many structures were destroyed by the storm. There was also major damage to impoundment levees, roads, trails and other structures as floodwaters receded.

- Cameron Prairie National Wildlife Refuge, BellCity, Louisiana: Located approximately 50 miles from the eye wall at landfall, the refuge experienced 80- to 90-mph sustained winds and severe flooding. Many structures were damaged by wind and interior flooding.

Katrina Ravages Wildlife Habitat

■ Lacassine National Wildlife Refuge, Lake Arthur, Louisiana: Located about 65 miles from the eyewall at landfall, it experienced 75-mph sustained winds and significant flooding. Many structures were damaged by wind and interior flooding, with additional damage identified as floodwaters receded.

■ Natchitoches National Fish Hatchery, Louisiana: The storm's eye passed within 20 miles of this station, approximately 100 miles inland. The hatchery experienced hurricane-force winds and flooding. Multiple structures sustained wind damage and one major hatchery discharge pipe was damaged by flooding.

■ Bayou Teche Refuge, Franklin, Louisiana, and Mandalay National Wildlife Refuge, Houma, Louisiana: These refuges were not severely affected by high winds, but due to their coastal locations, both experienced severe storm surge flooding.

Tom MacKenzie and Elsie Davis, External Affairs, Atlanta, Georgia

Road clearing was often necessary for Service crews dispatched to provide post-storm assistance.

Storm Damage at a Glance

Hurricane Katrina

More than $92 million to facilities

Hurricane Rita

More than $43 million to Region 4 facilities

More than $15 million to Region 2 facilities

Wildlife Impacts from Both Hurricanes

■ Estimated 150,000 acres of coastal and bottomland wetlands lost or damaged from oil spills, contamination, salt water intrusion and tons of debris.

■ 50 sea turtle nests on Alabama coast were lost.

■ Primary dunes and most secondary dunes that provide habitat for the Alabama beach mouse were destroyed.

■ More than 50 percent of cavity trees used by red-cockaded woodpeckers were destroyed.

Impacts to wildlife in the areas ravaged by Hurricane Katrina are still being assessed. One thing is certain though, the adage "survival of the fittest" will hold true even on some of the U.S. Fish and Wildlife Service's gulf coast national wildlife refuges.

At Bayou Sauvage NWR in New Orleans,Louisiana, the most heavily damaged and flooded Gulf Coast refuge, the lack of marshland vegetation means less food for wintering waterfowl. There are also concerns that contaminated flood waters could cause nutrient blooms that deprive marsh waters of oxygen. The refuge has two feet more of water than usual and that also displaces wildlife. In addition, coastal forested wetlands in the eastern Lake Pontchartrain Basin to the Pearl River were defoliated, and standing trees sustained heavy damage.

In one sign of hope, at Bayou Sauvage there are indications that two or three year's production of alligators survived the hurricane.

At Big Branch NWR in Lacombe, Louisiana and Noxubee National Wildlife Refuge in Brooksville, Mississippi, large stands of trees fell, including cavity trees used by roosting and nesting red-cockaded woodpeckers. Tree loss also will impact foraging habitat for these endangered birds.

Southeastern Louisiana, especially Breton National Wildlife Refuge, is important to many species of colonial nesting birds, such as brown pelicans and sandwich terns. The area also provides wintering habitat for large numbers of piping plovers. Since Breton National Wildlife Refuge, which is part of the Chandeleur Islands—is 30 to 50 percent of the size it was before Hurricane Katrina, the refuge's capability to serve as a major nesting and wintering ground for such species is questionable.

Early estimates indicate that the Southeast Region's refuge system experienced land losses, accelerated degradation, and other damage on more than 150,000 acres of coastal and bottomland wetlands. The effects of these wetland losses likely will be seen in waterfowl population declines, and impacts to spawning and nursery habitat for aquatic and marine species are expected.

In addition, the influx of huge amounts of organic matter and industrial run-off into the Lake Pontchartrain Basin and the Pearl, Pascagoula, and Escambia River Basins

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Wildlife Habitat (continued)

will impact populations of the threatened Gulf sturgeon. A similar situation was seen last year when Hurricane Ivan forced large amounts of organic matter into the Escambia River, which dramatically lowered dissolved oxygen levels and triggered a major die-off in adult Gulf sturgeon. In addition, the hurricane likely increased dramatically the number and distribution of exotic, invasive plant and animal species in the affected portions of the Southeast, especially the spread of Asian carp.

At Mississippi Sandhill Crane National Wildlife Refuge in Gautier, 28 of the 32 radio-tagged Mississippi sandhill cranes were located after the storm. Most of the rest of the refuge's crane population probably survived, although this will take several months to confirm because observation blinds were extensively damaged. A captive flock of Mississippi sandhill cranes at the Audubon Center for Research of Endangered Species in New Orleans also survived the hurricane, although two adult females have since died. New facilities are needed for the remaining captive Mississippi sandhill cranes and whooping cranes there.

At Bon Secour National Wildlife Refuge in Gulf Shores, Alabama, 10 of the sea turtle nests at the refuge were destroyed. About 50 sea turtle nests along the Alabama coast were lost. Longleaf pine habitat in Mississippi and Alabama for such species as red-cockaded woodpeckers, gopher tortoises, and gopher frogs has also been severely impacted.

The Alabama beach mouse's best habitat, primary dunes, has been destroyed. In addition, 90 percent of the secondary dunes were destroyed. Scrub habitat was damaged by salt spray from the ocean. Both habitat types serve as food sources for the beach mice and it is likely that their population will be substantially reduced from the effects of hurricanes Katrina and Ivan from last year. Biologists are looking at the possibility of supplemental feeding of oats and seeds in places where beach mouse tracks are found.

Elsie Davis, External Affairs, Atlanta, Georgia

Law Enforcement from Virginia Helps Rescue Katrina Victims

Boats were essential to provide aid and evacuate flood victims. Rapidly rising flood waters left countless vehicles stranded.

"The devastation shown on television cannot be comprehended until you see it firsthand," Rick Perry said after a week of search and rescue work in New Orleans following Hurricane Katrina's destruction on August 29.

Perry, resident agent in charge of the Richmond, VA, law enforcement office, and Al Hundley, special agent from Fredericksburg, Virginia transported boats more than 1,000 miles to Big Branch Marsh National Wildlife Refuge in Lacombe, Louisiana. There, they teamed up with other special agents and refuge officers to form a 14-boat taskforce. The team worked with search and rescue units from San Diego and Sacramento and with the National Guard.

Although the water level was dropping when they arrived nearly two weeks after the hurricane, boats remained the only way to travel, Perry said. Water was still up to the roofs of some homes in New Orleans. And the water was not safe.

"To give you an idea of how toxic the water was," Perry said, "not only did it give the officers headaches and burning eyes, it peeled the paint off submerged vehicles and homes. If someone was unfortunate enough to fall in, they were immediately evacuated for decontamination."

Perry mentioned two rescues in particular—a diabetic woman who still had some insulin, water, and some Cheerios; and a wheelchair-bound woman who didn't remember the hurricane and had just a little food remaining. Her legs were badly infected from contact with the toxic water. The Service team worked two days with the San Diego Urban Search and Rescue Team, and these last two "saves" were what kept the unit going strong.

Toward the end of the assignment, the team followed up on several 911 calls from concerned family members unable to reach elderly relatives. In each case, the team found the people dead in their homes.

As they rescued people, the team also rescued and fed emaciated dogs. Some dogs were so distraught the rescuers were unable to capture them. The team also saw some dogs left tied in their yards when owners evacuated, many of which didn't survive.

Three additional special agents from the Northeast Region traveled to New Orleans in mid-October to provide security at Red Cross facilities and do other security-related tasks for three weeks. Engineers and refuge staff from the Northeast Region also assisted in New Orleans.

Thomas J. Healy, Senior Agent in Charge for the Northeast Region, went to New Orleans in late September for a detail as incident commander of the DOI law enforcement response to Katrina (See accompanying story).

Diana Weaver, External Affairs, Hadley, Massachusetts

Special Operations Response Team Proves Its Worth—Again

The Service's Special Operations Response Team (SORT) sprang into action well before Hurricane Rita struck the Louisiana coastline with hurricane-force winds and a 20-foot storm surge. Its experience grew after Hurricane Katrina struck just three weeks before and Hurricane Dennis before that. Last year, the team deployed in reaction to four hurricanes: Charlie, Ivan, Frances and Jean.

"They triage a situation on a landscape level," said Sam D. Hamilton, the Service's Southeast Regional Director. "These officers have done this for three years now, and they are getting good at it."

The team is composed of refuge law enforcement personnel trained in disaster skills, communications, map reading and first aid. All are quick to respond, fiercely independent and extremely flexible, both mentally and physically. Traveling light and fast with enough fuel, food, water and supplies for a week, their mission is to be the eyes and ears of the regional leadership immediately after a disaster strikes. They help account for all Service employees, check on the facilities, and make quick assessments to allow leaders to properly allocate resources.

"The SORT Team has probably saved the region hundreds of thousands of dollars by allowing the region to more accurately assess the situation," said Eddie Brannon, Assistant SORT Team Leader for Hurricane Rita. Brannon is the zone officer for eastern Florida based at Merritt Island NWR, Florida. "We always want to provide the quickest and best support possible to our managers, employees, their families and local communities. Thanks to deployed SORT Teams, we know what we have to deal with within 24 hours."

When given the word from the regional chief of refuges, the team marshals resources to cover the projected storm's path. They usually divide into two teams to tackle the immense job of visiting affected field offices from two sides, then join in the middle at the area of greatest impact or need. In the four days after Hurricane Rita, one team drove more than 2600 miles, leapfrogging downed trees and broken utility poles.

Jerry Greggs, Zone Law Enforcement Officer, Cache River NWR, "Gator" Smith, Sabine NWR; and "Bubber" Carnathan, Zone Officer, Teddy Roosevelt NWR, use a small boat to reach flooded Sabine NWR to check on damage after Hurricane Rita.

So why not just let the normal chain of command work? Refuge managers and ecological services managers are frequently right in the middle of the disaster themselves, having to deal with evacuations, destroyed homes, damaged infrastructure and poor communications. Having an independent, self-sufficient team is invaluable.

"I was extremely pleased that the SORT Team was able to quickly respond by checking out our offices in Lafayette and offering immediate help to our people following Rita's landfall" said Russ Watson, Ecological Services Supervisor, Lafayette, Louisiana. "Their assistance in dealing with temporary but significant roof damage at my home enabled me to quickly get back to work at a critical period of time." Watson's staff had been helping rescue people stranded in New Orleans immediately following Katrina, and initiating an extensive oil spill response when they had to deal with the impacts of Rita.

The team came in with additional communications capabilities including satellite phones, cell phones, cameras to document damage, and laptops. Team members linked up with the local managers to gather the best information available, then physically account for Service employees. As uniformed law enforcement, they can bypass any closed roads, where even residents would not be allowed, an invaluable authority in times of disaster.

During Rita, one team opened up nearly five miles of road blocked and littered by downed high voltage wires, trees and debris. The team crossed a flooded section one-half-mile long to try to reach Sabine NWR and Hackberry, Louisiana, a badly damaged small town adjacent to the refuge. Larry "Gator" Smith, assistant fire manager for Sabine NWR, guided the team through the flooded water on foot.

"We almost always travel with two teams. Each team has four people and two vehicles," said Bubber Carnathan, Mississippi Area Refuge Law Enforcement Officer based at Theodore Roosevelt NWR. "That way if a vehicle breaks down, you can always keep the mission going. And it's good to travel in pairs in a disaster." Two other regions, Southwest and Midwest, have SORT Teams to help address disaster situations or other emergencies. They help each other out if the disaster takes longer than a week or two.

"We go in fast and leave quickly, letting the incident command post take over the heavy lifting," Brannon said. "That way our team stays fresh for the next hurricane. And lately, that has been pretty often."

Tom R. MacKenzie,
External Affairs, Atlanta Georgia

DOI Bureaus Provide Katrina Law Enforcement Assistance

Thomas J. Healy

In the month he worked in New Orleans, Thomas J. Healy, the Service's Special Agent in Charge of the Northeast Region saw the downtown streets nearly cleared of rubble, return of residents to some sections of the city, and a shortened curfew. Initially, law enforcement, fire, emergency and military were the only people allowed in the city. When he left, military checkpoints were still regulating access to the Ninth Ward, an area the size of a small town that was largely destroyed.

"It was like scenes of the day after a disaster in a science-fiction movie," Healy said when he arrived a month after the hurricane and ensuing floods struck the city.

Healy served as incident commander of the DOI law enforcement response to Katrina. He coordinated BLM park rangers, BIA law enforcement officers, and FWS refuge officers and special agents providing security for American Red Cross personnel and supplies in Orleans County while still responding to situations as they arose. Healy also worked with the Federal Protective Service, the Red Cross and National Guard units from Louisiana, Washington, North Carolina, Utah and New Hampshire.

"DOI staff handled a range of law enforcement activities, including responding to requests from FEMA to assist with emergencies at a supply center," Healy said. They arrested an armed burglary suspect who had been involved in an earlier shooting, responded to family disturbances and made arrests

While the Joint Field Office was located in an old shopping mall in Baton Rouge, the Law Enforcement Command Center was housed in the French Quarter at the sparsely staffed Royal Sinesta Hotel. Like other relief workers, Healy worked 16- to 18-hour days. Meals, if they could be found, ranged from military rations, to eating at the few open restaurants.

For many workers brought in on details after Hurricane Katrina, it was hard to leave before the job was finished. To avoid fatigue and burn-out, details were limited to a few days or a few weeks. Still, Healy said it was a life-altering experience for everyone who helped with the Katrina recovery effort.

Diana Weaver, External Affairs, Hadley, Massachusetts

From the Rubble, a New Start in Mississippi

Operations Section Chief Chris Wilcox of the FWS Hurricane Response & Recovery Team attended daily Emergency Operations Center (EOC) meetings at Hancock County, Mississippi. During these meetings, Wilcox soon became aware of an immediate need to clear sites for local volunteer fire departments that had lost their facilities because of Hurricane Katrina.

Hancock County EOC requested assistance from the Service team in removing storm debris to make room for a temporary volunteer fire department facility that would include office space and quarters. The temporary facility would serve East Hancock (Waveland), West Hancock (Pearlington) and the completely demolished Clermont Harbor VFDs until the rebuilding of their fire stations was complete and their emergency services were back on line.

The Team's Division Supervisor Carl Schwope said, "These firefighters were too busy being heroes. They didn't have time to think about themselves, so we decided to do it for them." Region 4 heavy equipment operators Hal Jones and Jimmy Perry moved into the ruins and rubble with their machinery and cleared storm debris from the VFD station sites. The action moved the Volunteer Fire Departments one step closer to getting emergency services back in operation.

The Service's Hurricane Response and Recovery Team was proud to provide emergency assistance during the rebuilding process. Describing the reaction of the Assistant Chief and the Captain of Clermont Volunteer Fire and Rescue upon seeing the cleared rubble, Hal Jones said "It was emotionally painful for them—they'd suffered a lot of loss due to Katrina, including their homes, but they were grateful for our help."

The Southwest Region is home to National Wildlife Refuge Fire Management Officers Schwope of Balcones Canyonlands near Austin, Texas and Wilcox of Bosque Del Apache near Socorro, New Mexico.

Vicki Fox, External Affairs, Albuquerque, New Mexcio

Cameron Prairie, Lacassine, and Sabine NWRs in Louisiana: Healing from Rita

As residents of the Rita and Katrina-affected areas of Louisiana returned home and began to get back into their regular routines. The true impacts of the storm became apparent, including the effect of the storms on wildlife and habitat in the area. The Southwest Louisiana Refuge Complex, which includes Cameron Prairie, Lacassine, and Sabine National Wildlife Refuges, will suffer the effects of Rita for years to come.

"As we get past the damage to our homes and towns and move forward with recovery in these areas, we are all starting to notice the effect the storm has had on our local fish and wildlife resources, as well as our coastline," said Steve Reagan, refuge biologist. "Freshwater fish are floating dead within many of our waterways because of saltwater intrusion or oxygen depletion. Oxygen will continue to decline within local waters as the plant material in these waters decays."

The carcasses of deer, muskrat, otter, alligators and other terrestrial wildlife dot the landscape. They could not escape Rita's tidal surge. Hurricane Rita's damaging winds affected local birds, too. Among those that survived, many had broken wings or damaged legs. Other wildlife were also casualties of Hurricane Rita. Much of their habitat has been destroyed by salt water or coated with toxic materials, including gas and oil. Louisiana's coast has also pushed farther inland decreasing the amount of marshlands.

"Even though the winds are gone and the sun now shines, some damage will continue to occur," Reagan said. "Southwest Louisiana is also very important to many species of wildlife that are soon to arrive, migratory waterfowl and neotropical songbirds. Louisiana coastal bottomland hardwoods offer some of the last food and rest available to these birds prior to their flights across the Gulf of Mexico. The effects of the saltwater surge and high winds on these forests are just now becoming apparent. Some trees will not be able to survive the increased salinities."

"Sparky" Arceneux gets FWS support to open up 200-yard driveway. A hundred downed pines blocked her house. Photo: Jason Vehrs.

The impact will continue as the seasons change and new years begin their life cycle of these wildlife species.

"Louisiana is also home to many colonial nesting birds including pelicans, herons and egrets. Each of these has been affected from Hurricane Rita," Reagan said. "Much, but not all, of Louisiana's fish and wildlife habitats will heal. This is not the first hurricane to our area, nor will it be the last. Recovery takes time, and what does return may not be exactly what was there before."

Don Voros, project leader for the Southwest Louisiana Refuge Complex, described the damage to refuge facilities.

"The majority of the facilities at Sabine National Wildlife Refuge has been irreparably damaged," Voros said. "It is our hope that the existing structures can be demolished, the sites cleared of debris and new structures can be constructed immediately. But we're aware that 'immediate' isn't something we can expect with this much damage at the refuge and throughout the community. At Lacassine and Cameron Prairie National Wildlife Refuges, we are still assessing damages to the buildings. It appears that the structures at theses sites may still be salvageable and in some cases fully functional."

The Fish and Wildlife Service Hurricane Response Team aided local residents by clearing debris from their driveways, helping ranchers find cattle by helicopter, serving as a staging area for feeding and watering cattle by helicopter, taking residents to their homes by airboat when possible and providing the Cameron Parish Emergency Operations staff, FEMA, National Guard, U.S. Army and government officials with a temporary operations site at Cameron Prairie National Wildlife Refuge in Bell City, Louisiana.

Cameron Prairie, Lacassine, and Sabine National Wildlife Refuges remain closed to all public recreational activities until further notice.

"There are all kinds of contaminants on these refuges—some we know what they are, but I'm sure there are problems out there that we haven't even begun to identify," said Brian Hardison, Safety Officer for the Response Team. "Until we can be sure our refuges are safe places to visit, we need to keep them closed—for public safety."

The Cameron Prairie National Wildlife Refuge Office is now up and running, fully staffed, and working on getting things back to normal. For more information about the effects of Hurricane Rita on these refuges visit <fws.gov/southeast>.

Bonnie Strawser, Alligator River National Wildlife Refuge, Manteo, North Carolina

Two Exits East

Service crews clear a road of storm debris in Louisiana.

After six consecutively hectic and disjointed 14-hour days, Laila Lienesch, a fire contaminants biologist from the Southwest Regional office in Albuquerque, New Mexico, needed a moment alone. Five minutes after hopping into the truck, she found herself at a table for one listening to what a week ago would have seemed normal lunchtime restaurant chatter.

A lunch meeting between business people was being conducted at the table next to her.

"Waiter, there's not enough cheese on this Caesar salad" complained the woman at the table to Laila's left.

Yet only two freeway exits to the east there was no electricity, no potable water and no access to food or fuel. Families were unable to return to their homes because of road closures or lack of electricity in the stifling Texas heat. Further to the east, families were still unable to make telephone contact with loved ones. People were driving or standing outside in long lines to receive food, water and occasionally the luxury of bagged ice. Others were seeking relief in generator-powered, air-conditioned shelters, where the space between cots constituted "home."

Lienesch had traveled to east Texas from Albuquerque, New Mexico, 48 hours before Hurricane Rita came ashore. She had volunteered to be the resource unit leader for a 70-member Fish and Wildlife Service incident management team comprised of heavy equipment operators, sawyers, maintenance workers and law enforcement agents.

For four days the team had been cutting and clearing trees and debris from roadways so that emergency vehicles and eventually utility companies could get into hurricane ravaged communities and neighborhoods. They were assisting local law enforcement officers around the clock with the unusual demands that follow a disaster.

Only after the immediate urgency of the disaster had passed, would they begin tending to National Wildlife Refuges—stabilizing damaged facilities to arrest further deterioration. Lienesch and the initial crew would remain for another five days and the maintenance workers and law enforcement officers would stay indefinitely.

The path of Hurricane Rita is obvious—fallen trees and power lines at the perimeter. Damage intensifies as one moves toward the path of her eye—windowless businesses, then roofless homes, tree-choked streets and highways made impassable by storm-surge water and mounds of marsh debris. At the center, intact homes are separated by vacant concrete pads sprouting persistent plumbing fixtures; their roofs, walls and contents scattered to the horizon.

On the day Lienesch sought out a restaurant lunch, evacuees were permitted to make day-time excursions back to their homes in some areas. Families began rummaging through marshes and woodlands, retrieving items such as tricycles, clothes and photo albums.

At the reservation, a mere five miles away, the contrast between those affected and those spared was shocking.

Geography and time will entice us to temper our concern for the victims of Katrina and Rita. Long after emergency access, power and services are restored, victims will still be scrambling to restore their lives. Our thoughts, prayers and support for these families should extend beyond their obvious, immediate needs—and the distance between freeway exits.

Jeff Humphrey, Phoenix, Arizona.

Mountain-Prairie Region Helps, Too

The Mountain-Prairie Region played an active role in relief efforts for Hurricanes Rita and Katrina.

The Region deployed numerous personnel, including National Wildlife Refuge system law enforcement officers, wildland firefighters, construction managers, logistical support staff, environmental contaminants experts, heavy equipment operators, and maintenance staff. Additional technical specialists were deployed to areas affected by the recent hurricanes from Service offices throughout the Region.

These personnel assisted with a wide variety of relief activities. Many of these activities directly related to the Service's conservation mission, such as assessing the impacts of oil spills on fish and wildlife resources and removing storm debris from national wildlife refuge roads. Service personnel also conducted other relief activities, including providing health and safety services and security for relief workers, distributing food and water, maintaining emergency shelters; and engaging in other community assistance activities.

As of October 31, 2005, 49 personnel from Region 6 were assigned to relief duties, 33 for Katrina activities and 16 for Rita activities.

Matt Kales, Office of External Affairs, Mountain-Prairie Region

Path of Hurricane Katrina.

An Interview with Dale Hall

Service Director H. Dale Hall.

Editor's note: Service Director H. Dale Hall recently sat down for an interview with Fish & Wildlife News *to discuss his first impressions of the job, as well as some of his priorities for the future.*

When you started out with the Fish and Wildlife Service 27 years ago, did you ever think you would become its Director?

DH: When I started in the Service, I was just so tickled to be part of this great outfit that I really didn't set any horizon line for myself. I just wanted to work in conservation, and thought the Service would be the very best place to do that—I still feel that way. I've been privileged to have had some great role models and mentors, and to have worked in different programs in so many areas of the country. To be named Director is an honor I still find difficult to express.

Being the Director of the Service is also, in a way, very humbling. I genuinely like and respect all the employees in the Service so much that my biggest fear is that I'm going to let them down. I feel enormous responsibility to this agency to live up to the trust placed in me. At the same time, because I know and love the Service, I feel we can work together to make it better and get a lot of great things done for wildlife.

You have been Director just a couple months now, what's it been like so far?

DH: It's been hectic, of course, but I knew it would be. What you can't anticipate is just how much your schedule is not your own. So many people need time with the Director of the Fish and Wildlife Service that I could never leave my office and still not meet all the requests. It's easy to see how any Director could lose touch with the folks doing the work.

The challenge for me will be to maintain my ties with the field, to continue to get out of Washington and listen to our employees' concerns and ideas. I believe strongly that as Director I have an obligation to communicate with our employees as much as possible. Our people probably want to hear my priorities, and I need to hear theirs. So I plan to get outside the beltway as much as I can. I'm just so impressed with the quality of our people and the great work they're doing—and I try to tell them that every opportunity I have.

Obviously, everyone in the Service—and the conservation community—wants to know your goals and objectives.

DH: Well, there haven't been any dramatic changes or shifts in my goals throughout my career. My goals as Director reflect some of the earliest goals I had when I joined the Fish and Wildlife Service: I want to do a good job for wildlife and the habitats they need. I'm interested in solutions, not conflict.

I believe strongly that the Service must focus on natural resource management, rather than individual species management. We need to find a way to work across our programs to manage for the health of an entire ecosystem, rather than singling out a particular species. And we need to do more to involve on-the-ground partners in our conservation efforts.

The Service faces some serious fiscal challenges right now, as it has in the past. What would you like to say to Regional and field staffs about future budgets?

DH: Right now we face an enormous challenge. The competition for funding is going to be especially tough after the massive storms we witnessed this summer. Make no mistake about it, Katrina and Rita and Wilma will cost us—and other agencies—a lot of money. Overall these storms represent billions of dollars in damages and repair costs. We'll see a fiscal impact that could last for some time.

As most people probably know, even if we maintain a stable budget our fixed costs will continue to increase, leaving us with less operational funding. So I think we as an agency need to prepare for tight budgets for the foreseeable future.

This is going to force us all to take a hard look at what we do and decide what our core priorities are, what we absolutely can't let go of. That will probably mean making some difficult decisions about what we can't afford to do. And in all likelihood, some of the things we decide we can't do will be significant. I don't think the Service wastes money; we're talking about choosing priorities among priorities, and that will undoubtedly be painful for everyone who cares about the Service and its mission.

What, in your view, are the challenges facing the Service over the next few years?

DH: Well, as I said before, I think the main issue is funding: how do we do the best possible job for the American people while recognizing that our responsibilities will always outstrip our resources. I think our continuing strength is the amazing dedication of our rank and file employees. They represent an extraordinary set of talents and skills and conservation experience. I think the major task of any Director is to help them stay focused and motivated and to outline a budget that makes the most of the dollars we have.

I think another very important challenge we face is to develop good, consistent policies all across the country. I'm not singling out any particular program—we've all gotten a bit lax over the years. But we need to be doing things the same way, whether it's in the Chesapeake Bay or San Francisco Bay. We have an obligation to the public to be clear and consistent.

Our society is changing and we have to be responsive to those changes. Most of all, we have to be visionary, not reactionary, and anticipate needs for the future.

We also have to listen to the public and determine what their needs are and how we can meet them. Those needs and expectations have changed in the decades since I started with the Service. Our society is changing and we have to be responsive to those changes. Most of all, we have to be visionary, not reactionary, and anticipate needs for the future.

Speaking of changes in society, hunting and fishing license sales continue to decline as a percentage of the growing US population. News: How should the FWS position itself to address this trend?

DH: Here's what I think: somewhere in that suburban expansion that's going on (okay, let's call it "sprawl") and somewhere in those new populations here in the U.S., there is that inevitable quotient of folks who Aldo Leopold so accurately described as "those who cannot live without wild things." It seems to me our task is pretty clear: Let's seek out and meet those folks. Let's tell them what we do—and enlist their active participation in wildlife conservation. As far as license sales are concerned, there are some signs on the horizon that offer some encouragement. I really like the campaign begun by the Recreational Boating and Fishing Foundation—I think it can succeed and we can indeed see an increase in licensed anglers. The hunting scene is a little more complex because this sport is so dependent not only upon high-quality habitat, but access to it as well.

You know, many folks don't realize that a significant portion of the drop in hunting license sales is due to loss of opportunity—time and space—to pursue hunting. As it gets more and more difficult for people to hunt on private land, public lands become critical to sustaining hunting. I see the Refuge System as a major component of any future strategy to recruit and retain hunters. We've done a good job of developing hunting programs on many of our refuges, and I'd like to see that trend continue where it's compatible with the mission of the refuge. This is a complex problem, but one that I think States, the Service and various sporting organizations can effectively address together.

In the past few years, we have witnessed a new outreach to State Fish and Wildlife Agencies. In your opinion has it paid off? Will you continue in that direction?

DH: Not only has it paid off, I want to see it continue. We have to maintain these relationships because the work of our State colleagues is growing increasingly complex and closely mirrors many of our own endeavors. I have already met with the International Association of Fish and Wildlife Agencies and set some priorities for issues we want to work on together.

What are those priorities?

DH: First, the Farm Bill and The Conservation Reserve Program. We need to work with the Department of Agriculture and the States to find ways to maintain the conservation values and keep farmers enrolled, especially since the Farm Bill faces great fiscal constraints at this time.

Second, we need to complete the policy development and revisions we have already started for our national wildlife refuges and the Endangered Species Act.

Third, the National Fish Habitat Initiative. That is high on our list to keep it moving forward. This may be the greatest legacy we can leave for future generations.

Next, hurricane recovery. We need to send the message that creation and restoration of marshes and wetlands help protect people from storm damage. Marshes protect levees, and levees protect people. We have a chance to change the paradigm, and help people understand that protection of wetlands means protection from storm and flood damage.

Fifth, Endangered Species Act reform. We need to work with the International Association of Fish and Wildlife Agencies on commonsense changes to the ESA. We'd like to be able to do our jobs better and not be hamstrung by lawsuits.

And finally, the new State Wildlife strategies. I think the advent of the new and far-reaching State Wildlife Plan initiative demonstrates how interconnected our conservation ties have become. I'd like to see us expand this so that we are looking at plans that BLM, Park Service, the Forest Service, and other agencies have—to get our staffs pulled together to see where the overlap is, so that we can pick focus areas. We don't necessarily need more money, but we do need to be smart about how we use the resources we have. We may be able to get just as much done with the same funding, and by showing success, perhaps we'll get more funding.I would urge every Service field station to become thoroughly familiar with the Wildlife Plan for the State their project is in. These plans are virtual menus for exciting partnership possibilities.

We can't accomplish everything we need to do by ourselves. The State agencies are our natural partners, and we have to coordinate our efforts if we want to be most effective. Just look at what's been accomplished with the Yellowstone grizzly bear population. The number of bears in the greater Yellowstone ecosystem is the highest it's been since the bear was listed in 1975, with bears being recorded in areas where they haven't been seen in 80 years. We've exceeded all of our recovery goals for the population, and we're ready to bring this population off the list.

Continued on page 14.

Interview (continued)

The Service could not, and did not, accomplish this recovery alone. For more than 20 years we've worked with a broad spectrum of Federal and State agencies, conservation groups and individuals through the Interagency Grizzly Bear Committee to implement conservation and education measures on the ground in the Yellowstone area. This type of consensus-based collaboration should be the rule, not the exception in everything we do as an agency. Through this process, we can bring people together and, while respecting that they may have different motivations and perceptions, find a way to work together for the benefit of both wildlife and the people who live among them.

Is there anything else you'd like to add?

DH: Just this. It wasn't an easy decision to accept this nomination. I loved my job in Albuquerque. But my conscience started working on me. I really do believe the Fish and Wildlife Service is my family. I thought about the 9,000 employee out there and how much they care. I got many e-mails and phone calls from employees when my nomination was announced, and those really meant a lot to me. I answered every e-mail employees sent me. I see the directorate as a board of directors that represents all 9,000 employees, and we will work together, as a team, to provide the leadership our employees hunger for. I appreciate and am honored to be sitting in the chair I'm in.

Interior Readies for Avian Influenza

Waterfowl, such as these Aleutian Canada geese, are being strategically sampled as possible sources of avian influenza. FWS photo: Donna A. Dewhurst.

The Department of the Interior is responsible for managing wildlife, including migratory birds, under various laws and treaties, and for ensuring public health on more than 500 million acres of land that it manages across the country.

As part of these responsibilities, the Department and its partners are testing for highly pathogenic avian influenza (HPAI) in migratory birds and making plans to protect the health of its employees and the 450 million people that visit Department-managed lands each year.

Even though HPAI has caused mortality in nearly 60 species of wild birds in Asia and Europe, there are no reported cases of people becoming infected from migratory birds.

Three organizations have roles in Interior's efforts related to HPAI. The first of these is the U.S. Geological Survey, the scientific arm of the Department. USGS has a long history of responding to wildlife disease emergencies and conducting wildlife disease investigations. USGS is supporting international HPAI research efforts by contributing information and expertise about migratory birds and movements.

The second is the U.S. Fish and Wildlife Service. The Service administers the National Wildlife Refuge System, with many of its 545 refuges providing critical nesting, migration and wintering habitats for waterfowl and other migratory birds. The Service also carries out permitting and enforcement responsibilities under federal laws governing trade in wildlife species and products, and works with the U.S. Department of Agriculture/Animal and Plant Health Inspection Service to regulate importation of wild birds for the pet trade, research and other purposes.

The third is the National Park Service. With 384 areas in the National Park System, the National Park Service has a key role in protecting the health of its visitors. The National Park Service hosts 32 commissioned officers of the U.S. Public Health Service to meet this important responsibility.

The H5N1 strain of HPAI has not been detected in North America. However, the expanding global spread of H5N1 increases the likelihood that it will eventually be detected here. There are a number of pathways through which the virus could be brought to North America. Introduction by wild migratory birds is one possible pathway that USDA and Interior are working together to address.

In conjunction with the State of Alaska, Fish and Wildlife Service and Geological Survey biologists have been strategically sampling migratory birds for H5N1 in the Pacific Flyway for several months. These efforts complement a series of ongoing avian influenza studies being conducted by the USDA and its university partners in Alaska, where birds that regularly migrate between Asia and North America are known to congregate and to nest.

The U.S. Geological Survey, Fish and Wildlife Service, and USDA/APHIS are already planning a coordinated and more comprehensive surveillance and detection program for 2006. This program is being designed to provide an early warning to the agriculture, public health, and wildlife communities should migratory birds be found to carry the virus.

Hugh Vickery, Public Affairs, Office of the Secretary

Award-Winning Partners Project Benefits Livestock, Stream

Bullskin Creek (left) before restoration and after. The new fencing safeguards the riparian area on the Mickeys' farm, allowing renewed vegetative cover to stabilize the stream banks.

The cows and calves in Warren and Reva Mickey's West Virginia pastures eat fresh, high-quality grass, and the creek running through the pastures runs clean and cool thanks to new fences, stream crossings and vegetation provided through the U.S. Fish and Wildlife Service's Partners for Fish and Wildlife Program. The Jefferson County project near Charles Town won statewide awards in 2004 and 2005 and serves as a model for similar projects.

A stream may be the most logical, least expensive way to water livestock, but livestock can trample stream banks, causing erosion and increasing sediment, according to the Service's John Schmidt, West Virginia coordinator for the program for the past 12 years. Cows were doing just that to the North Fork of Bullskin Creek, which cut through three of the Mickey's fields.

The Partners project provided new fencing on the Mickey's farm to protect the bank along stream-front fields and to establish a lane for cows to move from another field to the stream. With management-intensive rotational grazing, cows are grazing on more, but smaller pastures. They spend less time in each pasture and graze more efficiently, Schmidt said. Less grass is lost to trampling and fecal contamination.

In a half mile reach of the Bullskin, the Partners program built three rock-armored pathways across the stream for firm footing and easy crossing for cows and farm equipment. This method provides water for livestock but keeps cows away from the rest of the stream bank and reduces erosion.

Finally, vegetation was planted along the bank to shade and cool the stream—with the ultimate goal of reestablishing trout in the stream someday. To celebrate Earth Day 2003, Assistant Secretary Lynn Scarlett helped Boy Scout troops and some of the project partners plant silky dogwood and pine seedlings along the creek bank.

Mickey and other farmers in his soil conservation district competed for West Virginia Farm of the Year in 2004, with Mickey winning the statewide award for the Partners project. This year, Mickey won the governor's Department of Environmental Conservation award for environmental excellence. In addition to keeping cows and raising calves, the Mickeys grow corn and soybeans on land originally farmed in the 1700s.

Schmidt said the Mickeys considered a stream bank project after an upstream neighbor developed a similar project. The Mickeys downstream neighbor has followed suit and excluded livestock as well.

The Mickey project was a partnership between the landowner, U.S. Fish and Wildlife Service, USDA's Natural Resources Conservation Service, the Chesapeake Bay Foundation, Ducks Unlimited and the California University of Pennsylvania Foundation.

NRCS in Jefferson County has completed more than 20 projects with the Service providing cost-share assistance for agricultural and wildlife-related benefits, Schmidt said. Their wildlife Habitat Incentive Program provided 75 percent cost share on the Mickeys' project.

When NRCS uses the Service's National Conservation Training Center in nearby Shepherdstown for employee training, the Mickey project is among those on the field trip as an example of a public-private partnership and cooperative conservation.

Diana Weaver, External Affairs, Hadley, Massachusetts

Beluga Sturgeon Trade Suspended

The U.S. Fish and Wildlife Service announced in September it has immediately suspended import and re-export of threatened beluga sturgeon (*Huso huso*) caviar and meat originating in the Caspian Sea basin. Countries covered by the suspension include Azerbaijan, the Islamic Republic of Iran, Kazakhstan, the Russian Federation and Turkmenistan.

The Service listed all beluga sturgeon populations as threatened under the Endangered Species Act (Act) effective October 21, 2004. To provide economic incentives for conservation efforts by Caspian Sea and Black Sea countries harvesting beluga sturgeon, the Service issued a special rule on March 4, 2005, setting certain conditions for exempting foreign and U.S. domestic commerce in beluga sturgeon products from the Act's permit requirements. The terms of the special rule parallel recent decisions on beluga sturgeon and other sturgeon species under the Convention on International Trade in Endangered Species (CITES), a global agreement under which nearly 170 countries, including the United States, seek to regulate and monitor international wildlife trade through a system of permits.

The special rule required Caspian Sea countries wishing to continue to export beluga sturgeon caviar and meat to the United States under this exemption to submit, by September 6, 2005, copies of their laws and management plans for the protection and conservation of the species. By that date, the Service has not received any of the needed information from these countries. As a result, beluga sturgeon caviar (including products containing caviar, such as cosmetics) and meat from the Caspian Sea basin were no longer eligible for the exemption provided by the special rule. The trade suspension can be lifted if Caspian Sea countries submit the information required under the special rule.

Ken Burton, Public Affairs, Washington, DC

Workhorse of the Lake Trout Restoration Program Nears Retirement

The Togue *has provided years of service in lake trout restoration in the upper Great Lakes, but it will be replaced in the near future.*

Each year since 1990, crewed by Fish and Wildlife Service Fisheries staff, the M/V (Motor Vessel) Togue stocks more than three million lake trout in the Great Lakes of Huron and Michigan. Of 63 science vessels operating in the Great Lakes, the M/V Togue is the only hatchery fish distribution vessel in service. In its lifetime as a stocking vessel, the Togue has put tens of millions of lake trout in the Great Lakes, making it one of the keys to the success of the Service's lake trout restoration program.

Restoration of fish in their native habitats is among the Fish and Wildlife Service's highest priorities. To achieve this, the Service has stocked more than 29 million yearling lake trout into lakes Huron and Michigan during the past nine years using the Togue. Offshore stocking is the only method available to promote the colonization of historically productive offshore reefs by yearling lake trout—a strategy specified in multi-agency restoration plans for Lakes Huron and Michigan.

Although research continues to identify limiting factors affecting complete lake trout restoration in lakes Michigan and Huron, the Service continues to lead lake trout restoration efforts with strong support from partners—and some help from the M/V Togue.

Given the prodigious number of lake trout released from its decks, it might come as a surprise to learn that 85-foot, 175-ton Togue wasn't designed specifically for fish stocking but rather for shrimp catching.

Built in 1975, the M/V Togue operated for 12 years as a shrimp trawler before being confiscated in Florida by the U.S. Customs Service for carrying contraband cargo. The Fish and Wildlife Service acquired the Togue and in 1988 began retrofitting it for stocking lake trout in the Great Lakes. The Service also gave its newly acquired vessel an appropriate new moniker—"Togue" is derived from a Native American word meaning lake trout.

The lake trout stocking season for the Togue is busy. Ship Captain Michael Perry, who has logged five years on the Togue, Marine Engineer Robert Bergstrom, a 15-year Togue veteran, and a fish caretaker typically begin offshore stocking operations in mid-April each year and continue through the end of June. The Togue travels far on its stocking mission.

From its home port in Cheboygan, Michigan, in 2005 the Togue traveled 1,001 statute miles to 11 reefs stocking 1.19 million fish in Lake Huron and 1,469 statute miles to 22 reefs stocking 2.75 million fish in Lake Michigan, for a total of nearly 2,500 miles. With the vessel moving at 10 mph, it takes approximately 250 hours to traverse the route. The Togue stocks fish from three national fish hatcheries: Jordan River and Pendills Creek in Michigan, and Iron River in Wisconsin.

A typical fish stocking day for the crew begins at 4:30 am when they check the weather. Once Captain Perry determines it's safe to stock fish, he calls Jordan River hatchery at 6 am to notify staff that "it's a go." The hatchery staff, with assistance from Iron River and Pendills hatchery

employees, begins loading the four to six distribution trucks with water, ice and up to 100,000 fish averaging 10 to 12 fish per pound.

The fish are pumped out of the raceway onto each truck. The fish pump has saved numerous backs; prior to 2000, all the fish were loaded by hand. It will take about three hours to get the fish on the trucks for the ride to meet the Togue.

Once on the trucks, the crew checks to make sure oxygen levels and temperature (below 40 degrees) are satisfactory for the fish before leaving the hatchery for a truck rides ranging from 45 minutes to six hours, depending on the stocking site.

Before departing, the crew checks the weather again to make sure the fish are not being taken for a "joy ride."

Upon arrival at port, the fish are loaded in the Togue's eight hull tanks. Stocking sites range from two miles to 48 miles offshore. En route, the fish caretaker checks his cargo during the cruise to the stocking site. If the fish are stressed or "sea sick" from the wave action, they will be released as close to the stocking site as possible.

The native lake trout are vacuumed off the Togue onto the offshore reef. This daily ritual continues until all the fish are released.

During a typical fish stocking season, the Togue's crew doesn't return to Cheboygan to sleep in their own beds until mid-June, en route to finishing Lake Huron by July. On average, bad weather "down days" or "blow days" keep the Togue from sailing about 16 days of the season. Because of the Togue's age and condition, it can stock fish safely in only one to three-foot waves.

The safety of the crew and fish is of the utmost importance. Perry needs a 12- to 18-hour "good weather window" for each trip. Predicting the weather that far in advance on the Great Lakes in no small feat.

In 2005, 4.12 million lake trout were released into lakes Huron, Michigan and Superior via the Togue or by truck at alternative shore stocking sites. As a result of the Togue's stocking capability, mature lake trout are now abundant on offshore reefs in lakes Huron and Michigan. Assessment data from Lake Huron has shown that this offshore stocking strategy provides an added benefit of higher survival—yearling lake trout released offshore survive at a higher rate than those fish released near shore.

Although the Fish and Wildlife Service has made many repairs to the Togue over the years--including propeller work, new shafts, stuffing boxes, paint and replacing sections of the hull--the vessel was not well maintained when it was a shrimp trawler. In 2001, inspections revealed that the Togue was becoming unsafe and had only three years left of service as a fish stocking vessel.

Even though its original construction, operation in salt water and prior pool maintenance wasn't very good to the Togue, it has never missed a stocking trip because of a mechanical breakdown. This demonstrates the ability and dedication of Robert Bergstrom to keep the Togue up and running year after year. During a 2001 inspection, personnel from JMS Naval Architects and Salvage Engineers commented that they "couldn't believe how well the Togue had been maintained, given its early history." They were further amazed by the fact that only one person—Bergstrom—was responsible for the upkeep.

In 2006, the Togue will be replaced by the M/V Spencer F. Baird, a brand-new lake trout stocking vessel being constructed especially for that purpose. Named after the first head of the U.S. Fish Commission (forerunner to the Fish and Wildlife Service), the M/V Spencer F. Baird will have features specifically designed for stocking fish and sampling capabilities to support hatchery product evaluation programs. Plus, it will be much safer for Captain Mike and his crew, and the millions of native lake trout to be stocked into the Great Lakes each year.

Rachel F. Levin, External Affairs, Ft. Snelling, Minnesota

Tribe Provides Safe Harbor for Species on the Rio Grande

On a cloudless October morning the likes of which make Albuquerque ideal for its annual international hot-air balloon fiesta, a modest celebration took place at the Pueblo of Santa Ana 20 miles north of New Mexico's largest city. In contrast to the touristy fanfare that had just days before converged in town, a native prayer prefaced the ceremony on the dusty banks of the Rio Grande. As a few bulbous blimps lingered downwind in the cobalt sky, the tribe concluded its own affair with the release of captive-bred minnow into the muddy river.

The event marked an historic 25-year agreement between the sovereign nation and the United States designed to protect threatened and endangered indigenous wildlife without compromising the tribe's property rights.

Last July, the Pueblo of Santa Ana became the first Native American tribe to participate in the U.S. Fish and Wildlife Service's much lauded Safe Harbor program. Now in its 10th year, the program that has engaged private landowners throughout the country is a showpiece of cooperative conservation. Safe Harbor features legal assurances that land management restrictions will not be imposed on private landowners should they partake in conservation measures designed to help threatened or endangered species.

"In this agreement, the Pueblo's existing ecosystem approach to natural resource conservation is complemented with measures that specifically address the needs of the endangered Rio Grande silvery minnow, the endangered southwestern willow flycatcher, and the threatened bald eagle," said the Service's Deputy Regional Director Geoff Haskett. "The Pueblo has voluntarily undertaken management activities that enhance, restore, or maintain habitat for these three species."

With its existing ecosystem approach, the tribe already understood the value of enhancing its stretch of river and restoring the bosque—the forest and vegetation that line the river's banks—long before entering the Safe Harbor agreement. In fact, the Santa Ana Pueblo Bosque and River Restoration Projects were launched in 1997 precisely to achieve these goals.

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Tribe Provides Safe Harbor
(continued)

Members of the Santa Ana Pueblo enjoy a light-hearted moment during the ceremony marking an historic habitat agreement between the Pueblo and the Service. One of the species that will directly benefit is the Rio Grande silvery minnow.

Acting Regional Director Geoff Haskett and the Honorable Lawrence Montoya, Governor of Santa Ana Pueblo, looking at the bag of minnows to be released into the river.

The river flows through the reservation for six miles. On that stretch, the Pueblo and the Bureau of Reclamation have changed channel characteristics on a two-mile stretch. In addition, with funding assistance from the Bureau of Indian Affairs, the Environmental Protection Agency and the Service, the Pueblo has restored two miles of bosque on the river's west bank.

Historical anecdotes describe the Rio Grande as "a mile wide and an inch deep." But the river used to fluctuate dramatically between high and low flows. Flooding in the early 1940s impelled federal agencies to begin flood-control and river channelization projects. They built dams and levees and, along the river banks, they installed jetty jacks—12-foot cross-barred iron contraptions interlinked by thick metal coils—to trap sediment and debris during floods. These projects dramatically altered the character of the Rio Grande, converting it from a wide, shallow river to a much narrower and deeper one.

In the river's altered state, native trees such as cottonwoods and willows did not enjoy the floodplain conditions required to nurture germination. Meanwhile, non-native vegetation such as saltcedar and Russian olive began taking root and quickly spread through the bosque. These exotic plants compete with native species like cottonwood and willow for water, light, and nutrients, and are more resilient to the fires produced by the understory fuel they generate within the forest. For a long time, the bosque has been dying a long, slow death.

The Santa Ana Department of Natural Resources first documented baseline conditions by mapping vegetation and conducting soil and water table assessments. The results were no surprise: they found a jungle-like infestation of salt cedar and Russian olive; highly saline, degraded soils; and a deeply cut river bed. Obviously, the Pueblo had high hurdles to overcome in returning the river to its natural conditions.

To deal with the infestation of exotic plants, the Pueblo worked with New Mexico State University and Bosque del Apache National Wildlife Refuge to test different herbicides on Russian olive root sprouts. The Pueblo also used heavy machinery and ground crews to eliminate thousands of saltcedar and Russian olive trees. The salt cedar was shredded into mulch; the Russian olive was cut into firewood and distributed to Pueblo elders.

A 200-acre portion of the cottonwood bosque is now free of nonnative trees. Many of the tribe's elderly members recalled the days of their childhood when the bosque was an open-gallery forest consisting of the old cottonwood and willow trees.

Foreign Language Translation Now Available on the Service's Web Site

After clearing 115 acres of salt cedar from what was previously a wet salt-grass meadow, staff treated the saline soils with gypsum and irrigation water and seeded the area with a native, salt-tolerant grass mix that prevents erosion and provides valuable wildlife habitat. They also planted 1,600 cottonwood and black willow trees in areas where the salinity levels are low. A plant survival rate of 90 percent is encouraging for the Pueblo which is closely monitoring the effort, surveying wildlife, testing soil treatments, and quantifying vegetation plant cover.

Upstream, the Bureau of Reclamation joined the Pueblo in restoring channel characteristics to a two-mile stretch of the Rio Grande. By slowing flow velocities, preventing channel erosion and promoting over-bank flooding, a combination of hard and soft engineering techniques are working to restore native plant and animal communities.

Glenn Harper, Range and Wildlife Division Manager with Santa Ana's Department of Natural Resources, points to the widening of an active floodplain along parts of the river, the intended result of the strategic placement of three gradient restoration facilities (GRF). Rows of quarry rock laid across the width of the river, the GRFs raise the river bed and keep the river's current wide and slow, instead of allowing it to cut a narrow, deep fast-flowing channel.

Brian Bader, who heads the Tribe's natural resources, commented on the added benefits of the restoration efforts. "By improving the bosque without increasing water usage, our conservation efforts yield cultural and recreational benefits to all people of the Rio Grande valley."

Ben Ikenson,
Albququerque, New Mexico

The Fish and Wildlife Service has implemented a new program that instantly translates its Web pages into Spanish, French and simplified Chinese. This capability will make it easier for people who read these languages to obtain information about the Service and its work.

This new feature of the Web site is made possible through the use of Systran, a Web translation software. The Systran program translates the English text of the website using modular translation technology and customized dictionaries that Service staff maintain to include common biological and wildlife conservation terms.

The adoption of the new feature came out of the work of the Washington Office Outreach Forum (WOOF), led by Anita Noguera. The committee determined a strong need for the Service to reach out to non-English speakers, who are vital public partners in conservation.

"There are many new residents of the U.S. that want to do more for the environment and stewardship," said Su Jewell, a Service biologist who worked on the web translation project. "The Web site now helps them to get the information they need."

The three languages, Spanish, French, and simplified Chinese, were selected to help meet the language needs of our neighbors in Canada and Mexico as well as the needs of people whose first language is Spanish or Chinese, the two most common non-English languages spoken in the U.S.

Web site translation is seen as a means of communicating better with diverse cultures in the U.S., who often see the environment in a different way. Translation services help people to appreciate how to enjoy wildlife opportunities as well as to better understand the wildlife laws in the U.S.

The translation of the Service Web site provides a service for visitors from foreign countries interested in visiting a national wildlife refuge or looking for information about wildlife trade laws. In addition, it is helpful to students and wildlife managers in other countries who may look to the U.S. Fish and Wildlife Service for information regarding U.S. wildlife management practices.

The fws.gov website homepage, seen here in simplified Chinese, is also available in French and Spanish and allows the Service to reach out to a wider audience.

The Service is the first Interior bureau to offer such translation services.

The members of the diversity team were recognized in a ceremony on August 25, 2005 for their tireless efforts on the project. The ceremony recognized the employee-driven effort for demonstrating the efficacy and value of having an outreach team to advance the Service.

To view Service Web pages in the language of your choice, click either on the French, Spanish or Chinese flag on the Service's home page <www.fws.gov>. A disclaimer will appear explaining that the English version of the Web content is the official version and that machine translations can be imprecise. The next click will provide a translated version of the Service's home page. From there, click on any page you want translated. It is important to note certain types of Web pages, such as PDF files and graphics, will not translate. The Service maintains a dictionary of terms that assists in correct translation of technical words peculiar to the Service's work.

To assist in the Service's provision of quality customer service, please contact <webtrans@fws.gov> if you see a translation that is incorrect or inappropriate so it can be corrected.

Michael Gale, Public Affairs,
Washington, DC

2005 DOI Environmental Achievement Awards

When the 2005 Department of the Interior Environmental Achievement Awards were announced recently, the Fish and Wildlife Service was recognized in five of 11 DOI awards made. These awards, made by the Department's Office of Environmental Policy and Compliance, annually recognize DOI employees and teams who have attained exceptional environmental achievements in the following categories:

Waste/Pollution Prevention
Recycling
Green Purchasing
Environmental Management Systems
Sustainable Design/Green Buildings
Minimizing Petroleum Use in Transportation
Environmental Stewardship

The Service's winners were:

John Rogner, Chicago Ecological Field Services Office

The Desert Managers Group, California

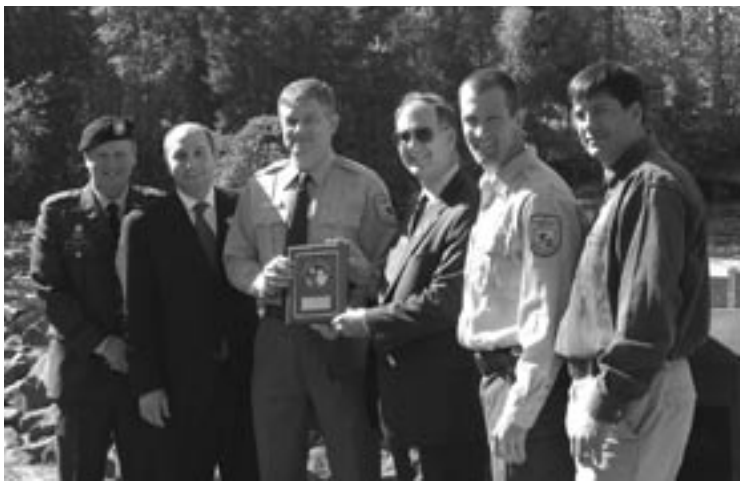
Sachuest Point National Wildlife Refuge, Rhode Island

Kanuti National Wildlife Refuge, Alaska

Brazoria National Wildlife Refuge, Texas

Congratulations to our DOI 2005 Environmental Achievement Awards recipients!

New Jersey Project Wins Coastal America Award



Representatives from Region 5 accept a Coastal America award for their work on the Batsto River fishway restoration in New Jersey.

A group called the New Jersey Project won the Coastal America award in October for work on the Batsto River fishway restoration, a Partners for Fish and Wildlife/Coastal Program project in Burlington County, New Jersey.

The $600,000 fishway, completed in August, restores access to eight miles of historic spawning and foraging habitat for anadromous fish such as alewife and blueback herring.

The project, located in historic Batsto Village in a state forest, required considerable coordination to ensure a historically compatible design. Environmental education at the fishway site will focus on the importance of anadromous fish.

The Partners program provided technical assistance for the fishway, while the Coastal Program provided funding. Other project sponsors included New Jersey Department of Environmental Protection, Army Corps of Engineers and the New Jersey Chapter of the Corporate Wetlands Restoration Partnership.

The Batsto River Fishway Restoration is one of six projects to receive the 2005 Coastal America Partnership award.

Diana Weaver, External Affairs, Hadley, Massachusettes

FWS to Review Salmon Hatcheries

The Fish and Wildlife Service is launching a three-year review of salmon hatchery programs in the Columbia River Basin to help ensure that salmon management is not only based on sound science but is also meeting its stated goals.

The review will cover all 12 Service hatcheries, and another 21 hatcheries and other facilities FWS either funds or jointly manages, beginning with the Warm Springs National Fish Hatchery in north-central Oregon. The review may be expanded to state-operated hatcheries in the Snake River as well.

The review responds to Congressional requests to review and reform fish hatcheries nationally and give them a larger role in species recovery. The Service and its salmon conservation partners in the Northwest have implemented several changes in recent years to maintain gene pools of wild salmon stocks, and to improve water quality and decrease disease incidents in and around salmon rearing facilities. (information drawn from *Land Letter*, June 16).

Naming Ponds, Catching Fish: Kids Fishing Day at Jackson NFH

Jade Logan (left) and Lily Brazil of Jackson, Wyoming won the naming contest for a fishing pond at the Jackson National Fish Hatchery.

It's official. The nameless fishing pond located at the Jackson National Fish Hatchery in Jackson, Wyoming, is now called "Sleeping Indian Pond" according the U.S. Geological Survey, who recently added the name to their national Geographic Names Information System. The name was inspired by nearby Sleeping Indian Mountain, whose profile suggests a sleeping Indian chief.

Jade Logan, age 8, and Lily Brazil, age 3, both of Jackson, suggested the name in a contest held during the hatchery's annual Kids Fishing Day on June 4th. Their entry received the most votes from agency personnel and event staff.

For their contribution, both girls won fishing gear, and a commemorative sign featuring their names will be placed at the pond.

"It is a fitting name," said Assistant Hatchery Manager, Liz Scriven. "The 'Indian' is such a central feature on the landscape here."

This year the Kids Fishing Day at the Jackson hatchery drew a record 187 kids, of whom 75 percent had never attended a kids fishing day before.

Liz Scriven, Jackson National Fish Hatchery

RFPs Sought for Grants to Conserve Species on Tribal Lands

The Fish and Wildlife Service is again seeking requests for proposals from federally recognized tribes to conserve and recover endangered, threatened and at-risk species and other wildlife on tribal lands under the Tribal Wildlife Grants (TWG) and Tribal Landowner Incentive Programs (TLIP).

"Native American lands are a critical component in the national mosaic of fish and wildlife habitat and I am proud of what we are able to do in Indian Country," Service Director H. Dale Hall said. "Through these two grants programs, we are building important partnerships with tribes that empower them to conserve tribal land and recover their wildlife resources."

The two programs are similar to the Landowner Incentive and State Wildlife grants programs. This will be the fourth year that these grant programs have been available to tribal governments.

Grants in the two programs are awarded through a competitive process. TWG, in fiscal year 2006, has $5,971,000 available for grants that will benefit wildlife and wildlife habitat, including species that are not hunted or fished. Although matching funds will be considered as an indicator of Tribal commitment to a project, they are not required for these grants. The maximum award under this program is $250,000.

Through TLIP, $2,388,600 is available in FY 2006 for federally recognized Indian tribes to address protection, restoration, and management of habitat to benefit species at risk, including federally listed endangered or threatened species, as well as proposed or candidate species.

Up to 75 percent of the costs associated with each project funded under this program may be covered by Federal funds. The maximum award under this program is $150,000.

Indian Tribes have a controlling interest in more than 52 million acres of Tribal trust lands across the nation, with an additional 40 million acres held by Alaskan Native Corporations. Much of this land is relatively undisturbed, providing a significant amount of rare and important fish and wildlife habitat.

TWG and TLIP have funded projects ranging from comprehensive surveys of plant and vertebrate fish and wildlife on reservation lands to habitat and fish restoration and development of new resource management techniques.

Some of the at-risk species benefiting from these projects include lake sturgeon, sage grouse, antelope, black footed ferret, and the eastern cougar.

The request for proposals was published in the November 2, 2005 Federal Register and grant applications must be postmarked by January 31, 2006 (90-day RFP)].

Grant application kits are available on line at <www.fws.gov/grants/tribal.html> or by contacting Patrick Durham, Office of the Native American Liaison 202/208 4133.

Patrick Durham, National Native American Liaison, Washington, DC

Preventing Invasions Through Planning

Aquatic and terrestrial plants and animals move through human-assisted pathways to become established outside their native range. Once established, some non-natives become invasive. Invasive species expand through their new habitats, pushing natives aside and threatening already imperiled species with extinction while biologists struggle to control the invasion. Often, invasive species move undetected through pathways as hitchhikers. Is this an accident? Not really, just a lack of planning to identify pathway risks and establish prevention strategies.

Many unintended introductions can be prevented by using a planning concept from industry known as Hazard Analysis and Critical Control Points (HACCP). For example, HACCP planning strategically identifies and removes contaminants during food production by concentrating actions at key points in the process.

Preventing and removing hitchhiker species on their pathways through planning is similar to removing contamination in food production. Pillsbury Foods developed the HACCP systematic planning procedure as a way to remove and prevent contamination when providing food for the NASA moon missions in the 1960s. Since then, HACCP has become well known and used around the world as a comprehensive planning tool. In a natural resources scenario, the goal is to avoid unwanted and unexpected introductions of invasive species. HACCP planning has flexibility as a strategic planning tool. Within the Service the concept is being applied to all pathways, terrestrial and aquatic, to remove hitchhikers by focusing preventative actions where they can be most effective.

HACCP for natural resource management (HACCP-NRM) is a simple pathway management concept modeled after Sea Grant University's "ANS-HACCP," which is used for private aquaculture and baitfish pathways. HACCP planning for resource management strategically guides planners to identify hitchhiking species and critical control points (CCP) where hitchhikers can best be removed. Procedures necessary to remove contaminating species from risky pathways are spelled out for each CCP. When finished, the five-step HACCP process yields a straightforward check-list of best management practices (BMPs) to guide field work. While BMPs are familiar to everyone, they often don't get shared on a wide basis. HACCP planning for natural resource pathways (HACCP-NRM) creates a common language of collected BMPs easily shared across the country—and around the world for that matter.

HACCP planning is easy to do but a short training session is recommended to prevent frustrations and to help make plans valuable management tools. The Fish & Wildlife Service's National Conservation Training Center is developing training to teach HACCP planning principles to biologists, technicians and managers for terrestrial and aquatic natural resource pathways. Future trainings, workshops, blank forms, training guides and additional HACCP planning support are web-based at <www.HACCP-NRM.org>.

The constant flow of hitchhiking species, coming and going, could be reduced through a little pathway planning. The pathway management concept for natural resources could spill-over to other pathways further reducing the flow of invasive species. A little planning here and there soon adds up to a big difference. Executive Order 13112, 1998, directs federal agencies to prevent the spread of invasive species in their work. HACCP planning for natural resource pathways is a perfect fit.

Craig Springer, Albuquerque, New Mexico

Partners Program in Mountain-Prairie Hosts Private Lands Day

On August 2, 2005, the Partners for Fish and Wildlife Program in the Service's Mountain-Prairie Region hosted the First Annual Private Lands Day at the Regional Office in Lakewood, Colorado.

Built around the theme of "Working Together to Maintain Living Legacies," and featuring presentations by a wide variety of partnerships, including the Blackfoot Challenge (Montana), Sandhills Task Force (Nebraska), and Tallgrass Legacy Alliance (Kansas), Private Lands Day celebrated fish and wildlife conservation efforts currently underway on private lands in the region. Ranchers, sportsmen, Tribes, nongovernmental organizations, and federal and state agencies shared their experiences working together to restore and protect wildlife habitat on private lands while preserving traditional rural economies.

While the stories varied in terms of geography and other specifics, a common thread ran through all of the presentations and throughout the day itself: conservation is best achieved when it is incorporated into, and inseparable from economic activities, and when sound business practice and responsible management of natural resources, including wildlife, become one and the same.

The day's agenda also included a presentation on the innovative "Walk a Mile in my Boots" program, which facilitates cross-cultural exchanges between Service staff and ranchers to foster better understanding and cooperation between the agency and livestock producers. The formal agenda concluded with a compelling presentation by the Sand County Foundation and a member of the Sandhills Task Force recounting efforts to promote the concept of "conservation ranching" in Kenya.

Reintroduced Cranes Produce First Egg

The inaugural Private Lands Day last August was well-attended, attracting a diverse audience of state and federal partners, staff from the Service's field, regional and Washington Offices, nongovernmental organizations, and representatives from several Congressional offices in Colorado and Wyoming. Kit Kimball, Director, External and Intergovernmental Affairs (DOI); Dr. Mamie Parker, Assistant Director, Fisheries and Habitat Conservation; and Dr. Ralph Morgenweck, Regional Director, Region 6 provided perspective from DOI and FWS leadership on the importance of cooperation in resolving tough conservation challenges in the western United States.

Several associated activities, including a social hosted by the Blackfoot Challenge and a site visit to a working cattle ranch in southeastern Colorado further enhanced the Private Lands Day agenda. Based on the positive feedback received from participants and attendees, the Region intends to make Private Lands Day an annual event and currently seeks input from all interested in making future events even more productive.

Matt Kales, External Affairs, Denver, Colorado

When biologists checked this whooping crane nest site (center of photo), they found that an egg had been laid, but had been destroyed the previous night. Photo: WCEP.

The Whooping Crane Eastern Partnership celebrated another success recently as two ultralight-conditioned whooping cranes produced an egg. Although the egg was destroyed by predators, nest-building and egg-laying by members of the reintroduced eastern whooping crane flock is nonetheless a milestone for the project.

In late April, a male crane from the "Class of 2001"—the 2001 hatch year and the first to be led south by ultralight aircraft—and a female from the Class of 2002 built a nest on territory they defended last year near Necedah National Wildlife Refuge in central Wisconsin. On April 16, biologists noticed the female crane sitting on the nest as if incubating. The pair left the nest the following day to forage and biologists moved in to check out the nest. Unfortunately, they found that the egg had been destroyed the previous night.

About a week later, biologists discovered evidence of another egg, this time produced by two cranes from the Class of 2002 that had been nesting on Necedah NWR. Because the cranes are new to expectant parenthood, they did not attend to the egg and biologists found the next day that a predator had taken it.

Whooping cranes become sexually mature between ages three and five. Other project cranes have exhibited pair-bonding behavior this spring, and biologists are watching them carefully to see whether any will produce a successful egg.

The Whooping Crane Eastern Partnership, an international coalition of public and private groups, is organizing the effort to reintroduce this highly imperiled species in eastern North America, which was a part of its historic range.

Rachel F. Levin, External Affairs, Ft. Snelling, Minnesota

USFWS AADAP Office Sponsors National Annual Workshop

Sponsored by the Service's Aquatic Animal Drug Approval Partnership (AADAP) program, the 11th Annual FWS Drug Approval Coordination Workshop (formerly known as the INAD Workshop) was held in Bozeman, Montana August 2–3, 2005. Dignitaries included acting Director Matt Hogan and Science Advisor to the DOI Secretary, Jim Tate. In his welcoming comments, Hogan praised the collaborative partnership work of the Workshop attendees and Tate discussed the need for future drug-related research.

This year's Workshop was co-hosted by the Service's AADAP program and the USGS Upper Midwest Environmental Sciences Center. As in the past, there was broad representation from pharmaceutical companies, academia, State and Federal resource/research agencies, private aquaculture companies and Federal regulatory agencies.

Representatives from the Food and Drug Administration's (FDA) Center for Veterinary Medicine were present to discuss the progress and strategies with respect to animal drug approvals. As two added bonuses, a meeting of the Joint Subcommittee on Aquaculture (JSA)—Biologics in Aquaculture working group and the second meeting of the recently formed Aquaculture Drug Research Forum (ADRF) were held at the Service's Bozeman Fish Technology Center, home of AADAP, on Monday August 3rd and Thursday August 4th. Monday's meeting focused on the status, use and approval of aquatic biologics (primarily vaccines and bacterins) and Thursday's meeting focused on increased success in collaborative drug approval research efforts.

Public and private aquaculture in the United States has struggled for many years because of a severe shortage of FDA-approved drugs and therapeutants for use in aquatic species. Currently, only a handful of drugs are approved for use in aquatic species, and then use of these compound are restricted to only certain species and life stages.

This situation has jeopardized the health and fitness of aquatic species held in captivity, many of which are key to restoration, recovery, and management activities by the Service and its many partners. New aquatic animal drug approvals will benefit Federal, State, Tribal and private aquaculture programs alike throughout the United States. The AADAP program was officially established within the Service's National Fish Hatchery System with the strong support of then Service Director Steve Williams in January 2003. The stated goal is to ensure continued progress towards obtaining FDA-approved and EPA-compliant new animal drug approvals for use in Federal, State, Tribal and private aquaculture programs throughout the United States. As its name implies, AADAP is a broad, partner-based program of national scope. The program leads a coordinated effort to generate data, analyze results, compile final study reports, disseminate information and data, and manage all other aspects of requisite data submissions to FDA in support of new animal drug approval for aquatic species. The AADAP program will also be responsible for coordinating drug approval activities to ensure hatchery compliance with EPA discharge regulations. More information can be found on the AADAP web site: <www.fws.gov/fisheries/aadap>.

Robert H. Pos, Division of the National Fish Hatchery System, Arlington, Virginia

Fish Passage for Ohio Waters

Sockeye Salmon. FWS photo: Dave Menke.

Salmon migrations in the Pacific Northwest are the stuff of legend. It's an epic struggle, big fish facing stiff currents headlong to get to upstream spawning habitats. But salmon aren't the only fish to make long-distance runs to fulfill the needs to reproduce.

Other epics are played out even in Ohio streams. Introduced steelhead respond to nature's cues every autumn through the spring and head up the Chagrin, Grand and Vermillion rivers, among others. And you can't forget the native walleye. As the days get longer, the temperature warms, the spring runoff subsides—they all cue Lake Erie walleye to head up the Maumee and Sandusky rivers to procreate. And that, in turn, cues anglers en mass to grab the tackle box, don waders and get after these fish. To say that walleye are an important sport fish in Ohio is an understatement.

Nearly all species of fish have the need at some point in their life cycle to move to different habitats for different reasons. While steelhead and walleye migrations have a following and are quite visible, others are not. Non-game fishes like darters, dace, minnows and redhorse suckers play out their entire lives in short reaches of stream, but they can swim headlong into barriers too, like small dams and perched road culverts, whether they are seeking out deep pools to ride out extremes of summer or winter, or finding a place to spawn.

Wetlands Conservation Bill Passed

Remedies may lie in the Fish Passage Program, a cost-share program of the U.S. Fish and Wildlife Service. The Ohio Division of Wildlife partnered with the Service to reconnect fish to habitat in a pilot project in a northeast Ohio creek. Largemouth bass and northern pike are swimming to spawning habitats in Metzger Marsh on Lake Erie thanks, in part, to the Fish Passage Program. And the program holds promise for future, high-priority fisheries. For more information, see <fisheries.fws.gov>.

Craig Springer,
Albuquerque, New Mexico

Delisting Grey Wolf May be Warranted in Northern Rockies

After evaluating two recent petitions asking the Service to remove the northern Rocky Mountain population of the gray wolf from the Federal list of threatened and endangered species, the U.S. Fish and Wildlife Service concluded that substantial information exists indicating that delisting of this population may be warranted.

The two petitions came from the Friends of the Northern Yellowstone Elk Herd, Inc., in 2001, and the Office of the Governor of the State of Wyoming and the Wyoming Game and Fish Commission, in 2005.

The Service's positive 90-day finding will be followed by a more complete 12-month status review of all available data on the Rocky Mountain population of the gray wolf. The review will consider whether the population meets the criteria for delisting as a Distinct Population Segment under the Endangered Species Act.

On September 29, 2005 President Bush signed legislation extending a key provision of the North American Wetlands Conservation Act (NAWCA). S. 1340, introduced by the Senate Environment and Public Works Committee Chairman James Inhofe (R-OK) and supported in the House by Resources Committee Chairman Richard W. Pombo (R-CA), extends the authorization for interest funds collected from interest-bearing accounts under the Pittman-Robertson Act to be used for wetland conservation.

"This legislation will help fund and secure the restoration of miles of wetlands devastated by Hurricane Katrina," said Pombo. "Already the private/public conservation agreements and interest this program generated have conserved or restored millions of acres of wetlands. I am pleased the House unanimously voted to approve this legislation."

Since 1989 when NAWCA was signed into law, approximately $235 million in interest-earned money has been used to finance private-public projects to acquire, conserve, manage and restore critical wetlands. These funds amount to approximately one-third of the total federal funds spent on wetlands activities. An additional $634 million was provided from other non-federal sources.

The legislation was supported by the Bush Administration and a host of conservation groups including Ducks Unlimited and the International Association of Fish and Wildlife Agencies.

Lingual Lure. *The alligator snapping turtle uses its tongue to lure fish within reach of its massive jaws. Commercial harvest and habitat lost to impoundment of southern reservoirs have hit the turtle hard, with populations steadily declining. Tishomingo National Fish Hatchery and Oklahoma State University have answered back, creating a captive population that's bearing fruit. Turtles captured from Sequoyah NWR have laid nearly 200 ping pong ball-sized eggs at the hatchery. They're incubated at OSU and grown at the hatchery, where they will be fitted with radios and released in the wild. The partnership should yield data on habitat needs of the unusual turtle.* Craig Springer

Fish & Wildlife Honors

Take Pride In America: National Award Winners with FWS Involvement

(listed by Category)

Federal Land Manager
U.S. Fish and Wildlife Service—With the help of **Mark Musaus**, the Loxahatchee National Wildlife Refuge in Boynton Beach, Florida, has a renewed emphasis on incorporating science into the management of the refuge. Under Musaus' leadership, the Refuge has developed new partnerships and enhanced existing partnerships, built collaborative efforts with the University of Florida, the U.S. Geological Survey and the South Florida Water Management District, and expanded the biological program between biologists and other scientists to benefit the refuge overall. Working with partners, Musaus has more than tripled the amount of funding for invasive exotics on Loxahatchee. Musaus also serves on the Refuge System's National Mentor team to help the refuge's Friends Groups increase volunteer efforts on the refuge. As an instrumental part of revitalizing the public use program, more than 300,000 visitors every year now enjoy refreshed boat ramps, a 12-mile bike trail with scenic views and wildlife watching opportunities, National Fishing Day events, and the high school student program for environmental education field trips.

Elementary School Program
Education in the sciences couldn't get better for students at Deer Creek Elementary School in Edmond, OK. Principal **Debbie Straughn** led the school to partner with city, county, and Federal agencies to develop a 2-acre, outdoor learning laboratory called "Antlerville." The outdoor classroom is comprised of wetlands, butterfly and vegetable gardens, an amphitheater and a gazebo. It is designed for instructional purposes and community involvement projects. During the last year, U.S. Fish and Wildlife Service's Partners for Fish and Wildlife Program worked with the school to make the wetlands more inhabitable for wildlife and enjoyable for people. Paths and boardwalks over the wetlands were improved for disability access and erosion prevention. The Antlerville Outdoor Classroom stimulates curiosity and environmental education for students, and highlight environmental concerns such as wetlands, endangered and threatened ecosystems and wildlife.

Public/Private Partnership
Friends of Anahuac Refuge (FOAR) aims to support and enhance the Anahuac National Wildlife Refuge along the upper Texas Gulf Coast in Chambers County, Texas. The refuge protects more than 34,000 acres of coastal marsh and prairie and provides a habitat for migratory birds and other native fish and wildlife. Over the last year they designed and constructed a 1.5-acre Butterfly and Hummingbird Landscape at the refuge. FOAR raised the funds needed for the project by securing enough donations from corporate and individual community partners to directly match a grant from the U.S. Fish and Wildlife Service. FOAR organized 115 volunteers who donated over 2,000 hours of services to construct an attractive trail system that wanders through the refuge and to grow and transplant native plants throughout the area. FOAR also developed an Adopt-A-Butterfly program, which commits community partners to long-term volunteer work on the refuge.

State Event/Program
Beginning as a state-wide initiative in 1998, the Texas Master Naturalist (TMN) program seeks to develop a corps of well-informed volunteers to provide education, outreach and service dedicated to natural resources throughout the state. Master Naturalists receive certification after completing 40 hours of basic training and providing at least 40 hours of volunteer service annually. Since start-up, TMN has gained 27 self-sufficient, volunteer-led chapters, three of which were established in 2004. Other 2004 accomplishments include certifying 531 Master Naturalists; volunteering 104,543 hours on 20,697 acres of land; outreaching to 333,387 youth, adults and private landowners; and adding 19 new organizations to the list of partnerships. TMN has also implemented a 5,000 Hour Pin Award to an outstanding Master Naturalist.

Federal Volunteer Program
The Southern Nevada Interagency Volunteer Program is a combined effort of the National Park Service, Bureau of Land Management, U.S. Fish and Wildlife Service and U.S. Forest Service. While each agency maintains an independent volunteer program, they all come together under this united effort to create a stronger community impact and eliminate confusion between the agencies. The interagency program is funded by the Southern Nevada Public Land Management Act and administered by the University of Nevada, Las Vegas Public Lands Institute. Together, this group is known as "Get Outdoors Nevada," and was established a community connection to volunteers throughout the region and recognize them for their total work across all four agencies. The program recruited over 585 volunteers who contributed a total of 2,955 hours in 2004. Conservation events included litter and debris clean-up, trail repair, habitat restoration, road restoration and planting. The program has increased commitment to stewardship of public land and should ultimately lead to a reduction in litter and desert dumping.

Jenni Garrison, Associate Director of Media and Public Relations, Take Pride in America®

TAKE PRIDE® IN AMERICA

Transitions…Who's Coming and Going

New Endangered Species Chief
Dr. Rick Sayers has accepted the position within the Endangered Species Program of Chief of the Division of Consultation, Habitat Conservation Planning, Recovery and State Grants. Rick, who earned his doctorate degree studying salmon in the northeastern United States, has great experience in the Fish and Wildlife Service, working in both the Fisheries Program and in Endangered Species. Rick has worked in the in the Regional Office in Minneapolis and in the Washington Office as Chief of the Consultation Program.

New Chief and Location for the Division of Engineering
Paul Rauch has been named the new Chief, Division of Engineering (DEN). Paul comes to the Washington Office with a wealth of experience in all facets of the Engineering program. Paul served as the Regional Engineer, Region 1 since December of 2000. In his prior position, he was responsible for the Region's planning, design, construction management, environmental compliance, regional dam, seismic, bridge safety programs, water resources program, occupational health and safety, fish passage, private lands restoration engineering, and refuge boundary surveys

In 1994, the DEN had 83 employees and an annual construction budget of over $129 million. Since that time, the DEN's primary mission has changed to program management (dam safety, bridge safety, seismic safety, environmental compliance, energy management, etc.). In 2004, the DEN had 23 employees and construction authority of $17 million. Based on these changes, and in consideration of the fact that most of DEN's customers and peers are located in the Arlington vicinity, the decision was made to consolidate all DEN functions in Arlington. This transfer of function is nearly complete. Of the new 17-person DEN organization, 11 positions are currently occupied, two positions are now being advertised, and four await recruitment.

New Faces in Public Affairs
David Eisenhauer is an experienced journalist who has served as a reporter and State Editor for Wyoming's largest newspaper, and who recently served as the managing editor and senior writer for the University of Wyoming's feature magazine. By all accounts, David is an outstanding reporter and editor who has years of experience effectively managing a staff of communications specialists. He understands the Service's issues, having supervised coverage of controversial endangered species issues involving wolves, grizzly bears, the Preble's meadow jumping mouse and the Wyoming toad. Winner of a Kiplinger Fellowship in Journalism at Ohio State University, David has taught journalism courses at Ohio State and the University of Wyoming and served as a student journalism advisor.

Valerie Fellows joined Public Affairs after serving as communications specialist with the Service's Chesapeake Bay Field Office in Annapolis. While there, she has consistently demonstrated her ability to develop relationships with local and national media, and to serve as an effective spokesperson and media strategist on often controversial development issues. Valerie did an effective job as the primary U.S. Fish and Wildlife Service media contact during the 2004 Delaware River oil spill in Philadelphia, and has other experience planning for crisis management and working under tight deadlines and stressful situations.

Joshua Winchell, formerly a wildlife biologist with the Service's Division of Federal Assistance in Arlington, also joined Public Affairs. While his background is as a fisheries biologist, Joshua has worked throughout his career with the media and the public to communicate on a variety of important topics. As director of the Outdoor Ethics Program for the Izaak Walton League of America for nearly four years, Joshua developed and implemented a national media strategy on hunting ethics that generated significant media coverage. Prior to joining the Service, Joshua developed other private-sector marketing and public relations experience as a consultant for a Northern California winery.

Please join us in wecoming David, Valerie and Joshua to External Affairs.

In Memoriam

Shirley Ann Gangness died at Mayo Clinic on October 19, after a lengthy battle with leukemia. Shirley began working for the Service in 1977 and retired in October of this year, as the administrative officer for Refuges and Wildlife in the Bismarck, North Dakota office. She is survived by her husband, Ron, two children, Matt Gangness and Shelley Goodstein, and three grandchildren. Memorials are suggested to the North Dakota Veteran's Cemetery Foundation, 1825 46th Street, Mandan, North Dakota 58554.

Alison Pae, November 30, 1961–August 20, 2005. Alison Pae, a Service wildlife inspector at the newly-designated port-of-entry in Memphis, Tennessee, was tragically killed August 20, 2005, when the motorcycle she was riding was struck by another vehicle. Alison joined the service in January 2005. After training at the Federal Law Enforcement Training Center, she was selected as one of seven instructors chosen to launch the Service's new Memphis port operations.

Weathering the Storms

I'd like to begin my first column as director by expressing my deep appreciation to all of the Service employees, retirees and friends who have offered me their congratulations and support over the past weeks. I will do my very best to justify your confidence in me over the next several years. The challenges in front of us are immense, and it makes a huge difference to know that we will face those challenges together.

The value of teamwork and a shared sense of mission cannot be overstated—especially in light of the Service's inspiring response to the devastation hurricanes Katrina, Rita, and Wilma wreaked this fall across the Gulf Coast.

Hundreds of Service employees live and work in the areas affected by Katrina and Rita. Thankfully, none lost their lives, but 40 Service families lost their homes and personal belongings. In spite of this, some of those employees were quick to volunteer to help others less fortunate.

More than 600 Service employees worked shifts at the full-service base of operations established at Big Branch National Wildlife Refuge immediately after Katrina dissipated. This facility provided food, water, shelter, fuel, showers and laundry facilities to our displaced employees and their families, as well as local police and fire departments and relief workers from across the country.

Across the region, Service crews cleared roads, driveways and fire breaks of debris, establishing access to the Louisiana Heart Hospital, among other critical facilities. Our personnel helped rescue some 4500 people. Service employees who could not make it to the hurricane zone helped by contributing thousands of dollars—including $32,000 raised so far specifically for the Service employees who lost their homes.

During a live interview, CNN Commentator Donna Brazile made a plea for help in finding her sister, Sheila, who lived in an assisted living facility in New Orleans and had not been heard from since the storm. We sent a boat to the last place where Sheila had been seen—a flooded area of New Orleans that had not yet been visited by rescuers. They found Sheila and five other people in the building with no food or water. Donna Brazile said without the efforts of the Service, her sister probably would have died. This is just one of many stories of Service employees going beyond the call of duty to rescue people in need during the crucial time after the hurricane hit. All of us are tremendously proud of the way our employees responded to this crisis.

Our focus now turns to the 37 refuges damaged by the storms, and to the wildlife that depend on habitat that has now been significantly degraded or destroyed. In the Southeast, an area roughly equivalent to 100 square miles was transformed from wetlands and marsh to open water. In some areas the loss of wetland and marsh areas was accelerated to levels we did not expect to reach until 2050. Some 50 sea turtle nests were destroyed, as were nesting cavity trees for red-cockaded woodpeckers. Habitat for brown pelicans and many other species was lost or damaged.

We face a big task—but our employees have shown time and again their ability to adapt and move forward under the toughest circumstances. It will take time, but we will restore the habitat and facilities that were damaged by these storms. We also have a responsibility to ensure that the lessons from these storms are not forgotten. The Service has a crucial role to play in the national conversation about the role of wetlands in protecting lives and property from the effects of storms and floods, not only in hurricane zones but along our rivers. I'm privileged to work with you and confident that together we will succeed.

H. Dale Hall

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