



U.S. Fish & Wildlife Service

Winter 2026

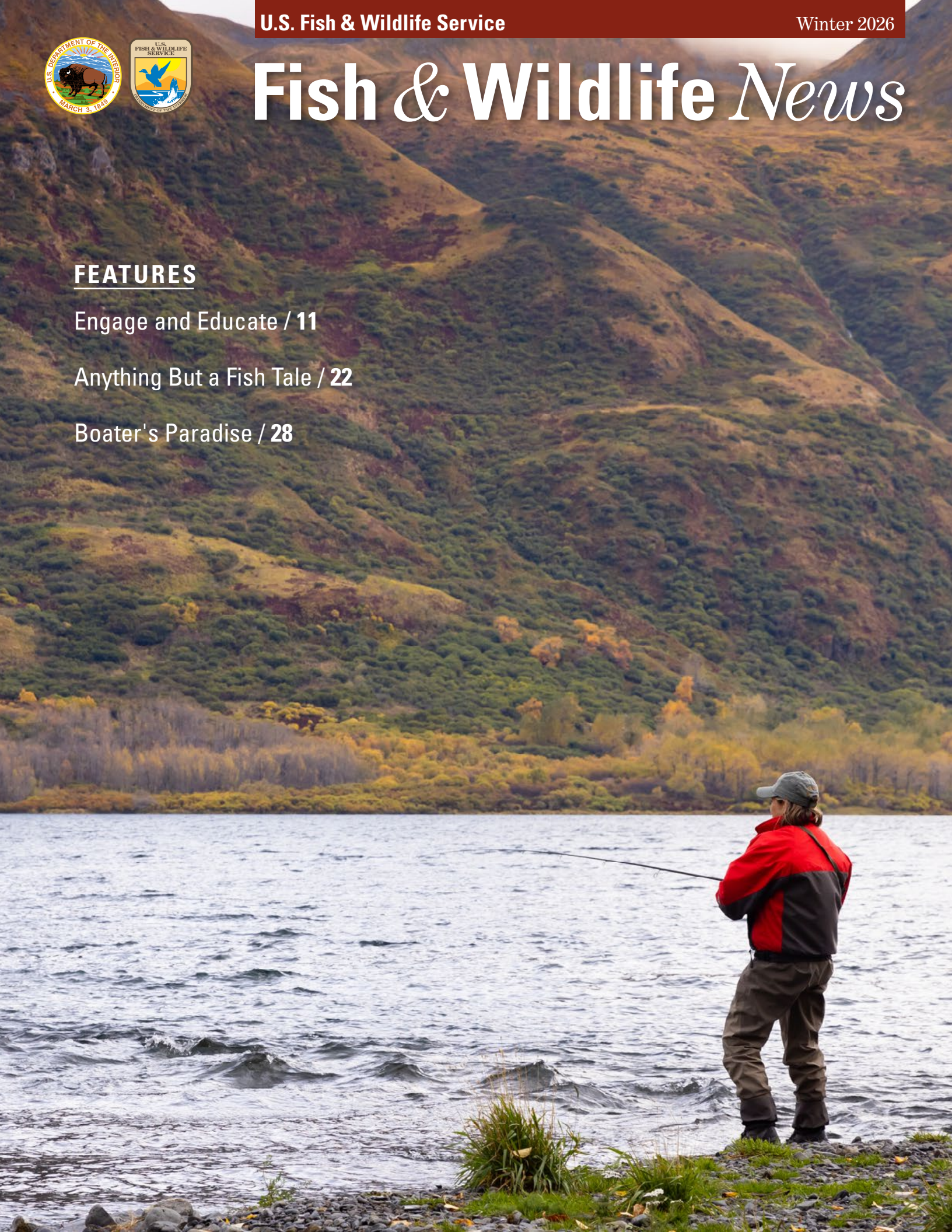
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at Karluk Lake in
Alaska.

(PHOTO BY LISA HUPP/
USFWS)

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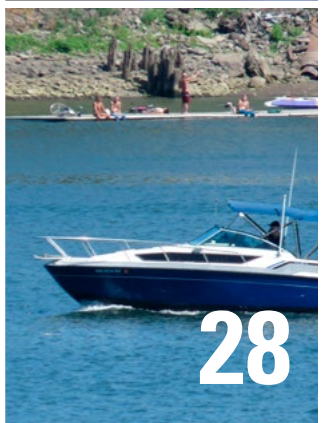
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Columbian White-tailed Deer: A Conservation Comeback in the Pacific Northwest

Once on the brink of extinction, the Columbian white-tailed deer is one step closer to a remarkable recovery in the Pacific Northwest.

The Service has completed a five-year status review for the Columbia River population of this unique subspecies and found that it has met the criteria outlined in its recovery plan. As a result, the Service is recommending the deer be removed from the federal List of Endangered and Threatened Wildlife. This is not a final decision, and the subspecies remains federally protected for now. Any change in status would require a formal rulemaking process, including public comment and further scientific review.

This encouraging development marks a major milestone in the decades-long effort to save the Columbian white-tailed deer, a conservation journey defined by collaboration, science, and persistence.

From the Brink to Rebound

Columbian white-tailed deer were once plentiful in Oregon and Washington. By the 1940s, their numbers were reduced to fewer than 1,000 due to habitat loss and human development. In response, the deer were among the first species protected under the Endangered Species Act.

While one population in Douglas County, Oregon, met its recovery goals and was removed from the list in 2003, the Columbia River population remained endangered until it was reclassified as

threatened in 2016.

Thanks to years of collaboration among federal, state, tribal, and local partners, the Columbia River population of deer have made a strong comeback. The National Wildlife Refuge System has been especially critical to this success. Established in 1971 to protect this subspecies, Julia Butler Hansen Refuge for the Columbian White-Tailed Deer has long served as a stronghold. In recent years, translocated deer have also established a thriving population at Ridgefield National Wildlife Refuge, helping create a stable foundation for the deer's recovery.

In addition to refuge lands, the deer inhabit private lands, with several subpopulations located between Julia Butler Hansen Refuge and Ridgefield National Wildlife Refuge. With funding from Bonneville Power Administration and support from state wildlife agencies, some deer were relocated to a Columbia Land Trust property. This network of safe habitats has helped the deer populations expand, migrate, and stabilize.

Science Leads the Way

The Service's recommendation to delist the Columbian white-tailed deer is grounded in the best available science, including a Population Viability Analysis and a comprehensive independently peer-reviewed Species Status Assessment. The population analysis found that the risk of extinction for the Columbia River population is extremely low, further supporting the



A Columbian white-tailed deer is lifted via helicopter for transport from Julia Butler Hansen Refuge for the Columbian White-tailed Deer to Ridgefield National Wildlife Refuge. (PHOTO BY TIM JEWETT)

recommendation.

Ongoing Stewardship and Partnerships

The success of the Columbian white-tailed deer recovery is a testament to long-standing partnerships. The Deer Working Group, which includes the Cowlitz Indian Tribe, Washington Department of Fish and Wildlife, Oregon Department of Fish and Wildlife, Columbia Land Trust, and others, continues to support the implementation of deer conservation efforts.

Even with the recommendation for delisting at the federal level, the deer remain listed as threatened in Washington state. The Washington Department of Fish and Wildlife oversees the listing and recovery of species in Washington.

National wildlife refuges such as Julia Butler Hansen Refuge for the Columbian White-Tailed Deer will continue managing

for the subspecies well into the future, supporting habitat, monitoring population health, and fostering resilience in the face of environmental changes and other challenges.

A Conservation Win — But Not the End of the Road

"It's incredibly exciting to see the deer reach this milestone," says Bridget Fahey, acting Regional Director of the Service's Pacific Region. "We want to acknowledge the significant role that our national wildlife refuges, state, and tribal partners, and land trusts have played in this recovery. This effort shows what's possible when we work together to recover a species."

The story of the Columbian white-tailed deer is not just one of survival—it's a powerful reminder of what science-based conservation and strong partnerships can achieve.

JODIE DELAVAN, Pacific Region

These Species No Longer Need Endangered Species Act Protection

The Endangered Species Act has been likened to an ER in a hospital, so we are thrilled to be able to remove wildlife from the list of endangered species due to recovery and return their management to our state partners.

One of the species delisted, as we call removing from the list, is the Roanoke logperch. Of the news, our Principal Deputy Director Justin “J” Shirley said: “The recovery and delisting of the Roanoke logperch is proof that conservation works best when it’s locally driven, science-based, and free of unnecessary federal red tape. This success story shows how private landowners, states, and communities can lead the way in protecting species while promoting economic growth and responsible use of our natural resources.”

Among the species we have declared recovered and removed, proposed removing, or recommended removing in 2025:

Declared Recovered and Removed

The [Roanoke logperch](#) was listed as endangered in 1989 when it was found in 14 streams. By 2019, the species had more than doubled its range, occupying 31 streams in Virginia and North Carolina. Recovery would not have been possible without close collaborative partnerships among the Service, the North Carolina Wildlife Resource Commission,



the Virginia Department of Wildlife Resources, private conservation associations, and private landowners.

With recovery partners, including the Bureau of Land Management, the Colorado Natural Heritage Program, and the Denver Botanic Gardens, the Service was able to fully recover the [Colorado hookless cactus](#).

The [dwarf-flowered heartleaf](#) has fully recovered after decades of partnership-driven recovery efforts in North and South Carolina and was removed from the list of endangered species. When the plant was protected as threatened under the Endangered Species Act in 1989, there were 24 known populations distributed across eight North Carolina counties. Since then, documented populations have increased to 119 across 10 North Carolina and three South Carolina counties.

Proposed Removing

[Virginia sneezeweed](#) has recovered, and we’ve proposed removing it from the federal List of Endangered and Threatened Plants. This perennial herbaceous flowering plant was protected as a threatened species in 1998 when only 25 populations were known from Virginia. With support from federal endangered species grants, partners and private landowners have discovered additional populations in Missouri and a population in Indiana. Today, Missouri has over 55 known populations — more than Virginia.

Recommended Removing

A five-year review does not automatically change a species’ protections or status; it only presents recommendations.

[Lloyd’s mariposa cactus](#) shows signs of full recovery after a rigorous five-year status review, which recommends removal of the cactus from the list of

The Roanoke logperch is a large darter, growing to about 6 inches long. (PHOTO BY RYAN HAGERTY/USFWS)

endangered species due to recovery. In addition to threats that have been eliminated or reduced, several large populations have recently been documented at protected sites. Progress toward recovering Lloyd’s mariposa cactus has been made through close partnerships with local governments, state and federal agencies, private organizations as well as the federal government of Mexico.

We also recommended delisting the Columbia River population of **Columbian white-tailed deer**. You can read about it on page 1.

The Return of 'Ēkupu'ū (Laysan Finch) to Kuaihelani (Midway Atoll)

After 80 years, Kuaihelani (Midway Atoll) is once again home to the endangered 'Ēkupu'ū (Laysan finch). On July 21 and 22, 2025, a team of Service staff and partners released 100 birds at Kuaihelani on Eastern Island, making this the first time in eight decades that 'Ēkupu'ū grace the fields and skies of Midway Atoll National Wildlife Refuge and Battle of Midway Memorial. A healthy population once thrived at Kuaihelani until the mid-1940s, before they were extirpated due to predation by rats that were accidentally introduced in 1944.

The 'Ēkupu'ū translocation is part of a continuing plan to re-establish and expand native bird populations endemic to Papahānaumokuākea, in preparation for potential catastrophic events. A single severe storm, invasive species introduction, or fire could wipe out any species found in only one place.

"Increasing the population size and range of these endemic species is critical to the survival and recovery of those species," says Jared

Underwood, superintendent for the Papahānaumokuākea Marine National Monument. "We feel honored and grateful that this particular translocation was brought to fruition thanks to the expertise and dedicated support from 10 different partners, from nongovernmental organizations, Hawai'i academia, state of Hawai'i, and federal sectors."

A team of biologists selected and captured 100 birds from the neighboring atoll of Manawai (Pearl and Hermes Atoll) over four days. When captured, the finches were banded with a unique set of color bands before being housed on the island under the care of expert aviculturists. The finches hitched a ride to Kuaihelani for a long one-day journey aboard the M/V Imua, which was already navigating within the monument on a National Oceanic and Atmospheric Administration expedition.

Biologists will monitor the released finches to document how they adapt to their new home. Twenty of the 100 finches have radio transmitters, so biologists can more easily track the finches' movements. The transmitters were to be removed later in the year. The other 80 finches are being visually monitored by means of their unique color band combination.



Kuaihelani provides ideal habitat for 'Ēkupu'ū with abundant native, nutritious plant seeds and fruits.

Although 'Ēkupu'ū were once found in the main Hawaiian Islands centuries ago, threats such as avian malaria and introduced predators make it impossible to return them to their ancestral home at this time. Translocations within the Northwestern Hawaiian Islands (Papahānaumokuākea Marine National Monument) not only reduce the risk of extinctions but also provide source populations for species to be returned to the main Hawaiian Islands when the time is right.

'Ēkupu'ū forages seeds after release at Kuaihelani. (PHOTO BY DAN RAPP/USFWS)

IVAN VICENTE, Pacific Region

Partners

The translocation effort is a collaborative partnership among:

- NOAA Fisheries
- Papahānaumokuākea Marine National Monument
- Midway Atoll National Wildlife Refuge and Battle of Midway National Memorial
- The Service's Inventory and Monitoring Program, Pacific Island Coastal Program, and Ecological Services Program
- Pacific Rim Conservation
- U.S. Geological Survey Pacific Island Climate Adaptation Science Center
- Pacific Bird Conservation
- Friends of Hawaiian Islands Refuge
- Hawai'i Audubon Society
- Papahānaumokuākea Cultural Working Group
- American Bird Conservancy
- University of Hawai'i Vertebrate Introductions and Novel Ecosystem project

Banding Mourning Doves: Tracking Population Data Ensures the Abundant Bird Species Remains Healthy

If you live in the contiguous United States, chances are good that you have seen a mourning dove. It's one of the most abundant bird species in North America with approximately 346 million doves in the U.S. estimated as of Sept. 1, 2023.

Yet, biologists and others were out at San Luis National Wildlife Refuge in California in early July 2025 banding mourning doves to help track their population and movements. "The refuge is working under the California Department of Fish and Wildlife's mourning dove banding program," says Fumika Takahashi, wildlife biologist for the San Luis National Wildlife Refuge Complex.

Biologists at the refuge have been banding doves since 2012.

With a species that plentiful, you might be tempted to ask why we need to study its movement and distribution, population estimates, and survival and harvest rates. It's really very simple: We're determined to ensure not only that future generations know the mourning dove and its distinctive song but also that mourning dove hunting continues to flourish.

And what a robust hunting tradition it is. In 2023, estimates put the number of harvested mourning doves in the U.S. at nearly 17 million by more than 1 million hunters.



From left, Emily Weisenberger, Sara Rose-McCandlish, and Fumika Takahashi evaluate a mourning dove for banding. (PHOTO BY MALCOMB BARSELLA/USFWS)

Laurel Barnhill, the chief of staff for the Service's Southeast Region, spoke about her love of dove hunting in a story on [fws.gov](https://www.fws.gov) in 2024 ([Autumn Rituals: Celebrating Dove Hunting Traditions](#)). She and her husband invite family and friends every year to a hunt on a dove field they have cultivated.

For Barnhill, "It's not about how many birds anybody kills. It's about sharing the experience of being together on a Saturday afternoon."

While there is no dove hunting on the refuge (the hunting draw there is waterfowl hunting), Takahashi says, dove hunters are welcome on adjacent state wildlife areas.

The goal of the California program is to band 1,732 doves per year across the state. The refuge banded 48 doves by the end of July, Takahashi says.

Takahashi and other biologists do the actual banding, but, Takahashi says, "we have had many local volunteers over the

years help, as well as biological science technicians, interns, Pathways students, admin staff, visitor service staff, refuge managers, and some of our wage grade staff really enjoy participating as well."

One of the volunteers in early July was Malcomb Barsella, a visual information specialist with the Office of Communications. "Seeing the passion and expertise these wildlife biologists had during the process was inspiring," he says.

To catch the doves, the refuge uses what Takahashi called "Kniffin style walk-in funnel traps." The birds are lured in with safflower and millet seeds. "The dove walks in," Takahashi says, "and can't figure out how to walk out." This type of trap makes sense for a bird that mostly feeds on the ground.

Once they capture the doves,

biologists note the bird's age, sex, banding number if it is a previously banded bird, and the time captured. They band the new birds before setting them free.

Dove hunters are not only beneficiaries of this work but also a key part of the process. They report the band ID on birds they harvest to the U.S. Geological Survey Bird Banding Lab via www.reportband.gov. Anyone who finds a dead dove with a band can also report it. But as Takahashi says, "The printing on the band is too small to read ... unless you have the bird in hand."

The numbers suggest the Western population of mourning doves is healthy, probably a result of all the banding.

MATT TROTT, Headquarters

Minnesota Artist James Hautman Wins 2025 Federal Duck Stamp Art Contest



Judges at the 2025 Federal Duck Stamp Art Contest hold the winning artwork. Left to Right: Gene Clater, Paul Padding, Judy Camuso, Tom Landwehr, David Turner (alternate), and Margie Crisp. (PHOTO BY VANESSA KAUFFMAN/USFWS)

After two days of competition, James Hautman of Chaska, Minnesota, emerged as the winner of the 2025 Federal Duck Stamp Art Contest with an acrylic painting of three buffleheads.

Hautman's artwork will be made into the 2026-2027 Federal Migratory Bird Hunting and Conservation Stamp, or Duck Stamp, which will go on sale in late June 2026. This is Hautman's seventh time winning the Federal Duck Stamp Art Contest. The Service produces the Federal Duck Stamp, which raises approximately \$40 million in sales each year. These funds support conservation of wetland habitats in the National Wildlife Refuge System for the benefit of wildlife and the enjoyment of people.

"The stamp created using

James' art will serve as a lasting reminder of our rich waterfowl hunting heritage," says Service Director Brian Nesvik. "I encourage everyone, including those who do not hunt, to buy a Duck Stamp, which raises millions of dollars to conserve wildlife and healthy wetland habitats for waterfowl and numerous other species."

Thomas E. Miller of Kilkenny, Minnesota, placed second with an acrylic painting of a cinnamon teal and Jeffrey Mobley of Tulsa, Oklahoma, took third place with an acrylic painting of a bufflehead.

Since it was established in 1934, the Federal Duck Stamp has been sold to hunters, bird-watchers, outdoor enthusiasts, and collectors, raising more than \$1.3 billion to conserve over 6

million acres of habitat for birds and other wildlife and provide countless opportunities for wildlife-oriented recreation on our public lands.

Funds raised from the sale of Federal Duck Stamps go toward the acquisition or lease of habitat for the Refuge System. The new areas provide additional access to the public to some of the most spectacular places available for hunting, fishing, bird-watching, hiking, and other outdoor activities.

"I am so proud to be a part of this annual tradition that combines the best of talented artwork from around the country with habitat conservation," says Jerome Ford, Assistant Director of the Service's Migratory Bird Program. "And a huge thank you goes to the staff at Patuxent

Research Refuge for hosting the contest this year. By welcoming us for the annual event, we were able to invite the public, conservation partners, and many others to be a part of this very special tradition."

Of 290 entries judged in this year's competition, 83 entries made it to the final round of judging. Eligible species for this year's Federal Duck Stamp Contest were wood duck, gadwall, cinnamon teal, bufflehead, and ruddy duck.

The judges for this year's Federal Duck Stamp Contest were Judy Camuso, Gene Clater, Margie Crisp, Tom Landwehr, and Paul Padding. The alternate judge was David Turner.

Waterfowl hunters age 16 and older are required to purchase and carry the current Federal Duck Stamp. Many non-hunters, including bird-watchers, conservationists, and stamp collectors, also purchase the stamp in support of habitat conservation. Additionally, a current Federal Duck Stamp can be used for free admission to any national wildlife refuge.

Individuals can contribute to conservation and America's great outdoors tradition by buying Federal Duck Stamps at many national wildlife refuges, sporting goods stores, and other retailers, through the U.S. Postal Service, or online at <https://www.fws.gov/service/buy-duck-stamp-or-e-stamp>.

Online

View the [2025 Federal Duck Stamp Art Contest entries](#).

Cloned Black-Footed Ferret Kits Offer Hope for the Species

In collaboration with our partners, we announced the birth of four litters of black-footed ferrets this summer at the Smithsonian's National Zoo and Conservation Biology Institute and the National Black-footed Ferret Conservation Center — an exciting development in ongoing cloning research. These kits — 6 females and 6 males — represent a story that stretches across decades, technology, and the dedication of countless conservationists.

The kits are descendants of cloned black-footed ferrets Antonia and Noreen, along with Antonia's offspring, Sibert and Red Cloud. Antonia and Noreen were cloned in 2023 using preserved tissue from a ferret named Willa, who lived in the 1980s. Willa's DNA was safeguarded for over 30 years by the Frozen Zoo at the San Diego Zoo Wildlife Alliance, making this achievement a remarkable blend of past preservation and modern science.

This breakthrough began in 2020 with the birth of Elizabeth Ann, the first-ever cloned U.S. endangered species. Though both Elizabeth Ann and Noreen have died, their legacy lives on through this new generation of kits. The successful reproduction of cloned black-footed ferrets marks another milestone in conservation genetics, showing how cloning technology can help restore lost genetic diversity and unlock possibilities for species recovery.

The black-footed ferret's story has never been simple. Once widespread across



Kateri, a black-footed ferret kit, at the National Black-footed Ferret Conservation Center in Colorado.

(PHOTO BY USFWS)

western North America, their numbers plummeted in the 20th century due to habitat loss and disease. By the late 1970s, the species was believed to be gone forever — until a small population was rediscovered in Wyoming in 1981. Since then, conservationists have led decades of recovery work.

Cloning offers an important tool in addressing genetic challenges and other threats to recovery efforts for black-footed ferrets. We're working with states, tribes, landowners, and conservation partners to continue making progress toward recovery of this species

Smithsonian's National Zoo and Conservation Biology Institute, San Diego Zoo Wildlife Alliance, and the Association of Zoos and Aquariums. The partners at Revive & Restore and ViaGen Pets & Equine have pioneered this technology for use in endangered species.

In addition, cloning research today relies on the genetic material that was collected and stored by the Frozen Zoo at San Diego Zoo Wildlife Alliance. The Smithsonian's National Zoo and Conservation Biology Institute and other facilities under the Association of Zoos and Aquariums provide the technical expertise to care for and house the kits born in the cloning research, as well as other black-footed ferrets in the captive-breeding program.

We remain steadfast in our mission to recover black-footed ferrets in the wild through reintroduction, habitat conservation, and continuous monitoring. While cloning is not a replacement for these vital efforts, it enhances them — offering new genetic possibilities. With each kit born, the species moves one step closer to a future where it can once again thrive across the North American grasslands.

ADRIANA ZORRILLA, Mountain-Prairie Region

through various efforts, including captive-breeding programs, reintroduction into the wild, habitat restoration, disease management, and public awareness. These are part of a broader strategy to recover sustainable populations in the wild.

This ongoing research is the result of extensive collaboration among the Service, Revive & Restore, ViaGen Pets & Equine,



We have long been recognized for innovative conservation work, much of which is rooted in strong partnerships. These collaborations are so embedded in the fabric of the agency that they are part of our mission, “... **working with others** to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people.”

Among the many species that have benefited from these efforts, the threatened Louisiana pinesnake stands out. Without the help of partners – including the Louisiana Department of Wildlife and Fisheries, Texas Parks and Wildlife Department, Texas A&M Forest Service, USDA Forest Service, private landowners, and several accredited zoos – this nonvenomous constrictor would be facing a different reality. Along with the Service, these and other pinesnake conservationists are known collectively as the Louisiana Pinesnake Stakeholders Consortium (LPSC).

A Collaborative Response to Decline

By the 1930s, much of the longleaf pine forest in which the Louisiana pinesnake dwells had been destroyed. The remaining forest was sparse and fragmented. Facing isolation, and thus a limited gene pool, the snake seemed to have a bleak future.

The Louisiana pinesnake is an egg-laying, nonvenomous constrictor of western and central Louisiana and eastern Texas. (PHOTO BY USFWS)

In 1988, individuals associated with zoos noticed the population declines and launched a captive-breeding program to bolster the snake’s dwindling populations. At the time, the species had not yet received federal protection. As this proactive conservation effort grew, other parties became interested, which led to the formation of the Louisiana Pinesnake Stakeholders Consortium in 2003. This group continues to drive conservation efforts for the snake.

After securing wild adult pinesnakes as founders for the captive-breeding program, annual reproduction became the focus. The captive population grew from 30 founders to around 150 individuals. In 2009, the consortium initiated the reintroduction program and the team identified the Catahoula District of the Kisatchie National Forest in Louisiana as an ideal release site. This area had many benefits: It

- Was on public land and unoccupied by Louisiana pinesnakes at the time.
- Contained suitable soils and pocket gophers (the Louisiana pinesnake’s primary prey).
- Had a lower density of roads.

Innovative Partnerships and Proactive Conservation Efforts Give Louisiana Pinesnake a Second Chance at Survival

With the location secured, the first reintroduction of captive-bred Louisiana pinesnakes took place in 2010 with 11 individuals.

From Hatchlings to the Wild

Pinesnakes hatch between July and September, and captive-bred individuals are released the following April-May, when they are about 8 months old. Studies have shown that at this age, captive-bred pinesnakes have higher survival rates.

Biologists continue monitoring the snakes after release. Using drift fence arrays with cameras, box traps, and/or passive integrated transponder (PIT) readers, they track the population and assess the program’s success. Each released snake has a PIT tag, similar to the microchips used by some pet owners for their dogs and cats. This technology allows biologists to identify individuals when they conduct surveys.

When biologists capture a snake at the reintroduction site without a PIT tag, they know it was born in the wild. These wild-born individuals are the ultimate sign of success: They prove that released snakes are surviving, maturing, and reproducing on their own.

Another sign of success is the sheer number of snakes being released each year and how that number continues to grow. Since captive breeding began, over 600 pinesnakes have been released. In 2025 alone, 120 snakes were released – a true testament to the success this partnership is fostering.

Looking to the Future

With the program’s success, the consortium is now planning for the next phase. Traditionally, all snakes have been released at one location within the forest. In 2025, they expanded their efforts by identifying a second release site within Kisatchie National Forest. Expanding to other areas will enable additional populations to establish themselves thereby increasing the long-term survival of the species.

As the population grows and the opportunity to release snakes at other locations expands, the consortium hopes to find private landowners willing to open their land to the snake. With habitat fragmentation being one of the primary threats to this snake, this would allow for large, connected areas for the pinesnake to disperse and interact with other individuals of its kind.

Recovering a species to the point where it no longer needs federal protection is a collaborative effort. From managing the habitat and breeding snakes to releasing them and monitoring their progress, every step involves collaboration.

Thanks to the continued collaboration and commitment of the Louisiana Pinesnake Stakeholders Consortium, this species is steadily progressing toward removal from the federal List of Endangered and Threatened Wildlife.

LANIER CLEGG, Southeast Region

Public Target Shooting Facilities Reopen in Alaska and Maine Following Modernization Upgrades

Nestled just outside Juneau, Alaska, the newly revamped Hank Harmon Public Range reopened this summer after a long-anticipated modernization effort. Three thousand miles east, Maine's Fryeburg Shooting Facility underwent a complete rebuild of its own. Though separated by four time zones, these two facilities share a common purpose of providing free, public access to safe, well-maintained target shooting spaces.

Behind the new shooting benches, enhanced backstops, and improved target berms lies a funding powerhouse that makes it all possible — the Wildlife Restoration Act, or Pittman-Robertson Act, which set up a federal excise tax paid by manufacturers of firearms, ammunition, and select archery equipment. These two upgraded facilities join the over 800 shooting ranges that have been designed, constructed, renovated, or opened to the public using these federal excise tax funds.

Hank Harmon Public Range Remodel

Juneau is a community full of avid hunters, backcountry users, and target shooters. The Hank Harmon Public Range, originally opened in 1965, is the only outdoor public target shooting facility in the area. The range is open every day of the year and the facility is regularly reserved for firearms training, organized target shooting competitions, and hunter safety programs. However, years of use and weather began

to take a toll on the facility's amenities and two ranges: the 100-yard range and the 450-yard range. Before the modernization effort, the two ranges were separated by a severely rotten 200-foot wooden barrier wall full of holes from ricocheted bullets. The wall was wearing thin and would soon be unable to prevent stray bullets from crossing between ranges, requiring one range to be closed, effectively reducing the facility's capacity by half. Looking to keep both ranges open and to make needed modernization changes, the Alaska Department of Fish and Game and the City and Borough of Juneau worked together to undertake a nearly \$1 million facility upgrade. The upgrade was supported through Alaska's Hunter Access Program funded with Pittman-Robertson dollars, and match funds from the City and Borough of Juneau.

Increasing the facility's capacity and longevity required replacing the failing wooden range barrier, installing a safety control system with a visual mechanism to notify users when the range is clear, installing new shooting benches, expanding parking capacity, and more. "Overall, the upgraded facility provides a safer, more user-friendly, and environmentally responsible shooting range for Juneau area hunters, target shooters, and outdoor enthusiasts to hone their skills," says Katie Sechrist-Gaynos, from the Alaska Department of Fish and Game's Hunter Access Program. "This updated facility provides a place for hunters and target shooters to practice the firearm handling

skills necessary to safely explore the backcountry and hunt Alaska's public lands."

Maine's Fryeburg Shooting Facility Gets an Upgrade

In Fryeburg, Maine, the story is similar. The state-run target shooting range at the Major Sanborn (Brownfield Bog) Wildlife Management Area recently had a major infrastructure rebuild. The Fryeburg facility was established as a primitive shooting facility in 1976 in partnership with the Fryeburg Fish and Game Association on an existing gravel pit within the management area. The target shooting facility faithfully served generations

of target shooters from the surrounding communities and had undergone several minor upgrades over the years.

According to the Maine Department of Inland Fisheries and Wildlife, the last several decades have seen an increase in ownership of firearms and growing participation in shooting sports activities in the state. "Given this increase in demand and increase in the use of state-owned ranges, it was important that the Fryeburg Shooting Facility was updated to ensure the continued safe-use, security, environmental stewardship and educational opportunities our public ranges offer Maine's »



Target shooters in range safety gear use the upgraded facilities at the Hank Harmon Public Range. (PHOTO BY ALASKA DEPARTMENT OF FISH AND GAME)

Continued from previous page.

residents and visitors,” says » Robert Cordes, deputy director for the Maine agency’s Wildlife Division.

The \$3.5 million renovation showcases a dramatically improved range, complete with upgraded safety zones, regraded road access, upgraded 100-yard and 25-yard firing bays designed for more efficient lead recycling, an improved aerial shotgun field, and a new 60-yard archery bay. The shooting facility also features updated sound mitigation to reduce noise pollution. The sound reduction was not required but was added as a good neighborly practice for the surrounding community.

This multiple year project was funded by Pittman-Robertson dollars as well as general tax funds including state license revenue. “The recently reopened Fryeburg Shooting Facility expands range access in the state for shooters of all experience levels,” Cordes says. The Maine Department of Inland Fisheries and Wildlife’s “programmatic mission for our shooting sports and ranges is to provide safe, family friendly and environmentally responsible access to shooting range facilities across the state of Maine, while also providing increased opportunity for experiential learning, training, and participation in shooting sports.”

CINDY SANDOVAL, Office of Conservation Investment

A Victory Against Invasive Species Before They Mussel In



A Service watercraft inspector visually inspects a boat motor at the Port of Alcan. (PHOTO BY USFWS)

Invasive species are a global problem, wreaking havoc on native ecosystems and costing \$423 billion in damage annually. Once established, they are often impossible to eradicate, making prevention crucial. Because they do not abide by jurisdictional boundaries or international/state borders, collaboration is critical.

A major victory in the international fight against aquatic invasive species occurred in August 2025. Watercraft inspectors intercepted an invasive mussel-fouled boat, leading to coordination at multiple border crossings. The collaborative effort between the boat’s owner, a Canadian provincial ministry, a U.S. federal agency, and a state of Alaska agency prevented potential introduction of one of North America’s most damaging invasive species — *Dreissenid* mussels — to Alaska.

The Problem

Dreissenid mussels, including zebra and quagga mussels, are freshwater mollusks native to Eastern Europe. First detected in the Great Lakes in the 1980s — likely introduced via shipping vessel ballast water — they have spread across eastern states and provinces. Though *Dreissenid* mussels have not been detected in Alaska, they are advancing west and north. It would only take one mussel-fouled boat to spark an infestation.

Dreissenid mussels pose a major threat to freshwater ecosystems, infrastructure, and economies due to their rapid reproduction and filter-feeding capabilities, which cause cascading ecological effects. They also do irreparable damage to drinking water systems and hydropower facilities. Unlike native North American freshwater mussels, invasive *Dreissenid* mussels

produce byssal threads — sticky filaments that allow them to attach to surfaces like boats, docks, and dams. These threads increase the risk of overland transport on watercraft, facilitating their spread to new water bodies. The Solution

To prevent the spread, a network of watercraft inspection and decontamination (WID) stations has been established across western states and provinces. Inspections involve a physical examination of the watercraft and a comprehensive review

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of its history. Inspectors will ask, “*When and where did you last have the boat in the water? Have you stopped at another WID? Where are you planning on boating next?*” Based on the answers and physical inspection, inspectors assign a potential risk level for aquatic invasive species (e.g., zebra or quagga mussels, aquatic plants) to the watercraft.

The Victory

The boat, a 24-foot Bayliner cabin cruiser, was traveling from New York to the owner’s home in Alaska. When the vessel crossed into Alberta, Canada, it underwent inspection at the Vermillion WID station. Inspectors discovered suspected *Dreissenid* mussels attached to the hull and motor. Inspectors decontaminated visibly encrusted areas of the boat with hot water, killing any potential live invasive mussels. They removed invasive mussel shells and byssal threads attached to the boat exterior, issued a Quarantine/Decontamination Order, and applied a seal to the boat and trailer. A WID seal is a tamper-proof tag on a piece of wire to fix the boat to the trailer. Removing the boat from the trailer will cause the wire to break. This is a standard method applied at a

WID station that quickly indicates to other WID stations the watercraft has not launched since the last inspection.

Acknowledging Alaska as the intended destination, Alberta Environment & Protected Areas sent notice of the invasive mussel-fouled boat to Alaska Department of Fish & Game (ADF&G).

Ahead of its arrival, ADF&G alerted WID inspectors at the Alaska-Canada Highway Land Port of Entry, Alaska’s only WID station. This station is operated by the Service, in partnership with ADF&G and U.S. Customs and Border Protection. Upon the boat’s arrival to Alaska-Canada border, we inspected the boat and noted the intact seal from Alberta Environment & Protected Areas.

Throughout the process, the boat owner was cooperative and helpful to the numerous aquatic invasive species programs. Recognizing the risk invasive mussels pose, the owner wanted to do everything possible to prevent potential introduction to Alaska. Upon arriving home, the owner thoroughly cleaned the

boat. The last step in the process was a close-out inspection from a local ADF&G invasive species biologist, who cleared the boat for launch in Alaska.

Cross-Border Coordination

This is a powerful reminder that the invasion front is advancing north, and that it would only take one mussel-fouled boat to infest Alaska. The cooperative effort by Alberta Environment & Protected Areas, Alaska Department of Fish & Game, and the Service demonstrates that these agencies are bound beyond borders in the collective mission to protect North America’s waters from the devastating impacts of invasive species.

AURELIA UMHOLTZ AND ASHLEY LUTTO, Alaska Region

Clean. Drain. Dry.

CLEAN off all plants, animals, mud, and debris from watercrafts and equipment before leaving waterbody.

DRAIN all water from watercrafts, live wells, motors, and equipment before leaving waterbody.

DRY everything in the sun for at least five days or wipe with towels before entering a new waterbody.

[More information.](#)

A woman with dark hair in a ponytail, wearing a grey t-shirt and jeans, is smiling and holding a fishing rod. A young boy in a red t-shirt and shorts is also holding a fishing rod, looking down at it. They are standing on a grassy bank next to a body of water. In the background, there are trees and a clear blue sky. The text "ENGAGE & EDUCATE" is overlaid in large white letters on a dark red background.

ENGAGE & EDUCATE

By CINDY SANDOVAL

**A new era for aquatic
conservation and
education at the
Texas Freshwater
Fisheries Center**

The Texas Freshwater Fisheries Center in Athens, Texas, is a hub of aquatic education, fish production, and conservation in the Lone Star State.

Since opening in 1996, the Texas Parks and Wildlife Department facility has drawn over 1.1 million visitors, offering an in-depth look at the diverse world of Texas' freshwater ecosystems and how state agencies manage fisheries resources.

The 106-acre facility combines a visitor center, numerous fishing ponds, 300,000 gallons of indoor and outdoor aquariums displaying native fish, alligators, and amphibians in re-created habitats, a production hatchery, and more. Sport Fish Restoration dollars supported the construction of the facility and continue to support hatchery production at the center. Now, with its current renovation effort, the center is set to expand their aquatic education capacity building on the foundation funded by federal excise dollars.

A Vision of Conservation and Aquatic Education

"Our goal is simple: engage and educate visitors," says Tom Lang, the center's director. "We want our visitors to leave with a better understanding of aquatic resources, fishing, and the work that the great state of Texas does to ensure fishing for future generations."

Aquatic education takes many forms at the center including outdoor interactive water exhibits that mimic the conditions found in Texas streams, rivers, and lakes. These displays give visitors an immersive, up-close look at different aquatic habitats.

Activities popular with visitors are the numerous fishing opportunities and fishing education programs provided at the center. At least 13,000 people have caught their first fish there, on average that is two people each day the facility has been open. No licenses are required to fish at the center, and visitors can borrow tackle and rods. Staff and volunteers are on hand to teach visitors, school groups, and clubs how to cast, attach bait and lures, and how to reel in a fish.

"Our aquatic education approach is twofold: We teach visitors how to fish," says Lang. "We also teach the importance of sustainability and the fisheries management that goes into providing fishing opportunities here and around the state." »

(Previous Page) Hector Romo reels in a channel catfish at Uvalde National Fish Hatchery in Texas. (PHOTO BY VALENTIN CANTU/USFWS).

(Left) Senior girls from Dallas's Rangel High School enjoying a day fishing at the Texas Freshwater Fisheries Center.

(PHOTO BY TEXAS PARKS AND WILDLIFE DEPARTMENT)





Texas Parks and Wildlife Department biologists use fish stockings along with harvest regulations as the primary techniques to improve or maintain fishing quality. (PHOTO BY STEVE HILLEBRAND/USFWS)

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Fish Hatchery Tram and Tours

The center houses one of five state freshwater fish hatcheries and produces over 4 million Lone Star largemouth bass fingerlings annually along with catfish and other species of freshwater fish. Visitors can join a tram tour around the hatchery to learn how staff use biology, genetic research, disease management, and other science to raise millions of fish.

The hatchery at the center is one of 321 state fish hatcheries across the country supported by Sport Fish Restoration funds using federal excise tax dollars.

The Importance of Sport Fish Restoration Funds

The center stands as a prime example of

how outdoor pursuits can support both local economies and environmental conservation. “The Sport Fish Restoration funds used to build TFFC have allowed us to leverage other funding and expand our partnerships,” adds Lang. He also highlights support from the Texas Parks and Wildlife Foundation and industry partners like Zebco, Strike King, and Toyota for helping make a vision of aquatic education a reality. “There are a lot of nature centers, but when we opened, we were the first fisheries center. Now we welcome visitors from Texas, all 50 states, and multiple countries as they learn about fisheries.”

Now in its 29th year and on the verge of reopening the newly renovated facility Lang and his staff look forward to future years of visitors enjoying the expanded exhibits, additional fishing piers, and the

updated Toyota Fishes of Texas Theater, which includes daily dive shows.

Sustaining Texas Waters for Generations

Texas has many beautiful and unique fisheries across the state and the center’s aquatic education ensures that these are not taken for granted. The facility expansion positions it to engage and educate future generations about well-managed fisheries. “The challenges we face are only going to get more complex, we need great minds, engaged partners, and the public to understand that everyone can have a positive impact on fishing’s future in their local community, statewide, and throughout the nation,” Lang says.

CINDY SANDOVAL, Office of Conservation Investment



CASTING A CONSERVATION LEGACY

Celebrating 75 years of the Sport Fish Restoration Act

By CINDY SANDOVAL

In 2025, the Sport Fish Restoration Act turned 75. This milestone marked three-quarters of a century ensuring that sport fish populations and aquatic habitats are healthy, sustainable, and accessible for all. No other funding method has had the same longevity, consistency, and significance for fisheries management in the United States.

The Sport Fish Restoration Act, also known as the Dingell-Johnson Act, was signed into law at a time when the country was reshaping its identity after World War II. While industry reached new heights and suburbia sprawled, aquatic wild places — our rivers, lakes, and estuaries — were at risk of becoming afterthoughts. Fish stocks were in trouble, waterway access was an issue, and communities were losing their connection to nature. Representative John Dingell Sr. and Senator Edwin C. Johnson sought to change this and modeled new legislation after the successful Pittman-Robertson Act of 1937, which funded wildlife conservation through federal excise taxes on firearms and ammunition.

The congressmen applied the same principle to sportfishing: a federal excise tax paid by the manufacturers of most fishing equipment that would support state and territorial fish and wildlife agency fisheries management efforts, habitat restoration, angling opportunities, and waterway access.

A Watershed Investment

Sport Fish Restoration Act funding, administered by the U.S. Fish and Wildlife Service's Office of Conservation Investment, provides Americans with the best sport fisheries in the world. Every state, territory, and commonwealth benefits, from Alaska, with its trout fishing in the Kenai River, to Florida, with its productive estuaries. The act supports the maintenance and operation of over 9,000 public boating and fishing access areas, provides aquatic education and an introduction to fishing to nearly 850,000 individuals annually, allows state biologist to manage and monitor over 200 species of sport fish, and funds the operations of more than 320 state fish hatcheries that stock more than 1 billion fish annually into American waterways.

All of this is accomplished through the act's authorization of a 10% federal excise tax on most fishing equipment; a 3% tax on electric boat motors; import duties on tackle, pleasure boats, and yachts; and the portion of the federal gas tax that is attributable to motorboats and

small engines. To date, eligible state, commonwealth, and territory agencies have received more than \$12 billion in federal funds, matched by billions of dollars in state license funds to foster fisheries conservation and connect people with the outdoors.

The state-industry-federal partnership created by the act has turned aging boat ramps into sturdy concrete launches and eroding banks into thriving angling streams. It has helped restore species like cutthroat trout, lake sturgeon, and striped bass. If you have ever watched a kid hook a bluegill in a suburban pond, been amazed by the gargantuan largemouth bass caught in a fishing tournament, or launched your boat from a public access point, chances are the Sport Fish Restoration Act had something to do with it.

More Than Just Fish and Outdoor Access

The Sport Fish Restoration Act isn't just about sport fish and waterways, it's about people. It's about grandparents teaching their grandchildren to tie a clinch knot, families enjoying a day on the water, and communities sharing meals of freshly harvested fish. There is an intimate »

(Top) The Sport Fish Restoration Act funds the operations of more than 320 state fish hatcheries that stock more than 1 billion fish annually into American waterways. (PHOTO BY LARRY JERNIGAN/USFWS)

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link between stewardship and the intrinsic, utilitarian, and cultural value of America's fisheries. These fisheries and waterways connect us to resources, to memories, to each other, and to something larger and longer lasting than ourselves.

Adapting for Tomorrow

As it celebrates its 75th anniversary, the Sport Fish Restoration Act faces a modern world that looks much different than the one Dingell and Johnson knew. But the framework they built on an industry-state-federal partnership remains remarkably resilient and ready to address challenges and opportunities for decades to come. As anglers make their way to their favorite fishing spots and bait hooks, most won't think about the legislation behind the water they float on or the fish they catch. The Sport Fish Restoration Act was never about credit, it is about conserving fisheries resources and continuing outdoor access.

Still, it's worth pausing — maybe while tying on a new lure or rinsing off your boat — to remember that thriving fish stocks and clean accessible waterways didn't happen by accident. It happened because Americans decided that sport fish and healthy waterways were worth investing in and that a shared partnership could lead to a collective legacy.

CINDY SANDOVAL, Office of Conservation Investment

Going Strong at 75 Years

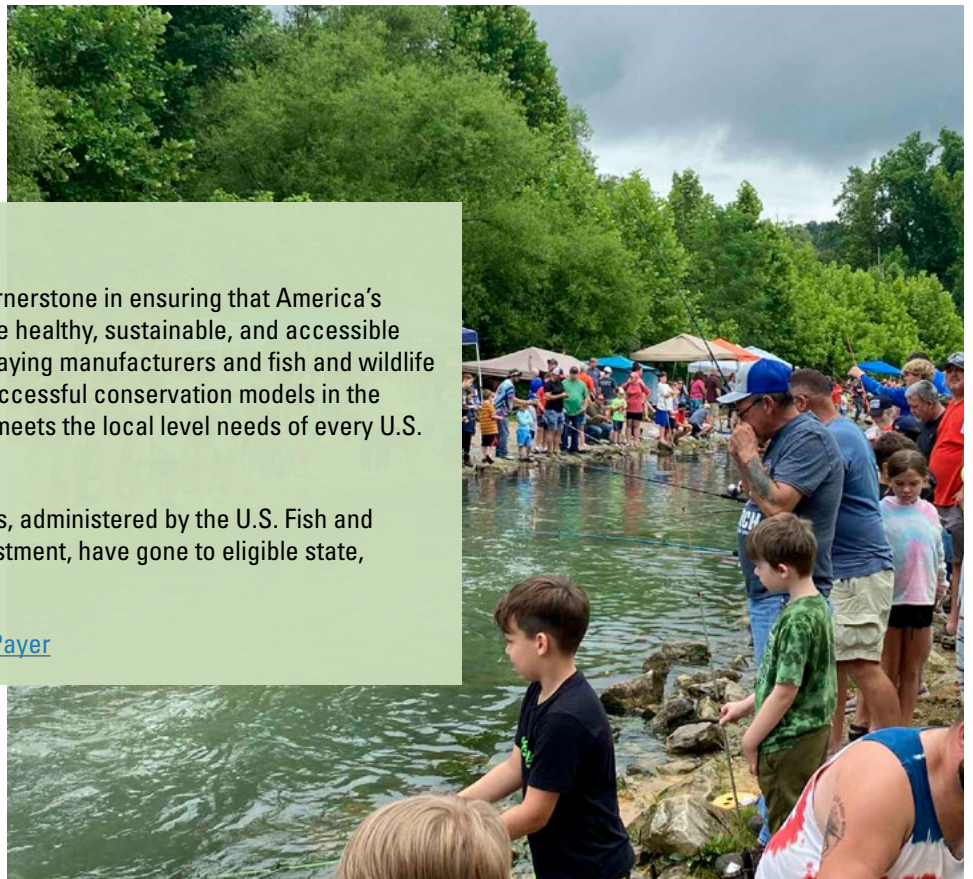
The Sport Fish Restoration Act has been a cornerstone in ensuring that America's sport fish populations and aquatic habitats are healthy, sustainable, and accessible for all. This partnership between excise tax-paying manufacturers and fish and wildlife agencies has proved to be one of the most successful conservation models in the world supporting fisheries management that meets the local level needs of every U.S. state, commonwealth, and territory.

Over \$12 billion in Sport Fish Restoration funds, administered by the U.S. Fish and Wildlife Service's Office of Conservation Investment, have gone to eligible state, commonwealth, and territorial agencies.

[Sport Fish Restoration at 75 – Partner with a Payer](#)

(Top) Anglers on the Niagara River. (PHOTO BY BRET BILLINGS/USFWS) (Middle) Kids fish in the Sewee Pond at the youth fishing rodeo at Cape Romain National Wildlife Refuge in South Carolina. (PHOTO BY TRICIA MIDGETT/USFWS) (Bottom) Attendees of the 37th annual Catch A Rainbow Kids Fishing Derby at Wolf Creek National Fish Hatchery trying their luck on Hatchery Creek.

(PHOTO BY MAKENZIE FOSTER/USFWS)



Spring of Resources

How a research vessel in American Samoa will support the economy, build relationships, and protect the environment.

By LEV LEVY

A school of barracuda at
Rose Atoll. (PHOTO BY USFWS)

The Puna'oaolevasa is an incredible resource.

Puna'oaolevasa, which means “spring of resources” in Samoan, is a new research vessel purchased by American Samoa's Department of Marine and Wildlife Resources with grant funding from the Service's Office of Conservation Investment. The boat will help the department conduct surveys and protect

the local environment, which will in turn support the region's fishing communities.

American Samoa is an unincorporated territory of the U.S. in the South Pacific Ocean, midway between Hawai'i and New Zealand. Located within the tropical convergence zone, these volcanic islands and atolls include lush vegetation and rich biodiversity. More than 99% of American

Samoa is marine waters, and the health of the ocean ecosystem is critically important for economic, environmental, and cultural reasons.

Before purchasing the Puna'oaolevasa, the Department of Marine and Wildlife Resources owned another boat. Domingo Ochavillo, the chief of the fisheries division for the department, thought that it was »

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time to replace the 20-year-old vessel.

“The boat was getting old, really old,” Ochavillo says. “It didn’t make sense to keep repairing it.”

Ochavillo approached Adam Miles, the chief wildlife officer for the department, who relied on the former boat to conduct wildlife surveys. Ochavillo and Miles decided to pool their money from the Wildlife Restoration and Sport Fish Restoration grants to support the purchase of a new boat.

“We do a lot of surveys on the water, even counting flying foxes in the north side of the island,” Miles says. “We have to do that survey from the water. We do humpback whale surveys every year. We have a new seabird project where we are out on the water multiple times a year; we’ve been trying to do more surveys in Manu’a from the water, too, so there’s a lot of wildlife work to be done on the water.”

Ochavillo wanted to be able to increase the amount of time his staff spent on the water to conduct surveys of the stunning coral reefs that border the territory. These rich marine ecosystems are threatened, raising risks for the people who rely on them.

Ochavillo and Miles asked Andy Wearing, the owner of the local boat building company to build the vessel. It took more than half a year to finish construction, and Wearing provided employment to several people on the island in the process.

“The boat was made on the island,” Ochavillo says “When they built the boat, they hired local people. It really supported the local economy.”

The boat is 32 feet long and 12 feet wide, big enough to be out at sea for long periods of time. The double hulled vessel boasts an impressive 2300 horsepower, powerful enough to travel to the remote islands of Manu’a and Rose Atoll.



“I think the good thing about this is the boat was built for conditions here,” Ochavillo says. “The nearest boat building facilities are probably in New Zealand and Australia. What we’re doing is getting a boat that fits the conditions here by working with a builder who has years of experience fishing here and building boats here.”

The Wildlife Restoration and Sport Fish Restoration grants are administered by the Service’s Office of Conservation Investment. The grants and assistance expand opportunities for states and territories to actively engage in fish and wildlife conservation.

“Some of the countries nearby don’t have this type of funding at all,” Miles says. “American Samoa is in the unique position to be able to conserve resources. It allows us to figure things out that can help in other places, too.”

Conserving resources will also help support the local economy, and particularly local fisheries. The tuna fishery in American Samoa is a vital component of the territory’s economy and culture, supporting angling communities. Centered around the port of Pago Pago, the fishery primarily targets skipjack and albacore tuna, supplying the local tuna canning industry, which is one of the largest employers in the region. By protecting wildlife and habitat for recreational fishing, these grants also help the tuna

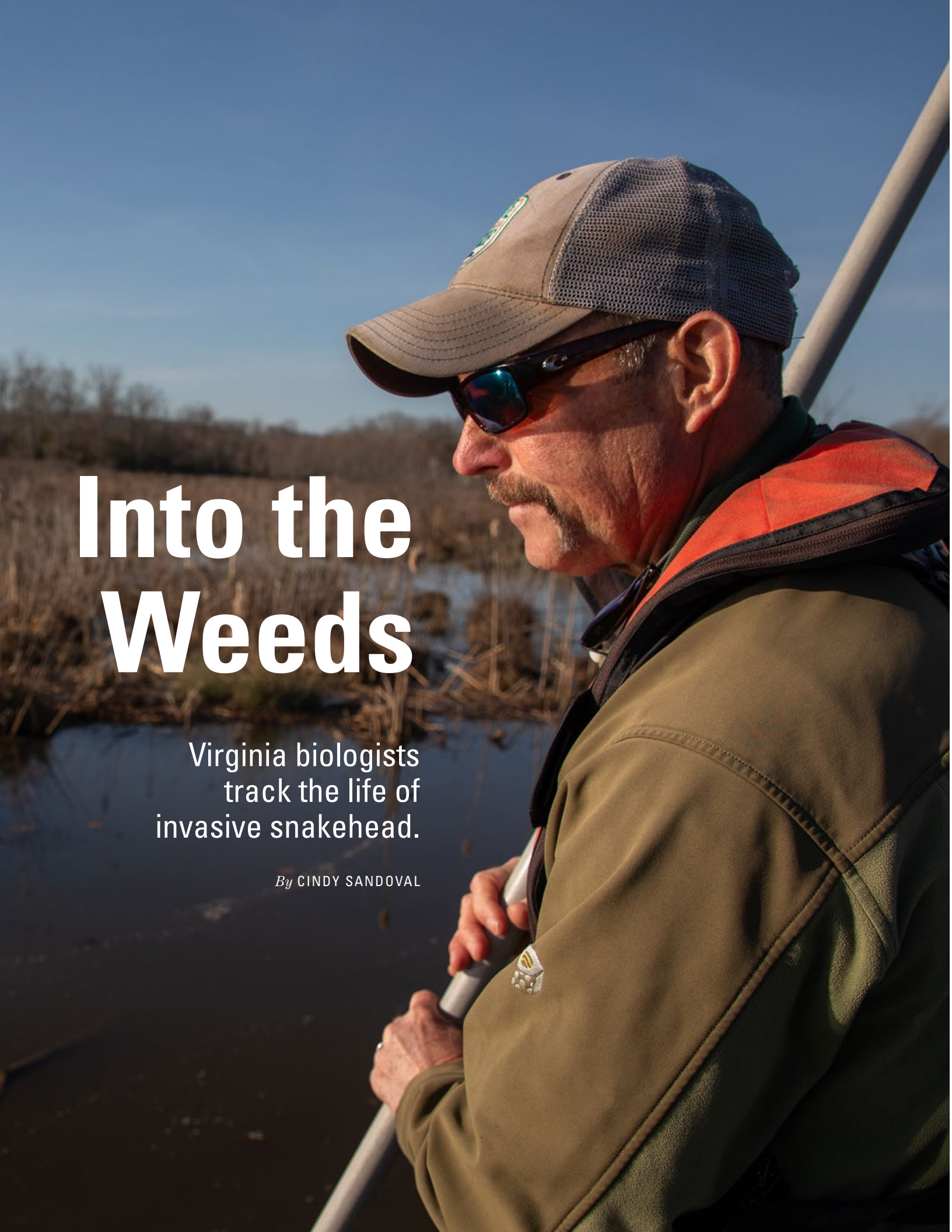
Puna’oaolevasa, which means “spring of resources” in Samoan, is a new research vessel purchased by American Samoa’s Department of Marine and Wildlife Resources. (PHOTO BY AMERICAN SAMOA DEPARTMENT OF MARINE AND WILDLIFE RESOURCES)

fishery remain a cornerstone of American Samoa’s economy.

“Protecting wildlife and habitat also drives economic gain,” Miles says. “We’re trying to build the ecotourism industry here, and if protecting habitat provides opportunities for the local economy. It’s a win-win for everything.”

The Puna’oaolevasa is not just a boat; it’s also a bulwark for the economy in American Samoa and a benefit for conservation. The boat is a symbol of a bright future for the islands, their inhabitants, and our ability to conserve and protect the marine ecosystem.

LEV LEVY, Pacific Region

A man with a mustache, wearing a tan baseball cap with a logo, dark sunglasses, and a green jacket with an orange life vest, is shown in profile. He is holding a long, light-colored pole. The background features a body of water with reeds and a clear blue sky.

Into the Weeds

Virginia biologists
track the life of
invasive snakehead.

By CINDY SANDOVAL

Biologists from the Virginia Department of Wildlife Resources stand ready on the bow, nets in hand, scanning for movement. They're conducting long-term surveys for northern snakehead, a non-native fish found in many Chesapeake Bay tributaries.

Snakeheads are native to eastern Asia and were first discovered in Virginia waters in 2004. Since then, the species has established itself in creeks, rivers, and even reservoirs through illegal introductions.

With funding from the Sport Fish Restoration Act, Virginia has been collecting data and building one of the most expansive long-term snakehead research repositories to understand how the fish is interacting with Virginia fish communities.

John Odenkirk, a fisheries biologist with the Virginia department, received a call back in 2004 from a fisherman claiming he had caught a snakehead in a Potomac River tributary in Northern Virginia. This was not the first reported sighting, but other supposed snakeheads had turned out to be eels or native bowfin. After driving an hour in Friday traffic, Odenkirk met the angler and sure enough the man pulled a snakehead out of his boat's livewell. While snakeheads had been

confirmed in isolated ponds in Maryland, this 2004 capture was the first confirmed sighting in Virginia waters and the first snakehead confirmed in an open system of the Chesapeake Bay.

"This confirmation ramped up the state's work to learn more about snakehead," says Odenkirk. "Good science informs good management, and we began surveying and collecting data on snakehead to better understand how the fish were introduced, how they survive, and how they are moving in rivers and tributaries."

For all their notoriety, snakeheads were still full of unknowns back in 2004. »

(Previous Page) John Odenkirk, a fisheries biologist with the Virginia Department of Wildlife Resources, stands ready to net snakeheads during a fisheries survey on Aquia Creek. (PHOTO BY RON MESSINA/VIRGINIA DEPARTMENT OF WILDLIFE RESOURCES)

Snakehead can survive out of water for up to four days. (PHOTO BY RYAN HAGERTY/USFWS)





Snakehead can breathe air out of water and can cross land, propelling themselves by moving their head and back fin in opposite directions.

(PHOTO BY RYAN HAGERTY/USFWS)

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Published literature was very limited, and angler tales highlighted snakeheads' resiliency and mystique. Equipped with a labyrinth organ that allows them to breathe air, these fish can survive in low-oxygen conditions where other fish might perish. They're fiercely parental, building nests and guarding fry with a zeal most fish don't bother with. And when it comes to their diet, they don't discriminate. Fish, frogs, and invertebrates are all known to be on the menu. But how would this species interact within Virginia waterways?

To find out, Odenkirk and his team began sampling several Potomac tributaries around the initial capture site. These efforts included electroshocking waterways to collect snakeheads, conducting DNA analysis, examining otoliths (ear stones) to determine fish age, and even implanting transmitters into snakeheads for telemetry research. Their work, funded through federal excise taxes paid by tackle manufacturers, a portion of the fuel tax attributable to motorboat fuel use, and money from state fishing license revenue, collected detailed data on snakehead population numbers, diets, movement patterns, habitat use, and if their presence would threaten the prized

Potomac River largemouth bass fishery.

Telemetry research has been especially revealing. After biologists surgically implanted small radio transmitters in adult snakeheads, they tracked their movements for months. The team documented distinct seasonal shifts in habitat use. Snakeheads stick to submerged aquatic vegetation during the spring and summer months to give them cover for ambushing prey and nesting. Come winter, transmitters show, snakeheads head into deeper channels.

The Virginia department analyzed stomach contents of captured fish to build a clearer picture of snakehead diets in Virginia. Results suggest that while snakeheads do consume native species like killifish, the majority of their diet is bluegill, a non-native species whose population is doing well in Chesapeake tributaries. While sharing a prey base with bass, competition does not appear to be occurring due to lower snakehead abundance and a high number of prey.

This type of information is vital for fishery managers. It can allow for targeted management strategies and show how the invasive populations are interacting in their new habitat. Perhaps most importantly, the research has shown that contrary to early media narratives and »

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public fears, snakeheads are not invading every waterbody and that the spread of snakehead can be limited by salinity, barriers, and even habitat preferences.

“In many waterways it appears that snakeheads are coexisting with bass and other fish species, that they have limited available habitat, and that the snakehead population has started to plateau, and even decline, in some waters,” adds Odenkirk. One factor that may have helped with this plateau is angling pressure. Virginia anglers and bowfishers target them for their tenacious fight and for their firm fillets. Today, it is not uncommon to see snakeheads on the menu at restaurants in the Chesapeake Bay area.

More than two decades after the first confirmed sighting, the work of the Virginia biologists has transformed initial uncertainty into a science-based understanding of this invasive species. Today, the Virginia department has become a recognized expert in snakehead with other state fish and wildlife agencies reaching out for data and guidance as snakehead continue to reach new

waterways across the U.S. Nearby fish and wildlife agencies in Maryland and the District of Columbia are also using Sport Fish Restoration funds to support programs related to snakehead. Further north, Delaware and New Jersey use the funds to investigate and document snakehead sightings within their borders.

Thanks to consistent Sport Fish Restoration funding and long-term monitoring, Virginia biologists have tracked snakehead behavior, movement, and diet, helping to dispel early fears while guiding smart, adaptive management. “Snakeheads are established in Virginia and are here to stay,” says Odenkirk. “Thankfully, the research shows they are not the ecological disaster once feared.

Instead, they’ve become a complex part of the ecosystem that can be managed with informed strategies and ongoing monitoring.”

CINDY SANDOVAL, Office of Conservation Investment

John Odenkirk holds a recently tagged snakehead from Virginia’s Little Hunting Creek. Tagged snakeheads are released back into waterways to track fish movements and habitat preference.

(PHOTO BY VIRGINIA DEPARTMENT OF WILDLIFE RESOURCES)





Anything But a Fish Tale

Sport Fish Restoration funds help Georgia build a vibrant reef community, creating prime fishing opportunities.

By LANIER CLEGG

People notoriously stretch the truth in fishing stories. A fisherman's catch is always the biggest ever seen, and "the one that got away" would have shattered records. However, one fishing story is completely factual: Sport Fish Restoration funds drive the success of the Georgia Coastal Resources Division's Artificial Reef Program.

The Service's Sport Fish Restoration Program takes money generated from federal excise taxes on fishing tackle, boat fuel, and more, and awards grants to states and territories. States and territories use these funds to build boat ramps and docks or to complete projects that promote fishing opportunities.

For the last 50 years, Georgia's Coastal Resources Division has used this money to promote offshore fishing and oyster harvesting through the creation of artificial reefs.

"If you were to go to a random location in Georgia and dive into the water, you would find a pretty sandy bottom, not a lot of biodiversity," explains Cameron Brinton, a marine biologist with the division. "When these artificial reefs are established, you go from practically nothing there to a very vibrant reef community."

In other words: Where once there were no fish, schools of fish swim, creating prime fishing opportunities!

When creating an artificial reef, one needs a solid foundation.

"We need lots of materials of opportunity," explains Brinton. "We're looking for things that are cheap to acquire, easy to get out to the reefs, something that is big enough to stay in place, will last long in salt water, and doesn't have any pollutants or hazards."

Concrete blocks and old tugboats are some of the typical building materials for reef foundations.

Coastal Resources acquires their reef building blocks in several ways. Sometimes, individuals want old boats taken off their hands, so they donate them. Other times, the division purchases vessels at scrap value. Occasionally, a ship will be abandoned at a marina. The marina »

A barge loaded with concrete and railcars heads to offload the materials at a new reef site. (PHOTO BY GEORGIA DEPARTMENT OF NATURAL RESOURCES)



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operator files a salvage claim, declares the vessel abandoned, and then passes it along to the division.

Before they can sink items to the ocean floor, pollutants and hazardous materials must be removed. This typically involves taking out fuel tanks, engines, and hydraulic lines from a ship and flushing the systems clean. Ladders, rails, and antennae are also removed so fishing lines can't get stuck and entangle marine life. To protect divers, the division welds open doors, windows, and hatches, preventing anyone from getting trapped inside.

Once the ship is prepared, a barge takes it offshore to be sunk. The division then lets nature take its course.

The goal is to drop one ship a year, but Coastal Resources often blows that goal out of the water. Last year, they had eight sinking events. Some of these outings involved sinking a single vessel. Other times, a barge was taken out to offload multiple things. One of these barges boasted hundreds of tons of concrete blocks and two old railcars.

"The railcars were a very different experience compared to the ships," says Brinton.

Typically, the ships the division drops into the water are 50 to 70 years old. They often don't know what material the vessel and its various components are made of, so they must determine what needs to be stripped and what can remain.

"The railcars had a manual about an inch

(Top) The WWII Liberty class ship SS Edwin Nettleton helps make up the HLHA reef off the coast of Georgia. The reef dates to 1971. (PHOTO BY CAMERON BRINTON/GEORGIA DEPARTMENT OF NATURAL RESOURCES - COASTAL RESOURCES DIVISION)

(Bottom) A sea turtle swimming through the ocean. (PHOTO BY GEORGIA DEPARTMENT OF NATURAL RESOURCES - COASTAL RESOURCES DIVISION)

thick that detailed where every single part came from, what it is, and what it's made of," recalls Brinton. "It made it really easy to determine what could stay and what had to go before the car was dropped."

While the term "artificial" may imply these reefs are fake, they are anything but. Calling it a man-made reef wouldn't be technically correct either. The only

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“artificial” part of these reefs is the foundation.

The division doesn’t establish the corals, sponges, barnacles, and other marine life that form a thriving reef community. But they do monitor the status of all their reefs.

Using side-scan sonar, which creates images of the ocean floor, state biologists generate maps and GPS coordinates to provide anglers with accurate information about reef locations. They also study the benefits some of the ships and railcars provide.

The ocean floor is ever-changing, and so too are the reefs. When a reef no longer produces quality habitat and provides no benefit, the division will drop another ship in the same area to replace the lost reef.

Often, Coastal Resources clusters the dropped ships together, maintaining some buffer to avoid damaging the already

established corals and ecosystems.

They strive to string together lines of items so that anglers can trawl easily. In other areas, they arrange reefs in circular clusters, allowing bottom fishers access to multiple spots with minimal effort.

Currently, state biologists monitor 30 reefs. These reefs total an area of 1.8 million square feet (1.69 square kilometers) - the equivalent of just over 31 football fields of reef.

“It builds up over time. We’re always adding stuff to the reefs,” says Brinton.

With reefs as close as 2.5 miles offshore to as far as 80 miles, there are opportunities for every angler.

Acquiring the materials, getting them reef-ready, trucking them to a barge, and then taking them to sea ... it all costs a lot of money. Thankfully, the division benefits from Sport Fish Restoration dollars.

“We would really struggle to do any of this work without Sport Fish Restoration funds,” Brinton explains.

Sport Fish Restoration funds contribute to salaries, operating expenses, and the transportation of reef materials to the water.

“We can get money and donations to buy a ship if we need to, but it’s hard to sell someone on keeping the lights on or putting gas in a vehicle,” says Brinton. “SFR really comes through for us and makes the whole effort possible.”

Looking to the future, the division hopes to continue leveraging Sport Fish Restoration grants to better monitor the reefs and the species they support.

LANIER CLEGG, Southeast Region

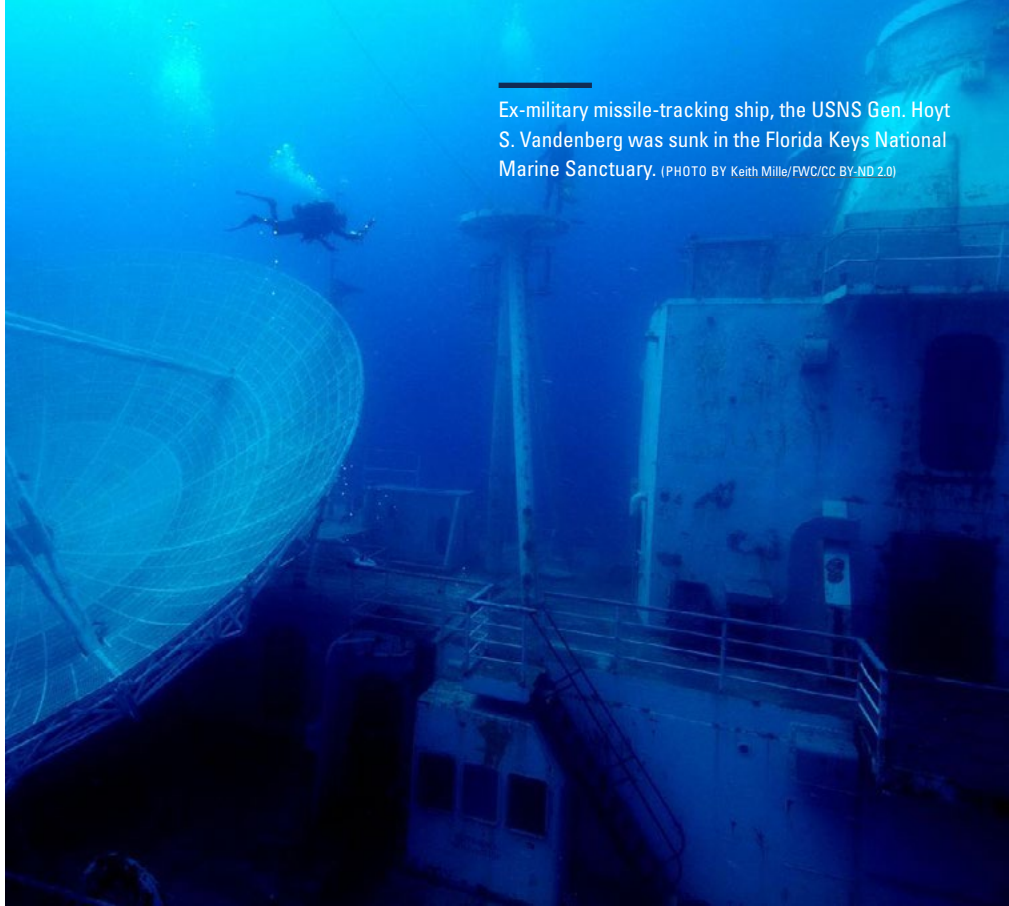
An old tugboat is sunk to become the foundation of a new reef. (PHOTO BY GEORGIA COASTAL RESOURCES DIVISION)



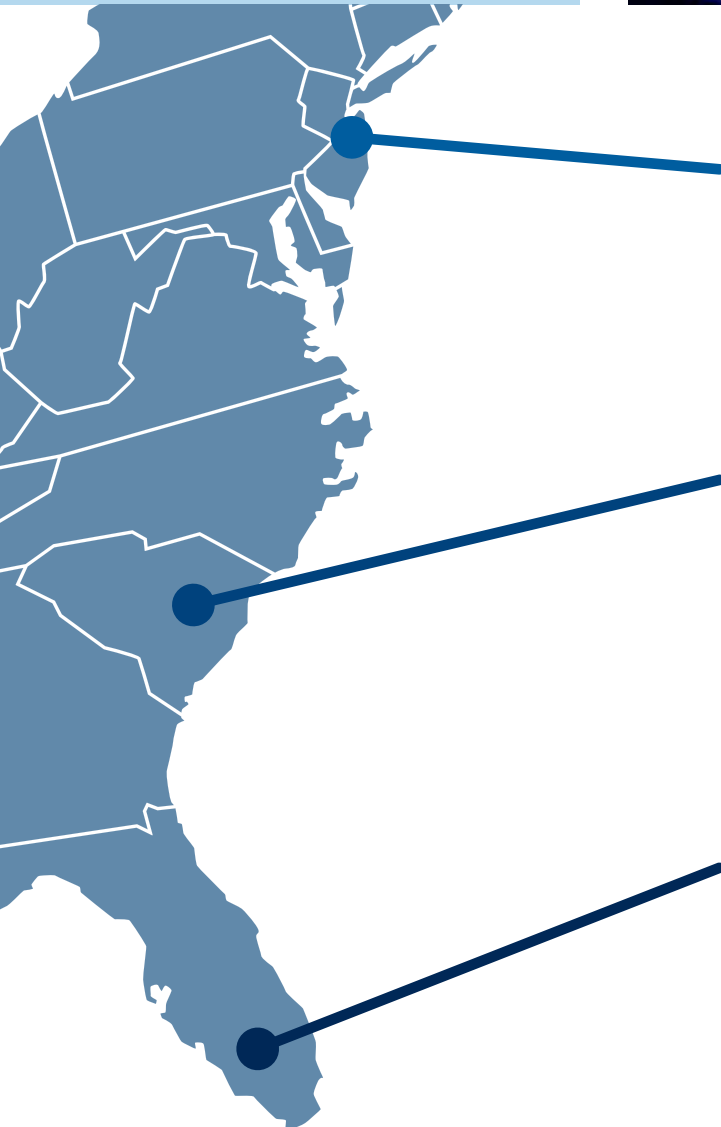
More Artificial Reefs Along the Atlantic Coast

Other states also use Sport Fish Restoration funds for reef-building.

CINDY SANDOVAL, Office of Conservation Investment



Ex-military missile-tracking ship, the USNS Gen. Hoyt S. Vandenberg was sunk in the Florida Keys National Marine Sanctuary. (PHOTO BY Keith Mills/FWC/CC BY-ND 2.0)



New Jersey has used military tanks. “These reefs are important waypoints for migrating sport fish along the Atlantic Coast,” says Pete Clarke from the state’s Artificial Reef Program. Along this waypoint network of artificial reefs, it is common for state agencies to collaborate with other state agencies to share information or access to large reef building materials. “I know that an old New York City subway car utilized for a reef in South Carolina or concrete reef balls deployed in Delaware benefits the entire network of artificial reefs, ultimately it helps New Jersey’s reefs and anglers.”

South Carolina has over 40 artificial reefs that attract red snappers, amberjack, and groupers. Like in other states, South Carolina’s artificial reefs provide not only a place for angling but also important fisheries research opportunities. “A number of our reef sites started out as experimental, with funding from the Sport Fish Restoration Program, allowing us to run experiments on fishing pressure and migration,” says Ryan Yaden, artificial reef program coordinator for the South Carolina Department of Natural Resources.

Artificial reefs support ecosystems, they also buoy economies, perhaps nowhere more visibly than in Florida. **Florida manages one of the most diverse and most active artificial reef programs** in the United States with over 300 reef sites state-wide off both its Atlantic and Gulf coasts. These reefs provide habitat for fish that draw in anglers and tourists by the millions. Artificial reefs in Florida contribute billions annually in economic output, supporting thousands of jobs in coastal communities. For bait shops and charter captains to hotels and seafood restaurants — these reefs are as vital as the tides.

Restoring the Riverbed



How Sport Fish Restoration Act funds are rebuilding salmon and steelhead habitat in California's Central Valley.

By CINDY SANDOVAL

In California's Central Valley, along the Merced River, the low rumble of bulldozers signals renewal. Crews are returning clean, sorted gravel to the riverbed, rebuilding spawning habitat that salmon and steelhead have relied on for thousands of years.

This restoration is part of a long-term effort led by the California Department of Fish and Wildlife and supported by Sport Fish Restoration Act dollars. The act provides annual funding to state fish and wildlife agencies for fishery conservation, angling opportunities, and aquatic resources education programs. These funds, administered by the Service, come from federal excise taxes paid by tackle manufacturers and a portion of the fuel tax attributable to motorboat fuel use. When matched with state funds, like

More than just aiding steelhead and salmon, like this spring-run Chinook salmon, the restoration work supports ecosystems, water quality, and communities.

(PHOTO BY USFWS)

those generated from license fees, these combined dollars support critical fisheries work. In California, they are helping reverse decades of damage caused by mining, dams, and development.

The San Joaquin River and its tributaries once supported some of the largest »



A gravel sorter is surrounded by dredger tailing mounds on Merced River Ranch.

(PHOTO BY CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE)

Continued from previous page.

salmon and steelhead runs on the West Coast. Flowing from the Sierra Nevada to the Pacific, the water carried fish seeking clean, loose gravel beds where females could dig nests, called redds, to lay thousands of eggs. But hydraulic mining stripped rivers of gravel, and dams blocked natural replenishment.

Without spawning habitat, fish populations declined. “The once-abundant salmon and steelhead struggled to find the places they need to reproduce,” says Steve Tsao, senior environmental scientist for the California agency.

Since the early 2000s, California has worked with partners to rebuild these important spawning grounds through gravel augmentation, a process of returning carefully prepared gravel to depleted rivers. At the center of this work is Merced River Ranch, a 300-acre property the agency purchased to serve as a long-term gravel source. Once heavily mined, the ranch has large mounds, known as dredger tailings, that now provide thousands of cubic yards of material each year.

“With mounds as tall as three stories, this property holds a lot of gravel for our restoration efforts,” explains Dennis Blakeman, an environmental scientist with the California department.

At the ranch, the gravel is screened, sorted, and cleaned before being placed in the river with machinery designed to minimize environmental impacts. Once in place, it becomes prime spawning habitat for returning fish. A single restored riffle

can host dozens of redds, each producing thousands of eggs.

Thanks to Sport Fish Restoration funding, restoration efforts also include the creation of side channels and floodplains, providing calm, shallow water where juvenile salmon and steelhead can grow, feed, and shelter. “This kind of habitat is critical to the survival of young fish,” says Tsao. “And the benefits extend beyond salmon and steelhead. Healthier rivers mean more aquatic insects, cleaner water, and better conditions for native fish and waterfowl.”

Restoration work is more than just adding gravel, it’s about putting it in the right place, at the right time. California biologists monitor returning salmon each year, collecting data on population size, spawning distribution, and habitat use to guide future work. Through partnerships and by targeting the most promising habitat areas, the California agency ensures restoration delivers the greatest

benefit. “These restoration efforts are made possible through strong partnerships, with key contributions from the Merced Irrigation District, U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, and California Department of Water Resources,” adds Blakeman.

Back on the Merced River, heavy equipment continues to rebuild riffles and side channel habitat. Fresh gravel sits in place, waiting for salmon and steelhead to return. Each load is more than rock, it’s a lifeline made possible by the Sport Fish Restoration Act, strong partnerships, and years of planning. Together, they are giving these fish a fighting chance to complete their ancient migration and helping California’s rivers recover their resilience in supporting ecosystems, water quality, and communities for generations to come.

CINDY SANDOVAL, Office of Conservation Investment



A California Department of Fish and Wildlife gravel addition on Merced River at the Merced River Hatchery. (PHOTO BY CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE)

Boater's Paradise

Boat ramp at Oregon's North Riverfront Park is a recreation destination and neighborhood gem

By LEV LEVY



Motorized boaters can use the ramp to access the Willamette River.

(PHOTO BY Alex Abboud/CC BY-NC-SA 2.0)

North Riverfront Park is a boater's paradise.

Located in Independence, Oregon, North Riverfront Park's boat ramp attracts visitors looking for easy recreational boating access to the Willamette River and phenomenal angling opportunities, as well as anyone who wants to picnic, walk the park's trails, or play on the soccer fields. The nearby sloughs and backwater areas are popular fishing sites for salmon, steelhead, and bass. Before 2012, the site was undeveloped. Now, it's a recreational hub in the Willamette Valley and a place of pride for Independence.

"The city approached us when they were thinking about buying the property and building not only a boat ramp but soccer fields and apartments," says Janine Belleque, the boating facilities manager for the Oregon State Marine Board. "We thought it was a great idea. It would expand access to the river and turn the site into a neighborhood park."

Before the construction of the boat ramp at North Riverfront Park, there was a ramp in the middle of the city. A flood in 1996 changed the river, depositing a large gravel bar at the ramp that made it great for paddlers but extremely difficult for motorized boaters. The city decided to look for other options. The North Riverfront boat ramp and park were completed in 2014, and the area has become a place to live, work, and play.

"People were extremely excited," Belleque says. "Paddlers love the easy access at the old site and motorized boaters appreciate the new boat ramp. The community embraces all recreational boating. The city really worked hard and did a fantastic job with what was a multimillion-dollar development project."

The boat ramp was partially funded by Sport Fish Restoration funds. Oregon Department of Fish and Wildlife granted

the federal funds and the Marine Board granted state boater funds to the city. The collaboration among the Oregon agencies, the city of Independence, and the Service is unique and productive. It's also an exceptional example of local, state, and federal cooperation.

Boat ramp access at this site is free, which helps make it accessible to people in smaller, local communities where wages are lower on average. The boat ramp is also a regional destination with the next closest ramp 10 river miles away in Salem. Approximately 60,000 boaters recreate

between Salem and Corvallis every year, and North Riverfront Park is both central and easy to access.

"We get so much positive feedback," Belleque says. "Boaters always ask, 'Can you replicate what you have here at this other location?' People love that paddlers and motorized boaters don't need to compete, the great fishing, and the other recreational opportunities. It's been a win-win."

LEV LEVY, Pacific Region

Located in Independence, Oregon, North Riverfront Park's boat ramp attracts visitors looking for easy recreational boating access to the Willamette River and phenomenal angling opportunities. (PHOTO BY OREGON DEPARTMENT OF FISH AND WILDLIFE)



transitions

Director's Office

A new president means new leadership for the U.S. Fish and Wildlife Service. Here are some of the occupants of the Director's Office:



Director **Brian Nesvik** was born and raised in Casper and Cheyenne, Wyoming. While still in high school, he enlisted in the Army National Guard as a flight operations specialist. Four years later, he attended officer candidate school and was commissioned as a second lieutenant in the field artillery. He graduated from the University of Wyoming in 1994 with a BS in wildlife and fisheries biology and management.

In 1995, he was selected by the Wyoming Game and Fish Department to serve as a wildlife law enforcement technician and later a game warden where he focused on enforcing wildlife laws, collecting important wildlife biological data, dealing with wildlife/human conflict, and managing wildlife. He spent much of his time patrolling some of the most remote and wild parts of Wyoming.

Nesvik simultaneously continued his military career and in 2004 was charged with commanding a 180-soldier Wyoming unit as they deployed to combat operations in Baghdad, Iraq. After this successful tour, Nesvik took command of the 2nd Battalion, 300th Field Artillery and deployed again to Kuwait and Southern Iraq in 2009. Upon his return from this deployment, he was selected to command the 115th Field Artillery Brigade

In 2010, Nesvik was promoted to serve as the Cody Regional Wildlife Supervisor. In 2011, he was promoted to serve as the state's Chief Game Warden, a position he would hold for eight years. At the same time, he served as the Chief of the Division of Wildlife and was responsible for the management and protection of all the state's terrestrial wildlife resources.

In 2016, he earned an MS in strategic studies from the United States Army War College.

In 2018, Nesvik was promoted to the rank of Brigadier General and charged with commanding Wyoming's Army National Guard and serving as the Assistant Adjutant General. In this role, he was responsible for ensuring the combat readiness of Wyoming's Army Guard units. After 35 years of service, he retired from the military in 2021.

In March 2019, Wyoming Gov. Mark Gordon appointed Nesvik as the Director of the Wyoming Game and Fish Department. In this role, he dealt with some of the state's most complex and controversial issues including recovering species listed under the Endangered Species Act and preventing others from being listed, big game migration

corridor policy, invasive species, and wildlife disease.

In September 2024, Nesvik retired from the Wyoming Game and Fish Department after nearly 30 years of service. He and his wife started their own ranching operation on his wife's long-term family ranch near Glendo, Wyoming, where he leveraged three decades of experience to implement habitat projects including reducing invasive annual grass and conifer encroachment, and installing wildlife friendly fencing.

In February 2025, President Donald Trump nominated Nesvik to serve as the 19th Director of the U.S. Fish and Wildlife Service. He was confirmed by the U.S. Senate on August 1 and assumed the leadership role on August 18, 2025.

Nesvik is married to his wife of 27 years and has three children and three grandchildren. He enjoys spending time with his family hunting, fishing, ranching, boating, and horseback riding.



Principal Deputy Director **Justin "J" Shirley** dedicated over 22 years to the Utah Division of Wildlife Resources, where he held a variety of law enforcement positions before serving as the agency's director for the final three and a half years of his

career. Throughout his tenure, he demonstrated a steadfast commitment to conservation, public service, and the protection of wildlife and natural resources.

With a deep passion for the outdoors and a strong belief in collaborative problem-solving, Shirley has worked tirelessly and been instrumental in building and strengthening partnerships across agencies, communities, and stakeholder groups. His leadership helped advance numerous projects aimed at preserving habitat, enhancing wildlife populations, and fostering stewardship among the public.

Shirley graduated with BS and MS degrees from Brigham Young University in wildlife and range resources. He loves spending time with his wife and four kids in the mountains and deserts of Utah hiking, hunting, birding, and fishing.



Counselor **Ron Schindler** joined the Service in May 2025. A lifetime outdoor enthusiast and conservationist, Schindler has experience bringing federal, state, tribal, and private interests together to address pressing environmental and natural resource issues. »

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Schindler began his career as an exploration geologist in Colorado and later turned in his rock hammer for an attorney's pen. As an attorney, he has worked on landscape/broad habitat issues in areas ranging from western states region of Colorado, Utah, and Wyoming to regions southward in north, south, and west Texas. He has focused much of his career on issues mitigating oil and gas industry impact on wildlife such as elk, prairie chicken, mountain plover, and lizard populations. A believer that "data" and "facts are our friends," Schindler has spearheaded scientific studies and gathered funds to sustain such studies over time.

Schindler received his Bachelor of Arts in geology from Idaho State University, a Juris Doctor (JD) from University of Denver, and a Master of Laws (LLM) specializing in international and domestic natural resources and environmental law in a cooperative program between Colorado School of Mines (where he later served as an adjunct) and University of Denver.

Schindler is married and has two married sons. He also has two granddaughters who (with him) love all creeping, crawling, hopping, and fluttering things. He enjoys hiking, horsemanship, geology, woodworking, building, and music performance.

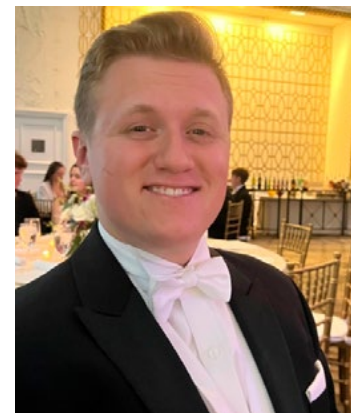


Senior Advisor to the Director **Joshua W.D. Coursey** joined the Service after 13 years as President/CEO of the Muley Fanatic Foundation (MFF), a nonprofit organization he founded that is dedicated to the conservation of mule deer and their habitat. Under his leadership, MFF evolved from a grassroots initiative into a nationally recognized conservation force, with active chapters in seven states, members in all 50 states, and more than 700 life members.

Throughout his tenure, Coursey oversaw a wide range of impactful initiatives. These included directing funding toward cutting-edge mule deer research, launching the first MFF Fellow program in partnership with the University of Wyoming, and drafting legislation that led to the creation of the Wyoming Wildlife Conservation license plate. MFF's efforts under his guidance also generated more than \$12 million for conservation easements, wildlife crossings, and large-scale habitat restoration projects. The organization's "Putting the 'U' in Hunt" program provided meaningful hunting experiences for over 100 youth facing terminal or life-threatening illnesses.

Coursey's leadership earned him a respected voice in broader wildlife and hunting policy efforts. He co-chaired the state's Chronic Wasting Disease Working Group in 2020, has served on the Wyoming Governor's Big Game License Coalition since 2017, and was a member of Gov. Gordon's Wyoming Wildlife Taskforce from 2021 to 2023. His service also includes roles on the Bureau of Land Management's Resource Advisory Council, the Rock Springs Resource Management Plan Taskforce, and the 2024 Wyoming State Shooting Complex Taskforce. In 2023, he launched the Wild Things & Wild Places podcast, producing 97 weekly episodes before stepping into his role with the Service.

A proud Wyoming native, Coursey graduated from Rock Springs High School in 1992 before serving in the U.S. Army as a photojournalist. He later completed the Colorado Peace Officers Academy and earned an Associate of Science from Western Wyoming Community College and a Bachelor of Science in emergency management from Grand Canyon University. He is also a graduate of Leadership Wyoming.



Keaton Wayne Spitser serves as Special Assistant to the Director, where he provides executive-level support on strategic priorities, interagency coordination, and policy implementation. In this role, he works closely with senior leadership to advance the Service's mission of conserving, protecting, and enhancing fish, wildlife, plants, and their habitats for the continuing benefit of the American people.

Spitser is a graduate of The Citadel, The Military College of South Carolina, where he earned a Bachelor of Arts in political science and a certificate in ministry and chaplaincy. His academic background combines disciplined leadership training with a commitment to public service and ethical governance.

Before his role with the Service, Spitser gained experience in political organizing as an advance associate for the Trump 2024 Presidential Campaign, where he supported the President's team by planning and organizing campaign stops and rallies.

honors

2024 Recovery Champions

Each year, the Service recognizes staff and partners whose work is advancing the recovery of endangered and threatened species of plants and animals. The 2024 Recovery Champions:

Southeast Region

During the summer and fall of 2024, a prolonged drought emerged as a preeminent threat to the Laurel dace, a freshwater minnow native to Tennessee. During this pivotal time, the **Laurel Dace Rescue Team** provided for the ongoing conservation and survival of the endangered fish by developing a water level monitoring protocol and planning for individuals to be collected and brought into captivity to maintain representation from the last two wild populations. In a short period, the team collaborated to rescue, transport, and house more than 200 fish while keeping individuals from each population separate.

The Tennessee Aquarium led the “Race for the Laurel Dace” fundraising campaign, which helped significantly raise public awareness of the species’ plight and secure funding to help ensure the availability of the specialized emergency care needed for the rescued individuals. The Service’s diligent work to sample, collect, transport, and care for individual laurel dace were invaluable to this effort. Members are:

- Sarah Kate Bailey - Tennessee Aquarium (team members are from left to right, top to bottom in photo)
- Geoff Call - U.S. Fish and Wildlife Service
- Stephanie Chance - Tennessee Aquarium
- Makenzie Foster - U.S. Fish and Wildlife Service
- Anna George - Tennessee Aquarium
- Helaina Gomez - Tennessee Aquarium
- Abbey Holsopple - Tennessee Aquarium
- Bernie Kuhajda - Tennessee Aquarium

- Tigris Nevans - Tennessee Aquarium
- **Warren Stiles** - U.S. Fish and Wildlife Service

Mountain Prairie Region



The Service’s **Brian Mihlbachler** is recognized as a recovery champion for his leadership in the conservation of the threatened Preble’s meadow jumping mouse. For more than 20 years, Mihlbachler has advocated for sound science and planning as a member of the species’ recovery team. Mihlbachler led the development of a comprehensive Preble’s Mouse Conservation Plan for the U.S. Air Force Academy, balancing conservation with necessary infrastructure management. Because of his efforts, the Academy is the centerpiece of the Monument Creek Recovery Population, conserving habitat that supports approximately 1,000 mice. Additionally, Mihlbachler’s leadership on the Monument Creek Site Conservation Team has supported and sustained collaborations with private landowners and local, state, and federal agencies to advance Preble’s mouse conservation by developing conservation agreements, developing and implementing habitat conservation and restoration projects, and securing funds to reduce threats to Preble’s mouse and its habitats.

Other partners honored:

Pacific Region

- Kurt Matsumoto - Pūlama Lāna‘i
- Rachel Sprague - Pūlama Lāna‘i
- Jonathan Sprague - Pūlama Lāna‘i

Over the last decade, the efforts of the Pūlama Lāna‘i team have advanced the recovery of more than 40 threatened and endangered species on Lāna‘i.

Southwest Region

- Rachel Burke - Bat Conservation International
- Jon Flanders - Bat Conservation International
- Ana Ibarra - Bat Conservation International
- Kristen Lear - Bat Conservation International
- Brianna Mann - Bat Conservation International
- Dan Taylor - Bat Conservation International

Members of the Bat Conservation International Agave Restoration Initiative Team are recognized as recovery champions for their leadership in the recovery of the endangered Mexican long-nosed bat.

Midwest Region

- Cale Nordmeyer - Minnesota Zoo
- Erik Runquist - Minnesota Zoo

Nordmeyer and Runquist are recognized as recovery champions for their contributions to the recovery of the endangered Poweshiek skipperling »



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and threatened Dakota skipper.

Northeast

- Terry Sharik - Michigan Technological University, College of Forest Resources and Environmental Science

Sharik is recognized as a recovery champion for his leadership in the recovery of the threatened Virginia round-leaf birch, a species endemic to Virginia.

Alaska Region

- VF Grace, Inc.

VF Grace committed to distributing exclusively nontoxic shotgun shells for waterfowl hunting in Alaska, helping advance recovery outcomes for the federally threatened spectacled eider.

Pacific Southwest Region

- Jana Johnson - Moorpark College

Johnson is recognized as a recovery champion for her leadership in the recovery of the

Palos Verdes blue butterfly.

Center for Pollinator Conservation

The **Center for Pollinator Conservation** (Seen: Retired and current Service staff, including Center for Pollinator Conservation staff with Monarch Joint Venture leadership. Photo courtesy of Monarch Joint Venture) plays a vital role in shaping pollinator science and monitoring within the Service. The center was recognized for this role at the 2025 North American Monarch Summit, receiving the Data Champion Award.

The Data Champion Award recognizes leadership in advancing data-driven monarch conservation through monitoring, analysis, and application of scientific tools. Through leadership in the Monarch Conservation Science Partnership, species status assessments, and international engagement, the Center for Pollinator Conservation is instrumental in advancing knowledge about monarchs and their habitats. Its support helps to develop and implement standardized protocols like the



Integrated Monarch Monitoring Program, as well as explore innovations such as uncrewed aircraft and remote sensing monitoring. The center further supports this work by leading a dedicated working group focused on improving data accessibility and addressing gaps in available information.

This year's summit brought together scientists, policymakers, land managers, and community advocates to strengthen partnerships for pollinator conservation. The recognition of our staff by the Monarch Joint Venture underscores our commitment to science integrity and transparent, impactful and reliable information to our partners and interested parties.

Services **Lori Nordstrom**, former biologist **Phil Delphey**, and information for planning and consultation coordinator **Sean Sweeney** received the Outstanding Service Award. (Seen: Retired Assistant Regional Director of Ecological Services Lori Nordstrom and information for planning and consultation coordinator Sean Sweeney with University of Illinois Chicago Energy Resources Center leadership and staff. Photo courtesy of Monarch CCAA Partner) This award celebrates their individual dedication and contributions in making the Nationwide Candidate Conservation Agreement with Assurances for the Monarch Butterfly on Energy and Transportation Lands, also known as the Monarch CCAA, a conservation success.

MARA KOENIG, Midwest Region

Monarch CCAA

A team of current and former U.S. Fish and Wildlife Service Midwest Ecological Services staff were honored at the 2025 North American Monarch Summit, which brought together the monarch conservation community from the U.S., Canada, and Mexico. Retired Assistant Regional Director of Ecological

The Monarch CCAA initiative, led by the Rights-of-Way as Habitat Working Group at the University of Illinois Chicago, represents a groundbreaking collaboration between our agency, the university, and the energy and transportation sectors. To date, 80 partner companies have enrolled in the program. By

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enrolling, companies voluntarily commit to implementing conservation practices that enhance monarch habitat. To date, this has led to conservation across 1.2 million acres of infrastructure lands. These efforts are vital in reversing the decline of monarch populations, which have faced significant threats due to habitat loss and environmental changes. The CCAA's success lies in its unique collaborative model, which balances ecological stewardship with operational needs, setting a national example for collaborative conservation.

The recognition of our staff by the Monarch CCAA program underscores the importance of cross-sector cooperation in achieving our national infrastructure, energy, and conservation goals.

MARA KOENIG, Midwest Region

Bruneau-Owyhee-Sage-Grouse Habitat Group

At the spring 2025 Western Association for Fish and Wildlife Agencies, the Bruneau-Owyhee-Sage-Grouse Habitat group received the 2025 WAFWA Federal Conservation Partner

of the Year award. Nominated by the Idaho Fish and Game Department, **Josh White** and **Alex Webb**, Service biologists for the Idaho Fish and Wildlife Office, and Conner White with Pheasants Forever were honored for their leadership, professionalism, and tireless work on rangeland projects in the Owyhee Mountains in southwest Idaho. (Seen: From left to right, Pacific Region Assistant Regional Director for Ecological Services Kate Norman, Alex Webb, Josh White, and acting Pacific Regional Director Bridget Fahey at the WAFWA award ceremony.)

The WAFWA Federal Conservation Partner of the Year award is presented to a federal agency, an entity or unit of a federal agency, or an employee of a federal agency that has proved to be a strong WAFWA partner and conducted exemplary work to help advance or favorably impact a WAFWA project, program, initiative, policy position, or working relationship that has been beneficial to WAFWA and its member agencies. Further, it recognizes exemplary achievements in building and strengthening conservation partnerships that align with the goals, objectives, and priorities of the WAFWA mission.

In addition to their technical contributions, White, Webb, and White are exemplary collaborators with private landowners and local, state, and federal agencies. Their hard work and long-term commitment to the landscape and the people within it has helped conserve the iconic Bruneau-Owyhee landscape and will benefit generations to come.

There are several juniper removal projects in the Owyhee Mountains of Idaho for which the group was recognized. One example is a 617,000-acre project that has so far restored over 300,000 acres, with the goal to improve rangeland conditions and restore habitat for wildlife by removing juniper trees that have been crowding out the sagebrush steppe landscape for decades.

ALLY TURNER, Pacific Region

Les Talbot

Les Talbot has a rich background in education and a deep passion for the natural world. Since 2008, he has dedicated 5,421 hours to Bear River Migratory Bird Refuge in Utah, serving in a variety of roles. In recognition of his extraordinary dedication, lasting impact, and recent retirement, the refuge has named its outdoor classroom in his honor.

The outdoor classroom, where future generations will learn about wetlands, wildlife, and conservation, now bears Talbot's name as a tribute to his passion for environmental education. Before his extensive volunteer service, Talbot worked as a biology teacher at Ben Lomond High School in Ogden, Utah. His enthusiasm for science and conservation inspired countless

students. Talbot's love for spelunking and birding, combined with his passion for environmental education, made his transition into volunteer work at the refuge a natural one.

He began as an interpretive guide, leading wildlife tours along the auto tour route and educating visitors about the refuge's unique ecosystems. Over 80,000 acres of marsh, open water, uplands, and alkali mudflats provide habitat for wildlife, including hundreds of species of birds. The 12-mile auto tour route meanders out to the Bear River Delta and allows visitors to use their vehicles as a wildlife blind, observing wildlife up close without disturbing them. Each year, hundreds of thousands of people visit the refuge and volunteers like Talbot are essential for providing excellent visitor opportunities.

The refuge also hosts approximately 1,700 local fourth-grade students as a part of its field trip program, and Talbot was an essential volunteer supporting this program as well, helping local students learn about their public lands and the importance of wetlands for wildlife and people. In his later years of service, he became a familiar and welcoming presence at the front desk every Tuesday and Thursday, embodying the spirit of the refuge for visitors.

Talbot also served on the Board of the Friends of the Bear River Refuge for nearly a decade. During that time, he led the effort to fund and build the refuge's popular observation deck. Friends groups are 501(c)(3) nonprofit organizations that support a refuge or group of refuges to support through a partnership agreement. »



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Every volunteer plays a vital role in supporting the high-quality visitor experiences at Bear River Migratory Bird Refuge and is deeply appreciated by both staff and visitors. The Lester Talbot Outdoor Nature Explore Classroom will continue to inspire folks for years to come, just like Talbot himself.

Sense of Wonder Awards

The Sense of Wonder Awards honor employees who have shown creativity, dedication, and visionary leadership in interpretation and environmental education.

The program features two awards for professional excellence. The Spark Award is a yearly recognition for an employee or team whose innovative program, project, or partnership demonstrates excellence in interpretation and environmental education. The Impact Award is a career recognition for an employee with 10 or more years of service advancing interpretation and environmental education.

Congratulations to the 2025 national award recipients:

Sense of Wonder Spark Award:
Deer Flat National Wildlife Refuge Community Team: Devyn Hallamore, Melisa Rodriguez Carcamo, Susan Kain, and Maria (Christina) Contreras, Pacific Region

Deer Flat National Wildlife Refuge's Community Team has created relevant and engaging programming for the surrounding Boise, Idaho, community. Demonstrating excellence in adaptive planning, the team ensures programs are relevant to audiences by holding listening sessions to allow for input and feedback on how the refuge can be a resource in the community. Using this feedback, they have built educational and interpretive programs that participants can apply in their daily lives through guided wildlife observation, habitat restoration projects, and eco-friendly gardening workshops. Community science projects teach participants how to monitor air quality, engaging participants in understanding the health of their environment and community.

Students from Caldwell, Idaho, investigate what lives at Deer Flat National Wildlife Refuge in Idaho. (PHOTO BY SUSAN KAIN/USFWS)



Sense of Wonder Impact Award: Colleen Graue, White Horse Hill National Game Preserve, Mountain-Prairie Region

Colleen Graue has created integrated outdoor learning activities with the Devils Lake Public School District for fifth-grade students who learn at White Horse Hill National Game Preserve every day. Graue co-created a highly valued, multi-disciplinary curriculum that has resulted in support from the school system to provide dedicated funds to ensure bussing, cleaning costs, and supplies are covered. The program has attracted additional educators interested in implementing a similar program for nearby middle school students from Tate Topa Tribal School. These long-term relationships have created a legacy of outdoor learning in the community.

structor, Graue offers students an opportunity to try their hand at archer while participating in the outdoor learning program.

As a certified National Archery in the Schools Program instructor, Graue offers students an opportunity to try their hand at archer while participating in the outdoor learning program.

Boston, Massachusetts, on Dec. 15, 1933. After serving in the Army for two years during the Korean Conflict, he got degrees in wildlife management from the University of Maine (B.S.) and the University of Massachusetts (M.S.). Mr. Smith later earned an M.S. in public administration from American University in Washington, DC.

Mr. Smith worked for two years with the Maryland Department of Conservation (Natural Resources) before joining the Service in 1962, directing activities in animal damage control and research. He retired in 1995, having held the position of Deputy Director since 1989.

To his friends he was known as Dick Smith, an avid small game and fowl hunter and fisherman; to his daughters, the dad who coached their softball teams and supported them in all their endeavors; and to his wife, the most loving and loyal companion that anyone could dream and wish for.

in memoriam

Richard "Dick" Nutter Smith of Vienna, Virginia, former Service Deputy Director, died May 16, 2025. Mr. Smith was born in

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.



Your Favorite Author's Favorite Authors

One-time Service employee Rachel Carson is beloved as an author and advocate, but she was also a voracious reader with an enviable personal library. As an ongoing project in collaboration with the U.S. Fish and Wildlife Service Museum and Archives, I have been cataloging her library to make it searchable via the [FWS Conservation Library catalog](#). The collection was donated by the Rachel Carson Council in 2015 and consists of volumes found in the basement of Carson's Silver Spring, Maryland home.

One of Carson's favorite authors was Richard Jefferies (1848-1887), an English nature writer who she describes in a 1953 letter to Dorothy Freeman as "a sort of literary grandfather of mine." Several of Jefferies' books can be found in her personal library. The first book by Jefferies that Carson owned was [Jefferies' England](#). The book of essays was given to Carson for Christmas in 1941, the same year *Under the Sea-Wind* was published. Freeman and Carson discussed literature frequently [in their letters](#), including books by other influential nature writers found in the collection, such as H.M. Tomlinson (author of [The Sea and the Jungle](#)), Gavin Maxwell

([Ring of Bright Water](#)), and Henry Beston ([The Outermost House](#)). Carson even offered to lend Freeman her copy of Jefferies' *England*, likely this exact one.

(MEGAN BEAN, NATIONAL LIBRARIAN, U.S. FISH AND WILDLIFE SERVICE CONSERVATION LIBRARY)



Fish & Wildlife *News*

Division of Digital, Print and Internal Communications
U.S. Fish and Wildlife Service
5275 Leesburg Pike
Falls Church, VA 22041-3803

parting shot



Wisdom arrives on Midway, 2025

Wisdom, the world's oldest known wild bird at an approximate age of 75, arrived at her traditional nesting site on Midway Atoll National Wildlife Refuge and Battle of Midway National Memorial on Nov. 18, 2025. It is estimated that Wisdom has produced 50-60 eggs and as many as 30 chicks that fledged in her lifetime.

(PHOTO BY JOHN PLISSNER)

Fish & Wildlife News

Editor: Matthew Trott

Designer: Karen Ceballos



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Submission deadline:

Summer 2026: by July 9, 2026