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along a highway
in Minnesota.
(PHOTO BY COURTNEY
CELLEY/USFWS)

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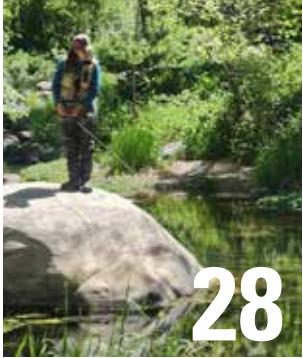
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Rooted in Purpose: America's Conservation Legacy and the Work Ahead

As the United States celebrates its 250th birthday, conservation remains one of the nation's most enduring achievements. Born from the U.S. Commission of Fish and Fisheries in 1871, the U.S. Fish and Wildlife Service has played a central role in stewarding these resources, serving as the country's oldest federal wildlife conservation agency and a guardian of the natural heritage woven into the American story.

The Service's legacy traces its origins to leaders such as Livingston Stone, Paul Kroegel, Ray Holland, Spencer Fullerton Baird, "Ding" Darling, Rachel Carson, Susan White, and President Theodore Roosevelt. Together, they shaped a national conservation ethic grounded in sustainable use, scientific integrity, public access, and a forward-looking commitment to future generations.

Their collective vision continues to anchor today's conservation efforts. Across hemispheric flyways, the Migratory Bird Program protects species whose survival depends on healthy, connected landscapes. Ecological Services teams deliver habitat restoration, species-resilience planning, and nature-based solutions. The Endangered Species Act guides the recovery of species most at risk through science and collaboration with states, tribes, and conservation partners. And the Office of Law Enforcement combats wildlife trafficking, strengthens international conservation security, and upholds the integrity of laws that safeguard natural resources.

Together, these programs reflect a conservation approach that is locally led, partnership-driven, and grounded in long-term stewardship. Nowhere is that commitment more visible than on the landscapes that form the National Wildlife Refuge System.

The National Wildlife Refuge System, which began in 1903 with a four-acre pelican rookery, has become one of the world's most significant conservation networks, encompassing 96 million land acres, 760 million marine acres, all 50 states, five U.S. territories, more than 570 refuges, 38 wetland management districts, five marine national monuments, 63 refuges with wilderness areas, and over 1,000 miles of wild and scenic rivers. From prairie grasslands alive with pollinators and bison to southeastern hardwood forests and the vivid desert landscapes of the Southwest, these lands conserve habitats essential to thousands of plant and animal species.

Recreation on these public lands remains a powerful testament to their value. Last year, refuges welcomed 71 million visits, including 44 million wildlife watchers, 8.5 million fishing visits, 2.7 million hunting visits, and millions more who came to hike, paddle, learn, or simply find moments of renewal. With 4,197 miles of trails and 7,352 miles of public roads, refuges serve as places of connection where communities gather, traditions endure, and where the nation's outdoor heritage of hunting and fishing remains alive.

The National Fish Hatchery System, created in 1872, is one of the oldest conservation programs in the federal government. Across 71 facilities, more than 200 million fish and aquatic wildlife are distributed annually to support tribal and state fisheries, restore aquatic ecosystems, advance species recovery, and sustain outdoor recreation. More than 1 million visitors engage with hatcheries each year, participating in fishing events, learning through fish-in-the-classroom programs, and experiencing hatchery operations firsthand. Within this system, Fish Health Centers and Fish Technology Centers monitor aquatic health, research diets and genetics, and meet applied science needs across the fisheries community. Beyond the hatcheries, the broader Fish and Aquatic Conservation Program works to sustain healthy fish and habitats nationwide, while the award-winning Fish of the Week podcast introduces audiences to species across America, from the iconic to the wonderfully strange.

Community-driven conservation reinforces all this work. In 2025, volunteers contributed nearly 1 million hours of volunteer time, and about 180 Friends partnerships supported refuges and hatcheries through formal agreements that strengthen capacity, deepen community ties, and expand conservation impact.

As Freedom 250 invites the nation to reflect on its heritage, it also calls for renewed purpose. Remote sensing, advanced genetics, artificial intelligence, and modern monitoring are expanding what is possible. Yet, at its heart, conservation focuses on partnerships, science, shared trust, and the belief that wildlife and wild places must endure. Even through workforce challenges and structural change, the Service continues to hold fast to its priorities. America's conservation story is still being written, and the Service remains committed to ensuring that the next 250 years are defined by opportunity, resilience, and thriving natural resources. □

JOSH COURSEY, Senior Advisor to the Director

Michigan Dams Saved – One Sandbag at a Time

In 2026, historic snowfall and spring rains across Michigan caused record flooding throughout the state, initiating emergency action plans in many communities in anticipation of potential dam failures. Emergency responders and partner organizations worked around the clock to monitor and protect vulnerable infrastructure, including two structures operated by the Service. Our Sea Lamprey Control Program relies on these dams to prevent invasive sea lampreys from accessing upstream spawning and rearing habitat needed to complete their life cycle.

Through rapid coordination and response, the Sea Lamprey Control Program mobilized staff to both the Carp Lake Outlet sea lamprey barrier on the Carp Lake River and Homestead Dam on the Betsie River within 12 hours of the initial notification of potential failures. Together, these two barriers prevent sea lampreys from accessing more than 63 miles of upstream habitat.

Sea Lamprey Control Program staff filled and deployed nearly 200 sandbags at the Carp Lake Outlet barrier, redirecting floodwaters back into the river channel and preventing scouring around the barrier abutments. Along with the Emmet County Road Commission, program staff stabilized the structure and prevented potential failure.



On March 13, the Michigan Department of Natural Resources Fisheries Division (MDNR) activated the Potential Failure Level for Homestead Dam. Staff from MDNR; Benzie County Emergency Management; Benzie County Sheriff's Office; Michigan Department of Environment, Great Lakes, and Energy Dam Safety Unit; and the Sea Lamprey Control Program joined forces to fill, transport, and deploy sandbags and pumps to force water back into the river channel. Crews placed approximately 400 sandbags on the north side of the barrier and more than 700 on the south side, where the most severe flow and seepage were occurring. Through overnight thunderstorms and deteriorating weather conditions, MDNR and Sea Lamprey Control Program staff monitored pumps, seepage, and water levels to ensure the barrier did not fail.

Preventing the loss of life and property downstream of these structures was the top priority of those involved in these efforts. But the Sea Lamprey Control Program also estimates that losing these barriers would have led to the production of more than 1.4 million new sea lamprey larvae. By protecting the structures, more than \$150 million in economic value was preserved.

Through extreme conditions, both the Carp Lake Outlet and Homestead dams remained in place, thanks to seamless coordination, tireless effort, and some old-fashioned good luck. □

KEVIN MANN, Fish Biologist,
Marquette Biological Station



(Top) The Carp Lake River overtopping the Carp Lake Outlet sea lamprey barrier during spring flooding. (PHOTO BY USFWS)
(Bottom) Sea Lamprey Control Program staff fill and deploy sandbags at Homestead Dam. (PHOTO BY USFWS)

Nation's first Conservation Benefit Agreement May Help Reintroduce Endangered Insect Species to Lānaʻi, Hawaiʻi

On a quiet island in Hawaiʻi, a small, bright orange native insect may soon return home, thanks to an innovative partnership and a first-of-its-kind Conservation Benefit Agreement among the Service, Hawaiʻi, and the local Pūlama Lānaʻi land management company.

Because many of our most at-risk species occur largely on privately owned property, the involvement of the private sector in the conservation and recovery of species is crucial. Conservation Benefit Agreements (CBAs) are voluntary agreements that provide incentives for nonfederal property owners to work with the Service to conserve species. Property owners agree to undertake specific conservation measures that help address identified threats for the agreement's covered species. In return, the Service authorizes take of the covered species while the conservation actions are implemented and provides the property owner with assurances that their conservation efforts will not result in future regulatory obligations beyond those established in the CBA.

Announced in 2024, CBAs are modeled on Safe Harbor Agreements and are designed to reduce the burden of conserving species on private lands. Actions taken under CBAs provide a net conservation benefit that contributes to the conservation or recovery of threatened and

endangered species throughout the United States.

In 2025, the Service worked with partners to complete the first CBA in the United States, focused on the reintroduction of the orangeblack Hawaiian damselfly on Lānaʻi, a small and mostly privately owned Hawaiian island west of Maui. The effort was led by the Pūlama Lānaʻi land and resource management company, which worked diligently with the Service and the Hawaiʻi Division of Forestry and Wildlife to develop tools to benefit the damselfly and other threatened and endangered species on Lānaʻi.

The orangeblack Hawaiian damselfly is found only in the Hawaiian Islands and was once the most abundant damselfly species in Hawaiʻi. Tiny, quick, and strikingly patterned, it is now limited to 34 known populations across Hawaiʻi and is no longer found at all on Lānaʻi. The number of orangeblack Hawaiian damselflies in the wild is unknown, and they were protected as endangered in 2016.

The tiny damselfly, known as pinapinao in Hawaiian, inhabits low elevation streams, wetlands, and landlocked brackish pools. Threats to the species include wetland and stream habitat loss, as well as non-native plants, agriculture, urban development, invasive fish, and habitat destruction by feral pigs.



Recovery will require many steps, including re-establishing self-sustaining populations on Lānaʻi and ensuring reliable water resources and protected artificial habitat are available.

The CBA supports these recovery goals by developing breeding habitat and providing a predator-free safe zone for reintroduction of captive-reared damselflies on Lānaʻi. The agreement includes detailed conservation measures for introducing the orangeblack Hawaiian damselfly to a conservation area on Lānaʻi, while describing how the parties will work together to implement shared goals to benefit species and create habitat.

"Bringing pinapinao back home to Lānaʻi is part of our longstanding commitment to *E mālama iā Lānaʻi*—to care for Lānaʻi as it cares for us," says Dr. Rachel Sprague, co-director of conservation for Pūlama Lānaʻi. "We are grateful to the U.S. Fish and Wildlife Service for their ongoing partnership, and especially for working with us to honor our responsibility to this island, its community, and its biocultural history through this CBA."

The orangeblack Hawaiian damselfly was once the most abundant damselfly species in Hawaiʻi. (PHOTO BY DR. WILL HAINES/ UNIVERSITY OF HAWAII AND DIVISION OF FORESTRY AND WILDLIFE, STATE OF HAWAII)

In 2025, the Service recognized the Pūlama Lānaʻi team as Recovery Champions for their work on the CBA, as well as their efforts to advance the recovery of more than 40 threatened and endangered species on Lānaʻi.

"Strong partnership and trust made this CBA possible, giving landowners predictability while protecting vital habitat," says Chelsie Javar-Salas, supervisory biologist for our Pacific Islands Fish and Wildlife Office. "Without these partners, species dependent on private lands would continue to decline and could vanish from the natural and cultural landscape of Hawaiʻi. By aligning conservation goals with private interests, we help ensure these places and species endure for generations. The endemic species of Hawaiʻi are *'ohana* (family), and caring for them is our shared responsibility." □

Service Recognizes Naval Base Ventura County for Excellence in Natural Resource Conservation

The Service honored Naval Base Ventura County as the recipient of the 21st Annual Military Conservation Partner Award in recognition of the installation's commitment to conservation.

"The U.S. Fish and Wildlife Service is proud to support the readiness and excellence of the U.S. military. In addition, military lands and waters provide some of the best habitat in our country. Naval Base Ventura County is an outstanding example of the conservation contributions that military installations make across the nation," Service Pacific Southwest Regional Director Paul Souza said at the award ceremony in January. "Their leadership on environmental initiatives demonstrates that conservation and military training can complement each other."

Each year, the Military Conservation Partner Award is presented to a military installation whose efforts represent significant conservation accomplishments achieved in partnership with the Service and other conservation agencies.

"Receiving this recognition from the U.S. Fish and Wildlife Service is a tremendous honor for the entire Naval Base Ventura County team," said Captain Daniel W. Brown, Naval Base Ventura County's commanding officer.



The base partnered with the U.S. Army Corps of Engineers to create cost-effective beach resiliency designs to protect habitat for the western snowy plover. (PHOTO BY PETER PEARSALL/USFWS)

"It's a testament to the hard work and dedication of our Natural Resources Conservation Team and our strong partnership with the U.S. Fish and Wildlife Service. We are deeply committed to our mission, and that includes being responsible stewards of the incredible resources entrusted to us."

Located approximately 65 miles north of Los Angeles, Naval Base Ventura County is composed of three major operating facilities at Point Mugu, Port Hueneme, and San Nicolas Island, which provide airfield, seaport, and base support services to fleet operating forces and shore activities.

Naval Base Ventura County has some of the highest quality habitat in California including the largest remaining coastal salt marsh estuary in Southern California.

In addition to supporting and executing the mission of the Department of the Navy, the base's Natural Resources Program coordinates with the Service, the National Oceanic and Atmospheric Administration's Fisheries, and California Department of Fish and Wildlife to implement the goals and objectives in three Integrated Natural Resource Management Plans. These guidance plans detail nature-based solutions and emerging technologies to both improve the ecosystem and ensure mission resiliency.

To accommodate their mission critical operations, Naval Base Ventura County Point Mugu and the U.S. Army Corps of Engineers entered into a first-of-its-kind agreement to proactively restore wetlands for possible future use as mitigation bank. Habitats restored in advance will allow the Navy to maintain or increase valuable wetland areas and conserve species while also supporting mission requirements.

Through the Military Conservation Partner Award, the Service applauds the base's use of wetland mitigation banking to secure quality wetland habitats for listed and native species on base while providing mission flexibility on base, and their creative nature-based solutions to improve ecosystem and mission resiliency for Mugu Lagoon. The base also partnered with the U.S. Army Corps of Engineers to create cost-effective beach resiliency designs to protect habitat for federally protected species like California least tern and western snowy plover and ensure mission readiness and infrastructure stability. Additionally, the base has implemented innovative biosecurity strategies, employed emerging technologies for island night lizard and island fox recovery, and collaborated with partners outside of the base to support range-wide efforts for species conservation. □

One Giant Leap for Toad-Kind: Reintroductions and Habitat Restoration Improve the Odds for Houston Toad



On a sprinkling morning in April, Service biologists helped carry 170,000 eggs to the edge of a small pond.

The eggs belong to the Houston toad, and the pond is one of three sites where the Service and other conservation partners are working to save the species by reintroducing 3 million eggs in 2026.

The Houston toad, one of the first amphibians federally protected as endangered, is found only in Bastrop County, Texas. Luckily for this small, brown amphibian, the Service is working with local landowners; Texas Parks and Wildlife Department; Houston, Fort Worth, and Dallas zoos; the Amphibian and Reptile Conservancy; and others to help secure its future.

The Houston toad was one of the first amphibians federally protected as an endangered species. (PHOTO BY PAIGE NAVJAR/USFWS)

Houston Toad, We've Had a Problem

After a Houston toad tadpole metamorphizes into a mature toad, it ventures up to three miles to burrow in deep, sandy, loblolly pine forest soil. Every year, it returns to the ponds to reproduce. Habitat loss disrupted this lifecycle, leading to its endangered listing. To make up for this, conservationists have been working with captive-breeding populations to produce eggs for reintroduction. With an abundance of eggs in hand, a new problem emerged.

Houston toad dispersal into forests and between ponds requires a clear understory. Dense bush species like yaupon holly and eastern red cedar, and the spread of non-native, mat-forming grasses have divided large, continuous habitats into smaller, isolated fragments. These barriers can prohibit Houston toad dispersal, reducing breeding opportunities with other populations and limiting genetic exchange.

"Reintroducing eggs to suitable habitat that is in close proximity to other populations is very challenging," says Hannah Gilbreath, a Service biologist with the Austin Ecological Services Field Office. "If we can get more eggs out on the landscape and create connectivity between populations, that would improve the species health and viability into the future."

Have Habitat, Will Travel

Because the majority of known and potential toad habitat within Bastrop County exists on private property, partnership with landowners is essential. Landowners within the toad's range are helping contribute to this connectivity, and the Service's Partners for Fish and Wildlife Program sits at the heart of this effort.

The program provides free technical and financial assistance to landowners interested in improving wildlife habitat on their land. Typical Houston toad habitat restoration includes mechanical mulching of thickets to open the

understory followed by targeted herbicide treatment to control resprouting. These projects allow native bunchgrasses and forbs to return, creating an open understory the toads can safely navigate.

"We are deeply grateful to the dedicated private landowners and conservation partners who make Houston toad recovery possible," says Partners Program Texas State Coordinator Cyndee Watson. "Their commitment is helping this rare species reclaim its place on the landscape and ensuring it can be appreciated by future generations."

Private landowners can also support recovery by enrolling into a cooperative agreement with the Texas Parks and Wildlife Department under its Programmatic Houston Toad Safe Harbor Agreement with the Service. Safe Harbor Agreements (now called Conservation Benefit Agreements) help recover threatened and endangered species and protect private property rights. The Houston Toad Safe Harbor Agreement is a voluntary cooperative agreement that helps landowners meet their own land management goals while participating in conservation efforts through maintenance, restoration, or enhancement of habitats for the benefit of the toads and other species. This program is actively enrolling new cooperators and has enrolled 2,600 acres to date. »

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Failure is Not an Option

For two decades, Houston toad partnership efforts have produced over a million eggs a year for reintroduction to conserve this species and connect populations. In 2026 alone, 3 million eggs were reintroduced, including to a new site that increases the toad's presence in key areas for recovery.

One of the objectives outlined in the Houston Toad Recovery Plan is to conserve enough suitable habitat for the Houston Toad to self-sustain its population. This can only happen when there is habitat connectivity between population centers.

"Strengthening local relationships and restoring habitat is where we're focusing our efforts," says Gilbreath. "More egg reintroductions and habitat restoration work are how we're going to help this species recover."

Recently, a single male Houston toad was detected on private property where the Partners Program provided technical and financial assistance to restore habitat, showing how a small step in recovery efforts can transform into a giant leap for the Houston toad. □

MARK MAHMOD, National Wildlife Refuge System, Southwest Region, and JACOB OGDEE, Partners for Fish and Wildlife, Southwest Region

A Mission of Mapping

Maps are one of the most fundamental tools we use to guide decisions about our environment, and for over 50 years, the Service's National Wetlands Inventory Program has risen to the challenge of mapping the most dynamic ecosystems on the planet. These maps help conserve species and keep our communities safe and prosperous.

Mapping wetlands is often challenging because their appearance can change dramatically over time. Imagine the water in a river or even a small stream: In the spring it often flows generously to the top of its banks, but in the fall, it may taper to a gentle crawl – or even disappear. Such is true for the many wetlands with dynamic water levels, making them a moving target when it comes to designating a geographical boundary. Yet, the National Wetlands Inventory Program has been tasked, since 1974, with doing just that.

The program works with partners, such as nonprofits, universities, companies, and other government agencies, to employ the best available mapping approaches to accurately inventory wetland area, location, type, and trends across the entire United States and its territories. These partnerships enable production of America's most spatially and categorically detailed wetland geospatial dataset (i.e., maps) and an unbroken historical recording of wetland change that goes back hundreds of years in the form of Wetlands Status and Trends reports.

This foundational scientific information produced by the program fuels strategic decision-making essential for meeting today's most important environmental and logistical challenges. It is available to everyone from government agencies to private sector organizations to individuals. It is relied on to conserve plants, fish, and wildlife; keep communities healthy and safe; and supercharge the economy.

Ultimately, the reasons people depend on the data are tied to the numerous benefits wetlands provide.

One such benefit is the reduction of impacts from natural disasters, like floods, droughts, storm-surge, and wildfires.

- Wetlands absorb floodwaters, which often cause the most significant damage from hurricanes and other severe storms, and further protect communities by dampening the destructive power of storm waves. In this way, they save tens of billions of dollars annually in damage to U.S. coastal communities.

- During droughts, wetlands hold water on the landscape, allowing it to recharge groundwater that people rely on for drinking and irrigation.

- Wetlands serve as natural fire breaks, protecting people by slowing down the spread of wildfires.



Wetlands also add value to our lives through outdoor pursuits, which include hunting, fishing, boating, nature photography, hiking, birding, and wildlife observation. A 2022 survey conducted by NORC at the University of Chicago found that approximately 57% of U.S. residents (16 or older) participated in wildlife watching in a single year. During the same period, roughly 15% engaged in fishing and 6% hunted. »



Fishing is just one outdoor pursuit wetlands support. (PHOTO BY WHITNEY KROSCHER/USFWS)

data fused together through artificial intelligence. These new workflows produce more accurate wetlands data.

Wetland products are also easier to leverage. People once ordered hard copy maps by making a phone call. Now a searchable digital dataset can be automatically streamed to your applications through web map services. Throughout this progress, the program has been a dedicated partner, ensuring that the quality and consistency of America's authoritative wetlands information is maintained for the benefit of all. □

WHITNEY KROSCHER, National Wetlands Inventory Program

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While those percentages may not sound significant, their contribution to the economy packs a punch. The survey found that outdoor enthusiasts spent an estimated \$394 billion on hunting, fishing, and outdoor activities in a single year.

As our society and culture has advanced over the past 250 years, so has our understanding of wetland ecosystems and their value to us, both as individuals and as a society. Wetlands were once ditched and drained in mass, but now the Service and its

partners work to restore wetland habitats to protect species and communities. Scientific data from the National Wetlands Inventory Program catalyzed this shift toward wetland conservation.

Just as society's understanding and appreciation of wetlands have evolved through time – so has the information produced by the program. Wetlands were once drawn by hand on mylar overlays, but the program and its partners now employ a wide range of data inputs and automated workflows, including synthetic aperture radar, LiDAR, and fine resolution multispectral



ON THE WEB

Take a first step toward conserving wetlands and supporting your community by accessing the easy-to-use [Wetlands Mapper](#) and learning more about wetlands near you.



A bald eagle in flight at
Kodiak National Wildlife
Refuge in Alaska. (PHOTO BY
STEVE HILLEBRAND/USFWS)

250 Years *of* CONSERVATION

[On July 4, 2026, the United States marked 250 years since the signing of the Declaration of Independence. For those 250 years, Americans have depended on wild lands, clean water, and abundant wildlife. The U.S. Fish and Wildlife Service helps make those things possible.]



SERVICE FLIES FLAGS ACROSS AMERICA

As part of our contribution to United States' 250th anniversary celebration, the Flags Across America initiative is connecting history, conservation, and community.

Beginning in September 2025, commemorative flags visited Service-managed lands throughout the country, culminating in a stop at the Department of the Interior.

We have been sharing stories from the places where the flags traveled and will continue through 2026. From historic hatcheries to vibrant refuges, each stop celebrates conservation as an enduring American value.

Here are a couple of our flag stories, and photos from some of the flag visits. Find the full archive (expanding throughout 2026) of [Flags Across America stories](#).

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White Sulphur Springs National Fish Hatchery

The flags' journey began at the hatchery in West Virginia in September 2025. Established in 1902 in the town of the same name, this historic hatchery was built to address declining fish populations. Here, hatchery workers Savannah Weikle and Izzi Anderson display the Betsy Ross flag. (PHOTO BY CAREY EDWARDS/USFWS)



Bosque del Apache National Wildlife Refuge

The flags weren't the only things flying at the refuge in New Mexico when they visited in December 2025. The refuge is well known for the tens of thousands of cranes, geese, and ducks that winter there. (PHOTO BY BERNARD LUJAN/USFWS)



Marquette Biological Station

With a visit to the station in Michigan, the flags highlighted the station's role in restoring the Great Lakes fishery through sea lamprey control. (PHOTO BY KATIE O'BRIEN/USFWS)



Garrison Dam National Fish Hatchery

The Missouri River's Garrison Dam, which provides both power and flood control, was completed in 1953. The hatchery in North Dakota was established in 1961 to give local fisheries a hand, and it still plays an important role in providing quality fishing opportunities in North Dakota and throughout the Great Plains. (PHOTO BY USFWS)



Neosho National Fish Hatchery

In February 1871, the newly created U.S. Commission of Fish and Fisheries (forerunner of the U.S. Fish and Wildlife Service) began investigating a noticeable decline in fish stocks. One solution was establishing fish hatcheries across the nation to stock lakes, rivers, and streams. In 1888, it chose the Ozark Mountain region to contribute to this broader effort, leading to the creation of Neosho National Fish Hatchery, the oldest continuously operational federal fish hatchery. (PHOTO BY NATHAN ECKERT/USFWS)



Tualatin River National Wildlife Refuge

Located just outside Portland, Oregon, the refuge lets people escape the bustle of urban life, recharge in the comfort of nature, and experience some of the most abundant and varied wildlife in the Pacific Northwest. (PHOTO BY CHELSEA MCKINNEY/USFWS)



Great Swamp National Wildlife Refuge

The refuge rests just 26 miles west of New York City's Times Square, yet it feels worlds away. It provides an oasis where visitors may interact with the natural environment through hunting, photography, hiking, birding, and even an auto tour. (PHOTO BY ALISON SCHWARTZ/USFWS)



Guam National Wildlife Refuge

The refuge was established in 1993 and designated as critical habitat in 2004 for three of the six native species that had been listed as endangered in 1984: the fanihi (Mariana fruit bat), sihek (Guam kingfisher), and āga (Mariana crow). (PHOTO BY BRIAN LEON GUERRERO)

Pelican Island National Wildlife Refuge

Originally established in 1903 to protect the last remaining brown pelican rookery on Florida's east coast, the refuge – the first national wildlife refuge in the United States – now provides feeding, nesting, and roosting habitat for more than 130 species of birds and threatened species, including the southeastern beach mouse. (PHOTO BY DICK THIBEAULT)



Tishomingo National Fish Hatchery

Tishomingo National Fish Hatchery in Oklahoma, where the flags visited in April 2026, raises paddlefish and alligator gar, two of the largest freshwater fish in the United States. (PHOTO BY EVAN MONNETT/DOI)



Vieques National Wildlife Refuge

The refuge is considered one of the most ecologically diverse wildlife refuges in the Caribbean and is the largest national wildlife refuge in the Caribbean. (PHOTO BY MIKE BARANDIARAN/USFWS)





Detroit River International Wildlife Refuge

The only international wildlife refuge in North America, the refuge is located along the lower Detroit River and western shoreline of Lake Erie – just 20 miles south of Detroit, Michigan. (PHOTO BY MARK MESSER/USFWS VOLUNTEER)



Makah National Fish Hatchery

The hatchery raises and releases fall Chinook salmon, coho salmon, and winter steelhead for the Tsoo-Yess River, primarily to support critical cultural and economic resources with the Makah Indian Tribe as part of U.S. treaty obligations.

(PHOTO BY JERRIQ JOHNSON/BIA WATERCORP INTERN)



Bear River Migratory Bird Refuge

In 1928, the refuge was created by Congress to serve as a resting, feeding, and breeding grounds for migratory waterfowl.

(PHOTO BY ERIK HABERSTICK/DOI USWFS)

Willow Beach National Fish Hatchery

The hatchery in Arizona serves tribal partners and the public by annually raising a minimum of 100,000 rainbow trout — each 10 to 12 inches long — and stocking waters of the Lower Colorado River Basin on tribal lands and spots below the Hoover and Davis dams. Anglers can then test their skill against the fish. It also raises native at-risk razorback sucker and bonytail chub. (PHOTO BY KRAIG RUEBUSH/USFWS)



Northern Alaska Fish and Wildlife Field Office

Based in Fairbanks, and in collaboration with Utqiavik (Barrow) Satellite Office, the office works with others to deliver conservation over approximately 338 million acres of Alaska. (PHOTO BY MATT SPRAU/USFWS)



Lahontan National Fish Hatchery Complex

In the high desert of western Nevada, beneath the shadow of the Sierra Nevada Mountains, Lahontan National Fish Hatchery Complex stands at the heart of one of the most remarkable native fish recovery efforts in the country. There, the flags were welcomed into the home of the iconic Pilot Peak strain Lahontan cutthroat trout. (PHOTO BY ROBYN CARLO/USFWS)





Innovation in the Gallatin Valley

The flags journey to Bozeman Fish Technology Center. | *By* SUE KERVER

In the heart of Montana's Gallatin Valley, Bozeman Fish Technology Center combines breathtaking mountain views with cutting-edge aquatic research. With Bridger Creek flowing through the property, and Gallatin National Forest hiking trails nearby, the center offers a setting where science and nature intersect.

The facility began as Bozeman National Fish Hatchery in 1892, producing fish to serve Montana and neighboring states with trout for stocking waterways to support the area's burgeoning recreational fishing industry. Trout production ceased in 1966 when the hatchery was designated as a Fish Cultural Development Center and, over time, the center evolved into a place where innovative research is the cornerstone of the mission and the work.

Bozeman Fish Technology Center's mission is to advance science-based conservation and management of aquatic resources through pioneering practices. As one of six Fish Technology Centers within the Service's Fish and Aquatic Conservation Program, the center provides technical assistance to national and state fish hatcheries, tribal programs, and conservation organizations to restore sensitive species and ensure healthy fisheries. Also housed with Bozeman Fish

Technology Center is Bozeman Fish Health Center, which provides diagnostic services, inspections for fish transport, and nationwide fish health monitoring through the National Wild Fish Health Survey Program.

Co-located with Bozeman Fish Technology Center, the unique Aquatic Animal Drug Approval Partnership (AADAP) Program is the only program in the United States that is singularly

Work at Bozeman helps ensure native fish populations across the Northern Rockies and Great Plains, like Yellowstone cutthroat trout, thrive.

(PHOTO BY JAY FLEMING/NPS)



(Left) A historic view of Bozeman National Fish Hatchery. (PHOTO BY USFWS)

(Above) Flags fly at the Bozeman Fish Technology Center. (PHOTO BY MOLLY WEBB/USFWS)

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dedicated to obtaining U.S. Food and Drug Administration approval of medications needed for use in fish culture and fisheries management. The Service's AADAP scientists conduct research to support aquatic animal drug approvals and administer the National Investigational New Animal Drug Program. Under specific conditions, this program allows fisheries professionals – including state, tribal, private industry, academic, and other federal partners nationwide – to use certain medications while they are undergoing FDA review. This includes essential medications such as treatments for disease and parasites, anesthetics, and spawning aids that cannot otherwise be legally accessed. In addition, AADAP provides the U.S. aquaculture community with up-to-date information on the status, availability, and guidance for use of aquatic animal

medications to ensure that they are safe, effective, and legal for aquaculture and fisheries management.

“The AADAP Program is a cornerstone in fisheries management, providing fisheries professionals legal access to medications under AADAP’s Investigational New Animal Drug Program,” says Bonnie Johnson, who has been working at AADAP since 1998. “This is important because it helps us maintain fish health in hatcheries and within other conservation programs.”

The advanced Bozeman Fish Technology Center also focuses on projects related to conservation physiology, fish nutrition, fish passage, and sensitive species conservation. Scientists study everything from spawning requirements of endangered fish to developing plant-based diets for aquatic species, which, in turn, reduces the reliance on ocean forage fish. The center also investigates fish

passage and screening, using a state-of-the-art open-channel flume used to study fish swimming and leaping abilities and swimming chambers to understand how species navigate barriers. Equipped with high-definition cameras and PIT tag systems, researchers simulate real-world conditions and design better fish passage solutions. These efforts inform habitat restoration and connectivity projects across the Northern Rockies and Great Plains, ensuring native fish populations, like pallid sturgeon, Westslope cutthroat trout, Arctic grayling, and Yellowstone cutthroat trout, thrive. □

SUE KERVER, National Conservation Training Center

WAR and PEACE (and Birds)



Battle of Midway veterans Col. John F. Miniclier and Sgt. Edgar R. Fox are honored during Midway Atoll during 75th Anniversary of Battle of Midway Commemoration in 2017.

(PHOTO BY USFWS)

Midway Atoll National Wildlife Refuge: 'A great monument to the people who passed here' and a haven for native wildlife

By MATT TROTT

The Battle of Midway was one of the most decisive battles of World War II, so Midway Atoll National Wildlife Refuge made a great and historic stop for the flags. Before 2025 ended, the flags arrived and were posted on the refuge.

From 1941 until 1993, Midway housed a military base. It became a full-fledged national wildlife refuge in 1996, and in 2000 Midway Atoll National Wildlife Refuge was designated the Battle of Midway National Memorial.

Over three days, from June 4-7, 1942, American forces laid their lives on the line against a Japanese attack at the Battle of Midway. They triumphed against seemingly impossible odds during a battle in which the Americans were outnumbered and outgunned.

Six months before that, in the wake of Pearl Harbor, Japan attacked Midway on Dec. 7, 1941. Heroism and sacrifice fended off the enemy. First Lieutenant George Cannon, who died from wounds suffered then, was the first Marine to earn the Congressional Medal of Honor in WWII.

Midway now rings with the sound of birds, not battle. Nearly 3 million birds nest on Midway Atoll throughout the year, including the world's largest population of albatrosses – Laysan, black-footed, and short-tailed – as well as many other seabird species. In fact, one Hawaiian name for Midway Atoll is Pihemanu, which means “the loud din of birds.”

One of those Laysan albatrosses is Wisdom, perhaps the world's most famous bird and definitely its oldest known wild bird, at an approximate age of 75. She's estimated to have produced 50-60 eggs and 30 chicks that fledged in her lifetime. »

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Marine Sgt. First Class Edgar R. Fox and Col. John F. Miniclier both fought in the battle and found the birds wonderful when they visited the refuge in 2012.

Referring to the abundance of birds, “Maybe it’s a symbol of an era of peace,” said Sgt. Fox then. In June 2022, he returned to Midway as an honored guest at the 80th anniversary of the Battle of Midway ceremonies at the refuge and at the National Memorial Cemetery of the Pacific. Sgt. Fox died in 2024.

Col. Miniclier, who died in 2025 and was the last survivor of the Battle of Midway, added, “I think what’s happened here is pretty spectacular.”

Midway Atoll’s islands are attractive to birds because they provide a virtually predator-free haven for the nesting colonies. It wasn’t always so.

Rats, for instance, were major problems. Whether hitchhiking with the first Polynesian explorers, guano traders, or military vessels, rats found their way to the islands.

Once there, they ate whatever was available from bird eggs and insects to plants and seeds. With no native predators in Hawai’i and the Pacific Islands, nesting seabirds have lost behavioral adaptations to defend themselves against predators, so the invader rats threatened Midway’s native species.

The U.S. Navy funded a rat eradication project in 1995, and we worked with the U.S. Department of Agriculture (APHIS-Wildlife Services) to eradicate rats. Midway was declared rat-free in 1996.

Refuge staff has also been dealing with invasive plants, removing non-native plants and stabilizing areas with native species. The endangered loulou palm and pōpolo have been reintroduced. Ironwood trees and golden crownbeard have been mostly removed, but many other invasives remain.

The work paid off for Sgt. Fox, who returned to the refuge numerous times to honor the heroism and sacrifice of those who fought in the battle.

“I really can’t think of a better use of the place,” he said in 2012. “The refuge is a great monument to the people who passed here.” □

MATT TROTT, Office of Communications, Headquarters



(Top) Sgt. Edgar R. Fox smiles among Midway Atoll residents and guests of the 77th Battle of Midway Anniversary.

(PHOTO BY USFWS)

(Bottom) Flags fly at Midway Atoll National Wildlife Refuge. (PHOTO BY

DANIEL RAPP/USFWS)



A Very American Bird

Why the bald eagle is
our national symbol.

By ERIN HUGGINS

As the United States celebrates 250 years of independence in 2026, one symbol rises above the rest. A bird that is fierce, feathered, and was almost lost to history.

The Freedom 250 celebration invites us to reflect on our nation's journey: where we've been, what we've protected, and who we've become. No story captures that narrative better than the bald eagle.

Nearly wiped from the skies of the lower 48 states, the bald eagle staged a comeback that's a classic American tale of resilience. It's a reminder that our values of freedom, strength, and determination are part of the fabric of this great nation.

The Origin of a Symbol

Back in 1782, as the newly formed United States sought national emblems, the bald eagle checked every box. It was a species native to North America, undeniably impressive, and had the kind of intense stare that demanded respect or at least personal space.

The bird soon appeared on the Great Seal of the United States, gripping arrows and an olive branch with the phrase "*E pluribus unum*," which in Latin means "Out of many, one." The phrase has 13 letters, symbolizing the original 13 colonies that united to form a single nation.

As the country expanded westward, so did the eagle's legend. It became more than a bird. It became the embodiment of

Estimates for the bald eagle population in the lower 48 states, based on data from 2018 to 2019, total 316,700 individuals, including 71,467 breeding pairs. (PHOTO BY

PETER PEARSALL/USFWS)

the republic, and it ruffled some feathers along the way.

Benjamin Franklin famously called the bald eagle "a bird of bad moral character." But the bald eagle wasn't chosen for its politeness, it was chosen for its presence.

The Fall: How Did We Almost Lose the Bald Eagle?

By the early 1900s, the outlook for bald eagles began to look grim. They were shot, trapped, poisoned, and displaced. Eagles were often seen as threats to livestock and fisheries, and there weren't



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any protections in place to stop the killings.

It wasn't until the 1940s and 1950s that the baldies population truly collapsed. The culprit? Dichlorodiphenyltri-chloroethane, more commonly known as DDT, a pesticide widely used after World War II. When DDT entered the food chain, it didn't kill eagles directly, but it did make their eggs too fragile to survive incubation.

Bald eagle numbers nosedived. By 1963, there were just 417 known nesting pairs left in the lower 48 states. In some areas, entire generations failed to hatch. This was more than a conservation crisis, it was a failure of our identity as a nation. The country's defining symbol was possibly slipping toward extinction, and we needed action.

The Rise: How Did We Save the Bald Eagle?

What followed is one of the greatest wildlife recoveries in American history.

- In 1967, the bald eagle was protected under the precursor to the Endangered Species Act.
- In 1972, DDT was banned in the U.S.
- In 1973, the Endangered Species Act became law, offering new protections and funding for eagle recovery.

(Above) Two bald eagles at Seedskaadee National Wildlife Refuge in Wyoming. (PHOTO BY TOM KOERNER/USFWS)
(Right) In 1782, Charles Thomson, the Secretary of Congress, created this preliminary sketch of the Great Seal of the United States. (PHOTO BY NATIONAL ARCHIVES)

The Service and partners launched nationwide conservation efforts: monitoring nests, reintroducing eagles to historic ranges, and protecting critical habitats.

Biologists carefully transported eaglets to places where wild pairs had vanished. Citizens and communities got involved by reporting nest sightings and pushing for stronger protections. And it worked!

By 2007, the bald eagle had recovered enough to be removed from the federal endangered species list. Today, there are more than 71,000 nesting pairs in the lower 48 states.

Why This Recovery Matters

The bald eagle reminds us about what it means to take responsibility for the things we treasure. Symbols are easy to claim, but they're harder to protect. The recovery of this bird shows that conservation is in our roots. Our nation's history is about honoring the habitats and species that helped shape our country. Even when the odds seemed stacked against success, we came together as communities and as a nation to bring back our national symbol.

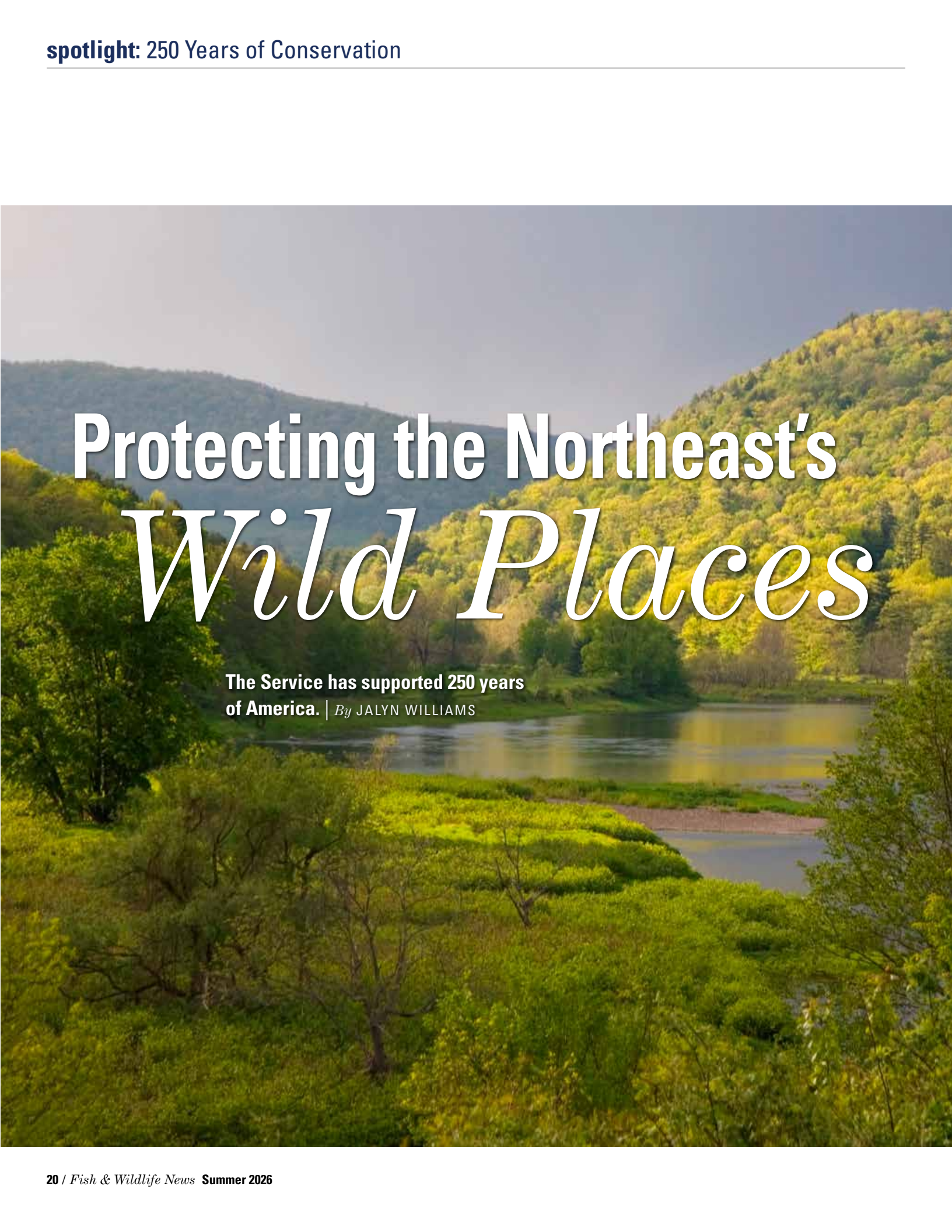


The bald eagle's story is ultimately a story about us. It's about what we value and what we choose to leave behind for future generations.

Still Soaring

The next time you see a bald eagle, perched high in a tree, sitting on a nest, or diving for fish, never forget that this bird was almost lost in many parts of the United States. We didn't let that happen and that's something to celebrate. □

ERIN HUGGINS, Department of the Interior



Protecting the Northeast's *Wild Places*

The Service has supported 250 years
of America. | *By* JALYN WILLIAMS

From the swamplands of Great Dismal Swamp in Virginia and North Carolina to the rocky shores of Petit Manan in Maine, it's clear that America's wild places contribute largely to its national identity. Our commitment to protecting these natural features is equally important.

Less than 100 years after the founding of the United States came the creation of the U.S. Commission of Fish and Fisheries — the nation's first conservation agency and forerunner of the U.S. Fish and Wildlife Service.

Today, we're the only agency in the federal government whose primary responsibility is conserving and managing fish, wildlife, plants, and their habitats for the American people.

But how, exactly, do we do that?

We do it through hard work, innovation, collaboration, and, above all, the belief that we must conserve this country's beauty for future generations.

Here are nine ways we in the Northeast conserve the natural resources that sustain us and the natural heritage that defines us.

1) We restore habitats for endangered and threatened wildlife that enrich our natural heritage.

From the smallest turtle in North America (bog turtle) to one of the longest-distance migrators in the bird world (rufa red knot), federally threatened and endangered species are natural treasures. That's why we rely on partners to help us recover these species across their ranges, including by conserving and restoring habitat.

These actions often have positive impacts for other species, including people. For example, the Service has worked for more than a decade to restore habitats in the James River watershed for the endangered James spiny mussel. Both habitat restoration and reintroductions of the mussels improve water quality for the people who live and work in nearby communities.

2) We conserve coastal habitat for wildlife and people.

Along the Atlantic Coast, salt marshes provide nursery habitat for shellfish and game fish, and function as nesting areas for birds like the declining saltmarsh sparrow. They also protect coastal communities from excessive storm events.

But historical alterations and sea level rise threaten these important landscapes with flooding. To restore them to health, we help private landowners install runnels to drain standing water and promote revegetation.

3) We breed the fish you catch.

Working closely with state partners, the National Fish Hatchery System raises fish at hatcheries around the country for reasons ranging from recovering federally protected species to enhancing sports fisheries. If you go fishing and catch a brook trout, lake sturgeon, or Atlantic salmon, it may have come from a hatchery we manage. »

The Delaware River watershed is one of many landscapes the Service protects for wildlife and people. (PHOTO BY USFWS)

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4) We manage invasive aquatic species to protect the native ones.

Our scientists at the Northeast Fishery Center take samples from bodies of water and analyze them for environmental DNA — from a fish's shed scales, feces, or other secretions — to identify each species present when the sample was taken. By comparing eDNA samples to those of native species, we can detect the presence of invasive species and combat their spread early, before they outcompete the native species we love.

5) We work with partners to protect habitat for migratory birds and improve life for Americans.

Through our Migratory Bird Program, we distribute North American Wetlands Conservation Act grants. By funding American projects that support long-term protection and restoration of wetland habitats that benefit all wetlands-associated migratory birds, the grant program sustains migratory bird populations and provides myriad natural benefits, such as clean drinking water, flood protection, increased public access, and improved outdoor sporting opportunities.

Since 1991, the grant program has provided more than \$7 billion for more than 3,400 projects, conserving nearly 33 million acres of habitat in all 50 U.S. states, Canada, and Mexico.

6) We prevent wildlife trafficking and exploitation through the illegal pet trade.

To protect our native ecosystems, our wildlife inspectors, special agents, and partner agencies diligently work to stop the smuggling of live wildlife such as primates, rare parrots, and reptiles. We disrupt illegal markets that threaten



native populations and their ecosystems by targeting these crimes for prosecution, through vigilant enforcement at ports of entry, land borders, and international mail facilities, as well as investigating criminal networks involved in the illicit trade.

Our efforts are essential in protecting native wildlife populations, preventing spread of diseases that pass from wildlife to people — which endangers public health — and the introduction of invasive species, which could severely harm our native flora and fauna and disrupt the country's ecological balance. This work protects vital habitats, supports biodiversity, and upholds the integrity of America's wildlife, ensuring the nation's natural heritage is preserved for future generations. »



(Top) Installing window decals as was done at this UMass Amherst building can protect migratory birds by preventing collisions. (PHOTO BY BRIDGET MACDONALD/USFWS)
(Bottom) Staff at Craig Brook National Fish Hatchery sorting and scanning pit tagged Atlantic salmon males and using a genetic matching program to determine which bowl of eggs to fertilize. (PHOTO BY VALERIE KEARNY/USFWS)

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7) We conserve and restore American landscapes.

The Chesapeake Bay watershed, the Delaware River watershed, and the Highlands region are celebrated Northeast landscapes that support communities, working lands, and wildlife. We support partnerships and funding programs that keep these landscapes healthy and intact by conserving and connecting key parcels. For example, through the Highlands Conservation Act Grant Program, we've worked with states and municipalities to permanently protect 19,000 acres of land in Pennsylvania, New Jersey, New York, and Connecticut to provide clean water, wildlife habitat, outdoor opportunities, and more.

8) We teach people to fish and hunt.

Our beginner-friendly fishing derbies and mentored hunting programs introduce these sports to community members interested in learning how they can actively engage with nature. The First Shot mentored deer-hunting program at Blackwater National Wildlife Refuge in Cambridge, Maryland, is designed for adults who lack the network to learn to hunt or want to re-engage with the sport after long hiatuses. It pairs mentees with experienced mentors, offering guidance on everything from scouting and species biology to field dressing and cooking. Unlike a one-day guided hunt, First Shot serves as a steppingstone, empowering participants to build the confidence and skills needed for independent hunting.

9) The National Wildlife Refuge System permanently protects places that benefit fish, wildlife, plants, and people, too!

In the Northeast alone, we manage 74 national wildlife refuges that provide a



place for people to escape life's pressures.

A connection with nature, through hiking, fishing, camping, hunting, or simply playing outside, promotes mental health and helps people develop positive attitudes and behaviors toward the environment. Positive interactions with the environment can lead to a life-long interest in enjoying and conserving nature.

Through our conservation work, we ensure that America's natural heritage will endure another 250 years and beyond, enriching the lives of all Americans. □

JALYN WILLIAMS, Office of Communications,
Northeast Region

This "Fabulous Foursome" of female hunters participated in the First Shot Program at Blackwater National Wildlife Refuge... to impressive results!

(PHOTO BY MARCIA PRADINES/USFWS)



ON THE WEB

Find your local [National Wildlife Refuge](#).

Red, White, Blue & POLLINATING

How Are Pollinators Connected to the American Flag? | *By* MARA KOENIG

The American flag's red, white, and blue are more than just symbols of freedom – they're also found in the wings, feathers, and bodies of some of our most vital pollinators. From the fiery red of the 'I'iwi in Hawai'i to the snowy wings of the white-winged dove and the shimmering blue of the Karner blue butterfly, the colors on these creatures dazzle with patriotic colors, while the critters themselves play essential roles in sustaining our lands across this great nation. Let's explore how these colorful species reflect the spirit of the nation while reminding us of the importance of conservation. As we celebrate America's 250th birthday, let's also commit to protecting the habitats and ecosystems that allow these living symbols of freedom to thrive.

A rufous hummingbird in flight.
(PHOTO BY JACOB MCGINNIS/CC BY-NC 2.0)

Red | COLOR OF VALOR AND BRAVERY

Red Admiral



This large and strong-flying butterfly is one of the most commonly found butterflies in the United States. They aren't picky where they live, only requiring the use of any plant member in the nettles family (*Urticaceae*) as their host plant to raise their larvae, also called caterpillars. They flash vivid orange-to-red stripes as they fly, reminding us of old glory unwavering in the wind.

(PHOTO BY [JUDY GALLAGHER/CC BY 2.0](#))

Rufous Hummingbird



This fiery little bird migrates thousands of miles from Mexico to Alaska, flashing coppery-red feathers as it pollinates native flowers along the way. Despite being some of the smallest birds in the world, weighing less than a marshmallow, they fly at speeds up to 30 miles per hour. Its freedom of movement and endurance is a fitting representation of Americans.

(PHOTO BY [TOM BENSON/CC BY-NC-ND 4.0](#))

'I'iwi



A brilliant red Hawaiian honeycreeper, the 'I'iwi is a striking symbol of the unique natural beauty found throughout the islands. Its curved bill helps it drink sweet juice from special tube-shaped native flowers, like 'ōhi'a, hāhā, and 'ōhāwai. Once common, this bird now faces serious threats from habitat loss and avian malaria. Its story mirrors the broader challenges that pollinators are facing across the United States and reminds us that protecting them is not just about biodiversity, it's also about preserving the spirit of resilience that defines our nation.

(PHOTO BY USFWS)

Red-Belted Bumble Bee



This bumble bee is known for its variable color pattern of red bands on its abdomen. It is a small, short-haired bumble bee that is best known for living at open sites in the northern and the western mountains. It reminds us that even the smallest creatures can have a big impact, echoing the ideal of hard work.

(PHOTO BY [HEATHER HOLM](#))

White | COLOR OF PURITY AND INNOCENCE

Yucca Moth



The yucca moth and the yucca plant share one of nature's most iconic mutualisms. Mutualism is an interaction between two or more species where each benefit from their relationship. These pale moths pollinate yucca flowers while laying their eggs inside them. The larvae feed on some of the seeds, but enough remain to ensure the plant's reproduction. It's a delicate balance of give and take – an elegant metaphor for interdependence.

(PHOTO BY [ANDY REAGO AND CHRISSY MCCLARREN/CC BY 2.0](#))

All-Pale Fairy Bee



This tiny and nearly translucent, delicate bee prefers sandy sites that supply a lot of pollen from host plants such as prairie clover and goldenrod. Its pale coloring helps it blend into sandy environments. Living in these harsh places, the all-pale fairy bee represents adaptability, a trait that is woven deep in the American story of survival and innovation.

(PHOTO BY [HEATHER HOLM](#))

White-Striped Black Mason Wasp



This wasp features bold white stripes on a black body. You might catch a glimpse of this solitary wasp drinking from nectar-rich flowers like goldenrods and snakeroots. It can be found in the eastern United States from mid- to late summer. By building its own nest that consists of mud chambers, they reflect the American value of craftsman spirit — a nod to both artisan and entrepreneurial innovation.

(PHOTO BY [JUDY GALLAGHER/CC BY 4.0](#))

White-Winged Dove



With its soft gray plumage and distinctive white wing patches, the white-winged dove is more than a desert songbird, it's also a pollinator. In the American Southwest, this dove plays a crucial role in pollinating the saguaro cactus by transferring pollen as it feeds on nectar. Its gentle cooing and graceful flight evoke peace in arid landscapes.

(PHOTO BY [RICK CAMERON/CC BY-NC-ND 2.0](#))

Blue | COLOR OF VIGILANCE, PERSEVERANCE, AND JUSTICE

Karner Blue Butterfly



This tiny butterfly once fluttered widely across the Great Lakes region, its silvery-blue wings shimmering like a summer sky. Dependent on wild lupine for survival, the Karner blue is federally endangered due to habitat loss. Its story is one of fragility and hope — an emblem of the delicate balance between development and conservation.

(PHOTO BY JILL UTRUP/USFWS)

Blue Mud Wasp



With its sleek, metallic blue body, the blue mud wasp is both beautiful and beneficial. The young prey on spiders, while adults feed on flowers, and often use remodeled mud dauber nests. Its shimmering color and solitary nature make it a quiet yet powerful contributor to healthy gardens.

(PHOTO BY USGS BEE LAB)

Blue Orchard Mason Bee



This native bee is a master pollinator of fruit trees and early-spring blooms. Its dark blue sheen and gentle demeanor make it a favorite among gardeners and orchardists. People can provide homes for this bee by drilling holes in blocks of wood or buying a bug hotel to install in their yards. Like many Americans, it works hard behind the scenes to support life and community.

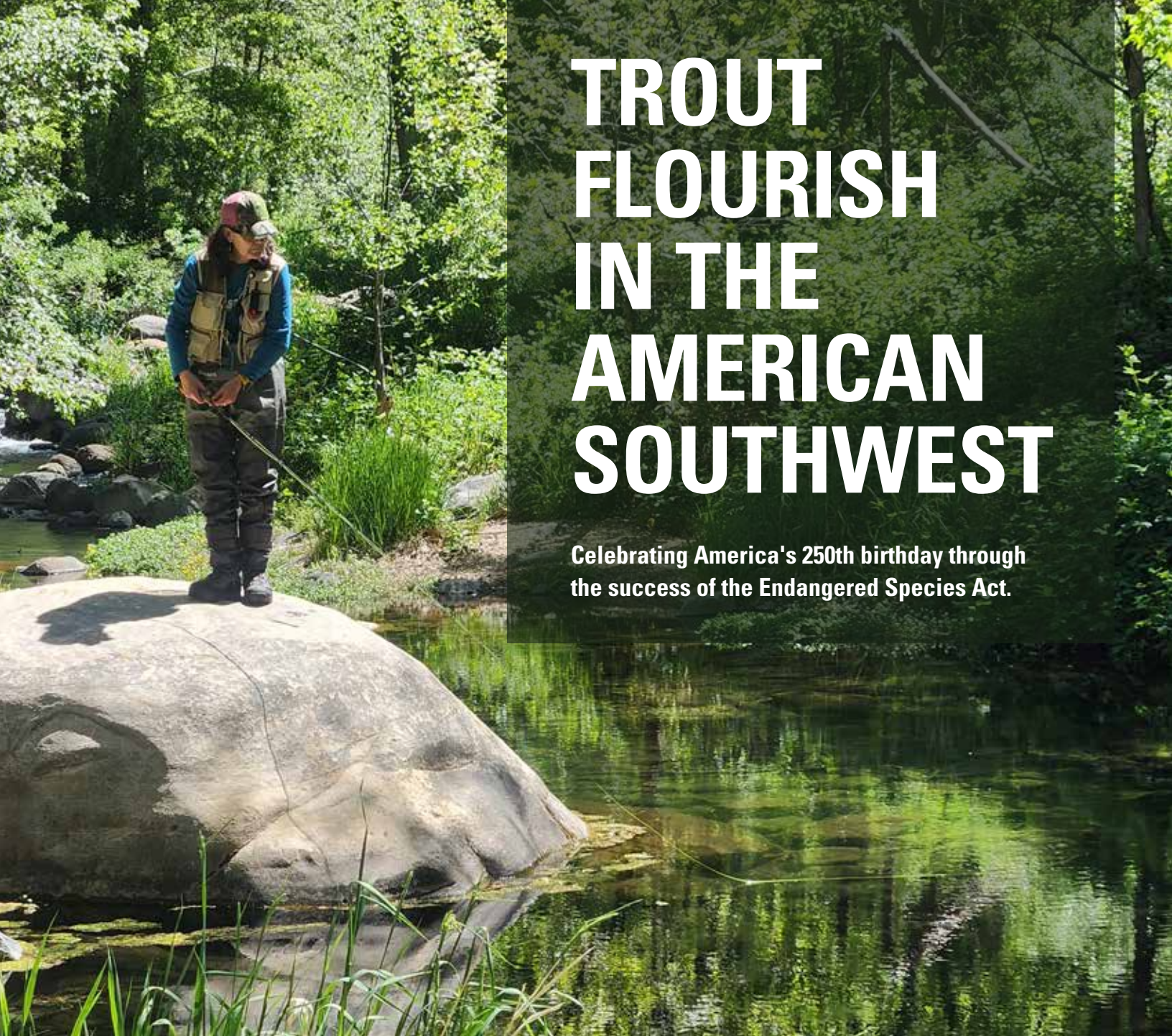
(PHOTO BY [HEATHER HOLM](#))

Andrena Androfovea



This bee is so newly discovered that a common name has not been given. So far, this bee is only known in Texas and Oklahoma by its blue-gray tones and early-spring activity. Its finding highlights the ongoing importance of pollinator research and shows the American spirit of exploration and scientific discovery. It reminds us that there's still much to learn — even in our own yards.

(PHOTO COURTESY OF JAMES HUNG/UNIVERSITY OF OKLAHOMA)



TROUT FLOURISH IN THE AMERICAN SOUTHWEST

**Celebrating America's 250th birthday through
the success of the Endangered Species Act.**

People from all over the globe thirst for golden treasures found within the cold, mountainous waters of the American Southwest. They are not panning for gold. Instead, they are angling to hook the Gila trout and the Apache trout. But the sun almost set forever on these invaluable fish.

The arduous trek from the desert floor through the rough mountainous terrain to reach their cold-water streams is emblematic of the recovery of the species. Working together through challenges and rewards, a determined group of partners have made sure that the fish remain and flourish — for us and for future generations.

“These fish only exist in really rugged and breathtakingly beautiful places in one small part of the world,” says Zac Jackson, biologist and species lead for the Apache trout with the Service’s Arizona Fish and Wildlife Conservation Office. “The fact that these fish are still around in these isolated areas feels like a testament to their perseverance.”

Angling for native trout within headwater streams of the Southwest. (PHOTO BY BRIAN WOOLDRIDGE/USFWS)

In 2006, Gila trout was reclassified from endangered to threatened with a specific stipulation to allow fishing in designated recreational streams. In 2024, Apache trout became the first gamefish removed from the Endangered Species list due to recovery. Federal, state, and tribal partners, along with universities, private organizations, and recreational anglers, formed the foundation for recovery efforts. These committed relationships continue to flourish, along with the fish. »

Gila trout are bred and raised at Mora National Fish Hatchery in New Mexico. (PHOTO BY RYAN HAGERTY/USFWS)

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“The Gila and Apache trout success stories are some of the best examples of the U.S. Fish and Wildlife Service’s collective conservation mission,” says Robert Prather, biologist and species lead for the Gila trout with the Service’s New Mexico Ecological Services Field Office. “Recovering both species is only achievable because of our partners. These achievements wouldn’t have been possible without them.”

Collective Efforts to Save Rare Trout

The Gila trout is found in both New Mexico and Arizona, while the Apache trout occurs only in Arizona. These trout live in high-elevation streams across the montane forests of some truly wild and remote places. Their small ranges and unique niches put them at risk. Habitat loss, wildfires, historic overfishing practices, and non-native fish have made these species especially vulnerable to extinction.

Alarmed by the decline in trout populations, conservation leaders acted quickly and early. The Gila and Apache trout are the “old school” of ESA-listed species, having been among the first species protected as endangered over 50 years ago. Protection for these species came first from state and tribal governments.

“Conservation efforts in New Mexico began in the 1920s and continue to this day,” says Jill Wick, native fish program manager for New Mexico Department of Wildlife. “Efforts have focused on removing or mitigating threats to the species and removing non-native trout, so that we can return Gila trout to their historical range. We focus on restoring Gila trout to larger, interconnected stream drainages, so that the fish have a



better chance of surviving large-scale disturbances like large wildfires.”

Recovering Gila trout has long been a priority for the New Mexico Department of Wildlife. It became a key player in Gila trout recovery over a century ago and remains so today, joining other partners in conservation efforts including the U.S. Fish and Wildlife Service, U.S. Forest Service, Arizona Game and Fish Department, and Trout Unlimited. New spawning and raising techniques at Mora National Fish Hatchery continue to improve the chances for the threatened Gila trout. Partners gather annually to share lessons learned, best practices, and creative ways to solve new problems.

For the Apache trout, conservation efforts by the White Mountain Apache Tribe also began before the Endangered Species Act existed. The tribe established habitat protection measures and angling closures to preserve the few remaining

populations of Apache trout. Even today, sport fishing is not allowed on tribal lands in certain streams that are essential for species recovery.

“Our traditional Apache leaders understood long ago that protecting the Apache trout meant safeguarding the ecosystem around it — knowing that everything in our world is connected,” says Tim Gatewood, fisheries manager for the White Mountain Apache Tribe. “And we continue carrying forward the vital work they began. Every day, I am reminded that this is more than a job; it is a calling rooted in respect, gratitude, and stewardship for our lands and waters.”

The White Mountain Apache Tribe, Arizona Game and Fish Department, Fish and Wildlife Service, Forest Service, and Trout Unlimited formed a cooperative management plan for the long-term conservation of the Apache trout. »

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“The delisting of Apache trout is one of the greatest conservation success stories — all due to the collaboration and partnership among the state and federal agencies, tribes, and Trout Unlimited, each having specific missions and statutory responsibilities but all believing in the possibility of the recovery of Apache trout,” says Julie Meka Carter, aquatic wildlife branch chief for the Arizona Game and Fish Department. “I’m incredibly grateful for the White Mountain Apache Tribe’s leadership in these efforts, and the dedication and passion of countless individuals who have worked to manage and protect this unique and special species.”

Perseverance of the American Spirit

The long-term stewardship of these trout reflects the deep dedication of conservation leaders in the American Southwest. These trout species are management-dependent, meaning the fish will always require some level of management even when recovery goals are met because threats to the species cannot be eliminated, only addressed. Obstacles to the recovery efforts occur, but the work continues because of the resilient partnerships.

“Every time have we have one success, there’s a wildfire, there’s a drought, or we encounter a new setback,” says Serena Kucera, fish biologist with the Service’s New Mexico Fish and Wildlife Conservation Office. “That’s just how it is, and we have to work through this. We have to adapt, and we have to keep pushing forward and advocating for the fish.”

Coordinated responses to dozens of natural disasters, often requiring evacuation of fish populations, have helped save the species. Once an area recovers after a wildfire or drought, fish are restocked using various means.



Sometimes, resolute hikers sporting a 5-gallon bucket full of water, fish, and oxygen strapped to their external frame backpack help. At other times, biologists climb across steep terrain alongside mules or horses carrying insulated boxes. On occasion, helicopters fly through remote wilderness areas, hauling a dangling aluminum box specifically made for this task. Teams on the ground quickly work with the hovering craft to rescue fish from wildfire compromised streams or to deliver them to recovery streams.

The collective conservation efforts continue forward, despite the stumbles, and all this hard work is worth it. Help is found and welcomed through various channels such as anglers who may know more about the streams than the experts. Knowledge is shared freely through annual meetings, publications of peer-reviewed research articles, and updated recovery plans.

Our Natural Resource Legacy

Partners show up for each other, for the species, and for conservation. Year after year, decade after decade, the

In 2024, Apache trout became the first gamefish removed from the Endangered Species list due to recovery. (PHOTO BY USFWS)

collaborative conservation work continues regardless of the setbacks. They do all of this to spread the best science about trout conservation and for the species to survive. They do this so that we can still fish for these treasures.

“Bringing people out to these incredible places and fishing is what keeps me going,” says Ryan Gordon, fish and wildlife biologist with the Service’s Ecological Services Office in Arizona. “I want to keep educating my kids and the public about the importance of protecting these species and ongoing conservation.” □



WATCH

Videos showcase [Gila trout conservation](#) and [Apache trout recovery](#).



(Left) A helicopter lowers a fish tank on a cable. (PHOTO BY CRAIG SPRINGER/USFWS)

(Above) A mule train hauls Gila trout into Sapillo Creek, New Mexico. (PHOTO BY USFWS)

(Below) Tim Gatewood releases fish into the newest Apache trout recovery stream in 2024 at Conklin Creek, Arizona. (PHOTO BY DAVID HERASIMTSCHUK/FRESHWATERS ILLUSTRATED)



MUSEUM OBJECTS COME TO LIFE

In this series we highlight the "Treasures of the Service" from the museum collections of the U.S. Fish & Wildlife Service Museum and Archives, the Service's National Fish and Aquatic Conservation Archives, the National Wildlife Property Repository, and the collection at DeSoto National Wildlife Refuge, containing over 250,000 artifacts excavated from the 1865 wreck of the Steamboat Bertrand.



'Symbol of Our Nation'

As we celebrate the 250th birthday of the United States, the Service's National Fish and Aquatic Conservation Archives proudly presents the painting, *Symbol of our Nation*, which is housed on the grounds.

This piece was donated to the collection in the year 2000 and is an original artwork created by Bob Hines. Hines was hired as a full-time artist for the Service in 1948. He created many paintings that ranged from fish such as trout to animals such as bears. He helped the public understand the importance of wildlife through his artwork depicting such critters and habitats from the cold tundra of Alaska to the warm waters of the deep South in the United States.

This painting expresses the bald eagle's symbolism of freedom and strength (see more on the eagle at p. 18). The eagle calls from its high perch while below a wild landscape of the American nation spreads out before it.

(TAYLA BAHR, MONTANA CONSERVATION CORPS INTERN, NATIONAL FISH AND AQUATIC CONSERVATION ARCHIVES)

From Battlefield to Biodiversity: The Journey of Gen. Rosson's Elephant Skin Briefcase

The transfer of historical artifacts between institutions often reflects evolving priorities in preservation, education, and stewardship. Such is the case with an elephant skin briefcase once owned by Gen. William B. Rosson — a decorated U.S. Army officer who served in World War II, Korea, and Vietnam — which was recently transferred from the National Infantry Museum and Soldier Center to the Service's National Wildlife Property Repository.

During his career, Gen. Rosson acquired personal items, including wildlife-derived products that were legal to purchase at the time but are now protected under international law. The briefcase reflects an era when awareness of wildlife conservation was limited. African and Asian elephant populations declined dramatically during the 20th century due to poaching and trade in ivory, hides, and other products.

Today, African and Asian elephants are protected under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), with most populations listed on Appendix I, which prohibits international commercial trade in their parts and derivatives. The National Wildlife Property Repository preserves wildlife-derived items that can no longer be legally traded, using them for education and outreach.

Now housed in a conservation setting, the briefcase tells a broader story about endangered species, international cooperation, and the importance of wildlife protections. It remains a link to Gen. Rosson's military service while serving as a powerful reminder of why conservation measures exist today.

(ELISA L. DAHLBERG, LEAD BIOLOGIST | COLLECTIONS MANAGER, NATIONAL WILDLIFE PROPERTY REPOSITORY)



Refuge Builders: The Civilian Conservation Corps

President Franklin D. Roosevelt's Civilian Conservation Corps (CCC), established in 1933, was first and foremost a New Deal relief program to provide meaningful work for unemployed young men. Its secondary goal was conservation — battling pollution, erosion, and deforestation — and restoring critical wildlife habitats. From 1933 to 1942, more than 20,000 “CCC Boys” worked on at least 55 national wildlife refuges. They provided most of the labor to build new refuges and improve existing ones. The men reestablished crucial wetlands for migratory birds, planted almost 5 million trees and shrubs, and constructed hundreds of check dams to arrest soil erosion. They built thousands of miles of trails and fencelines; hundreds of miles of truck trails, firebreaks, and telephone lines; and hundreds of buildings, bridges, and other structures. For refuge visitors, the CCC established picnic areas, beaches, and campgrounds. And many of these buildings, trails, and recreation areas are still in use today!

The collection of the U.S. Fish & Wildlife Service Museum and Archives at the National Conservation Training Center includes a number of artifacts and archival materials that document the work of the CCC on the National Wildlife Refuge System. These photos are just a few examples. For more information about the Civilian Conservation Corps' work for the Service, visit the CCC exhibit on our [Google Arts and Culture site](#). The U.S. Fish & Wildlife Service Museum includes an exhibit on the work of the CCC, check it out the next time you're at NCTC.

As CCC Director James McEntee stated in his 1942 final report, “... America is a better place to live in because of the Civilian Conservation Corps.”



CCC exhibit at the U.S. Fish and Wildlife Service Museum. (PHOTO BY STEVE FLORAY/USFWS)



CCC boys gathering seeds of prairie bulrush, Bear River Migratory Bird Refuge, Utah, 1935. U.S. Bureau of Biological Survey photograph collection from the U.S. Fish & Wildlife Service Museum and Archives.



CCC boys splitting wood at a waterfowl pond site, Patuxent Research Refuge, probably in December 1937. U.S. Bureau of Biological Survey photograph collection from the U.S. Fish & Wildlife Service Museum and Archives.

transitions

Headquarters



After a career spanning more than three decades with the Service, **Gina Shultz**

retired on May 29, 2026.

For the past two years, Gina served as acting Assistant Director for Ecological Services. In that role, she oversaw the removal of species such as the wood stork from the lists of threatened and endangered species due to recovery. She was integral in revisions to Endangered Species Act section 10 regulations to increase efficiencies in permitting. She has also prioritized systems and processes such as Information for Planning and Consultation that streamline the consultation process under section 7 of the ESA.

Gina earned a Bachelor of Science degree in marine biology from San Diego State University and an environmental law degree from the University of San Diego. She began her career with the Service as a fish and wildlife biologist in the Carlsbad Ecological Services office. From California, she moved to the Pacific Islands Office and then to Headquarters where she was for nearly 16 years.

Her career contributions were recognized in 2022 with Department of the Interior Distinguished Service Award. The recognition is the highest honor an employee can receive within DOI, and it is granted for an outstanding contribution to science, outstanding skill or ability in the performance of duty, outstanding contribution made during an eminent career in the Department, or any other exceptional contribution to the public service.

She notes that a lot has changed since the 1990s when she started with the bureau. Her first Clean Water Act section 404 elevation letter had to be copied onto a floppy disk and mailed to the regional office, which then mailed it to Headquarters as they were not connected via email yet. "I believe we can always improve how we do things."

I had the opportunity to pose some questions to Gina before she retired. Her responses are lightly edited.

What do you see as your biggest accomplishment over the course of your career with the Service?

This is like asking who is the favorite of your 25 children.

I have always looked for ways to increase conservation while streamlining, decreasing, and, when possible, eliminating work processes. [In addition], I would say that my biggest accomplishment is my recruitment and mentoring of great people who use their talents to make significant contributions to conservation.

Their exceptional work is a shared success for all of us. Some of these examples include creation of ECOSphere, IPaC, ESA petition and section 10 regulation revisions.

What has been your favorite project to work on?

Again, identifying a favorite of so many choices is nearly impossible.

My first big project as a GS-9 fish and wildlife biologist in the Carlsbad ES office, which highlights my philosophy of being creative and innovative to meet the greatest conservation needs, was the creation of a permanent, nonwasting endowment for the San Diego River. I saw an opportunity, researched endowments, found an organization to manage the funds with minimal overhead, and asked the project proponents to provide the initial endowment. That endowment continues to grow and provide funds annually for the San Diego River and least Bell's vireo. I'd like to think that I have contributed to the reversal of the decline of the species and their significant improvement in the numbers and range through this project. I see this as one of those win-wins we strive for every day – the San Diego trolley was completed on time and provided on-going conservation for wetlands and species that depend on them.

Another favorite project was related to critical habitat litigation for hundreds of species in Hawai'i. Focusing on conservation rather than regulation, I joined forces with

my colleague, the Partners for Fish and Wildlife lead, and met with private landowners across the state. We collected information that helped refine the maps of areas with the biological features needed for critical habitat, implemented conservation on private lands, and in a matter of months, rather than years, issued the first Safe Harbor Agreements in the state, as well as created a critical habitat exclusion for private landowners who implement voluntary conservation. The two most important things we achieved were relationships with landowners and actual, on-the-ground conservation. The thing I missed most when coming to Headquarters was working with landowners. It is such an important part of our mission and a joy.

I am also proud of the work we did to create the Ecological Services Headquarters' desired culture for the results we want. The work we do in Ecological Services is immense, serious, and important. We can only accomplish our goals by working together as a team. We should be proud of the work we do to achieve meaningful conservation. And we should find joy in our work and have fun!

Any words of wisdom to share with the next generation of biologists?

Always focus on the Art of Possibilities. Look for better ways to do our work that create meaningful conservation with our limited resources. »

Continued from previous page.

Be innovative and never say “that’s been tried and didn’t work; we always do it this way; or no one has given me permission or direction to do things differently.” Do not be afraid to take risks. Get to know our partners and stakeholders, understand their perspective, look for common interest, and find solutions that work for conservation and our partners. I share this advice for the next generation of biologists as well as the seasoned biologists and managers.

So, what’s next in retirement?

My immediate focus is care for myself, my family, and quality time with my father. Later I see lots of travel in my future. □

TINA BOEHLE, Office of Communications, Headquarters

in memoriam

Southeast Region



Bonnie Strawser (middle in photo, with Susie Heisey and Catherine Hibbard), a renowned visitor services professional, most known for her 42+ years working for the Coastal North Carolina Refuges Complex, died Jan. 10, 2026.

Bonnie, born June 8, 1950, was one of the original public use professionals hired by the National Wildlife Refuge System as a result of the Bicentennial Lands Heritage Program in the early 1980s. With colleagues such as Tom Worthington, Robin Will, Jim Burkhart, Tom Comish, and Donna Stanek, she helped forge many of the programs and processes we still use today.

From building visitor centers and volunteer programs, like the Coastal Wildlife Refuge Society (Friends group), to developing a robust internship program, Bonnie had a professional career full of more successes than we can count.

One mark of success is that many of the interns that came through the program in North Carolina became longtime refuge system employees. Bonnie mentored fledgling visitor services professionals throughout the Southeast and was an active contributor to regional and national outreach and trainings.

Bonnie was an outspoken advocate for engaging people and communities in wildlife conservation. She was also a generous peer who shared her processes and procedures with her colleagues. If you have commercial guiding processes or resident volunteer housing rules, they were probably inspired by Bonnie’s work.

Later in Bonnie’s career and into retirement, she found another call to service through her work in incident management as a public information officer (PIO). Leading the PIO section for many years on both a Type II and Complex Incident Management Team for the Southern Area, Bonnie

used her interpersonal skills to ensure that communities were informed and supported through difficult times. She served on wildfires across the country and internationally, from Alaska to Australia, never backing down from a challenge and spending many nights sleeping in her hammock while serving the American public.

After retiring in 2021, Bonnie’s dedication to public service continued as she served as a refuge volunteer, and most recently she was on the Coastal Wildlife Refuge Society Friends board as their president.

As we mourn this profound loss to our U.S. Fish and Wildlife Service and Friends family, we are honored to have known and worked with Bonnie at multiple refuges and on many teams. Bonnie has left a lasting impression on people and places throughout the country and the world. □

MAGGIE O’CONNELL, USFWS retiree, and SUSIE HEISEY, Visitor Services, Southeast Region

Headquarters



Guy Philip Million, better known to all as Phil, died peacefully at his home in Arlington, Virginia,

on March 8, 2026. He was 87 years old – and despite his advanced age and some recent health issues, his death came as a genuine shock to family and friends alike.

Phil began his federal civilian career with the old Office of Education – the precursor to today’s Department of Education – before finding his true calling at the Department of the Interior’s U.S. Fish and Wildlife Service. With the Service, he built a remarkable 40+ year career that perfectly blended his lifelong passions for fishing, hunting, and wildlife conservation with his talents in communication, journalism, and public affairs.

At the Service, Phil served in executive Public Affairs roles for over 15 years. He frequently served as principal spokesperson and was often quoted in major newspapers on a range of issues. He worked effectively with both Democratic and Republican administrations and provided them all with a valuable sense of continuity and expertise. A co-worker perfectly summed up Phil’s somewhat wry outlook on government and his role in it, saying, “Phil had bipartisan impatience.”

During his long tenure at the Service, Phil was a quiet but enormously influential force in American conservation – someone who consistently drove major outcomes often without seeking credit. He was instrumental in the development of outreach for the North American Waterfowl Management Plan, a landmark program responsible for the protection and restoration of millions of acres of wetlands. He also played a key role in promoting the benefits that passage of the Wallop-Breaux Amendments of 1984 would represent in modernizing sportfish restoration funding. »

Continued from previous page.

Later in his career, he was also a driving force in creating the agency's Office of Partnerships.

Phil was equally gifted as a communicator and diplomat. Almost single-handedly, he maintained the agency's relationships with the hunting and fishing tackle industries during a period when those historic partners felt the Service was no longer attuned to some of its traditional constituencies. He was also instrumental in outreach strategy for the heavily publicized Yellowstone and central Idaho gray wolf reintroductions of 1995.

Two of his personal favorite professional accomplishments brought him to Hollywood where he produced high profile public service announcements featuring megastars Paul Newman and Lorne Greene. He always liked to say – a bit tongue in cheek – that he “made movies with Paul Newman.” Perhaps his most enduring achievement while at the Service was “nudging” a somewhat reluctant and insular science-focused agency into the modern era of public communications. Phil helped build and mentor a staff of public affairs professionals and insisted the agency be responsive to its public. Colleagues remember him as someone who consistently delivered outsized results while rarely seeking recognition – a hallmark of his character throughout his career.

When Phil retired from the Service in 2008, the federal government lost a truly dedicated civil servant who spent most of his professional career striving to better our country by protecting wildlife and the outdoors. □

Midwest Region



Carl Madsen (seen: Carl in 1999), a pioneering leader in the Service and a champion

for private lands conservation, died Jan. 4, 2026.

Carl is widely regarded as one of the founders of what became the Partners for Fish and Wildlife Program. Through his early work on the Mid-Continent Waterfowl Management Project, he established the principles, partnerships, and practical tools that demonstrated how conservation could succeed on private lands. At a time when such work was considered untested or unwieldy, Carl proved that meaningful habitat restoration on private land could be achieved through collaboration with farmers, ranchers, and local communities.

Throughout his career, Carl was unwavering in his dedication to waterfowl and their habitats. He helped restore and protect wetlands and grasslands across the Midwest and the Prairie

Pothole Region, shaping a model that has since been adopted nationwide. His extraordinary service was formally recognized with the U.S. Department of the Interior's Distinguished Service Award in 2002, the Meritorious Service Award, and the Special Service Award in 2003 — honors that reflect both the impact and enduring value of his work.

Equally important was Carl's commitment to partnerships. He believed that lasting conservation started locally, rooted in cooperation among agencies, nongovernmental organizations, sportsmen's groups, conservation districts, and private landowners. His leadership exemplified the Service's mission to work collaboratively for the benefit of wildlife, people, and the lands they steward.

Carl's legacy lives on through the Partners for Fish and Wildlife Program and the thousands of landowners and partners who continue the work he helped create. We honor his life by carrying forward his vision — conservation grounded in relationships, integrity, and a deep respect for both wildlife and working lands.

Please join us in remembering Carl Madsen and in extending our thoughts to his family, friends, and all who were fortunate to work alongside him.

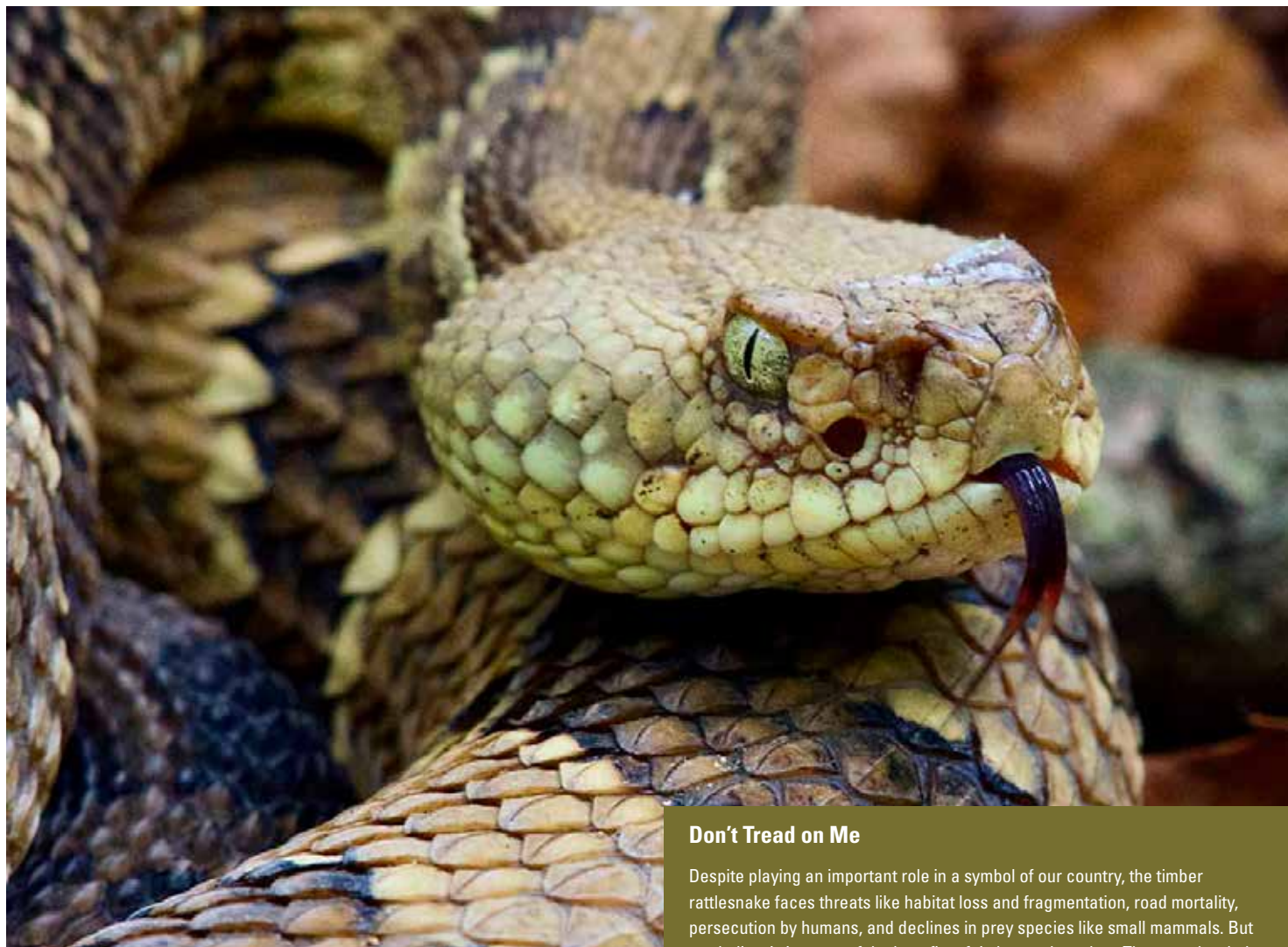
In 2007 and 2020, Carl recorded an oral history of his contributions to the North American Waterfowl Management Plan and the Partners for Fish and Wildlife program, respectively. Read the transcripts:

■ [North American Waterfowl Management Plan oral history transcript](#)

■ [Carl Madsen oral history transcript](#). □

CHUCK PYLE, South Dakota State Coordinator, Partners for Fish and Wildlife Program

parting shot



Don't Tread on Me

Despite playing an important role in a symbol of our country, the timber rattlesnake faces threats like habitat loss and fragmentation, road mortality, persecution by humans, and declines in prey species like small mammals. But symbolism is just one of the benefits of timber rattlesnakes. These snakes help control rodent populations thereby reducing the spread of disease and damage to crops. They're also a top predator in many forest ecosystems and serve as an indicator of environmental health. (PHOTO BY GRAYSON SMITH/USFWS)

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