



U.S. Fish & Wildlife Service

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**Special Section:
A Look Back
and a Look
Ahead**

Service Confirms First Reproduction of Pallid Sturgeon in Lower Missouri River in Decades

The first known reproduction of the pallid sturgeon in the Lower Missouri River in at least the last 50 years has been confirmed by Service biologists, who point to the startling discovery as evidence that the fish, whose ancestors date to the days of the dinosaurs, may have a better chance at recovery than previously believed.

“This is wonderful,” said Steve Krentz, leader of the Pallid Sturgeon Recovery Team in Bismarck, North Dakota. “Until these tiny sturgeon specimens were found, the only young pallid sturgeon we have seen were products of hatchery spawning operations.”

The fish, which can attain a weight of 100 pounds and a length of 6 feet, and have a lifespan of 60 years, have been listed as an endangered species since 1990, indicating a concern that the species was headed for extinction.

Aside from the sturgeon’s importance as a natural inhabitant of the Missouri and Mississippi river systems, the pallid sturgeon has economic benefits as some anglers consider it one of America’s premier gamefish. Eventual full recovery could mean that the sturgeon would be considered for removal from the endangered species list and would again be available to sportfishing enthusiasts.



Destined for greatness. *Tiny pallid sturgeon specimens like this one, the first found in the Missouri River in decades, may grow to be six feet long and weigh more than 100 pounds. FWS photo.*

The sturgeon is also considered an indicator species whose abundance and distribution are directly related to the quantity and quality of suitable habitat and river hydrology. That these specimens were collected at a habitat restoration project on a unit of Missouri’s Big Muddy National Fish and Wildlife Refuge indicates that efforts to put back some of the 500,000 acres of habitat lost to channelization can produce dramatic results.

Jim Milligan, project leader for the Fishery Resources Office in Columbia, Missouri, said the specimens were found along a restored sandbar in a side channel of the lower Missouri River that had been cut by the flood of 1993 and expanded to a chute-island-sandbar complex by flooding in 1995 and in 1996. It is the first new habitat of its kind the river has been allowed to create in more than 50 years.

Pallid sturgeon populations began to drop with the advent of dams, and when their habitat was altered from shallow, silty rivers with sand and gravel bars to deeper clear channels favored by commercial river traffic. The side channel where the sturgeon were found is not a part of the navigation channel.

Pallid sturgeon historically inhabited rivers and tributaries in Arkansas, Iowa, Illinois, Kansas, Kentucky, Louisiana, Missouri, Mississippi, Montana, North and South Dakota, Nebraska, and Tennessee. Some sturgeon still inhabit some of those areas, Milligan said, but the populations are far below what they were in the 1950s and 1960s.

Unlike such finny freshwater companions as the trout and bass, the pallid sturgeon is a homely specimen. It is distinguished by pale, bony plates instead of scales, and has a reptile-like body, sucker-type mouth, and large whisker-like growths that help it sense its surroundings. It is similar in appearance to the shovelnose sturgeon but is much lighter in color and has smaller eyes and a longer, sharper snout.

*Ken Burton, Public Affairs,
Washington, DC*

On the cover:

Our heritage. *As we venture forth in the new millennium, Fish & Wildlife News takes a step back into the past with a special section commemorating this agency’s roots and the people who helped shaped an agency—people like Jay Norwood “Ding” Darling, who headed the Bureau of Biological Survey—a precursor to the modern Fish & Wildlife Service—during a crucial time in the 1930s. This special look at our heritage begins on page 13. FWS photo.*

Partnership Council Launches Hatcheries Project

Reaching consensus will be the key to success for a committee of two dozen fisheries experts who will produce recommendations to the Secretary and the Director about the appropriate future roles and responsibilities of the National Fish Hatchery System. The group, representing a broad array of federal, state, tribal and nongovernment natural resource agencies and organizations, held its third meeting April 8–14 in Salt Lake City to work on the recommendations.

Known as the Sport Fishing and Boating Partnership Council's Hatchery Project Steering Committee, the group convened in response to a request from Director Jamie Rappaport Clark asking the council to develop consensus recommendations from diverse groups involved in fisheries issues. The Service will use the recommendations as it develops its own strategic plan for the hatchery system.

Formation of the committee also responds to a May 1999 request to the Service from 10 members of Congress, who called for an inclusive stakeholder process to build consensus about the appropriate future role of the hatchery system in meeting the Service's statutory obligations for restoring, recovering and mitigating for the loss of fishery resources.

Norville Prosser, who leads the council's Technical Working Group, chairs the steering committee. He is an American Sportfishing Association vice president and veteran fisheries policy analyst. The council retained Noreen Clough, a retired Service regional director, to manage the project.

Bill Knapp, the Service's chief for the Division of Fish Hatcheries, formally represents the Service as a member of the steering committee. Division staff member Bob Batky also participates in the meetings. Knapp and Batky have provided the group with detailed briefings on the history and status of the hatchery system, key issues facing the system, and work already underway within Fisheries to develop a strategic plan. Richard Christian of the Fisheries staff also is providing support.

Organizations represented on the steering committee include: the American Fisheries Society's Fish Culture Section; American Fly Fishing Trade Association; Bass Anglers Sportsman Society; Colorado Division of Wildlife; Colorado State University; Columbia River Intertribal Fishery Commission; Defenders of Wildlife; Georgia Wildlife Resources Division; Gulf States Marine Fisheries Commission; National Aquaculture Association; National Fish and Wildlife Foundation; Native American Fish and Wildlife Society; New York Division of Fish, Wildlife and Marine Resources; Northwest Power Planning Council; Pennsylvania Fish and Boat Commission; Pure Fishing; Trout Unlimited; U.S. Army Corps of Engineers; U.S. Forest Service; and Wyoming Game and Fish Department; and National Marine Fisheries Service.

Two state wildlife agency directors—John Kimball of Utah and Gary Myers of Tennessee—also were named to the committee by the International Association of Fish and Wildlife Agencies.

At their initial meeting in December, the steering committee members agreed on a process for developing a draft report and recommendations for submission to the council. Accordingly, meeting attendees spent some time in facilitated discussions getting to know each other and identifying their interests in the hatchery issue, the challenges the group faces, and the anticipated outcomes of their work.

Since December, the group has reviewed a recent Government Accounting Office audit of the hatchery system, a study conducted by the National Fish and Wildlife Foundation, and other relevant reports or studies, including materials being drafted by fisheries work groups within the Service. During a February meeting, committee members organized into small work groups to address specific issues and produce findings and recommendations. The bulk of the Salt Lake City meeting was devoted to reaching consensus on findings and recommendations. A draft report will be prepared for review by the group prior to a May 22 meeting in Denver.

"We're off to a solid start," said Committee Chairman Prosser. "This is the most diverse group ever assembled to look at the future of the hatchery system. They set an excellent tone of cooperation and commitment to provide the necessary analysis and recommendations policymakers will need to set a new course for the National Fish Hatchery System, which is at a critical juncture in its history. I know this group will pull together to produce recommendations that will make a difference."

Phil Million, Conservation Partnerships Liaison Division, Arlington, Virginia

Fly away. *During Cache River Days, a special event held at southern Illinois' Cypress Creek National Wildlife Refuge, staff members Al Novara (left) and Gene Adams (far right) gave guided tours of the Frank Bellrose Waterfowl Reserve and Bottomland Swamp. Participants of all ages got the opportunity to release ducks. FWS photo: Marguerite Hills.*



Boating and Fishing Foundation Set for Major Outreach Effort

The Recreational Boating and Fishing Foundation, having hired staff and moved to office space in Alexandria, Virginia, is going forward with a national strategic plan to increase participation in fishing and boating and to assure stewardship of aquatic resources that support these activities.

The foundation is using volunteer task forces as part of its strategy to include stakeholders. Task forces are developing and carrying out activities for each of the five objective areas of the strategic plan. Here's a look at task force activity to date:

National Outreach Campaign

Task force members include representatives of the National Shooting Sports Foundation's Step Outside program, the International Association of Fish and Wildlife Agencies, and several fishing equipment manufacturers. During a December meeting, task force members developed a short-term plan of action, including developing campaign messages and themes.

Educating on How and Where to Boat and Fish

This task force includes representatives from several colleges and universities as well as state fish and game agencies. The group will meet soon to identify existing boating and fishing education programs, develop standards for education programs, address fishing license issues, and examine other issues.

Target Markets

Composed of members from several academic institutions and industry associations, this task force will identify target market segments and suggest ways to deliver to these audiences the national outreach campaign developed by Task Force One.



All can take part. *With a new strategic plan, the Recreational Boating and Fishing Foundation hopes to draw more people to boating and fishing activities. FWS photo: Carl Zitsman.*

Educating Stakeholders

This task force will define and assess stakeholder training needs for marketing, education, outreach and evaluation; establish guidelines for training; and assess stakeholder communications networking.

Make Availability of and Access to Boating and Fishing Opportunities Easy

This task force will assess current access to these areas, identify access needs and barriers, and develop a national strategy and action plan focusing on urban areas and underutilized resources.

The 1998 Sportfishing and Boating Safety Act dedicated \$36 million of Sport Fish Restoration Program funds for a five-year national outreach and communications effort, with the goal of engaging more people in fishing and boating, as well as inspiring natural resource conservation.

Funded with a five-year, \$36 million grant from the Service, the Recreational Boating and Fishing Foundation is supported by the fishing and boating community, state fish and wildlife agencies, and many other interested organizations.

In January, the foundation's six-person staff moved to office space at 601 North Fairfax Street, Suite 140, Alexandria, Virginia 22314. The foundation's phone number is 703/519 0013.

Phyllis Dickerson Johnson, Recreational Boating and Fishing Foundation, Alexandria, Virginia

A Friendly Reminder...

Census Day was April 1... Census 2000 forms have been mailed and you are encouraged to fill yours out and return it as soon as possible. Census information is used to calculate distribution of many federal benefit programs to local communities.

Service field stations should encourage nearby Native Americans and Native Alaskans to return their Census forms as these groups were significantly under-represented in the last Census.

You can link to Census 2000 information on the Internet from the Service's home page (<http://www.fws.gov>).

Habitat Restoration and Exotic Species: Two Service Programs Pitch In



Unwanted. *Invasive species such as salt cedar can decrease biodiversity, reduce water quality, contribute to soil erosion and have numerous other harmful effects on native wildlife and their habitat. FWS photo: Dan Dinkler.*

On the edge of the Grand Canyon, the Hualapai Tribal Council and the endangered southwestern willow flycatcher have the same problem: native plant communities are being overrun by a tenacious exotic tree called salt cedar.

For the flycatcher, this means a loss of vital habitat. For the Hualapai, this means a loss of plants important for food, medicine, crafts and religion.

This scenario is playing out across the country. A host of exotic plants and animals flourish today, causing severe ecological damage. More than 30,000 non-native species live in the United States and account for more than \$123 billion a year in economic losses, according to a recent study by ecologists at Cornell University.

“These species arrive in a variety of ways and once here have no natural predators to keep their populations in check, allowing them to spread rapidly,” said Sharon Gross of the Division of Fisheries. Gross is a coordinator for the multi-agency Aquatic Nuisance Species Task Force.

The problem has become so prevalent that on February 3, 1999, President Clinton

signed an executive order aimed at preventing the introduction of invasive species, providing for their control, and minimizing their economic, ecological and human impacts.

As a component of their habitat restoration efforts, the Service’s Coastal and Partners for Fish & Wildlife programs have been working to manage exotic species. Partners for Fish & Wildlife provides financial and technical assistance to private landowners to help them restore degraded wildlife habitat on their property.

The Coastal Program is a cooperative effort with other federal agencies, state and local governments, land trusts and private partners to protect and restore coastal habitat on private and public lands.

In many cases, restoration projects involve removing or managing exotic species. Examples of the work of both programs include working with the Hualapai Tribal Department of Natural Resources to remove salt cedar and restore the native vegetation in Arizona, and a joint effort with the Washington State Department of Fish and Wildlife to monitor and manage the European green crab.

The work of the Coastal and Partners programs goes beyond individual restoration projects; program staff also provide technical assistance to the public and other agencies for eradicating non-native species and on the importance of native species in the natural landscape. Examples of technical assistance include developing invasive species tracking systems and native plant display gardens, hosting workshops on native species, and many other activities.

“We may never fully eradicate exotic species in the United States, but we must try to reduce negative effects on our ecosystems,” said Benjamin Tuggle, chief of the Service’s Division of Habitat Conservation. “These are just a few examples of the many activities that the Service is involved in through Partners for Fish and Wildlife and Coastal programs. Working with others we may be able to get a better handle on the problem and move toward eliminating some invasive pests.”

Don MacLean, Division of Habitat Conservation, Arlington, Virginia

Combining Forces for Salmon

Each year Quilcene National Fish Hatchery moves 200,000 coho salmon smolts from its raceways to net pens operated by the Skokomish Tribe in Washington State’s Quilcene Bay. This transfer has a special urgency: it must occur in January or February in order to make room at the hatchery for young coho emerging from incubators. But what happens when an integral part of the transfer—a special barge used to haul the smolts to their new home—is out of commission?

Teamwork saved the day recently as the U.S. Navy, the U.S. Forest Service, state and tribal governments, and a marina operator pitched in to help Fish & Wildlife Service biologists complete the transfer despite lacking that key component.

The special barge is in great demand by several local tribes who conduct similar activities around Washington’s Puget Sound, operations complicated by blustery weather conditions common at that time of year. The barge often cannot move from one operation to another because of these windy conditions. When it appeared the barge would not be available for Quilcene’s operation, hatchery staff turned to the U.S. Navy at nearby Sub Base Bangor for assistance.

The Navy obliged, sending two oil spill containment boats, each with enough deck space to handle a 1,000 gallon collapsible tank. The Forest Service had already pitched in by donating 2 collapsible tanks. The hatchery crew loaded the fish onto a Washington Department of Fish and Wildlife fish tanker truck and transported the coho smolts to the Navy boats in the harbor at Quilcene Bay. Hatchery and Navy crews worked together to offload the fish from the truck to the boats.

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Combining Forces for Salmon (continued)



Smooth operation. Thanks to assistance from the Navy and other government, tribal and private groups, Quilcene NFH led a successful operation to stock coho salmon smolts. FWS photo.

During the trip out to the pens, the Navy crews pumped salt water into the tanks as fresh water siphoned out to slowly acclimate the fish to their new environment. At the net pens, Skokomish Tribe Natural Resources Department employees assisted the Navy crews in unloading the tanks. The operator of Quilcene Marina donated use of his fueling dock.

The operation required multiple trips over an entire day but went off without a hitch, thanks in large part to good weather conditions, and of course to the cooperative effort, and to quick work by Service employees.

The coho salmon in the pens will be cared for by Skokomish Tribal employees until they are large enough for release, typically in early June. Upon their return they will be harvested in various tribal and non-tribal, commercial and recreational fisheries in the area.

*Larry Telles, Quilcene NFH,
Quilcene, Washington*

Workshop Plays for Harmony Between Tribes, Government

In a unique gathering of nations in Parker, Arizona, last November, some 50 representatives of various Native American tribes and federal agencies converged near the banks of the Colorado River to confer on how to work harmoniously on their mutual commitment to conserving the nature of America. A first of its kind, this “Harmony Workshop” was sponsored by a partnership effort known as the Southwest Strategy.

The Southwest Strategy is the combined effort of a number of partners who aim to ensure harmony—among nature, culture and people. Federal executives, the governor’s offices in New Mexico and Arizona, and tribal representatives created the strategy to protect the cultural and natural integrity of a region threatened primarily by declining natural resources.

The Tribal/Federal Work Group for the Southwest Strategy organized the Harmony Workshop to provide cultural sensitivity training and trust responsibility understanding for federal executives, and to develop better collaboration between tribes and agencies on natural and cultural resource issues.

A primary goal of the work group is to ensure equal and fair representation of tribal concerns regarding natural and cultural resources in the federal government. The group also aims to decrease time spent on tribal consultation policies and statutory rule-making by:

- implementing recommendations stemming from large tribal gatherings and open house meetings for tribe members and agency representatives;
- producing a tribal/federal resource directory to enhance communication and access between tribes and the government; and
- providing a similar training session for middle management personnel in the future.

New Mexico Zuni Pueblo Governor Malcolm Bowekaty was both impressed and relieved by what he saw at the workshop.

“My perception of the training was that it was the first and long-awaited process to have direct access and dialogue to federal executives and agency technical experts to put forth tribal perspectives,” he said. “It

“A Professional Opportunity and a Personal Delight”

Vicki McCoy, Southeast assistant regional director for External Affairs, attended the Harmony Workshop in Parker, Arizona. Here’s what she had to say about her experience.

For me it was both a professional opportunity and a personal delight. I’ve long been a student of Native American art, literature and culture. This was my chance to gain knowledge firsthand rather than just from books. What I didn’t know was that I would gain both knowledge and wisdom in this two-day adventure.

The workshop was a perfect blend of classroom teaching, panel discussions, cultural presentations, field trips and

spirituality. Our days together were long, information- and activity-packed, and serenely intense, which no doubt sounds like an adjectival oxymoron. Maybe you just had to be there.

The commitment and attentiveness of the federal representatives, both Native American and non-Native, was itself a testament to the desire to see the relationship thrive.

I love this job! Where else could you get an assignment that fulfills a dream of a lifetime and call it work?

*Vicki McCoy, External Affairs,
Atlanta, Georgia*

Built on Foundations of Conservation and Partnership

was a genuine attempt by public servants to bring honesty, decency and respect to agency policies that are sometimes, at first impression, in direct opposition to tribal perspectives.”

During the workshop a panel of Native American liaisons for agencies such as the Service and the Bureau of Land Management reflected on perspectives within their agencies and depicted the obstacles they face in making their agencies more responsive to the concerns of tribal governments. Some on the panel also cited examples of the great strides their agencies have made to accommodate the needs of tribes.

John Antonio, the Service’s Southwest Native American Liaison, said the Service is “doing great so far working with tribes in the region. I’ve received a lot of positive feedback from many tribes.”

Southwest Regional Director Nancy Kaufman said she was especially stirred by a presentation on the history of federal legislation regarding Native Americans, which “stressed the urgency of the present,” she said.

“In the evolution of social thinking in this country, we’ve come a long way,” Kaufman said. “Today, we celebrate diversity, which is great. But our responsibility grows steadily more complex: to represent various concerns equally and fairly. To meet this challenge, it is necessary to genuinely understand those concerns.”

Southeast Assistant Regional Director for External Affairs Vicki McCoy enthusiastically praised the work group’s effort in planning the workshop (see sidebar). Harmony workshops like the recent one in Parker will be arranged regularly, it is hoped, throughout the country to keep the dialogue flowing. At the recommendation of the president of the Native American Fish and Wildlife Society, the Service’s Southeast region will hold a Harmony Workshop with area tribes in the coming year.

*Ben Ikenson, External Affairs,
Albuquerque, New Mexico*



For people and wildlife. This new visitor center at Nisqually NWR sports environmentally friendly features such as recycled plastic and wood decking. FWS photo

Two new office buildings in Region 1 exemplify the Service’s commitment to working with others to conserve natural resources.

In January, the Fish & Wildlife Service, U.S. Geological Survey and National Park Service joined with the Commerce Department’s National Marine Fisheries Service to dedicate a new leased office building in rural Arcata, California.

The four agencies support conservation activities in northern California and southern Oregon, and this move brings together 62 employees previously housed at four addresses across 500 miles of California.

All four agencies collaborated on the design and plans for the \$2.1 million building, which took approximately 6 years to get from idea to reality.

At the dedication ceremony, keynote speaker Mike Spear, manager of California and Nevada operations for the Fish & Wildlife Service, praised the new building, saying it “should create more opportunities for working together now that [four agencies] are under the same roof.”

Arcata Fish and Wildlife Office staff are involved in a wide variety of activities in the Klamath/Central Pacific Coast Ecoregion, including Northwest Forest Plan implementation, salmon and salmon habitat monitoring, and technical fisheries assistance to Native American tribes.

In Washington State, innovative architectural design in an environmentally sensitive area is showcased in the newly-completed headquarters complex at Nisqually National Wildlife Refuge. A visitor center, administration building, maintenance shop, equipment storage building and boardwalk were completed in 1999 to replace facilities severely damaged during flooding of the Nisqually River in 1996.

Deep sand deposits at the site required drilling 30 feet to reach stable soil. As a result, the structures are built on pilings above the ground, sitting lightly on the land and blending with the wetland environment.

A deck extends out over the wetlands behind the buildings, enhancing wildlife observation opportunities without encroaching on habitat.

A fully accessible one-mile loop boardwalk was built with labor donated by the state Department of Ecology’s Washington Conservation Corps. The boardwalk uses unique concrete piers that rest on the ground, causing less impact to wildlife habitat than driving pilings.

Allison Busch-Lovejoy, Arcata Fish and Wildlife Office, Arcata, California

*Susan Saul, External Affairs,
Portland, Oregon*

Growing a Dedicated Crop of Employees



She cares enough to send the very best.

Mamie Parker emphasizes the importance of nurturing our employees. FWS photo: LaVonda Walton.

Mamie Parker has a simple philosophy on how an agency can ensure that its workforce is diverse, committed and at the top of its form.

“It’s like a Hallmark card,” she says. “You’ve got to care enough to send the very best.”

Parker, who late last year became the Deputy Regional Director for the Northeast region, firmly believes that managers should nurture employees throughout their careers to help make them the best they can be.

“We must mentor, coach, provide for our people, send the key message that management cares,” Parker says.

In conversation, Parker returns again and again to her notions about building a more varied, responsive and passionate workforce.

“We need to make sure all of our employees—not just women and minorities—feel valued,” she says. “We need to invest in our employees.”

That investment is not necessarily a monetary expense, Parker emphasizes. In an age of shrinking budgets for travel and training, she says, “We need to feed our people with knowledge. We can do it with limited resources by listening, mentoring and coaching.”

Parker’s rise through the ranks of the Service from a student internship to being the number two person in the 13-state Northeast region illustrates her greeting card analogy. When she was a biology student at the University of Arkansas and an avid angler, she accepted a cooperative internship at Genoa National Fish Hatchery in southwestern Wisconsin.

She admits to suffering from culture shock as she left the South for the first time and spent the winter in Wisconsin. But she says she found the people “warm and receptive,” and she loved her job raising fish and doing lab work at the hatchery.

“I thought it was pretty good to do what we did and get paid for it,” she says.

“The first time I put the key in the door to open the Director’s office corridor, I realized I was opening the door for many women, minorities and other employees who had never been there before,” she says.

It was at her first permanent job, at a national fish hatchery in Minnesota, that Parker began to realize the value of managers who assist their employees in all aspects of their lives—not just in the office.

“My first boss in the Service took me under his wing. He was really helpful,” Parker says. “He even lent me money for my apartment security deposit because I had never heard of a security deposit before.”

That experience stayed with Parker as she moved around Minnesota and Wisconsin, working for another federal fish hatchery and for the Service’s division of Ecological Services in Green Bay. She next worked at Lake Mills NFH in Madison, Wisconsin, 120 miles south of Green Bay, a job she took, she says, “because I wanted to go South.”

With a few detours, Parker’s next jobs continued to gradually bring her closer to her southern home. “Sometimes we want everything to happen instantly, but we have to take our time,” she says.

She worked for the Service’s Ecological Services Field Office in Columbia, Missouri, in the Endangered Species program and then went to the Great Lakes-Big Rivers Regional headquarters in Minneapolis. She finally returned to the South in the mid 1990s, transferring to the Southeast Regional office in Atlanta, where she served as the deputy geographic assistant regional director for the Lower Mississippi area and the deputy assistant regional director for the Division of Fisheries.

“Sometimes you have to go north to go south,” she says of her long-anticipated but somewhat circuitous route home.

In 1998, Parker moved to Washington, D.C., to be the special assistant to the Service’s Deputy Director. In that job she began to fully recognize her status as a groundbreaker—an African-American female biologist who had risen to the upper echelon of a federal agency, taking the time along the way to obtain a master’s degree and a Ph.D. in fish and wildlife management.

With that self-realization came the compulsion to make her situation “not a unique one in the future,” she says. “I have a responsibility, an obligation, to nurture and mentor others.”

Parker also emphasizes community involvement as a means to nourish present employees and cultivate future human resources. Get involved in scouting, Junior League, local environmental groups, churches or college alumni groups, she says, and make lasting connections in the community around you.

Clearly, whether at work or out in the community, Parker is a woman of action.

“When all is said and done,” she says, “more is said than done.”

Rachel F. Levin, Public Affairs, Washington, DC

A Big Job: Moving Moose



Easy does it. A helicopter gently lowers one of 20 shiras moose to the ground during a successful cooperative relocation effort in Utah. FWS photo.

Male shiras moose, the smallest of three subspecies, and found throughout the intermountain West, grow to be 800 to 1,000 pounds. Adult shiras cows weigh 600 to 800 pounds.

Biologists moved 20 of these hulking beasts in January as part of a cooperative effort to enhance moose populations on the Hill Creek Extension of the Uintah and Ouray Indian Reservation. The Service's Roosevelt Fish and Wildlife Management Assistance Office assisted the Ute Tribe's Wildlife Department and the Utah Division of Wildlife Resources in the effort.

A local helicopter capture service provided wings for the operation. In a series of 15-minute round trips, a pilot and crew flew out, net-gunned, subdued and transported moose back to the staging area. The helicopter hoisted the moose into the waiting horse trailers with on-the-ground assistance from Ute Tribe, state, and Service wildlife biologists, technicians and volunteers. Everyone pitched in to radio collar, examine and assist in releasing each moose from its bindings.

All twenty moose—6 bulls and 14 cows—were captured and on their way by late in the afternoon, according to Karen Corts, an Ute Tribe wildlife biologist. They were taken by truck and horse trailer for an overnight stay near the Ute Tribe Fish and Wildlife Headquarters in Fort Duchesne, Utah.

Cooperators pronounced the operation a success.

"No drugs were used in the operation and this worked out wonderfully," Corts said. "Although I'm sure they were stressed from the capture, the big animals were very cool customers. None tried to forcibly remove themselves from their confined spaces—which a bigger bull easily could have done."

The next morning the animals were moved to the release site on the Hill Creek Extension in east central Utah.

When the doors to the trailers opened, the moose were ready to savor their freedom.

"Most appeared at the trailer door with heads low and ears laid back ready for a fight, but upon reaching a few yards of freedom they held their heads high and disappeared into the willows of Hill Creek," Corts reported. "All of the animals appeared unharmed and in good physical shape upon release."

Ute Tribe members on hand at the release were pleased with the prospects of increased moose populations in the area. "An occasional nuisance moose has been relocated to this area in the past, but never in the numbers achieved with this operation," Corts said.

Dave Irving, project leader at the Roosevelt Fish and Wildlife Management Assistance Office, said he was satisfied with how the operation turned out. Biologists hope that by releasing a large number of moose at one time and location, a self-sustaining population will establish itself in the Hill Creek area, Irving said. All of the adults were radio collared so their movements can be carefully monitored.

Ted Koehler, Roosevelt Fish and Wildlife Management Assistance Office, Roosevelt, Utah

Celebrate a Millennium of Migration

It's spring and the northward flight of neotropical migratory birds is just around the corner, as is the official day of recognition for these remarkable avian travelers. International Migratory Bird Day, celebrated annually on the second Saturday in May, is an invitation to celebrate and support migratory bird conservation.

Migratory birds are worthy of appreciation and protection. Bird enthusiasts know that neotropical migrants are a valuable resource, ecologically and economically. The decline of many species as a result of growing threats on migration routes and in both breeding and wintering habitats is also an alarming reality.

Why set aside one day to recognize migratory birds? A special day gives organizations and individuals an added impetus to host or participate in an activity or event. For those already involved in migratory bird conservation, International Migratory Bird Day adds momentum to the cause, bringing local activities to the level of an international movement.

Moreover, International Migratory Bird Day provides celebrants with a focus in the form of an annual theme. This year's theme centers on the peregrine falcon and its celebrated recovery from endangered status. Finally, although International Migratory Bird Day is officially a single-day observance, event planners are encouraged to schedule activities on the date or dates best suited to the arrival of migrants in their area.

Though it hasn't reached the status of Mother's Day, International Migratory Bird Day is a significant movement. This year, several hundred thousand people in the Western Hemisphere are expected to celebrate the day. Observances will include bird walks or festivals at refuges, parks and zoos; displays at libraries and nature centers; the inclusion of migratory birds in school classes, club lectures and newspaper articles; and shade-grown coffee tastings at offices and stores.

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Celebrate a Millennium of Migration

(continued)

Individuals and organizations interested in mounting an International Migratory Bird Day celebration may explore these resources:

- A Migratory Bird Day information and events coordinator is available at 703/358 2318 or via e-mail at IMBD@fws.gov. Share ideas and comments or get in touch for more information.

- Promotional and education materials for International Migratory Bird Day—including posters, banners, t-shirts, educator packets and resource directories—are developed each year and detailed in a color catalog. Contact the event coordinator for a copy or view it on-line at www.americanbirding.org/imbden.htm.

- An on-line events registry is in service to advertise events. It too, can be accessed at www.americanbirding.org/imbden.htm.

- Fact sheets on International Migratory Bird Day and migratory bird conservation topics, useful for press packets, are available from the Office of Migratory Bird Management. Call or write the information and events coordinator for copies.

Jennifer Wheeler, Office of Migratory Bird Management, Arlington, Virginia

Partners for the Birds

International Migratory Bird Day is the hallmark outreach event for Partners in Flight, a unique and diverse consortium of individuals and groups who share a vision of healthy bird populations. Partners include government agencies, conservation organizations, private businesses, academic institutions, chambers of commerce and private citizens.

The 1993 creation of International Migratory Bird Day can be credited to a Partners in Flight member, the Smithsonian Migratory Bird Center, and the principal responsibility for its national coordination currently rests with two other partners, the National Fish and Wildlife Foundation and the Fish & Wildlife Service's Office of Migratory Bird Management.

Jennifer Wheeler

Instead of Prosecution, Education

The September killing of an eastern indigo snake by children in a south Georgia town has led state and federal wildlife officials to step up education efforts about this federally protected species.

Officials from the Service and the Georgia Department of Natural Resources confirmed that it was a dead eastern indigo snake held by children in a photograph on the front page of the *Alma Times* in late September.

“These kids probably did not know what kind of snake it was,” said Pat McIntosh, a Service special agent based in Savannah, Georgia. “They likely didn’t realize that it was illegal to kill this threatened species.”

The eastern indigo snake, which once ranged from South Carolina through Florida and west to southeastern Mississippi, is found today only in south Georgia and Florida. This non-venomous snake has been protected under the federal Endangered Species Act since 1978 and is also protected under Georgia’s Endangered Wildlife Act.

According to McIntosh, the children who killed the snake will not face federal charges.

“We’re not going to prosecute kids, but we are going to turn this into an educational opportunity,” he said. “We have to do whatever we can to protect this species, and that means making sure that this type of thing doesn’t happen again.”

The Service and the Georgia Department of Natural Resources, in cooperation with the newly formed Partners in Amphibian and Reptile Conservation, a group of government and private biologists and educators, plan to increase their educational efforts in south Georgia to teach children and adults about the eastern indigo snake and Georgia’s other endangered species.

Theodore Roosevelt IV Retraces His Great Grandfather's Steps in the South



Golden opportunity. A Service law enforcement agent used the accidental killing of an eastern indigo snake like this one as an opportunity to educate children about this threatened species. FWS photo.

The maximum penalty for killing a species protected by the federal Endangered Species Act is one year in jail and a \$50,000 fine.

The eastern indigo snake is the longest snake in North America, with a maximum total length of 8½ feet. The eastern indigo is a very stout snake, with iridescent blue-black coloring and no pattern on the body, although the chin and throat may have reddish or cream coloration.

Because eastern indigo snakes are good natured, the commercial pet trade took a heavy toll on wild populations before federal protection. Federal and state biologists are working to improve the population status of the eastern indigo snake in hopes that it will no longer need protection under the federal Endangered Species Act.

Kyla Hastie, Ecological Services, Athens, Georgia

In November 1902, President Theodore Roosevelt traveled to the delta country of western Mississippi on a bear hunting trip. He visited again in 1907 to hunt bear in northern Louisiana, near where Tensas River National Wildlife Refuge lies today.

Nearly a hundred years later, another Roosevelt visited the delta country of the Lower Mississippi River Valley. Theodore Roosevelt IV spent five days in December 1999 retracing his great grandfather's footsteps—not to hunt but to try to save the threatened black bear and its habitat, and to draw attention to the Service's work and to the national wildlife refuges in the ecosystem.

Much has happened in the Lower Mississippi River Valley since those auspicious visits at the beginning of the twentieth century. The vast bottomland hardwood forests that once supported huntable black bear populations and a wide variety of songbirds have been reduced to a small fraction of their original size. More than 80 percent of these once magnificent forests are gone.

Roosevelt, an active conservationist who serves on the board of directors of the League of Conservation Voters and Trout Unlimited, also came to learn about the conservation issues facing the area. He met with local and state officials, citizen activists and representatives of conservation organizations to discuss how they can work together better to address issues such as Louisiana black bear recovery and reforestation of the bottomland hardwood forest.

One of the highlights of the trip was a tree-planting ceremony at Tensas River refuge. Roosevelt and Southeast Regional Director Sam Hamilton recognized bottomland hardwood restoration efforts throughout the delta and stressed the need to continue those efforts. A cypress tree, planted along a boardwalk behind the refuge visitor center, was dedicated as "The Roosevelt Tree" and is marked with a commemorative plaque.



The next generation. Theodore Roosevelt IV contemplates his surroundings as he tours Louisiana, retracing a journey his great grandfather made nearly a century ago. FWS photo.

The staff at Tensas River later arranged for Roosevelt to get up close and personal with a black bear and to actively participate in the measuring and tagging of a captured black bear to draw attention to need for research and additional habitat for this species. The newly radio-collared bear is known as "Rough Rider," after Teddy Roosevelt.

Later, Roosevelt joined Hamilton in commending five organizations for outstanding conservation efforts. During an address to the community at the Old Vicksburg (Mississippi) Courthouse—where President Theodore Roosevelt once spoke—the younger Roosevelt emphasized the importance of community involvement in conservation. He urged the young people in the audience to get involved and encouraged everyone to educate themselves about conservation issues.

Donna Stanek, Felsenthal NWR, Crossett, Arkansas

Another Dam Bites the Dust

The news helicopter hovering near Rains Mill Dam on the Little River southwest of Raleigh, North Carolina, was one indication that something was happening. Then 40 pounds of C-4 exploded, tearing a 12-foot hole in the 75-foot wide, 10-foot high dam. The cloud of acrid grey smoke and dust that filled the air above the meandering river was followed by a gush of water that proved the Marines had done their job.

“Through the violence of destruction, we undertake the healing act of creation,” said Interior Secretary Bruce Babbitt. “What we create here, for the first time in 78 years, is a healthy, free-flowing stream that opens aquatic habitat to oxygen, colder water, fish migration and access to spawning beds.”

Babbitt, arguably the nation’s premier dam-buster, reveled in the dramatic event.

“Today the Marines are saving a few good species, from eight tiny freshwater mussels, to the rare, ancient shortnose sturgeon,” he said victoriously. “Dam owners, fishermen and public officials are working together to permanently restore what was once thought lost forever. And we have only begun.”

Mike Wicker of the Raleigh Ecological Services field office is one of those helping to restore wildlife through dam removal. Wicker has quietly worked behind the scenes to orchestrate the removal of three dams in North Carolina. He helped coordinate the multi-agency effort to remove Rains Mill Dam.

“It’s a pretty fine accomplishment to open up more than a thousand miles of river in the past two years,” said Wicker. “It’s a great day for fish and a fine day for the American taxpayer who got an improved ecosystem for Christmas, thanks to the combined efforts of all these state and federal agencies and entities.”

The Marines donated their time and expenses, blowing up the dam as a training exercise. Removal of Rains Mill Dam opens 49 miles of spawning and rearing habitat for alewife, American shad, hickory shad, Atlantic sturgeon, shortnose sturgeon and striped bass.

*Tom MacKenzie, External Affairs,
Atlanta, Georgia*

Deliberate Acts of Outreach

Caught Red-handed and Reported by Anita Noguera, National Outreach Coordinator

“Outreach,” as defined in the Service’s National Outreach Strategy, is “two-way communication between U.S. Fish & Wildlife Service and the public to establish, promote involvement, and influence attitudes and actions, with the goal of improving joint stewardship of our natural resources.” Outreach is the vehicle used to share and exchange information, and one way to do this is through special events.

Putting together a special event is easy... right? It’s just like in an old movie where the neighborhood kids rally around a worthy cause and put together a musical extravaganza... in a barn the size of Radio City Music Hall... funded with lawn-mowing money. It’s a huge success... and of course, no effort at all!

In reality, the logistics of producing a special event can intimidate even the most seasoned professional. Add the restrictions that come with being a federal agency and you’ve really got a challenge. Don’t get discouraged though... help is here.

National Outreach Team member Kathy Zeamer, Region 5 congressional liaison, has created an invaluable tool called the “Handbook for Dedications and Other Special Events.” Located on the Intranet at <http://sii.fws.gov/extaff/sehdbk.html>, the handbook is an invaluable tool to help launch a special event.

The handbook walks you through the planning stage and lists guidelines to properly fund your event within the confines of the government. Included are instructions on:

- *Invitations*—complete with a list of dignitaries to include as guests
- *Program development*—planning the order and length of speeches
- *Speeches and special activities*—ensuring speeches and activities reflect the purpose of the event
- *Publicity*—coordinating with External Affairs to publicize the event
- *Ground and event set-up*—arranging for stages, tent, chairs, podiums, tables and other supplies
- *Support services*—notifying local rescue units, preparing special parking needs and other tasks
- *Post-event details*—arranging for clean-up and breakdown crew and follow up with media

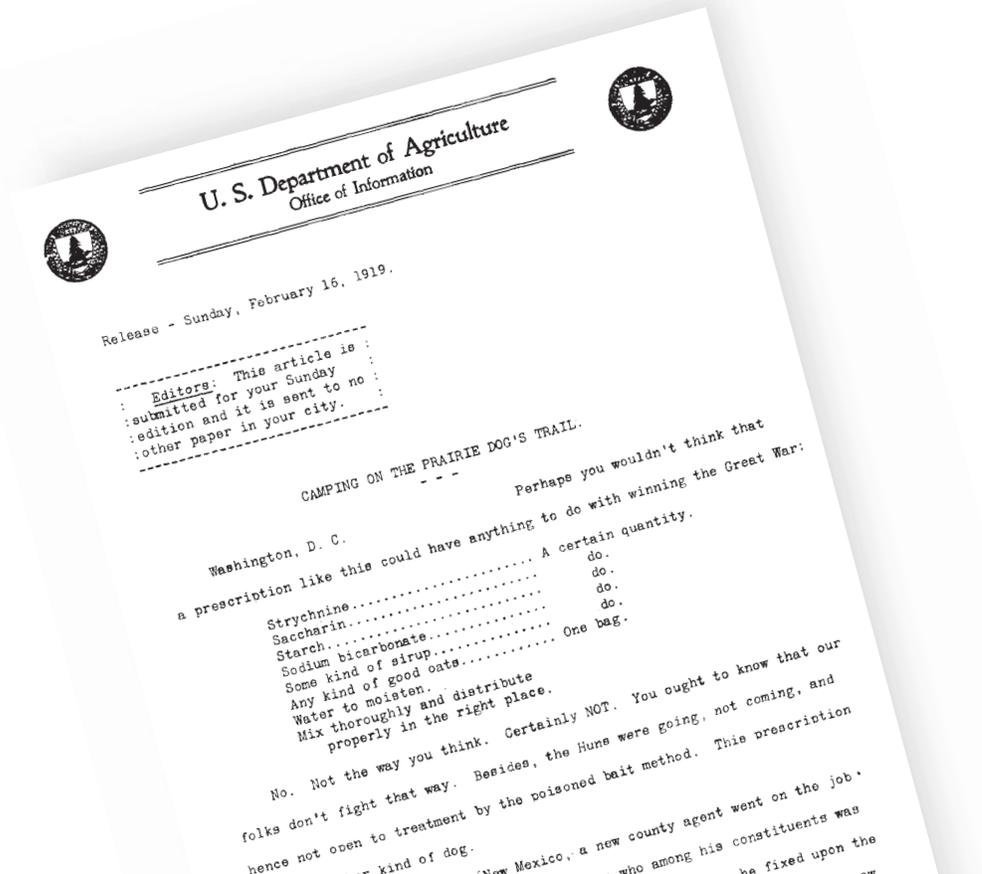
Special events are a lot of work, but they can be enjoyable, rewarding and... it’s okay to say it... fun, too! When you plan and organize properly and the end result is a successful event, you get a great deal of satisfaction—and you’ve just communicated important conservation messages to hundreds of people.

A big thanks goes to Kathy Zeamer for creating this great resource. If you have an idea for an informative outreach tool that would be useful to Service employees, e-mail Anita Noguera at anita_noguera@fws.gov.

Special Section: A Look Back and a Look Ahead

(Pages 13–26)

Opening a Window to the Past



What's the single, longest-running record of information about the Fish & Wildlife Service? Probably press releases! The Public Affairs office in Washington maintains bound copies of agency press releases going back all the way to 1914. These releases will be available on the Internet at a fully searchable Web page as part of a continuing effort to showcase the Service's rich history for employees and the public.

Press releases from 1914–1919 have already been posted; they are available at <http://news.fws.gov/Archive.html>.

Releases already on the Web include such titles as "Birds Destroy Certain Insects and Weed Seeds and Are Useful to Farmers," "Killing off the Prairie Dogs," "Would Preserve Wonders of Okefenokee Swamps," and "Migratory Bird Law to be Enforced." Want to read more? All Service press releases should be online by late spring.

"Press releases trace our evolution as an agency for the last eighty-six years and provide a unique glimpse into our changing mission, public relations, and agency

identity," said Service historian Mark Madison. "Even a quick glance through some of the releases already posted online provides a rich context for our agency at the beginning of the twentieth century."

Later press releases serve as a reminder that conservation and public service projects have long been an important part of the Service's national legacy. On November 17, 1944, for example, the Service issued a press release headed, "War Production Board and FWS Renewed Appeal to Deer Hunters to Turn in All Deer Hides Obtained This Season Because They Are an Important Source of War Material."

David Klinger, senior writer/editor at the training center, was aching to get access to the early press releases for his writing projects—and provide access to others. The initial idea of photocopying the originals blossomed into a full-scale digitization and duplication of these historic relics. The National Conservation Training Center was fertile ground on which the press release project could grow.

Press Release Excerpts

Under its provisions there is no spring open season, and the fall open season is made more uniform throughout the country. Nevertheless, tho [sic] several States have the right under the terms of the act to make and enforce their own regulations when these are not inconsistent with the Federal rulings, but such State regulations may act only to afford additional protection to migratory birds, and not to extend the open seasons beyond those just promulgated nor to authorize of taking birds not sanctioned in the Federal act.

—From an August 13, 1918, press release titled "New Game Laws Promulgated."

Since the doe as a rule average less in weight than bucks of the same age, killing a doe instead of a buck usually means that the supply of deer will not increase if the breeding stock is killed off...and a doe spared this fall means one more fawn as well as one more doe next spring.

—From a September 8, 1917, press release titled "Save the Does."

There is an aerial machine far more economical of energy than the best aeroplane invented, and that is the bird known as the golden plover. This bird, according to the United States Department of Agriculture's new bulletin on "Bird Migration," can fly 2,400 miles without a stop, making the trip in not quite 48 hours, and using only two ounces of fuel in the shape of body fat. A thousand-pound aeroplane, if as economical of fuel, would consume in a 20-mile flight not the gallon of gasoline required by the best machines but only a single pint.

—From a March 23, 1915, press release titled "Bird More Economical of Energy Than Best Aeroplane."

continued on page 14

Opening a Window to the Past (continued)

And after two fires in the Main Interior building caused concern about potential damage to the only existing copies of these historical documents, Public Affairs Chief Megan Durham began pressing for a computerized archive, as well.

Volunteers began photocopying each press release from the only full collection, housed in the Washington, D.C., Public Affairs office. However, each bound volume presented a unique set of challenges, such as varied page length, brittleness and resolution, which called for careful handling. The volunteers helped reveal the futility of this preservation effort and inspired the development of an outside contract which not only produced an electronic copy of each press release, but two bound paper copies as well, so that the originals could be archived.

Web surfing historians may search press releases by keyword, title or date. Webmaster Sky Bristol provided the search engine that seamlessly accesses all recognized text.

Another online site for Service history is "At the Forefront of Conservation: The History of the U.S. Fish and Wildlife Service Conserving Our Nation's Resources" (<http://www.nctc.fws.gov/history/index.html>). Visitors to this site find timelines, oral histories, brief biographies of deceased comrades, historical articles and photos, and links to the many related history sites of interest to Service employees.

"One of the more interesting projects has involved putting some displays on-line so folks can tour a virtual museum without having to make the trip to the Conservation Museum at the training center," said Madison. "The number of folks who visit the museum is small in comparison to the audience interested in the history of conservation and our agency's role in that history. All of our efforts seek to move history out of the archives and display cases and onto your desktops."

Anne Post Roy, National Conservation Training Center, Shepherdstown, West Virginia

Leading the Way... Early Pioneers of the Refuge System



Theodore Roosevelt (1858-1919)

"Is there any law that will prevent me from declaring Pelican Island a Federal Bird Reservation?"...So inquired President

Teddy Roosevelt in 1903. Told there was not, he replied, "Very well, then I so declare it," and 48 words and one Executive Order later, the seed was planted as the 3-acre island became the nation's first national wildlife refuge. TR would create 51 bird reservations and 4 big game preserves before leaving office in 1909.



Paul Kroegel (1864-1948)

The first refuge manager guarded Pelican Island NWR against plume hunters with his own boat and shotgun. He was paid a salary of \$1 a month. (See article on next page.)

William L. Finley (1876-1953)

A photographer and conservationist, Finley believed that "birds, like people, cannot live without homes." Chiefly because of Finley and his friend and photography partner Herman Bohlman, Teddy Roosevelt created several large refuges in the Northwest, including the first bird refuge on the West Coast, and Klamath and Malheur, the largest refuges established yet at the time.



Jay Norwood "Ding" Darling (1876-1962)

This editorial cartoonist from Iowa stepped into the unlikely role of chief of the Bureau of Biological Survey under Franklin Delano Roosevelt.

Before that Darling served on the committee that created the Federal Migratory Bird Hunting Stamp—the Duck Stamp—as a means to raise money to purchase waterfowl habitat for the refuge system. He also designed the first Duck Stamp. (See article, page 21.)



J. Clark Salyer (1902-1966)

At the behest of "Ding" Darling, biologist J. Clark Salyer, the first chief of the Bureau of Biological Survey's Wildlife Refuge Program, ventured to the

Midwest and Prairie Pothole regions of the country, identifying some 600,000 acres of prime waterfowl habitat that would serve as the foundation for more than 50 national wildlife refuges.

Ira N. Gabrielson (1889-1977)

Gabrielson succeeded "Ding" Darling as chief of the Bureau of Biological Survey and played a major role in the expansion of the National Wildlife Refuge System in the middle part of the twentieth century. Under Gabrielson's watch, millions of acres were added to the system, and he helped to establish Patuxent Wildlife Research Center in Maryland to formally train wildlife managers, researchers and administrators.

Compiled by Rachel F. Levin, Public Affairs, Washington, DC

FWS photos

Wildlife Legacy Lives on After Death of Heir to First Refuge Manager



Descended from greatness.

Rodney Kroegel took time out a few years ago to reminisce about his grandfather, Paul. FWS photo.

Rodney Kroegel, only son of Paul Kroegel, America's first refuge manager, died last winter of heart failure at age 96. Throughout his lifetime, the younger Kroegel maintained a keen interest in Florida's Pelican Island National Wildlife Refuge—which his father helped to establish and managed from 1903 until 1926.

Rodney Kroegel was born March 9, 1903, just 5 days before the refuge was established. After his father's death in 1948, Rodney Kroegel frequently participated in refuge anniversary celebrations, where he spoke about his father's work protecting a colony of endangered brown pelicans and other wildlife inhabiting the island's 3 acres of mangrove habitat.

Located on Florida's east coast, Pelican Island refuge is situated in the Indian River Lagoon between the towns of Sebastian and Wabasso. In 1968, the refuge expanded to 4,640 acres of submerged bottom lands and mangrove islands, including a 395-acre buffer on an adjacent barrier island.

During a 1992 videotaped interview, Rodney spoke enthusiastically about his family's early years on Florida's east coast and related stories he had heard as a child about his father's determined efforts to save a pelican colony from annihilation by feather and egg hunters seeking riches from the profitable plume trade.

Paul Kroegel was born on January 9, 1864, in Chemnitz, Germany, and came to America at age 6. As a young adult, he lived on a bluff with an unobstructed view of Pelican Island and the large numbers of brown pelicans that roosted and nested on the island and congregated along the Indian River. Pelican Island was the only known breeding ground for pelicans along Florida's coast because nesting sites elsewhere had been decimated. Kroegel soon was captivated by the birds.

He earned a living as a carpenter, citrus farmer, beekeeper and boat builder. From 1905 to 1918, he also served as a St. Lucie County commissioner. Pelican Island and the plight of its birds constantly preyed on his father's mind, Rodney remembered.

During the 1890s, egrets and herons were virtually eliminated from the island, he said, but added that his father was able to save some of the pelicans by warning hunters off with a 10-gauge shotgun. Paul soon realized, however, that his efforts were paltry and that to save more pelicans, he needed the help of some influential friends.

He arranged a meeting with noted ornithologist Frank Chapman to discuss his concerns for the birds of Pelican Island. Shortly afterwards, in 1900, Chapman and the American Ornithologists Union formed the Florida Audubon Society.

Paul Kroegel's efforts led both the ornithologists union and Audubon to successfully lobby the State of Florida to pass a 1901 state law prohibiting the killing of non-game birds. The union then hired Paul to protect the birds of Pelican Island.

This action, though unprecedented, did not solve the problem entirely. Paul soon discovered that while he had the state's regulatory muscle behind him to help protect the birds, he had no legal authority to order people off the island. His ability to stop the carnage was, therefore, severely limited.

Chapman and another American Ornithologists Union officer, William Dutcher, made an appointment to see President Theodore Roosevelt to discuss the plight of the pelicans. On March 14, 1903, a sympathetic Roosevelt signed the executive order establishing Pelican Island as the first national wildlife refuge.

Shortly afterwards, Paul Kroegel received notice from Washington, D.C., that he had been appointed refuge warden at a salary of \$1 a month. Rodney noted that his father's salary was initially paid by the American Ornithologists Union, because Pelican Island and 52 other new refuges established during President Roosevelt's term, were created by executive order, without Congressional appropriation.

Although the federal government later assumed responsibility for paying wardens' salaries, some 23 years later Paul's salary had only increased to a meager \$15 a month.

Paul's saddest moment during his tenure as warden of Pelican Island, Rodney Kroegel recalled, may have been a day in 1918, when vandals hired by a local group of disgruntled fishermen clubbed some 300 pelicans to death.

Rodney Kroegel was a self-taught electrician and plumber, servicing families in the local community, and for a time running the local filling station and grocery store. During the Depression, he served in the Civilian Conservation Corps and longtime Sebastian residents remember when he operated the town's first movie theater.

According to relatives, Rodney Kroegel fell ill over the holidays and died December 30. He is survived by sons Wayne and Doug Kroegel, daughter Janice Timinski, 12 grandchildren, and 11 great-grandchildren. Rodney was buried January 6 next to his father in the Sebastian Cemetery.

Diana Hawkins, External Affairs, Atlanta, Georgia

Editor's note: The author wishes to thank Dorn Whitmore (Merritt Island NWR) and Paul Tritaik (Pelican Island & Archie Carr refuges) for their assistance in researching this story.

Colorful but Invisible Heroes

As the National Wildlife Refuge System approaches its centennial in 2003, the Service continues to pay tribute to such heroes as Teddy Roosevelt, “Ding” Darling and J. Clark Salyer for their visionary leadership.

Most were geniuses at using “baling wire and bubble gum” to hold a refuge together when budgets were dry.

But many more champions of the refuges have gone unnoticed—call them the invisible heroes (and heroines) of the refuge system. Many of these folks have departed this earth but some still diligently labor on their respective refuges, building every day on their own already rich legacies. These unsung heroes are largely unknown except in their communities, where most were—or are—household names.

These hardworking folks had such job titles as refuge clerk, patrolman, biological technician, laborer or tractor operator.

Some held several of these titles during their careers even though their jobs were unchanged. In the 1940s, Harold Miller’s job title was “patrolman/clerk/laborer.” On a typical day at Salt Plains NWR, Miller may have performed law enforcement duties at dawn, returned to the office mid-morning to complete the payroll or type a letter on his manual typewriter (which he purchased in 1946 and used exclusively for more than 40 years), and then returned to the field to operate heavy equipment to install a culvert in a refuge road.

Their skills and talents often transcended their position descriptions. Tractor operator Mack Williams of Aransas NWR captivated schoolchildren with his interpretive story telling; maintenance worker Gary Deaton prepared outstanding taxidermy mounts for displays at Tishomingo NWR.

Many on this list prepared huge feasts—barbeque, fried fish, seafood gumbo—that delighted dignitaries from the Interior Secretary to local politicians and refuge cooperators.

Most were geniuses at using “baling wire and bubble gum” to hold a refuge together when budgets were dry.

Entire books would be required to detail the stories associated with many of these colorful characters. Make no mistake about it, however, these folks made tremendous contributions to the refuge system. Consider the following:

- On all refuges these “hometown” employees provided a valuable link with the local community and state/county agency personnel.
- They imparted to new managers and employees critical local knowledge about refuge habitat, wildlife, facilities and geography.
- They were excellent sources of practical ideas needed to develop refuge facilities and management plans. Their suggestions usually worked, whether it was for a good banding site, shop design or a technique for catching a notorious poacher.

They were truly our heroes.

Ken Butts (retired), North Louisiana Wildlife Refuge Complex, Farmerville, Louisiana

All aboard. A moving museum of more than 100 years of the history of the mail, the *Celebrate the Century Express* features displays of stamps commemorating significant events of each decade. Stamps for the 1990s, issued in April, feature recovering species, including the American peregrine falcon.

The American public chose recovering species—in the form of the peregrine—as one of the top 15 subjects to depict the 1990s and mark the millennium in the U.S. Postal Service’s “Celebrate the Century” commemorative stamp program. The stamps complete the collection currently traveling around the country aboard the *Celebrate the Century Express*. Other themes and images set to grace commemorative stamps include cellular phones, a scene from the movie *Titanic* and the World Wide Web. Text by Ann Haas, Division of Endangered Species, Arlington, Virginia. U.S. Postal Service photo.



More than a Century of Stocking the Nation's Waters

Tennessee's Erwin National Fish Hatchery (1897) and Georgia's Warm Springs National Fish Hatchery (1899) are two of the Service's oldest active fish culture facilities. For more than 100 years both hatcheries have, among other things, stocked tons of live fish in the nation's rivers and streams.

Of the 66 hatcheries nationwide the Service still manages, only Craig Brook in Maine, (formerly Penobscot hatchery, established in 1879), Neosho in Missouri (1888), and Leadville in Colorado (1889), have been in operation longer than Erwin and Warm Springs.

Erwin: Historic Facility, Modern Techniques

In August 1894, Congress passed legislation to fund a federal fish hatchery in Tennessee. After considering a number of sites in the state, U.S. Fish Commissioner Spencer Baird selected a site near Erwin in northeastern Tennessee and ordered excavation of ponds, installation of water supply lines, and construction of outbuildings and a hatchery manager's residence. The hatchery was established in 1897 with an initial purchase of 10.83 acres at a cost of \$1,025.

Fish culture techniques have changed radically over the years and Erwin NFH has undergone renovation a number of times since its construction. The original ponds have given way to a modern raceway system, replete with an aerator building and a liquid oxygen supplementation unit.

Erwin now functions as an integral part of the Service's National Broodstock Program. The Service ships more than 13 million disease-free, eyed eggs from four strains of rainbow trout to federal, state and tribal hatcheries each year in support of scientifically sound fishery management programs in which there is a federal interest. Erwin is also involved in broodstock culture technology, cooperative ventures with other agencies and public outreach.

The hatchery's annual visitation exceeds 40,000. According to Hatchery Manager Jack Jones, the facility may, along with several other local attractions, become the focal point of a new "eco-tourism" market for Tennessee's Unicoi County, which features many environmental and educational travel experiences.



(Left) Erwin National Fish Hatchery at the turn of the century. FWS photo. (Right) Today's Erwin National Fish Hatchery. FWS photo.



Warm Springs: Home of a Hatchery... and a President

Another old-timer in the Southeast, Warm Springs NFH came into existence as a result of 1898 legislation authorizing the establishment of a "fish cultural station" in Meriwether County, Georgia. The small community of Warm Springs, 65 miles southwest of Atlanta, was called Bullochville before its incorporation in 1924.

In 1899, brothers Cyprian and Benjamin Bulloch and their cousin Sarah J. Bussey, owners of a 1,500-acre plantation in Meriwether County, donated 16 acres of land to the Fish Commission upon which to construct a fish hatchery. This acreage included three natural springs to supply water for hatchery operations. From these springs, water flowed out of the ground at a constant temperature of 62.6 degrees Fahrenheit.

Another spring, on adjacent property less than a mile away, is considered an oddity of nature. This spring, named Warm Spring, produces water year-round at a constant temperature of 88 degrees Fahrenheit.

President Franklin Delano Roosevelt first gave national recognition to the community of Warm Springs when he visited these naturally heated springs as treatment for his polio-related paralysis. Roosevelt was so enchanted with the area that he built the only home he ever owned—a modest, six room cottage called the Little White House.



Distinguished neighbor. *President Franklin Delano Roosevelt built a house near Warm Springs hatchery—the only house he ever owned himself—and took*

advantage of the springs as therapy for his polio. FWS photo.

It served as a relaxing, comfortable haven for him during his regular visits to Warm Springs, where he is believed to have developed his New Deal policies.

It was here that FDR died on April 12, 1945, while posing for the "Unfinished Portrait" still on exhibit at the Little White House.

Co-located with the hatchery is the Warm Springs Fish Health Center, established in 1989, and a fish technology center, opened in 1993. The three facilities are incorporated into the Warm Springs Regional Fisheries Center.

Diana Hawkins, External Affairs, Atlanta, Georgia

The Leader in Worldwide Wildlife Law Enforcement

Profiteering in wildlife, particularly birds, was a booming business in the United States at the turn of the century. Expensive restaurants and sophisticated diners in cities such as New York, Chicago and New Orleans demanded wild ducks for gourmet dinners; bird plumes were the rage in women's hats; and waterfowl hunters knew few, if any, state restrictions on when and where they could hunt and the number of birds they could shoot.

In 1900, Congress passed the Lacey Act to help states protect their wildlife from illegal commercialization (see article next page.) The Lacey Act's interstate commerce provisions targeted so-called "pot hunters," people who illegally killed and sold large numbers of birds often destined for human consumption (the "pot"). Early prosecutions show the scale of this take and trade. In 1901, for example, 48 men in Illinois were charged under the Lacey Act for unlawfully shipping more than 22,000 quail, grouse and ducks into the state.

With the implementation of the 1913 Weeks-McLean Act and a migratory bird treaty with Great Britain (on behalf of Canada) came federal regulation of waterfowl hunting and the age of the "duck cop."

In the early 1930s, populations of North American ducks dropped precipitously because of drought in their northern breeding grounds. The United States responded by curtailing hunting seasons and tightening federal hunting rules. Baiting and the use of live decoys were among the practices outlawed.

The age of undercover work arrived in the middle of the 20th century. A federal "game protector" conducted the first undercover law enforcement operation in this country in 1929 when he disguised himself as a waterfront derelict and carried out a "buy/bust" sting in a Chicago alley to break up a Midwest duck bootlegging ring.

Agents in the 1950s and 1960s went undercover to gain the confidence of market hunters and expose illegal waterfowl trafficking.

In the late 1970s, the Service created a special enforcement unit to gather intelligence and conduct covert



Ever wonder who the Lacey in "Lacey Act" was? He was John Fletcher Lacey, an Iowa Republican who served nine non-consecutive terms in the U.S. House of Representatives. Lacey, a Civil War veteran, served as chairman of the House Committee on Public Lands between 1894 and 1901, during which time Congress passed the Lacey Act, the first federal law regulating the sale of wildlife. FWS photo

investigations. In the 1980s, the Branch of Special Operations successfully probed thriving black markets profiteering in "products" from reptiles to raptors, and black bear parts to big game.

With the Endangered Species Act of 1973 and the Convention on International Trade in Endangered Species came new roles and responsibilities for Service law enforcement—including a major new trade monitoring effort to protect the world's wildlife resources. CITES enforcement in the United States began in 1975 when the agency hired a biological technician to inspect wildlife shipments in New York City. A nationwide wildlife inspection program began the following year when the Service designated eight official ports of entry for wildlife and employed a small force of inspectors to serve as import/export control officers.

Work in the 1990s reached beyond U.S. borders. Complex multiyear investigations infiltrated the international wild bird trade

and uncovered widescale illegal trafficking in some of the world's most rare and endangered reptiles.

At the close of the decade, the Service had 93 wildlife inspectors stationed at major air and ocean ports and at 16 other locations, including border crossings.

Service law enforcement has found a new ally in science. The agency hired its first forensic specialist in 1979 and opened the world's first wildlife forensics laboratory in 1988. Laboratory scientists have provided expert analyses and scientifically sound evidence that turned cases into convictions time after time.

The Service enters the new millennium as the world's leader in wildlife law enforcement. The agency's wildlife forensic scientists are the experts in their field; its investigators and inspectors are the authorities that other nations turn to in training their own wildlife officers and improving their enforcement efforts.

Sandy Cleva, Division of Law Enforcement, Arlington, Virginia

The Origins of Refuge Law Enforcement

The first Refuge Law Enforcement Officer was Paul Kroegel at Pelican Island National Wildlife Refuge; the refuge law enforcement program currently has over 620 refuge officers. The primary purpose of the refuge law enforcement program is to protect the refuge resources as well as ensuring the safety of visitors.

In the past refuge officers mainly dealt with hunters during hunting season. However, in recent years refuge law enforcement has become more specialized, dangerous, and physically and mentally demanding as the work has evolved into dealing with increasingly serious crimes. For example, nearly \$200 million worth of illegal drugs were seized on refuges in 1999.

Jerry Olmstead, Division of Refuges, Arlington, Virginia

A Lacey Act Primer

May 25 marks the 100th anniversary of the Lacey Act—the first, but perhaps least understood, federal wildlife protection law and one of the nation’s most important conservation tools.

Drafted and pushed through Congress in 1900 by Representative John Lacey, an Iowa Republican and early conservationist, the act was designed to help states protect their native game animals and to safeguard U.S. crop production from harmful foreign species.

In its original form, the Lacey Act made it unlawful to transport from one state or territory to another any wild animals or birds killed in violation of state or territorial law. It required wildlife to be clearly marked when shipped in interstate commerce and banned the importation of mongooses, fruit bats, English sparrows, starlings and any “other birds or animals” deemed “injurious to the interest of agriculture or horticulture.” Violators faced fines up to \$200.

In defending the bill on the House floor, Rep. Lacey deplored the then recent demise of the passenger pigeon and pointed to the near extermination in many states of other birds as an impetus for federal action.

Over the years, Congress expanded the scope of this first U.S. wildlife statute. In 1935, its prohibitions were extended to international commerce and wildlife taken in violation of any federal or foreign law. In 1945, lawmakers added provisions to bar animals from being imported under “inhumane or unhealthful” conditions.

Amendments in 1981 overhauled the original act, reworking nearly all of its major provisions and incorporating protections for fish addressed previously under the 1926 Black Bass Act. Changes included a broader definition of wildlife; safeguards for plants; and the adoption of a felony punishment scheme for certain trafficking offenses.



Then. Market hunting for waterfowl—for food or feathers—caused serious declines in bird populations. Market hunters were a target of the first Service wildlife inspectors. FWS photo.

“What many people don’t understand about the Lacey Act is that we can only use it if there’s first been a violation of some other wildlife law. But that’s also what makes it so powerful,” explained Kevin Adams, chief, Office of Law Enforcement.

Last year, for example, Service special agents worked on more than 1,500 Lacey Act investigations. They exposed numerous illegal guiding operations profiteering in both state and federally protected species and secured felony Lacey Act convictions in cases involving caviar smuggling, international coral trafficking and illegal reptile trade.

“We may be celebrating the centennial of a law that most Americans have never heard of, but by giving us the ability to combat interstate and global wildlife trafficking, the Lacey Act protects resources in this country and around the world,” Adams said.

Sandy Cleva, Office of Law Enforcement, Arlington, Virginia



...And now. Today Service Law Enforcement personnel work with diverse issues, including enforcing laws regarding smuggling of species such as coral. FWS photo: Carl Zitzman.

The Next Generation in Bird Conservation



Troubled. *Migratory birds face a raft of threats, from overpopulation to loss of habitat. NABCI's goal is to strengthen bird conservation in the new millennium through a cooperative approach. FWS photo.*

There is great urgency in bird conservation today as many once-common species—such as the Cerulean warbler, loggerhead shrike and eastern meadowlark—are becoming scarce, and others—double-crested cormorants, lesser snow geese and Canada geese, for example—have adapted too well to their human-altered environments and face over population problems such as lack of food and suitable habitat.

To tackle the complex challenges of conserving hundreds of bird species on an international level, the Service is leading one of the most progressive efforts ever: integrated bird conservation. The stage is set for bird conservation to become more cooperative, strategic and comprehensive than at any other time in history. The North American Bird Conservation Initiative is playing a pivotal role in taking Service efforts far afield into the new millennium.

This newest initiative seeks to increase the effectiveness of already successful conservation efforts such as Partners in Flight and the North American Waterfowl Management Plan, and improve coordination among them.

For several years, bird conservationists have been seeking common ground and, in some regions, building a unified approach to conserving birds and their habitats. Prior to the North American Bird Conservation Initiative, however, no formal international or national arenas for this kind of coordination existed.

Now people from diverse walks of life—landowners, conservationists, scientists, wildlife managers and corporations—are sitting together at the conservation table to secure the future for North America's birds. Their efforts will serve as roadmaps for the future.

“These efforts are changing the face of conservation as we know it and beginning a new generation of integrated bird conservation in North America,” said Jon Andrew, chief of the Service's Migratory Bird Management Office.

For example, participants, led by Service biologists on the Migratory Bird Management Program's Adaptive Monitoring and Assessment Team, developed a common set of U.S. bird conservation regions. Last year, the interim U.S. committee drafted a vision document laying out actions needed to achieve this integrated approach to conservation.

A permanent U.S. committee, co-chaired by the Service and the International Association of Fish and Wildlife Agencies, met for the first time in November 1999. Nongovernment and federal subcommittees were established to accomplish specific tasks, such as policy development, budget coordination and strategic planning.

The North American Bird Conservation Initiative joins continuing successful efforts. Partners In Flight, a consortium of organizations and individuals dedicated to conserving landbirds, soon will make available 52 regional U.S. conservation plans covering more than 800 bird species.

Within this first year of the new millennium, waterbird conservationists will roll out national and international plans covering 70 shorebird species and 125 colonial waterbird species. In 1998, waterfowl conservationists renewed their commitment to collaborate with these other bird initiatives in revisions to their 15-year strategic plan.

And at the regional level, the North American Waterfowl Management Plan's joint ventures are expanding their scope and collaborating with other bird initiatives to deliver habitat conservation for all birds. A new South Atlantic Migratory Bird Initiative to address threats to birds and their habitats in the South Atlantic Coastal Plain and new joint ventures for the Sonoran Desert, Northern Rockies, Central Hardwoods, West Gulf Coastal Plains and Central Shortgrass regions will expand conservation efforts in these important ecosystems by engaging a number of public and private partners.

With the advent of the North American Bird Conservation Initiative, existing bird initiatives are able to redouble their efforts.

“Taken together, these measures and future activities of the North American Bird Conservation Initiative signify the beginning of a more holistic approach to conserving birds,” Andrew said. “Given current rates of development and population growth, our biggest challenge in bird conservation lie ahead, but we have more tools in our arsenal to wield on behalf of the birds.”

Roxanne Bogart, Migratory Bird Management Office, Arlington, Virginia

The Simple Success of the Federal Duck Stamp Program

Concern about plummeting waterfowl populations in the 1920s led to an innovative program that has become one of the Service's—if not the world's—most unique conservation tools: the Federal Duck Stamp. From the first Duck Stamp, designed by political cartoonist and conservationist “Ding” Darling and sold for \$1, to the first stamp of the new millennium, created by a 21-year old, the Duck Stamp has continually evolved over the past 66 years.

One thing has remained constant, however: the Federal Duck Stamp is one of the most successful conservation efforts ever, raising half a billion dollars to purchase some 5 million acres of wetlands for the National Wildlife Refuge System.

On March 16, 1934, President Franklin Delano Roosevelt signed into law the Migratory Bird Hunting and Conservation Stamp Act “to supplement and support the Migratory Bird Conservation Act by providing funds for the acquisition of areas for use as migratory bird sanctuaries, refuges and breeding grounds.” Those funds would be derived from sales of the Migratory Bird Hunting Stamp—the “Duck Stamp,” as it came to be known—which would be a required annual purchase for all waterfowl hunters age 16 and older.

The first Duck Stamp featured a pair of mallards and sold for \$1; the price rose gradually to the current cost of \$15. The end result remains the same, though: ninety-eight cents of every Duck Stamp dollar goes directly into the Migratory Bird Conservation Fund to acquire wetlands for birds and a host of other animals and plants that depend on them.

People, too, have benefitted from the Federal Duck Stamp Program. Hunters are ensured birds for their bag, and other outdoor enthusiasts gain places to hike, photograph or watch wildlife. Moreover, wetlands help dissipate storms, purify water supplies, store flood water, and nourish fish hatchlings important for sport and commercial fishermen.

Hunters, wildlife art and stamp collectors, and conservationists purchase well over 1 million Duck Stamps each year, generating more than \$20 million for the Migratory



Bird Conservation Fund. Countries worldwide have implemented conservation initiatives modeled on the Federal Duck Stamp Program.

The process of choosing a Duck Stamp has evolved as well. Until 1949, the Director of the Bureau of Biological Survey commissioned a well-known waterfowl artist to design the Duck Stamp. The artist submitted several entries and a panel of senior staff from the Biological Survey chose the winner. In 1948, the Service received eight unsolicited submissions and subsequently opened the contest to all interested artists—often hundreds of them.

The Duck Stamp Contest closed out the twentieth century on a historical note as 21-year-old Adam Grimm became the youngest person ever to take top honors in November 1999.

Grimm is part of a new generation of Duck Stamp artists who will help carry this successful program far into the new millennium.

Compiled by Rachel F. Levin, Public Affairs, Washington, D.C.

Carrying Rachel Carson's Legacy into the New Millennium

The Service's legacy of protecting fish, wildlife and their habitat from pollution's harmful effects has been built by the hundreds of employees who have worked over the years on contaminants issue. The work of one person in particular has been a key part of solidifying that legacy.

After earning a bachelor's degree in biology and a master's degree in marine zoology, a young woman named Rachel Carson joined the U.S. Bureau of Fisheries in 1936 as a writer. She eventually became chief of all publications for the Bureau—later reorganized and renamed the Fish & Wildlife Service—but Rachel Carson's legacy goes far deeper than her gift for writing about biological subjects with knowledge and grace.

During her 17 years as a federal employee, Carson became familiar with studies documenting the impacts of pesticides such as DDT on fish and wildlife populations. At the time, little of this type of information had filtered into the popular press. Carson, already the author of several acclaimed books on life in the sea, felt passionately that the public should know about the dangers of pesticides, and she undertook the formidable task of writing a book about it. Despite the discovery in 1960 that she had breast cancer, Carson continued to research and write *Silent Spring*, which was published in 1962.

Major public debate ensued with the pesticide industry on one side and Carson, along with like-minded environmentalists and scientists, on the other. Though her body was ravaged by the effects of the cancer and its treatment, Carson traveled the country speaking out about the dangers of pesticides and defending her book—and her reputation—from an onslaught of criticism. She also testified before Congress at hearings convened by President John F. Kennedy about pesticides and their effects on wildlife and people.

Rachel Carson died on April 14, 1964. Many believe that her book inspired the modern environmental movement and prompted the development of many of the pollution prevention laws still in place today; within 15 years of *Silent Spring's* publication, such regulations as the National Environmental Policy Act and the Clean Water Act had been put in place.

Rachel Carson's Legacy (continued)



Never silent.

For her pioneering 1962 book *Silent Spring*, Rachel Carson is credited with inspiring the modern environmental movement. Photo courtesy of the Rachel Carson Foundation.

In addition, following the release of *Silent Spring*, the Service established a National Pesticides Monitoring Program, which evolved into the more comprehensive Environmental Contaminants Program of today.

Today, the Service's contaminants program includes contaminants specialists at more than 75 stations around the country. Service contaminants biologists are on the front lines in the fight against pollution, specializing in detecting toxic chemicals; addressing their effects; preventing harm to fish, wildlife and their habitats; and removing toxic chemicals and restoring habitat when prevention isn't possible.

Service contaminants specialists are experts on oil and chemical spills; pesticides; water quality; hazardous materials disposal; and other aspects of pollution biology. The contaminants program's operations are integrated into all other Service activities and contaminants specialists often work in partnership with other agencies and organizations which have come to rely on Service expertise.

Without the dedication of Service employees—inspired by Rachel Carson's legacy of passion and advocacy—this country might still be facing the fate she so eloquently described three decades ago—a silent spring, devoid of the chirping of birds.

Kelly Geer and Liane Hores, Division of Environmental Contaminants, Arlington, Virginia

Federal Aid: Out of Depression Comes Restoration



A model program.

Projects such as this one, funded with Federal Aid in Sport Fish Restoration monies, benefit anglers and boaters nationwide. FWS photo: Karen Hollingsworth.

Against the backdrop of the Great Depression and devastating drought, the Service's Federal Aid Program was born some 63 years ago. Piece by piece throughout the twentieth century, the program was built, ensuring a steady source of funds to plan long-term projects, including field studies and in-depth research, to learn as much about fish and wildlife species and their needs as possible.

The 1930s: Pittman-Robertson Starts It All

In the early 1930s, a group of far-sighted conservationists, supported by hunters and hunting industry manufacturers and retailers, proposed a long-range plan for restoring wildlife populations without creating a greater financial burden on the Depression-ravaged public. They urged Congress to extend an existing 10-percent excise tax on sporting arms and ammunition and earmark the proceeds for distribution to the states for wildlife restoration. Revenue would fund research and habitat management as well as restocking programs already in place.

The result was the Federal Aid in Wildlife Restoration Act, sponsored by Congressman Willis Robertson and Senator Key Pittman. The legislation, which is known as the Pittman-Robertson Act, was signed into law September 2, 1937.

Pittman-Robertson is now funded by an 11-percent excise tax on sporting arms and ammunition, a 12.4-percent tax on archery equipment and a 10-percent tax on handguns. These funds pay for up to 75 percent of state wildlife restoration project costs; the states contribute at least 25 percent.

The 1950s: Anglers Get Their Own Law

By the 1940s, it had become evident that fishing license fees collected by the states were no longer adequate to meet the needs of the fishing public. There was not enough money to fund the research, management and facilities to improve angling opportunities.

Trading on the success of the Pittman-Robertson Act, Senator Edwin Johnson and Congressman John Dingell, Sr., developed legislation that applied a 10-percent manufacturers' excise tax on fishing rods, reels, and creels, and artificial baits, lures and flies. The revenue would be earmarked for distribution to the states to support sport fish restoration activities. The Federal Aid in Sport Fish Restoration Act, better known as the Dingell-Johnson Act, was signed into law August 9, 1950.

Like Pittman-Robertson, Dingell-Johnson has become one of the most successful conservation laws ever crafted. States can employ more fish biologists and undertake long-term research and restoration projects. Funds generated by the excise tax have also enabled states to build or reclaim hundreds

Success Breeds Success... Three Decades of Proof That the Endangered Species Act Works

of lakes; purchase more than 100,000 acres of land for fishing piers, access areas, boat landings and fish production sites; and reduce the effects of non-native aquatic species, control fish diseases and parasites, and make it easier for migrating fish to reach their spawning grounds.

The 1980s: More Money for Fish

By the early 1980s, the needs of aquatic resources had exceeded the ability of even Dingell-Johnson funds to keep up. In 1984, Senator Malcolm Wallop and Congressman John Breaux sponsored legislation to add a 10-percent excise tax on tackle boxes and other fishing equipment not previously taxed; a 3-percent tax on fish finders and electric trolling motors; and an import duty on fishing tackle and pleasure boats. It also provided for a portion of the existing tax on motorboat fuels to be designated for this program.

The Year 2000: A Focus on Non-Game Species

As the states are able to purchase, protect and improve more and more habitat for game species, non-game species dependent on these same habitats benefit as well. President Clinton aims to take non-game species conservation even further, proposing in the 2001 budget \$100 million in new grants to states, tribes and territories to promote non-game wildlife habitat restoration, conservation, planning, monitoring and recreation.

Proposed legislation called CARA, the Conservation and Reinvestment Act (H.R. 701 and S.25), would dedicate a portion of federal income from offshore oil and natural gas leases for a variety of conservation purposes including nongame conservation programs.

Compiled by Rachel F. Levin, Public Affairs, Washington, D.C.

In Fiscal Year 2000, Federal Aid expects to make available to the states and territories \$193 million in Wildlife Restoration grant funds and \$240 million in Sport Fish Restoration grant funds.



Bald eagle. FWS photo.

The Endangered Species Act has proven to be one of the strongest and most foresighted efforts ever made to protect the delicate web of life. President Richard M. Nixon signed the act into law in 1973, declaring, "Nothing is more priceless and more worthy of preservation than the rich array of animal life with which our country has been blessed."

Despite earlier conservation laws, many species remained threatened by environmental degradation, habitat destruction, control and commercial exploitation. Wolves were extirpated from the lower 48 states—except for a few hundred in extreme northeastern Minnesota—by 1973. As late as 1965, bounties for wolves continued. Hunters prized other species, like the American alligator, for their skin. By 1950, this species was dangerously close to extinction.

By the early 1960s our national symbol—the bald eagle—was heralding the environmental hazards of pesticides such as DDT. Populations of the majestic eagle declined to a mere 417 nesting birds from an estimated 75,000 ranging across the country at the time of the first European settlers. Peregrine falcons and other raptors, also in decline, echoed the eagle's call to clean up the environment and in 1972 the Environmental Protection Agency banned DDT.



American alligator. FWS photo.

The following year the federal government took another step on the road to recovering imperiled species with the Endangered Species Act. Congress had begun to address the issue of managing endangered species and passed protective measures in 1966 and 1969, but the Endangered Species Act of 1973, which has been characterized as an ecological "emergency room," has proved to be the last hope for many imperiled species.

Hallmark ESA success stories

American alligators were depleted in many parts of their range by the 1960s as a result of market hunting and habitat loss, and many believed this unique reptile would never recover. A combined effort by the Service and state wildlife agencies in the South saved the American alligator from extinction. The Endangered Species Act prohibited alligator hunting, allowing the species to rebound in many areas where it had been depleted. As the alligator began to make a comeback, states established population monitoring programs and used this information to ensure alligator numbers continued to increase. In 1987, the Service pronounced the American alligator fully recovered and removed it from the list of endangered species.

Just before Independence Day 1999, President Clinton marked the culmination of a three-decade effort to protect and recover the **bald eagle** by announcing a proposal to remove it from the list of threatened and endangered species. Today, as a result of recovery efforts by the Service

Success Breeds Success (continued)



Peregrine falcon. FWS photo.

in partnership with other federal agencies, tribes, state and local governments, conservation organizations, universities, corporations and thousands of individual Americans, an estimated 5,748 nesting pairs live in the lower 48 states. Endangered Species Act listing provided the springboard for the Service and its partners to accelerate the pace of recovery through captive breeding programs, reintroduction efforts, law enforcement and the protection of nest sites during the breeding season.

The Service removed the **American peregrine falcon** from the list of endangered and threatened species in August 1999, marking one of the most dramatic success stories of the Endangered Species Act. DDT decimated the population, causing peregrines to lay thin-shelled eggs that broke during incubation. Service researchers confirmed the link between DDT and egg shell thinning on peregrines in the United States, and Rachel Carson, a former Service employee, helped alert the public to the hazards of pesticides on wildlife in her 1962 book, *Silent Spring*. Ten years later, the Environmental Protection Agency made the historic and, at the time, controversial decision to ban DDT in the United States, the first step on the road to recovery for the

Aleutian Canada geese. FWS photo.



Columbian white-tailed deer. FWS photo.

peregrine. In 1970, the Service listed the peregrine falcon as endangered when the population in the eastern United States had completely disappeared and populations in the West had declined by as much as 80 to 90 percent. Currently, there are at least 1,650 peregrine breeding pairs in the United States and Canada, well above the recovery goal of 631 pairs.

Thanks to a concerted recovery effort spanning more than three decades, the Service in August proposed to remove the **Aleutian Canada goose**, one of the first animals protected under the Endangered Species Act, from the list of threatened and endangered species. Populations of this

small subspecies of Canada goose, found only on a few of Alaska's remote, windswept islands and in areas of California and the Pacific Northwest, numbered only in the hundreds in the mid-1970s. Today, biologists estimate there are 32,000 birds, and the threat of extinction has been eliminated. The overall population of Aleutian Canada geese is four times greater than the recovery goal established by the Service.

Another dramatic success is the **Columbian white-tailed deer**. In May 1999, the Service proposed to remove one population of this species from the endangered species list in response to its recovery from near extinction. Biologists estimate the Douglas County, Oregon, population, which numbered less than 500 animals as recently as the early 1970s, now totals more than 5,000 deer. Declines in deer populations resulted from intensive hunting and the draining, diking and clearing of marshes, forested swamps and riparian areas for farms and cities. Over the years, with the Endangered Species Act as a catalyst, county, state and federal agencies, as well as private organizations, helped to secure and protect 10,000 acres of habitat for the deer through land acquisition donations and conservation agreements.

Cindy Hoffman and Rachel F. Levin, Public Affairs, Washington, D.C.



The Civilian Conservation Corps: A New Deal for Wildlife

Not since the first decade of the twentieth century had conservation issues been debated so widely as during Franklin Delano Roosevelt's first term in office. His election in 1932 ushered in a series of innovative New Deal programs to help Americans cope with the Great Depression—and to conserve threatened natural and cultural legacies.

Nearly 70 years later, the Service can still appreciate the handiwork of one of those innovative programs—the Civilian Conservation Corps—in helping to restore natural resources.

Within his first 100 days in office, FDR signed the Emergency Conservation Work Act authorizing the establishment of the Civilian Conservation Corps. The corps was intended to put millions of young men to work on reforestation, soil erosion prevention, flood control and related projects. Before the program's termination in 1942 at the outbreak of World War II, conservation corps workers would contribute millions of hours of labor improving national wildlife refuges and fish hatcheries, national forests, and national parks.

Recognizing that bold action was needed as he entered office to conserve natural resources, President Roosevelt appointed the Committee on Wild-Life Restoration in 1934, directing it to prepare a plan to restore America's dwindling wildlife populations. The committee recommended far-reaching changes to improve habitat for waterfowl, upland game, mammals, and song birds, including the acquisition of millions of acres of sub-marginal lands for habitat improvement and appropriations of \$50 million, in part, to restore these lands.

Jay Norwood "Ding" Darling, a member of the committee, was appointed chief of the Bureau of Biological Survey in March 1934 and charged with overseeing this new plan. It didn't take long for Darling to realize the potential benefits of using the Civilian Conservation Corps to help implement the new program.

By 1942, 53 national wildlife refuges had benefitted directly from corps work centered on constructing dams and dikes, planting vegetation and millions of trees, stabilizing



Successful effort. *By the time the Civilian Conservation Corps was terminated in 1942, 4,500 camps had been established employing over 3.4 million men in a military lifestyle — an excellent source of personnel for the Army during World War II. FWS photo.*

stream banks, and erecting numerous buildings, fire towers, telephone lines and support facilities. In addition to Service areas, wildlife habitat on national forests, Indian reservations, and other public lands also benefitted.

The Civilian Conservation Corps' surprisingly deep impact on the Fish and Wildlife Service was summed up by Director Ira Gabrielson in 1943 when he noted that "at first the event did not seem of great interest to wildlife conservationists, but it was another of those happenings which none considered epochal at the time but which later have brought about startling results."

Kevin Kilcullen, Division of Refuges, Arlington, Virginia

Lou Ann Speulda, Refuge Operations Support, Branch of Cultural Resources, Reno, Nevada

Editor's note: Contact Kevin Kilcullen (Kevin_Kilcullen@fws.gov) or Lou Ann Speulda (Lou_Ann_Speulda@fws.gov) or your regional historic preservation officer if your station has CCC-related documents that should be properly preserved for future use and enjoyment by the public.

Inventions Reach Far Beyond the Service

Over the years, in their efforts to fulfill the agency's mission, Service field personnel have met with problems and needs never before confronted in the workplace.

However, these pioneering souls never gave up in the face of lack of resources. Ingenious minds consistently came up with inventions that quite simply got the job done. From the aluminum air thrust boat to the cannon net, employees invented machines, processes and tools that are today used by the general population as well as at Service stations.

Did you know that the frozen food process was invented by a Service employee? Clarence Birdseye was a field naturalist for the U.S. Biological Survey from 1910 to 1912. While working in the far north, he noticed that fish frozen by indigenous peoples in the Arctic ice was preserved physically and with little change in taste. He realized that this was a result of rapid freezing, which minimized cellular disruption (the idea behind modern cryogenics).

Birdseye further discovered that freezing combined with pressure would allow frozen foods to retain much of their flavor when thawed. He perfected a food dehydrating process in the 1930s and eventually created nearly 300 inventions during his lifetime.

In 1943, on the Bear River Migratory Bird Refuge in northern Utah, Cecil S. Williams and G. Hortin Jensen sought a solution to the problem of conducting avian botulism studies in the shallow, marshy hinterlands. They needed a boat that could carry people and equipment over marshes, meadows, and mud flats, as well as in deeper water, and that could be loaded from a trailer by one person. Using a 40-horsepower Continental aircraft engine on a 12-foot, flat-bottomed, duraluminum boat, the two came up with the prototype of the Service's air thrust boat.

Williams and Jensen dubbed their craft the Alligator I, because their regional office had told them that they might as well saddle an alligator and use it, for nothing else could possibly fulfill their needs. With this new means of rapid marsh transportation, waterfowl habitat became accessible in minutes instead of hours or days.

continued on page 26

Inventions Reach Far Beyond the Service (continued)



Ingenuity. Biologists examine a cannon net at Chincoteague NWR, one of many items invented by Service employees over the years. FWS photo.

Among other Service inventions was the Fearnow pail for transporting live fish, invented in 1922 by Edgar C. Fearnow, Superintendent of Fish Distribution for the U.S. Fish Commission, to carry adult and fingerlings in a shallow inner compartment where the water is purest and to utilize their activity for the aeration of the water.

In 1984, biologists Alex Knight and Willard M. Spaulding, Jr., invented two bird feeders made from about a dollar's worth of simple, household materials. Who among us has not used recycled soda bottles to make sunflower or thistle seed feeders? The design was even passed on to the public in the Hints From Heloise column.

Other innovations include the cannon net from Swan Lake National Wildlife Refuge; bird banding pliers invented by Ron Anglin, now of the regional office in Portland, Oregon; the redesign of the N-754 airplane, which made it a highly-prized migratory bird surveying plane; and the cannon jar from Iron River National Fish Hatchery for fish hatching.

All of these were invented by Service staff in the twentieth century; who knows what innovations the new millennium will bring.

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

The Patch: Our Agency Identity

Service employees nationwide sport the colorful agency logo on their arms, hard hats and vehicles. Ever wonder about the origins of the Service patch?

In 1950, the Alaska Field Office—then located in Juneau—created what is accepted as the first arm patch. In those pre-statehood days the Service needed a recognizable presence in the territory, especially since there was an increasing law enforcement caseload. A four-inch round patch was developed; it featured a yellow border which read “U.S. Department of the Interior” across the top and “Fish & Wildlife Service” across the bottom. The center of the patch contained the elements still used in today’s design: a jumping salmon and flying goose.

This style of patch would remain in use until 1965. Today very few of these four-inch patches exist.

The Service soon modified the Alaska patch for use agency-wide. The patch shrank to three inches and “U.S.” was removed from “Department of Interior” on top and added to “Fish & Wildlife Service” at the bottom. This patch was used until 1978.

When the Service was reorganized in 1956 and divided into two bureaus, rockers were added to the patch. The first rocker was worn above the patch and read “Bureau of Sport Fisheries and Wildlife.” The rockers were eliminated in 1974. A one-and-a-half-inch round patch, white and blue with a yellow border, was also used until the patch changed again.



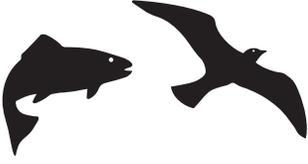
You’ve come a long way. Today’s Service patch has its origins in a patch designed in 1950 for law enforcement agents in Alaska. FWS photo.

The current design first appeared in early 1978. It has undergone few changes since then, including going from a round to the current badge shape. Two varieties exist: one for men’s uniforms and a smaller patch for women’s uniforms. A bar across the top which read “Volunteer” could be added until the late 1980s when a separate volunteer patch was created.

Specialty patches have also been developed, mostly in Region 4. These have included a canine drug task force unit, special event team units, and even a more subdued, all green version of the current patch, created to be worn when operations require a low visibility approach.

Jonathon Schafner, Crab Orchard NWR, Marion, Illinois

Ecosystem Approach Initiatives



Northeast Leads the Way with Law Enforcement Team Leaders

The Service's vision for implementing an ecosystem approach to wildlife management is to "unite all Service programs to lead or support ecosystem level conservation through a more technically capable and culturally diverse organization." The ecosystem approach is about integration and Region 5 is on the cutting edge as the first region to have had representatives of the Division of Law Enforcement serve as ecosystem team leaders.

Something to think about...

"A recent study found that the average American teenager can identify some 1,000 corporate logos, but cannot give the names of even ten plants and animals native to the area where they live."

Reed Noss, *A Citizen's Guide to Ecosystem Management*, 1999

This groundbreaking innovation has proved to be a learning experience for everyone involved with the ecosystem teams.

"It was mutually beneficial," said Senior Resident Agent Don Patterson of his stint heading the Chesapeake Bay/Susquehanna River Ecosystem Team.

Patterson, who works in Richmond, Virginia, said that he was able to educate team members about how the Division of Law Enforcement helps them do their jobs by enforcing such laws and regulations as the Endangered Species Act and the Migratory Bird Treaty Act.

"We are an integral part of a lot of the [Service's other] programs," Patterson said, "but some in the programs don't know how much. Law enforcement adds a practical aspect to the whole idea."

Patterson's colleague, Baltimore-based Senior Resident Agent Tom Healy, outgoing leader of the Delaware River/Delmarva Coastal Area Ecosystem Team, agreed.

"For years, law enforcement wasn't integrated into the Service as much as it should have been," Healy said. "Having law enforcement people heading ecosystem teams opens the doors to communication."

Healy said that as a team leader, he saw how some Service projects, such as outreach on horseshoe crab conservation, were important to law enforcement. Horseshoe crab eggs are a major source of nutrition for migrating shorebirds along the Delaware Bay peninsula.

Through research done by team members, Healy learned about threats to horseshoe crabs and how a decline in the species would affect shorebirds. He then helped to promote the issue among his law enforcement colleagues in order to step up their support.

Recent convictions of two Delaware men charged with illegal horseshoe crabbing proves that those law enforcement efforts worked.

Healy also saw that being team leader could help him gain support for law enforcement projects. The team funded an undercover law enforcement investigation after Healy explained it to them.

"I explained as much as I could about it, and although I couldn't divulge specifics because of the secret nature of the investigation, I was able to reassure the team that it was a worthwhile project, that it was worth funding," Healy said.

Patterson had similar experiences.

"Some folks see law enforcement as a program that just issues arrest warrants and prosecutes cases," he said. "...Being team leader helped me to clarify what we do and why we do it."

Both Patterson and Healy agreed that they learned not only about Service resource issues but also about the dynamics of teamwork. Patterson said that he found that just meeting and talking with colleagues in other program areas helped him to do his job better.

"The informal contacts are probably the most beneficial part of ecosystem teams," he said.

For Healy, being team leader led to opportunities he might not have otherwise had, such as serving on the regional project leader's meeting planning team. Despite his busy schedule, Healy said he would serve as team leader again, and encourages others to do so.

"Everyone's plate is pretty full," he said, "but I think it's an important thing to do."

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

Exploring Our Past



It's a Classic: Conservation Collection at NCTC Library Expands

Want to read the early works of Rachel Carson or see how American conservation evolved through the writings of John Muir; Aldo Leopold and Olaus Murie? Now Service employees and others interested in conservation history can enjoy these and other seminal works while enjoying the landscape along the Potomac River in Shepherdstown, West Virginia.

The conservation library at the National Conservation Training Center continues to build a treasure trove of great works in its Classic Conservation Collection, all just two hours from Washington, D.C., at the Shepherdstown, West Virginia, campus.

Book donations from current Service employees, retirees, the Interior Department library and the National Wildlife Federation have made it possible for the library to establish this special classics collection. The collection includes texts which have always been recognized as inspirational to aspiring biologists, policy makers, natural history buffs, deep ecologists and sportsmen alike.

Students and visitors often do double takes when they see definitive texts on wildlife and fishery management on the encased shelves; early edition textbooks remind visitors of school days, and life histories, field studies and biographies reinspire conservation professionals who were once deeply affected by those same books. The older texts are also available for researchers as a reference.

The classic conservation collection includes a selection of key Service publications that serve as important pillars in the Service's legacy as a science-based agency. Researchers often request these older publications and they are easily available on the library shelves. The conservation library and the Service museum and archives at NCTC will undertake a joint project to digitize some of these older publication series for online access. Fish commission reports, annual reports, narrative reports from refuges, and legislative histories will also be part of this partnership to create digital access to historic agency material.

The National Conservation Training Center library is fulfilling its role as the home of the U.S. Fish and Wildlife Service by preserving this important literary heritage.

Anyone interested in donating material to the conservation library may visit the library's website at <http://www.nctc.fws.gov/library/donations.html>.

Anne Post Roy, National Conservation Training Center, Shepherdstown, West Virginia

Fish & Wildlife Honors...

DOI Lauds Research Coordinator

Dr. W. Reid Goforth, the Service's research coordinator, was honored with an Interior Department Meritorious Service Award. Goforth, who has also worked for the U.S. Forest Service and the National Biological Survey (now the USGS Biological Resources Division), was cited for his "outstanding ability in applying his scientific and management skills for the betterment of fish and wildlife resources of this nation. His dedication to sound biological resource management through science and education has influenced the careers of many of today's and tomorrow's natural resource scientists, managers and administrators." This was Goforth's second Meritorious Service Award.

EPA Recognizes Texas Biologist

The Environmental Protection Agency recently presented an award to Service wildlife and fisheries biologist Ron Jones for "special achievement in wetlands protection and excellence in wetlands education." The EPA Regional Administrator's Environmental Awards Ceremony was held on January 13 in Austin, Texas, and was hosted by Texas Natural Resources Conservation Commission Chairman Robert J. Huston. Jones, who works in the Clear Lake Ecological Services Field Office, has been instrumental in creating the Schoolyard Conservation education program, which works to establish natural areas such as wetlands on school grounds to offer children an opportunity to observe, study, and interact with nature. Along with the Texas Parks and Wildlife Department, Jones co-wrote the *Creating a Schoolyard Habitat* workbook.

Portland City Council Recognizes Employee

Ron Beitel, a GIS computer specialist in the Portland, Oregon, regional office, was one of 11 volunteers recently honored by the city council with the 14th annual Mayor's Spirit of Portland Award. Beitel helped 90 middle school students use aerial photographs and digital data to determine how plant communities changed at two neighborhood lakes before and after construction of a dam. He donated his weekends for two months to digitize the students' data. He obtained a temporary site license for ArcView, a computer mapping program, for the school and created a tutorial so every student could understand and present the information. Beitel also presented eight workshops for teachers and students to show them how to manipulate and analyze their natural area map.

Transitions

Service Deputy Director **John Rogers** will retire effective May 3 after a federal career spanning more than 3 decades. The *News* will feature more on Rogers in an upcoming issue.

Tom Dwyer, deputy regional director for Region 1, announced his retirement recently. Dwyer began his Service career at the Northern Prairie Wildlife Research Center in North Dakota, and also worked in Alaska, Maryland, and in Washington, D.C., where he served as deputy assistant director for Refuges and Wildlife before going to Region 1. Dwyer has accepted a position with Ducks Unlimited in Vancouver, Washington.

Region 5 Regional Director **Ronald Lambertson** is retiring after 30 years of federal service. He will relocate with his wife, Bonnie, to the Eastern Shore of Maryland. Lambertson began his federal career in 1970 with the Interior Department Solicitor's office before joining the Service in 1979. He served as associate director for federal assistance and later as assistant director for wildlife resources and as assistant director for fish and wildlife enhancement (now ecological services) in Washington, D.C., before being appointed Northeast regional director in 1988.

Joy Nicholopoulos, formerly chief of listing and candidate conservation in the Division of Endangered Species in Washington, D.C., is the new supervisor for Ecological Services in New Mexico. Nicholopoulos, who has previous experience with the Service in New Mexico both in the field and in the regional office, began her new position in December.

After nearly 33 years with the Service, **Jim Good** retired as deputy refuge manager for the Koyukuk-Nowitna Refuge Complex in Galena, Alaska, in early February. Good, whose career included work on refuges in regions 1, 2, 6 and 7, had previously been refuge manager at Fish Springs and Havasu refuges.

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Transitions (continued)

The Service's Fish Technology Center in Bozeman, Montana, began the millennium with a new director, **Bill Krise**. A 20-year federal employee, he has worked for the Service, the National Biological Survey, and the U.S. Geological Survey. His most recent position was as a research fishery biologist at the USGS research and development lab in Wellsboro, Pennsylvania.

Service Native American Liaison **Duncan Brown** recently moved to the Office of the Secretary as counsel on Indian Trust.

Jack Fillio, longtime manager at Parker River National Wildlife Refuge in Massachusetts, has retired after nearly 40 years of government service. Fillio served as manager at Parker River, located on Plum Island off the coast of Massachusetts, for 16 years. Prior to that he worked for refuges in New Jersey, Alaska, Pennsylvania and New York. He leaves behind a lasting legacy of wildlife protection, the culmination of which will be the construction of the Parker River NWR Headquarters and Visitor Center, for which Fillio laid the groundwork during his tenure at the refuge.

On November 1, 1999, the Western Oregon National Wildlife Refuge Complex was divided into three new administrative units, William L. Finley, Ankeny and Baskett Slough national wildlife refuges, and is now known as the Willamette Valley NWR Complex. The complex is administered from Finley NWR near Corvallis, Oregon, by project leader **James E. Houk**. Tualatin River NWR is now a stand-alone refuge with an office in Sherwood, Oregon, and is managed by **Ralph Webber**. The six refuges along the Oregon coast (Bandon Marsh, Cape Meares, Nestucca Bay, Oregon Islands, Siletz Bay and Three Arch Rocks) are now administered from the Oregon Coastal Field Office in Newport, Oregon and are now called the Oregon Coast NWR Complex. **Roy W. Lowe** is the project leader.

Dr. Garland B. Pardue has been selected as the supervisor of the Ecological Services Field Office in Raleigh. Pardue, a 28-year Service veteran, replaced John Hefner, the former Raleigh supervisor, who has become the chief of the Ecological Services Division in the Atlanta Regional office. Hefner has been with the Service for 26 years, and served as project leader in Raleigh for the past three and a half years.

In Memoriam

Jim Pinkerton, a management analyst in the Division of Policy and Directives Management for the past 23 years, died suddenly on February 19. Pinkerton, a native of Pennsylvania, was the Freedom of Information Act officer and served in both staff and supervisory positions in the division, providing guidance, training and support to officials throughout the Service. He was widely known for his expertise on administrative matters such as the Freedom of Information and Privacy acts, information collections, audits, and records management. He is survived by his wife and two daughters.

John Atalla, a computer assistant in the Office of Law Enforcement, died in December after a lengthy struggle with cancer. Atalla began his career with Law Enforcement in 1989 as a clerk and progressed to a computer assistant position. He battled cancer, surgeries, radiation treatments and chemotherapy within the last five years, continuing to come to work whenever possible.

Fish & Wildlife... In Brief

NCTC to Host Historic Meeting on Refuge Biology

For the first time in National Wildlife Refuge System history, field biologists will gather for a four-day workshop during the week of May 15. The workshop, entitled "Fulfilling the Wildlife First Promise," will focus on science-based management for the refuge system. Recently completed policies on biological integrity, wilderness and refuge planning will be presented to the more 250 expected attendees. Presentations on other important issues such as conservation biology and strategic growth of the system will provide the vision and knowledge base that field biologists need to help the refuge system achieve its full potential. "We are excited about this opportunity for biologists from across the system to network with their peers and appreciate first hand the direction we are heading in the area of science based management," said Greg Siekaniec, deputy chief of the division of refuges.

Retailer Donates Boat to Florida Marine Program

Managing marine sanctuaries in the Florida Keys got a little easier when Bass Pro Shops and Tracker Marine donated a fully-equipped Mako boat to the Fish & Wildlife Service and the National Marine Fisheries Service. Committed to funding fish and wildlife conservation efforts, the Johnny Morris Conservation Creel Fund and the National Fish and Wildlife Foundation made the donation possible. Representatives of the Foundation and Bass Pro Shops, a national sporting equipment retailer, presented the boat to the Services in January. Susan White, marine resources manager for national wildlife refuges of the Florida Keys, will use the 22-foot, center-console boat to develop a marine systems conservation program for refuges such as Key West and Great White Heron. In addition, both agencies will use the vessel for marine outreach and educational activities.

Supervisors, Take Note

A portable guide for Service supervisors—from novices to veterans—is available from the National Conservation Training Center. The Supervisor's Desk Reference, which began appearing in mailboxes in February, is packed with information about supervisory topics such as time and attendance, safety, travel, computer security, and personnel issues—a veritable Yellow Pages for supervisors. For each topic, it includes an overview of supervisory responsibilities, related policy or legal citations and a Service point of contact. The guide complements the Service Employee Pocket Guide distributed in December by the National Outreach Team. The Supervisor's Desk Reference is a collaborative effort by the National Conservation Training Center and the offices of Contracting and General Services; Economics; Engineering; Finance; Information Resources Management; Personnel; Policy and Directives Management; Diversity and Civil Rights Programs; Safety, Health, and Aviation; and Planning and Evaluation. Supervisors who have not yet received a copy should contact Kathy Gravley at NCTC at 304/876 7771.

Shooting Range Symposium Set for June

All are invited to attend the Fourth National Shooting Range Symposium, June 4-6, 2000, in Phoenix, Arizona. Sponsored by the International Association of Fish and Wildlife Agencies, the Service, the National Shooting Sports Foundation, Arizona Game and Fish Department, and the Wildlife Management Institute, the symposium will feature sessions on how to make a range a community asset, as well as providing the latest information on attracting and keeping customers, employee management, business planning, marketing, design, range safety, environmental management, and noise abatement. Anyone connected with shooting ranges is invited to attend the symposium. The Shooting Sports Summit, sponsored by the National Shooting Sports Foundation, will be held just before the symposium, May 31-June 3, and a Shooting Range Line-Officer Training Course sponsored by the National Rifle Association will be held immediately following the symposium, on June 7 and 8.

Refuges, Hatchery Part of White House Holidays

The White House celebrated the close of the millennium by honoring the past—and the importance of wildlife was not forgotten. Two national wildlife refuges and one national fish hatchery, recipients of "Save America's Treasures" grants, took up the first lady's invitation to send Christmas tree ornaments and other items to the White House for public display. Pelican Island National Wildlife Refuge, D.C. Booth Historic National Fish Hatchery, and Midway Atoll NWR were awarded a combined total of \$666,392 in 1999 Historic



FWS photo.

Preservation Grants through Save America's Treasures. These funds will be used to preserve or restore historic structures and protect sensitive habitat. Pelican Island sent a miniature of the statue of Paul Kroegel, the nation's first refuge manager, found on site. D.C. Booth also sent a smaller version of a statue of a grandfather and granddaughter on their way to a fishing hole. Midway Atoll supplied photos and a small stuffed seal.

The Largest Budget Increase in History

A quarter of a billion dollars. That's the size of the budget increase President Clinton is seeking for the Fish & Wildlife Service. If approved, his FY2001 budget would give the Service its largest increase ever.

At a total of \$1.75 billion, the Administration's budget proposal for our agency would, if enacted, enable us to address many of our most pressing needs and allow us to fulfill some of our biggest dreams. Highlights of the President's budget include:

The President's Lands Legacy Initiative

I have often said that future generations are likely to remember us for what we left of the land rather than what we built on it. In that vein, the President's Lands Legacy Initiative empowers the Service to care for and expand its land base, and to forge new partnerships that further conservation on lands outside our jurisdiction. Under Lands Legacy, the President seeks \$100 million in new grants to states, tribes and territories to promote non-game wildlife habitat restoration, conservation, planning, monitoring and recreation.

He also recommends doubling funding for the North American Wetlands Conservation Fund, which supports voluntary public and private efforts to restore wetlands. Our Cooperative Endangered Species Conservation Fund would get a boost as well; \$42 million more to assist states and communities with habitat conservation plans, safe harbor agreements, candidate conservation agreements and species recovery plans under the Endangered Species Act. And the National Wildlife Refuge System would receive \$112 million for land acquisition.

Law Enforcement

Many of our special agents are eligible to retire within the next five years, leaving our already short-staffed law enforcement division struggling to keep up with increasing responsibilities such as the challenge posed by Internet-savvy wildlife smugglers. The President's budget recognizes this situation and advocates a nearly \$13 million increase to launch a multi-year rebuilding initiative for our law enforcement division.

The National Wildlife Refuge System

Our National Wildlife Refuge System is improving by leaps and bounds as it approaches its 100th anniversary. The President's proposed \$20 million boost would address high-priority conservation issues, allow for refuge improvements, and promote new recreational and educational opportunities. Last year, our refuges hosted nearly 35 million visitors, continuing a trend of increasing visitation.

Fisheries Program

New challenges are emerging for our fisheries program now that the Service has adopted a watershed-based ecosystem approach. To strengthen our fish hatcheries, the President recommends a program increase of \$1.2 million for our National Fish Hatchery System, including \$500,000 for much needed maintenance work. He also proposes \$11 million for the Service to carry the lion's share in the federal government's assumption of Alaskan subsistence fishing responsibilities.

Migratory Bird Conservation

The President recommends a \$1 million increase for our migratory bird programs to expand monitoring and conservation efforts for declining species. Additionally, the

international program would receive an additional \$1.3 million to initiate neotropical bird conservation projects in Latin America and the Caribbean. The proposed budget would also enable the Service to develop further science-based strategies to control overabundant populations of geese and cormorants, both of which are causing a variety of ecological problems.

Endangered Species

The President's budget advocates an increase of \$7 million to help the Service implement more candidate conservation agreements, habitat conservation plans and other endangered species priorities. These non-regulatory approaches have proven successful in reducing the threats to endangered species, precluding future listings and accelerating species recovery.

These are just a few of the exciting initiatives the President's budget request would make possible. It is an election year, of course, but as Secretary Babbitt said at the Interior Department budget rollout, "Lame ducks have wings." We are living at a time when conservation has a great deal of public support. We should keep dreaming big dreams and seize the chance to make a lasting contribution to the legacy of healthy landscapes by which future generations are likely to remember us.



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