



VIRGINIA DEPARTMENT OF WILDLIFE RESOURCES

Annual Report 2023





Alex McCrickard/DWR



About DWR

There's no ordinary day for the Virginia Department of Wildlife Resources (DWR). At any given moment across the Commonwealth, DWR field employees could be capturing a bear for research, raising trout in a hatchery, enforcing Virginia's laws, igniting a prescribed fire, educating the public about wildlife, adding gravel to a road, evaluating a construction site's impact on an endangered species, or analyzing data gathered from tagged fish. And back at DWR headquarters in Henrico, staff supports those efforts with mapping, technology, accounting, human resources, and customer service expertise.

It's all part of DWR's mission to lead wildlife conservation and inspire people to value the outdoors and their role in nature. The outdoors are better together, and DWR aspires to welcome all Virginians and visitors to Virginia into outside spaces to recreate safely, knowledgeably, and successfully. The incredibly varied work that DWR's approximately 450 full-time employees do supports not only healthy habitats for wildlife, but also safe, accessible recreational opportunities for the public to enjoy wildlife and the outdoors.



Meghan Marchetti/DWR



Meghan Marchetti/DWR

THE VIRGINIA DEPARTMENT OF WILDLIFE RESOURCES' MISSION IS TO:

- **Conserve** and manage wildlife populations and habitat for the benefit of present and future generations.
- **Connect** people to Virginia's outdoors through boating, education, fishing, hunting, trapping, wildlife viewing, and other wildlife-related activities.
- **Protect** people and property by promoting safe outdoor experiences and managing human-wildlife conflicts.

EACH DIVISION WITHIN DWR WORKS TO CONSERVE, CONNECT, AND PROTECT IN THEIR OWN WAY. ANNUALLY, DWR WORKS TO:

- Maintain **78** Wildlife Management Areas (WMA) and Wildlife Conservation Sites (WCS) that comprise nearly **250,000** acres of public land
- Manage fisheries in more than **25,000** miles of cold- and warm-water streams
- Maintain fishing and boating access to more than **175,000** acres of lakes and reservoirs
- Educate more than **30,000** students in safe boating and hunting
- Enforce hunting, trapping, fishing, boating, and other wildlife laws for both resource protection and public safety
- Invite extensive citizen participation in the crafting of regulations
- Offer technical support to the public for wildlife, fisheries, and their habitat
- Promote safe outdoor recreation

Annual Report 2023

(Fiscal Year July 1, 2022 - June 30, 2023)



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Cover and inside cover page photos by Meghan Marchetti/DWR

COMMONWEALTH OF VIRGINIA

Glenn Youngkin, Governor

SECRETARY OF NATURAL AND HISTORIC RESOURCES

Travis Voyles

DEPARTMENT OF WILDLIFE RESOURCES

Ryan J. Brown, Executive Director

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Director's Letter

“The Outdoors are Better Together.” More than a simple tagline, this statement is reflective of who we are as a Commonwealth. According to the recently released National Survey of Hunting, Fishing, and Wildlife-Associated Recreation, Virginia annually plays host to more than a half million hunters, nearly 1.4 million freshwater and saltwater anglers, and over seven million individuals who engage in wildlife watching in one form or another. Add to that those who take to our waters in one of approximately 247,000 registered boats or countless paddlecraft, and it's clear that Virginians not only deeply care about our natural world, but also that we are also a state in which the citizens strongly participate in that world through many forms of outdoor recreation.

The Department of Wildlife Resources (DWR) has the great privilege of working every day to sustain our natural resources and promote outdoor opportunities for the public. In this report, you will find a snapshot of the remarkable activities that our staff carry out each day thanks to public support. As you may know, rather than general tax dollars, DWR largely exists through non-general fund revenues—our efforts are primarily funded by proceeds of license and registration sales, directed state revenues derived from sales of outdoor equipment and watercraft, and federal dollars generated from our constituents. We use these funds to take on conservation of our wildlife and its habitat, connection of the public to the outdoors and recreational opportunities, and protection of our resources and the public. To our hunters, anglers, wildlife watchers, boaters, and other outdoor enthusiasts who enable what we do for our resources and greater public through your investments, we owe a large “thank you”!

We could not ask for a better setting for our work than this great Commonwealth. Few states can boast the diversity that Virginia is home to in habitat types, species, and opportunities. From our Eastern Shore to the picturesque mountains of Southwest Virginia and everywhere in between, I often remark in regional and national discussions that you can find something that reminds you of the best of almost every other state tucked away somewhere here in Virginia. You'll see this reflected in the pages that follow.

DWR is also an agency with a lot of variety. In addition to what comes to mind when you think of the wildlife conservation field, you'll read about many other tasks that our staff take on. These include our ever-expanding public education and outreach efforts, connecting the public with the outdoors. We serve as the state's lead boating agency, including registration, titling, and regulation of safe boating on the water. We are also home to

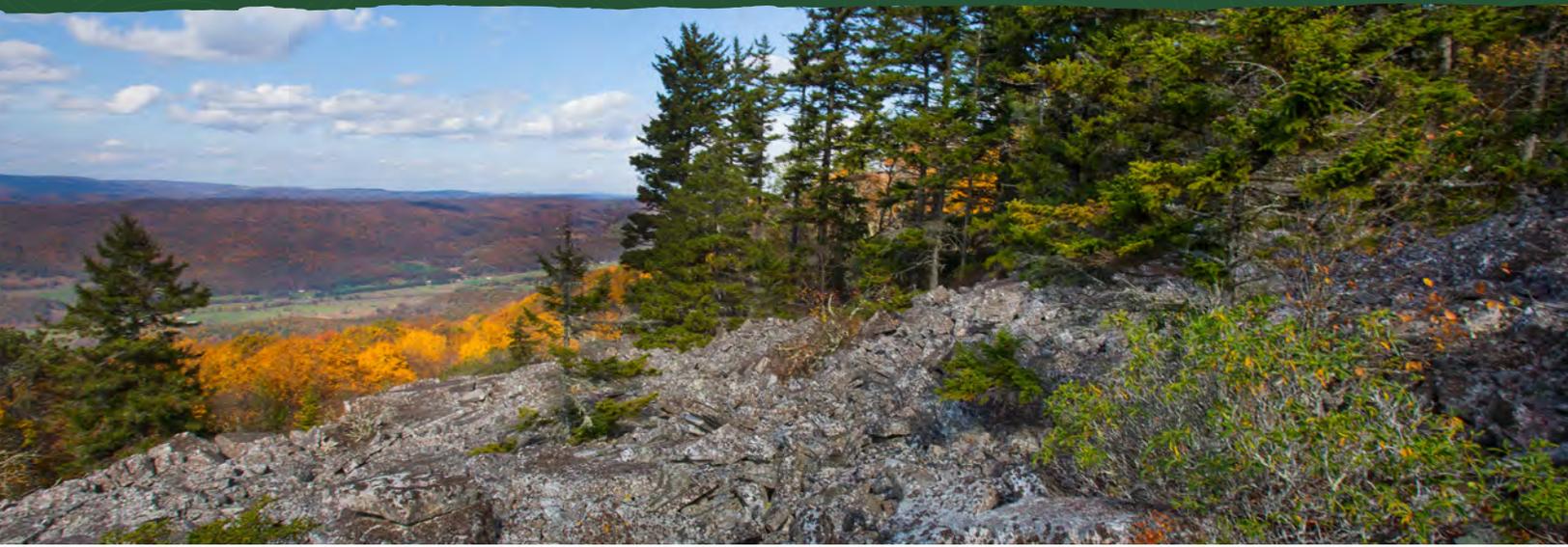
a statewide law enforcement division, with our Conservation Police Officers working every day to ensure that the public has a safe experience when they head to our wild places. We operate hatcheries that stock our cold and warm waters with fish that support recreational opportunity. We work to prevent spread of wildlife disease and threats from invasive species. And we are one of Virginia's largest landowners, with nearly 250,000 acres of recreational lands, public fishing lakes, and water access points spread across the state, all provided and managed for the benefit of our wildlife and our public. And as you'll see, the list goes on.

We are proud to use this opportunity to provide a report of our agency's activities over the preceding year. In reality, it is but a summary of what goes on in the field and in the agency every day. But we hope that it leaves you with a sense of all that Virginia's wildlife and outdoors have to offer and maybe even spurs an interest to get out and experience our wild places in a new way. Thank you for the opportunity to serve Virginia!

– Ryan J. Brown, Executive Director



Meghan Marchetti/DWR



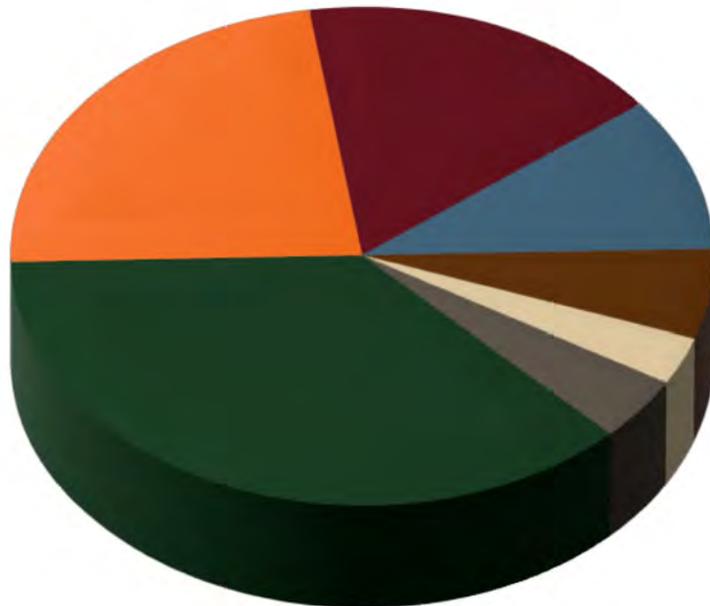
How We're Funded and How We Spend

The Department of Wildlife Resources (DWR) largely exists through non-general fund revenues. We operate from within multiple restricted funds to support unique programs and responsibilities in Law Enforcement, Wildlife, Aquatics, Boating, Nongame and Endangered Species, Capital Programs, and Outreach, as well as administrative support functions in Human Resources, Planning and Finance, and the Executive Office.

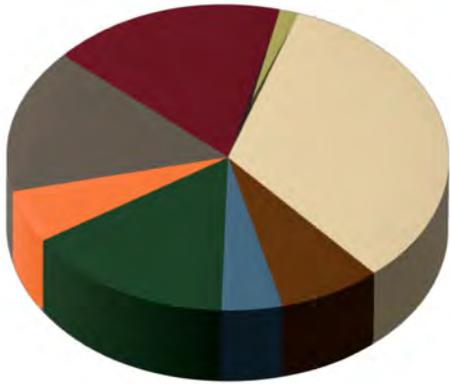
PRIMARY REVENUE SOURCES THAT SUPPORT DWR

** as a percentage of annual revenue*

- Hunting, Fishing, and Trapping Licenses, Permits, and Stamps **37%**
- Federal Grants for Wildlife and Aquatics Support **23%**
- Sales Tax on Outdoor Equipment for Hunting, Fishing, and Wildlife Watching (HB38) **17%**
- Watercraft Sales and Use Tax **10%**
- Boat Registration and Titling Fees **6%**
- Federal Grants for Boating Support **3%**
- Miscellaneous **4%**

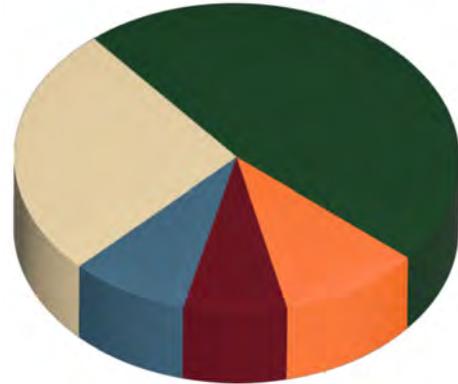


DWR'S ANNUAL OPERATING BUDGET FOR FY23 BY DIVISION



- Executive Office/ Nongame/ Capital Programs **\$3.9 million**
- Wildlife **\$12.1 million**
- Outreach **\$5.3 million**
- Human Resources **\$927,000**
- Boating **\$2.9 million**
- Planning, Finance & IT **\$10.6 million**
- Aquatics **\$10.6 million**
- Law Enforcement **\$23.1 million**

CAPITAL PROJECT CATEGORIES



- Maintenance Reserve **\$1.5 million**
- Public Land Improvements **\$1.1 million**
- Boating Access **\$1.25 million**
- State Dam Safety **\$3.85 million**
- Land Acquisition **\$6.88 million**



ECONOMIC CONTRIBUTIONS IN VIRGINIA



HUNTING

510,000 hunters spent \$409 million on hunting-related equipment expenditures



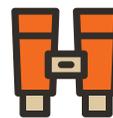
FISHING

1.4 million anglers spent \$350 million on fishing-related equipment expenditures



RECREATIONAL MOTORIZED BOATING

247,824 registered boats resulted in \$623 million spent on boating-related equipment expenditures



WILDLIFE WATCHING

7.1 million wildlife viewers spent \$654 million on wildlife watching-related expenditures



Conserve. Connect. Protect.

DWR leads the conservation and management of healthy terrestrial and aquatic wildlife resources, including for both common and at-risk birds, fish, mammals, reptiles, freshwater mussels and other aquatic invertebrates, and amphibians—and healthy wildlife habitats for the benefit of present and future generations.



Meghan Marchetti/DWR

CONSERVE. CONNECT. PROTECT.

Bringing Elk Back to Virginia

From the initial translocation of 75 elk during 2012–2014, DWR now estimates 250+ elk reside in Southwest Virginia, with the majority of their habitat on reclaimed mining lands. DWR Wildlife Division staff have radio-collared 39 elk to monitor changes in the population and provide valuable data to inform management actions (e.g., public access for viewing and hunting, hunting impacts on the herd and herd movement, highway mitigation, etc.). Ongoing habitat work for the elk involves DWR staff and supportive volunteers and partners.

The elk herd offers a variety of recreational opportunities. Elk viewers from across the country have participated in guided tours, utilized purpose-built viewing platforms, and tuned into the online elk live-stream camera. Two successful elk hunts have taken place in the Elk Management Zone, in October 2022 and 2023, representing a major milestone for the Virginia elk program. The hunt was all about providing opportunities for hunters, which is

a key part of DWR's mission. Local landowners and partner organizations such as Southwest Virginia Sportsmen and the Rocky Mountain Elk Foundation were integral to the preparation and effort. Applications for the 2022 hunt generated \$513,000 in revenue and one of the six elk tags was distributed to a partnering land conservation orga-

nization to raffle off, with the more than \$90,000 in proceeds to benefit wildlife conservation efforts in the Elk Management Zone.

The restoration of the elk herd and the resulting recreational opportunities it offers has helped create a tourism industry in the Buchanan County area, including the annual Elk Fest.



Mike Roberts



Meghan Marchetti/DWR

UNDERSTANDING WILD BROOK TROUT

A multi-year aquatics research project is assessing the impacts of hatchery-raised and -stocked trout on wild brook trout populations. The brook trout is the only native trout species to Virginia and is the state fish. For recreational opportunities, DWR raises and stocks hatchery brook, rainbow, brown, and tiger trout. DWR biologists are monitoring five wild brook trout streams to collect data to inform future stocking decisions.



CONSERVE. CONNECT. PROTECT.

Creation of Coastal Forest WMA

DWR's purchase of land on the Eastern Shore of Virginia and creation of the Coastal Forest Wildlife Management Area marks one of the most significant conservation efforts it has ever undertaken there. When completed, this initiative will greatly improve habitat for wildlife, provide highly desirable public access on more than 8,600 acres, and support coastal resiliency. More than 60 priority at-risk wildlife species will benefit from this work, along with hundreds of other species of wildlife and plants found on these parcels. The addition will not only create a conservation corridor through Accomack County into Northampton County to provide habitat for wildlife now and into the future, but also will create extensive opportunities for wildlife-dependent recreation, such as wildlife viewing and hunting.

EVALUATING IMPACTS ON WILDLIFE

The DWR Environmental Services Section reviews permit applications, policy changes, land use changes, land development projects, water supply or intake projects, and other items to ensure avoidance of impacts on threatened, endangered, and at-risk species as well as wildlife resources and programs. The ESS staff work with conservation partners, permitting agencies, and others to ensure projects across Virginia fully consider potential impacts on wildlife and their habitats.

DWR has been working with Fairfax County's Urban Forestry Division and the Virginia Department of Forestry since 2017 to save a stand of black ash trees, a rare tree in Virginia that grows only on certain types of sites, from the invasive and destructive emerald ash borer. Black ash occurs at only a few small locations in seepage swamps in Virginia. Control efforts included injecting chemical pesticides into the trees and releasing/establishing parasitic wasps in the area as a more continual, natural control. Since 2017, two seasons of wasp releases (2017 and 2018) and four pesticide treatments (2017, 2018, 2020, 2022) were completed. More than 200 black ash trees have been treated.



Ron Hughes/DWR

Historic Freshwater Mussel Restoration Efforts

DWR and partners successfully propagated and stocked multiple species, some endangered and threatened, of freshwater mussel species into Virginia rivers. Work at DWR's Aquatic Wildlife Conservation Center (AWCC) in Marion produced 87,689 mussels of 12 different species, including the critically endangered Appalachian monkeyface and rough pigtoe. This was the first time both species had been grown and stocked anywhere in the world. The AWCC stocked 8,212 mussels of 22 species into western Virginia waters.

The Virginia Fisheries and Aquatic Wildlife Center (VFAWC) in Charles City propagated almost 500,000 freshwater mussels of nine different species, seven of which were Species of Greatest Conservation Need. The VFAWC released more than 12,000 mussels in FY23, including 2,000 James spiny mussel, a federally and state-endangered species that had not been found in the James River since the 1960s. Both facilities conduct ongoing research and population monitoring projects as well.



Meghan Marchetti/DWR



Tom Hampton/DWR

ENSURING PUBLIC ACCESS

DWR owns or manages 230 boating access sites across the Commonwealth and owns and manages nearly 250,000 acres of land in Wildlife Management Areas (WMA) and Wildlife Conservation Sites (WCS). In addition, the agency is responsible for renovations and repairs on 39 dams, nine state hatcheries, and other agency-owned facilities. DWR staff continually makes improvements on these sites to ensure safe constituent access—building and maintaining boat ramps, piers, gravel roads, and more.



J.D. Klepfer/DWR

Habitat loss and degradation have contributed to population declines of the state-threatened wood turtle (*Glyptemys insculpta*), which was once a common turtle in northern Virginia. The 2020 Virginia Wood Turtle Conservation Plan included the need for maintaining viable corridors for movement. When erosion threatened a well-known wood turtle stream, DWR staff and volunteers coordinated and implemented the restoration and stabilization of multiple stream bends. In the process, they captured and temporarily housed 20 wood turtles, which were released at the conclusion of the project.



Meghan Marchetti/DWR

CONSERVE. CONNECT. PROTECT.

Renovated Front Royal Fish Hatchery

Extensive renovations to the Front Royal Fish Cultural Station were completed in 2023, equipping the facility with state-of-the-art equipment and resources to maximize the production and stocking capability of both warm- and cold-water fish such as smallmouth bass, muskellunge, trout, catfish, and walleye into the South and Shenandoah river watersheds. Improvements included a new hatchery building with modern technology, a sophisticated UV filtering system for the water intake from Passage Creek, and four ponds lined with rubber.

RESEARCH IN LARGE RIVERS

DWR manages the fisheries in large river systems including the James, Rappahannock, and New rivers, including promoting and maximizing angling opportunities for largemouth and smallmouth bass, striped bass, and catfish. DWR staff monitors fish populations and conducts targeted research, including studies of northern snakehead reproduction and the movement of important gamefish like largemouth bass. Data from this research helps biologists better understand how recreational anglers, fishing tournaments, and commercial fishing affect fish populations.



Meghan Marchetti/DWR

STUDYING LARGEMOUTH BASS

DWR biologists are conducting a 10-year study to evaluate the potential for low-density stocking to improve catch rates of larger bass. The study involves Smith Mountain Lake, Claytor Lake, Lake Chesdin, Lake Anna, and Beaverdam Swamp Reservoir. The data from this study will be critically important in making decisions about managing largemouth bass, the Commonwealth's most popular and valuable freshwater sportfish, in Virginia.



Meghan Marchetti/DWR

WILDLIFE SURVEY AND MONITORING PROGRAMS

DWR biologists conducted survey and monitoring programs of numerous wildlife populations, including waterfowl, game birds, American woodcock, black bear, nutria, and others throughout Virginia. These activities provided data for tracking population trends, monitoring harvest and survival rates, setting annual hunting seasons, assessing use of habitats, developing population and habitat management programs, monitoring invasive species, and tracking hunter numbers, harvests, and participation.

VOLUNTEER CONTRIBUTIONS

DWR's Volunteer Program contributed more than 5,700 work hours to the agency, resulting in a savings of more than \$114,000. Volunteers participate in angling education, boat ramp inspections, construction projects, fish stocking, data collection, WMA habitat work, hunter education, and more.



PUBLISHING REGULATIONS

The divisions of Outreach, Law, Wildlife, Boating, and Aquatics collaborate to annually produce regulations books conveying the state's hunting, trapping, fishing, and boating laws and guidelines for safety. Wildlife and Aquatics staff use the hunting, trapping, and fishing regulations to help manage and maintain sustainable wildlife populations.



Brittany Bajo-Walker/DWR

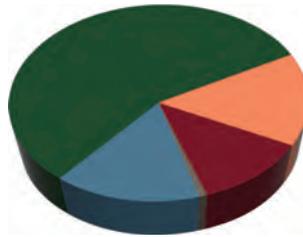
DWR biologists conducted extensive population surveys of the endangered Big Sandy crayfish species and during the summers of 2022 and 2023 collected individuals for the first time since 2002. DWR has partnered with the U.S. Fish and Wildlife Service's White Sulphur Springs National Fish Hatchery to develop a propagation technique for the Big Sandy crayfish in the hopes of stabilizing and growing their populations.



Meghan Marchetti/DWR

DWR CONSERVATION POLICE IN ACTION

- Conducted **20,445** patrols
- Responded to **5,531** violation calls
- Responded to **4,493** wildlife nuisance calls
- Responded to **243** environmental issue/fish kill calls
- Received **5,734** wildlife crimeline reports



TOTAL CALLS: 53,235

BETTER UNDERSTANDING BATS

DWR biologists monitored bat populations by manually counting them during their winter hibernation (called hibernacula counts) in 39 caves, resulting in a total of 1,565 bats. Virginia's bat populations have declined by more than 90 percent mostly due to white-nose syndrome, a fungus that affects bats hibernating in cool, moist caves and can be deadly. DWR is seeking to better understand bats' use of habitat and areas around important hibernacula during the fall and spring. The Virginia Tech-U.S. Geological Survey Cooperative Research Unit will add to that knowledge by using acoustic detectors to assess activity patterns at 13 major hibernacula.

The Coastal Plain population of the state-endangered eastern tiger salamander (*Ambystoma tigrinum tigrinum*) has only three known breeding sites, one of which was discovered in 2016 at an old mill pond site that according to locals had been abandoned for more than 50 years. A few years after the discovery was made by a DWR biologist, the small earthen dam eroded to a point that it no longer retained water. Coordinating with the landowner, DWR staff gained permission to restore the dam breach in time for the breeding season, continue to monitor the site, and are hopeful the population will recover.



J.D. Kleopfer/DWR

MAXIMIZING FISH IN PONDS AND LAKES

DWR biologists work to enhance fishing opportunities at more than 130 ponds and lakes such as Claytor Lake, Lake Moomaw, Kerr Reservoir, and more. Strategies include placing fish habitat structures, surveying populations, vegetation control, and stocking species such as crappie, sunfish, channel catfish, largemouth bass, sunfish, and trout.

CONSERVE. CONNECT. PROTECT.

Fish Stocking

DWR's five coldwater fish production facilities stocked nearly 1 million brook, rainbow, brown, and tiger trout between fall 2022 and spring 2023, of which 800,000 were catchable size. These trout are stocked into 200 different locations and benefit approximately 60,000 trout anglers.

DWR's four warmwater fish production facilities stocked 3.5 million fish.



Meghan Marchetti/DWR



■ Rainbow trout 524,425	■ Brook trout 147,114	■ Walleye and saugeye 1.8 million	■ Black crappie 300,000	■ F1 largemouth bass 100,000	■ Muskellunge 2,000
■ Brown trout 100,991	■ Tiger trout 17,627	■ Striped bass 1.15 million	■ Hybrid striped bass 155,000	■ Channel catfish 90,000	



Meghan Marchetti/DWR

HABITAT MANAGEMENT

DWR staff continually manages wildlife habitat at WMAs and WCSs to provide safe, healthy habitat for both game and nongame species. Habitat management strategies include invasive/undesirable plant control, prescribed burning, timber management, mowing, discing, and planting. The types of habitat created include timber stands, dove fields, early successional habitat, waterfowl impoundments, and open fields.

EXPLORE THE WILD SWEEPSTAKES

The public was given the opportunity to directly contribute to conservation efforts by purchasing entries to win prizes such as a guided elk tour, a cabin stay, and more. The sweepstakes raised more than \$77,000 that was earmarked for elk habitat work.

VIRGINIA BREEDING BIRD ATLAS 2

A collaborative project between DWR, the Virginia Society of Ornithology, and the Conservation Management Institute at Virginia Tech, the Virginia Breeding Bird Atlas 2 is one of the largest volunteer-based bird survey projects to take place in Virginia and has produced 725,000 breeding bird records through the efforts of more than 1,400 volunteers. The data will be used to create maps of species' breeding distribution and abundance, and to mark changes in those distributions over the 30 years since VABBA1.



Maddie Cogar/DWR

KEEPING TABS ON NONGAME FISH

DWR biologists monitor populations of nongame fish such as the black-banded sunfish, spotfin chub, yellowfin madtom, ashy darter, and more. In 2023, nongame and endangered species aquatic biologists collected eDNA (environmental DNA) samples at 48 sites. Analysis of the eDNA identified two locations of black-banded sunfish, bringing the known total to 16 locations. Other surveys also located a new location of the endangered species Tennessee dace, which will help the species' resiliency and recovery. Biologists also focused efforts on the Clinch River, which has the highest number of endangered fish species of any U.S. watershed. DWR biologists partnered with Conservation Fisheries Inc., to sample 12 Clinch River sites via snorkeling, locating 29 nongame and endangered species.



Jeff Cooper/DWR

STUDYING RAPTORS

DWR biologists completed field work for a multi-year bald eagle air strike study at Langley Air Force Base, capturing 26 eagles and outfitting them with cellular transmitters. They also trapped six golden eagles, collecting blood and feather samples along with applying cellular transmitters, to provide data for ongoing research. DWR staff also contributed to a conservation and management plan created by the Eastern Golden Eagle Working Group.



Matt Kline/DWR

Renovation of the boarding dock and fishing pier at the Lawnes Creek boating access site in Surry County included construction of a new 105' accessible aluminum boarding dock and 44' fishing pier, allowing for an opportunity to fish and boat in Lawnes Creek and providing boat access to the James River. Additionally, an accessible parking spot and approach were added to ensure accessibility to all users.



Jessica Ruthenberg/DWR

GIVING SEABIRDS A HOME

DWR continued a project begun in 2020, providing safe nesting habitat for Virginia's largest colony of migratory seabirds at Fort Wool and anchored barges after the displacement of their nesting grounds due to construction at the Hampton Roads Bridge-Tunnel site. DWR staff also conducted banding and survey efforts to examine distribution, reproduction, and survival. While the numbers are still being tallied, the 2023 nesting season resulted in more than 6,000 royal tern nests, 684 laughing gull nests, and continued successes of the other species of conservation concern.



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Meghan Marchetti/DWR

CONSERVE. **CONNECT.** PROTECT.

Explore the Wild

DWR staff planned, developed, and implemented a significant update to the access portion of the DWR website and created an easy-to-use portal for users to find public lands offering location-based recreational opportunities. A robust database of public lands opportunities, amenities, and features includes properties owned and/or man-

aged by federal, state, county, or municipal governments that invite access for a variety of outdoor recreation uses. Available on both the DWR website and mobile app, Explore the Wild provides a single online destination to connect the public with new places to enjoy boating, fishing, hunting, hiking, paddling, or wildlife viewing.



Meghan Marchetti/DWR

DWR hosts an education booth annually at the Virginia State Fair, sharing DWR's mission with more than 200,000 attendees.



TELLING DWR'S STORIES

DWR communicates to the public through five monthly topical email Notes from the Field newsletters, which saw subscriptions rise to 837,000 in FY23. Virginia Wildlife magazine is a bimonthly magazine sent to 25,000 subscribers nationally, generating more than \$200,000 in revenue annually. The video and photo production team promoted elk restoration and recreational opportunities, supported the Conservation Police recruitment campaign, produced public safety messages, and highlighted other agency initiatives.

RECRUITING, RETAINING, AND REACTIVATING (R3)

The R3 program conducts the hunting mentor program, which matches experienced hunters with novice hunters to improve their skills and confidence. The Refer a Friend initiative rewards current DWR customers for inviting new customers to purchase a hunting or fishing license. The quota hunt system allows hunters access to properties not traditionally available for access.



Meghan Marchetti/DWR



Meghan Marchetti/DWR

CONSERVE. **CONNECT.** PROTECT.

Finding and Training the Next CPO Generations

The DWR Law Enforcement Division undertook a comprehensive recruitment process for a new class of Conservation Police Officers (CPOs) that engaged with potential applicants and actively reached out to a range of communities. These initiatives were driven by the profound goal of identifying individuals possessing the qualities and commitment required to become the next natural resource protectors—those who would stand as protectors of the intricate balance of woodlands and waters, and the diverse ecosystems they

entail. By engaging with potential recruits in diverse settings and contexts, the recruitment section demonstrated a commitment to ensuring that the ranks of the Conservation Police are enriched with individuals who mirror the values and mission of safeguarding the state's previous wildlife and ecological heritage. The recruits trained in the Basic Academy for 26 weeks, and 22 recruits graduated the 12th academy and were sworn in as CPOs, then were assigned to field training officers to continue their training.

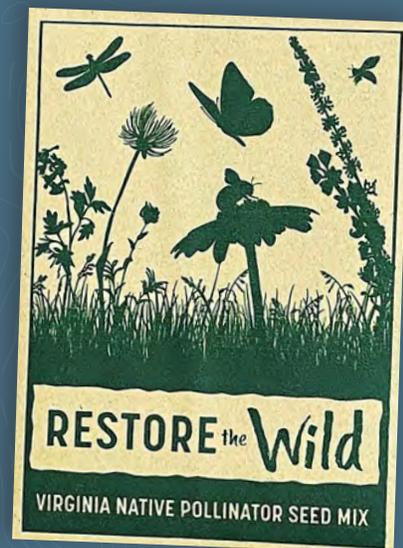
CONNECTING TO MILLENNIALS

Thanks to a multi-state conservation grant, an ad campaign was developed intended to connect millennials and Gen Z with hunting, shooting, and the outdoors. The goal was to educate them on the important role that hunting and shooting has in conservation. The campaign delivered more than 25 million impressions and generated more than \$100,000 in revenue.



CPOs CONNECTING

CPOs participated in a wide variety of outreach events across the state, including 33 National Night Out events. CPOs bring specialized equipment and educational materials to share the agency's mission with the public. In addition to highlighting conservation efforts, DWR CPOs also engage in meaningful conversations with citizens about responsible outdoor activities, wildlife management, and how individuals can contribute to the protection of natural resources.



The DWR Native Pollinator seed packet promotes the use of native plants to support wildlife. Debuted in FY23, these have sold more than 435 units and raised \$5,620 in revenue. Seed packets are also distributed at outreach events.



Meghan Marchetti/DWR

CONSERVE. **CONNECT.** PROTECT.

National Archery in the Schools Program

DWR hosted the 14th annual Virginia National Archery in the Schools Program (NASP) Tournament/IBO 3D Challenge, with more than 600 archers competing for more than \$30,000 in educational scholarships. DWR also offered 19 Basic Archery Instructor Certification trainings for NASP, training 83 teachers, county parks

staff, camp counselors, parent volunteers, scout leaders, and support staff to allow them to provide basic archery instruction for more than 20,000 new students. Virginia NASP is growing, and proudly offered archery instruction to more than 48,000 students.



The iconic Virginia Wildlife calendar provides the public with stunning wildlife photography and interesting wildlife facts monthly. Sales of the calendar generate more than \$100,000 in gross revenue and also provide DWR staff with a product for goodwill distribution to partners.

CONSERVE. **CONNECT.** PROTECT.

Wildlife in Schools

A revamp of DWR's Virginia Naturally Schools Program redesigned the requirements and awards for the program in the hopes of reaching more schools. During FY23, the program recognized 36 schools for their environmental education efforts; 17 schools were recognized for the first time, with three schools earning their 21st year of recognition. Virginia's Project WILD Facilitator Program also got an update, with a rewrite of the manual, training of new facilitators, and coordination of 12 Educator Workshops for 214 educators. Wildlife education content on the DWR website also was added and updated.



Meghan Marchetti/DWR

CONSERVE. **CONNECT.** PROTECT.

Pescadores Para El Planeta

In 2023, a grant from the Recreational Boating and Fishing Foundation’s George H.W. Bush Vamos a Pescar Education Fund provided valuable funding for a summer and after-school fishing program in Harrisonburg Public Schools called Pescadores Para El Planeta. The program connects middle school students to fishing and aquatic education opportunities they wouldn’t otherwise have access to.

DEVELOPING THE FUTURE INTERNALLY

A two-week Leadership Development Program provided 25 employees with valuable training in leadership, agency history, and workplace cooperation. The first agency-wide Climate Survey took place in 2022, with 83 percent of the DWR workforce participating in a survey on a wide range of topics, including employee satisfaction, agency priorities, diversity and inclusion, and perceptions of management. An agency-wide Diversity and Inclusion training session educated and informed all agency employees on sustainable diversity and inclusion strategies.



INFORMING THE PUBLIC

DWR kept the media and public informed about agency news and safety messages through media engagement opportunities, media inquiries, and 46 press releases.



Meghan Marchetti/DWR

Free Fishing Days allows the public to try fishing by waiving the need for a license for three days in June. DWR conducted five public educational events attended by more than 500 people across the state, including one in partnership with Defensores de la Cuenca.

Hellbender as Hero

DWR's Restore the Wild initiative offers a membership concept as a way to contribute to a conservation fund earmarked for habitat restoration projects.

With a focus on helping the agency become more relevant to new audiences and to diversify revenue streams, Restore the Wild took advantage of a national marketing plan and strategy to reach the next generation of conservationists. In FY23, Restore the Wild gained 1,242 new members and received 305 donations, resulting in more than \$64,000 in revenue. Those funds will be dedicated to habitat restoration projects on agency properties that benefit a

diversity of Virginia's Species of Greatest Conservation Need.

For its third annual Restore the Wild Artwork Competition, DWR asked artists to depict the eastern hellbender, an endangered aquatic salamander species with a brown, slimy appearance that doesn't traditionally lend itself to portraiture. The species selection drew attention to clean water as a message, and the contest received a record 139 submissions. Thanks to a new and exciting partnership, the contest was able to display all artwork entries at a gallery for public display. Winning artworks were used to help promote DWR and Restore the Wild's mission.

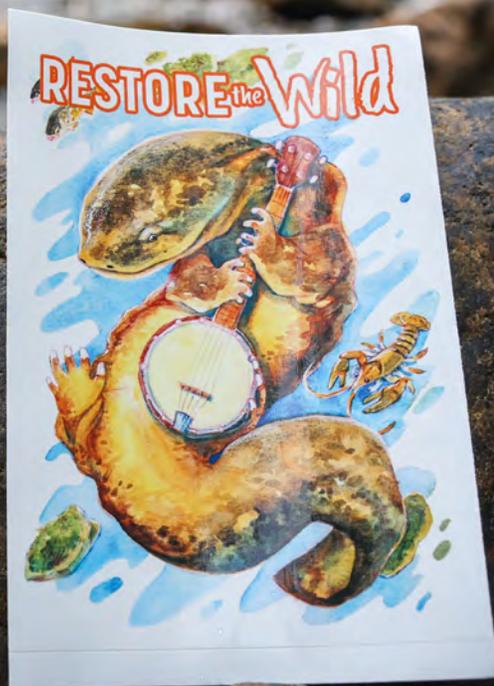


Meghan Marchetti/DWR

SHARING FISHING

DWR promoted fishing as a recreational opportunity through educational videos, articles, and placements in local news media. Angling Instructor Trainings instructed DWR volunteers and participants from partner organizations in the safe and effective teaching of fishing techniques.

Meghan Marchetti/DWR



Lynda Richardson/DWR



MEET AND GREET

DWR Outreach established an educational presence at a wide variety of events across the state, including Elk Fest, the Virginia State Fair, the Osprey Festival, the Winter Wildlife Festival, the Great Dismal Swamp Birding Festival, the Green Top Outdoor Expo, Riverrock Monsters of the James fishing tournament, the Virginia Fly Fishing and Wine Festival, and the Richmond Fishing Expo.



CONSERVE. **CONNECT.** PROTECT.

Connecting Communities

A focus has been made on seeking out and prioritizing partnerships with outdoor affinity organizations and personalities to connect underrepresented constituencies with the work of DWR. The Outreach division and the Office for Diversity and Inclusion initiated ongoing relationships with ARTEMIS Sports-women, the Upper Mattaponi Nation, Humble Hustle, Blue Sky Fund, Rivah Sistah, and Outdoor Afro. Events helped connect groups to DWR, including the Outdoor Afro/DWR Field Day, during which 30 members of the DMV chapter of Outdoor Afro participated in a field day featuring archery, fishing, hikes, and wildlife viewing.

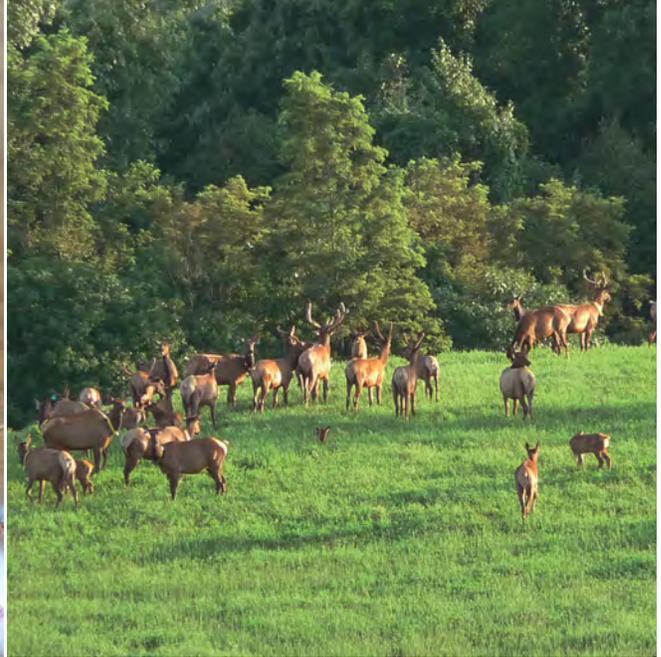
DWR also coordinated with Hmble Hstle Clothing and the Virginia Tourism Corporation on specialty merchandise designed to reflect the theme “The Outdoors are Better Together.” The unique partnership combined creative and promotional efforts focused on inclusivity and diversity in the outdoors. Through merchandise sales, the partnership helped fund the Humble Hikes Program, a Hmble Hstle Company initiative to expose inner-city youth to outdoor recreation.



Meghan Marchetti/DWR

FISHLOCALVA

DWR’s FishLocalVA program aims to ensure that quality recreational fishing opportunities are available near population centers across the state. The more than 70 waters in this program are generally small in size and intensively managed for quality fishing. Nearly all program waters support populations of self-sustaining warm-water species such as sunfish and largemouth bass. A total of 24,456 catchable trout were stocked into eight urban waters, and a total of 55,937 channel catfish were stocked into FishLocalVA waters. FishLocalVA is fully supported by interactive web content that not only provides information on where to fish, but also on other outdoor recreation related activities in the area such as hiking, camping, and paddlesports. This direct linkage to outdoor recreation helps to further DWR’s goals to recruit and retain new constituents and customers. FishLocalVA waters are actively promoted with fishing events, most notably those that occur on Free Fishing Days, which represent a powerful tool for promoting these water bodies.



CONSERVE. **CONNECT.** PROTECT.

Live-Streaming Wildlife

Coordination between Outreach and Wildlife staff provides four different live-streaming cameras featuring different wildlife species and habitats' expanding wildlife-viewing opportunities for Virginians and beyond. The Richmond Falcon Cam follows the nesting season of a pair of peregrine falcons at a nest box atop a building in downtown Richmond and is accompanied by an informational web page and educational blogs about what viewers are seeing. More than 5,700 subscribers receive the blog updates via email. Elk Cam highlights and informs the

public about Virginia's elk restoration project, using a 4K camera complete with audio to capture the elk herd in Buchanan County. Viewers can see elk grazing and hear the bull elk bugle.

The first DWR wildlife viewing camera is Shad Cam, a camera aimed through a window into the waters of the James River, allowing viewers to glimpse a wide variety of species of fish as they navigate the fish ladder at Boscher's Dam. Shad Cam provides a unique opportunity to educate the public on the need to remove migratory obstacles and

restore passage to historic spawning grounds for fish such as American shad. The Shad Cam web page also hosts educational content. The newest addition to the cameras is Marsh Cam, a camera overlooking a marsh environment at Hog Island Wildlife Management Area. The camera can be remotely controlled, and 15 school classrooms signed up to control the camera in Spring 2023. A connection to iNaturalist allows public wildlife observation to display automatically, and more than 700 observations of 74 species were recorded.

The 2023 spring turkey season resulted in a harvest of 24,447 turkeys, the highest spring turkey harvest ever recorded in Virginia. Although many states within the region are reporting declining spring turkey harvests and populations, Virginia seems to be a bright spot regionally. Four of the top five turkey harvests have occurred since 2020, indicating that populations appear to be robust.



Meghan Marchetti/DWR



Meghan Marchetti/DWR

CONSERVE. **CONNECT.** PROTECT.

Virginia Wildlife Grant Program

Purchases through DWR's e-store generated \$138,475 in revenue for the Grant Program, which connects under-served youth to the outdoors by funding activities in hunting and shooting sports, fishing, archery, paddling, and wildlife viewing. The program provides participants with learning experiences to increase their interest and participation in outdoor activities. In FY23, the program approved 14 awards totaling \$167,600 to create these opportunities.

HUMAN RESOURCES

The Human Resources division provided employees with essential information, training, and guidance to allow each employee to perform their role effectively and efficiently. A new online recruitment system helped HR post and fill 71 positions.

SERVING THE CUSTOMERS

The DWR Customer Service Center and Boat Registration/Titling section assist more than one million boaters, hunters, anglers, and wildlife enthusiasts annually, fulfilling administrative needs and wildlife resources questions. In FY23 ...



87,000 calls



8,800 walk-in customers



10,000 emails



1,500 written correspondences



Meghan Marchetti/DWR

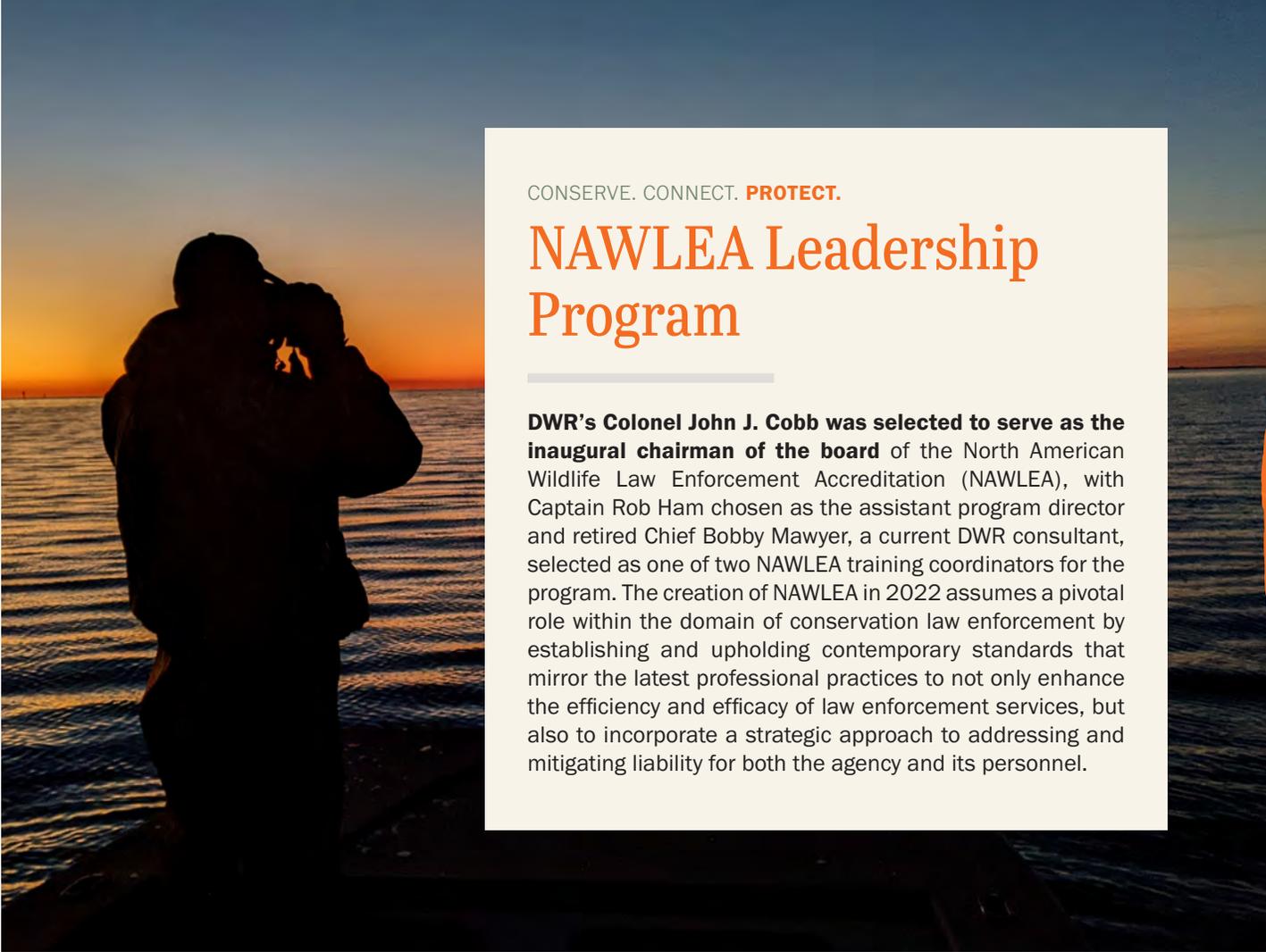
The Virginia Bird and Wildlife Trail is an online guide to Virginia's best locations for wildlife viewing, featuring information on more than 600 publicly accessible outdoor sites. The VBWT supports the agency's mission of connecting people to the outdoors and promoting ecotourism in Virginia. Annually, more than 300,000 users access the VBWT guide web pages.



Conserve. Connect. **Protect.**

DWR protects people, property, and natural resources by promoting safe outdoor experiences and managing human-wildlife conflicts through both law enforcement and education efforts. We also enforce the Commonwealth's wildlife and boating laws and regulations.





CONSERVE. CONNECT. **PROTECT.**

NAWLEA Leadership Program

DWR's Colonel John J. Cobb was selected to serve as the inaugural chairman of the board of the North American Wildlife Law Enforcement Accreditation (NAWLEA), with Captain Rob Ham chosen as the assistant program director and retired Chief Bobby Mawyer, a current DWR consultant, selected as one of two NAWLEA training coordinators for the program. The creation of NAWLEA in 2022 assumes a pivotal role within the domain of conservation law enforcement by establishing and upholding contemporary standards that mirror the latest professional practices to not only enhance the efficiency and efficacy of law enforcement services, but also to incorporate a strategic approach to addressing and mitigating liability for both the agency and its personnel.



KEEPING BOATERS INFORMED

The DWR Boating division annually updates the DWR Boating Regulations, ensuring that Virginia boaters have access to the most up-to-date laws regarding recreational boating.



Meghan Marchetti/DWR

DWR biologists and a specially trained detection dog patrol rivers in the Coastal Plain to monitor the invasive rodent species of nutria, which is a semi-aquatic rodent that can devastate wetland habitats.

Meghan Marchetti/DWR



KEEPING HUNTERS SAFE THROUGH EDUCATION

The Hunter Education Program staff and volunteers train about 10,000 hunter education students annually. Since Hunter Education became mandatory for 12- to 15-year-olds and first-time hunters in 1988, there has been a 73 percent reduction in the rate of hunting-related shooting incidents (injuries and deaths). The Hunter Education Program conducts Basic Hunter Education, Virginia Bowhunter Education, and Beyond Basic Hunter Education classes.



Meghan Marchetti/DWR

CONSERVE. CONNECT. **PROTECT.**

Mitigating Human/Wildlife Conflict

DWR Wildlife Division staff work extensively with a variety of localities and landowners to address a breadth of human/wildlife conflict issues. They also update and refine outreach materials, operational techniques, staff response, and research efforts to provide the most effective route to conflict resolution. DWR and the U.S. Department of Agriculture (USDA)-Wildlife Services continue to collaborate in administering the

Virginia Wildlife Conflict Helpline, a central and timely source of science-based wildlife information for Virginia residents that fields more than 15,000 calls annually.

Wildlife staff collaborated with the Law Enforcement Division to refine the agency's responses to wildlife conflict. DWR staff continued to provide innovative and timely assistance to residents dealing with human/bear conflicts, working with

State Parks, the U.S. Forest Service, and National Parks to prevent and mitigate conflict. DWR Law Enforcement and Wildlife staff work together to address illegal feeding and subsequent conflict issues. Outreach and education are a significant focus for preventing human/bear conflict. In addition, DWR has annually allocated funds to local governments to mitigate human/bear interactions in chronically affected areas.

Boating Assistant Director Certified

Stacey Brown, the Boating Division Assistant Director, passed the Certified Recreational Boating Professional (CRBP) exam and was awarded her CRBP certification. The National Association of State Boating Law Administrators (NASBLA) recognized Stacey Brown as the sixth person to achieve the CRBP credential. The CRBP certification is a voluntary credential for recreational boating professionals developed by NASBLA. The credential is broad-based and addresses boating profession-

als' knowledge, performance, and career achievements in the identified program domains of management, leadership, ethics, and character; boating law administration; boating laws and compliance; federal programs; partnerships; boating safety marketing, outreach, and public relations; boating safety education; boating safety training and program development; waterways management and access; and vessel numbering, titling, and Vessel Identification System (VIS).



Meghan Marchetti/DWR



CPOs SUPPORTING EACH OTHER

The DWR Conservation Police Peer Support team members offer their coworkers support in responding to critical incidents as well as offering a listening ear as they face challenges. The DWR CPO Peer Support team works with the Virginia Law Enforcement Assistance Program (VALEAP) to provide critical incident stress management services to law enforcement officers facing the toll of traumatic incidents, helping to shape a resilient law enforcement community.

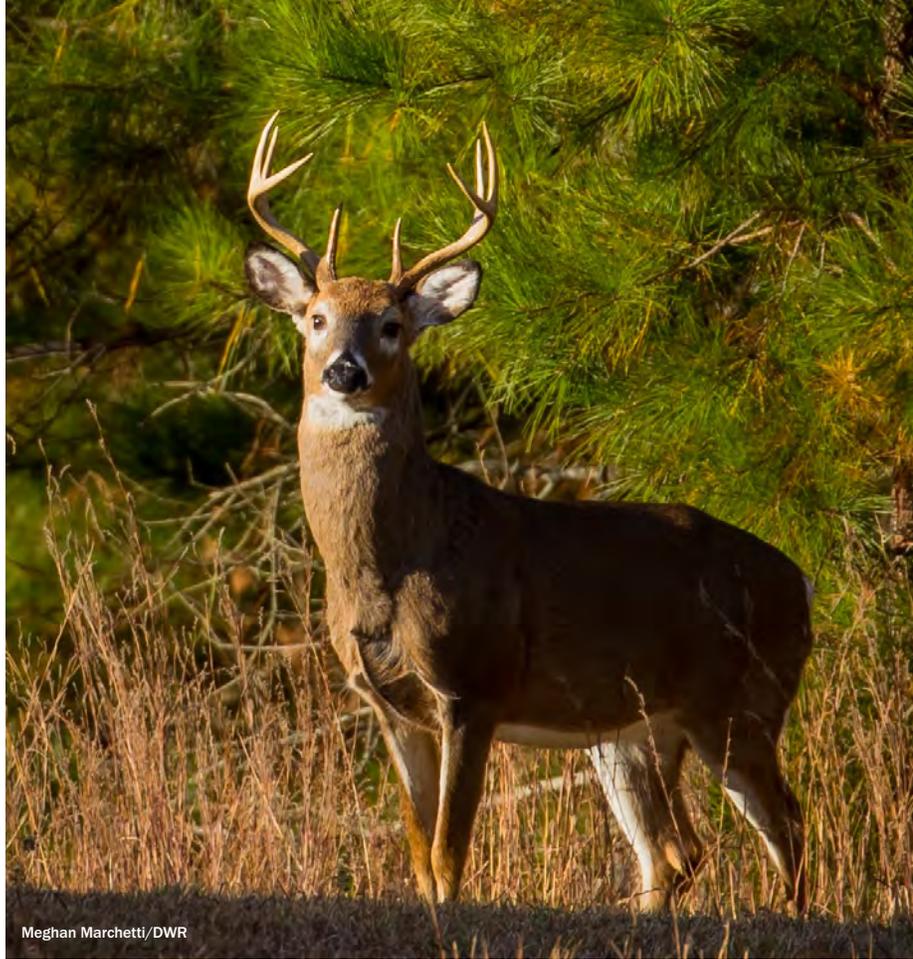


DWR Wildlife staff and Conservation Police work to combat the illegal trade of reptiles and amphibians, which is a large and growing problem. In 2023, Conservation Police covert agents seized 750 animals that had an overseas market potential value of more than \$150,000.

CONSERVE. CONNECT. **PROTECT.**

Managing Wildlife Disease

Managing wildlife disease continues to be an expanding program within DWR's Wildlife division. DWR employs a Wildlife Veterinarian and a Wildlife Health Coordinator. Wildlife biologists and staff perform direct disease management via surveillance/testing programs and regulatory actions as well as proactively developing and conducting public outreach efforts to raise awareness of wildlife diseases and compliance with management actions that can help mitigate disease spread. The efforts focus on Chronic Wasting Disease (CWD), Bear Sarcoptic Mange, Highly Pathogenic Avian Influenza (HPAI), and Rabbit Hemorrhagic Disease (RHDV2).



Meghan Marchetti/DWR



Meghan Marchetti/DWR

DWR CPOs patrol Virginia's waterways and lands throughout the year to make sure Virginia's hunters, anglers, trappers, and boaters are not only complying with regulations, but also recreating safely.



Ron Messina/DWR

KEEPING BOATERS SAFE

The Boating Safety Program works to keep the operators and passengers of more than 225,000 registered motorboats safe and informed. Boating accidents have declined statewide from 227 in 1997 to 89 in 2021. More than 23,000 students attended a boating safety education course (either in person or online). The Boating Safety Program also coordinates with the information side of the agency to provide boating safety messages through email newsletters, social media, and the DWR website.

Responding to Invasive Aquatic Species

Invasive species continue to present one of the most important challenges to aquatic resource management in Virginia, and the Aquatics division is working on several initiatives and efforts to limit the negative impact of these species. Alabama bass monitoring remains a top priority, given the species' demonstrated negative impacts on largemouth and smallmouth bass. DWR staff contributed significant data to research and provided important information about this species to news networks and social media channels. Another invasive species of concern is the northern snakehead. DWR-funded work has shed light into the factors that govern snakehead populations, providing critical information for understanding how their populations function. DWR continues to monitor blue catfish, which support a popular and economically important recreational fishery that requires reduction in numbers to be sustainable. Recent research has identified migration patterns, which will underpin a vital component of blue catfish management in the future.

DO YOU KNOW THE DIFFERENCE?

Alabama bass (invasive)

Largemouth bass

- Anglers are reminded that the introduction of novel predators can have unforeseen impacts on native or established ecosystems.
- The introduction of Alabama bass is illegal in Virginia. Alabama bass have been scientifically shown to out-compete established populations of largemouth bass and hybridize with smallmouth bass.
- Invasive species cause negative ecological and/or economic harm.
- Anglers who suspect they have captured an Alabama bass should take a picture of the fish, clip off a thumbnail-sized portion of one of the pelvic fins, and store the fin clip dry in an envelope. The pelvic fins are located on the bottom of the fish, just under the head. They should then either contact the Department of Wildlife Resources at: fisheries@dwr.virginia.gov or 804-967-1293.

CONSERVE. CONNECT. PROTECT.



Meghan Marchetti/DWR

THE DWR K9 UNIT AT WORK

	2018	2019	2020	2021	2022
Calls for Service	-	-	1,870	576	1,871
Public Appearances	85	89	14	91	111
Tracks	63	71	74	82	92
Wildlife Detection	28	18	17	15	14
Area Search	51	63	177	118	116
Nonspecific Use	40	45	10	2	9
Human Remains Detection	-	-	1	4	3



CONSERVE. CONNECT. **PROTECT.**

Law Special Operations Unit Adds Capabilities

The Special Operations Unit within DWR law enforcement encompasses a variety of specialized divisions, including the division's K9 units, the Marine Fraud and Theft Unit, and the Covert Unit, each contributing distinct skills to the division's capabilities. Beyond the full-time assignments within the unit, the Special Operations Unit

assumes responsibility for guiding the division's Man Tracking Team, which employs finely honed skills to track individuals in diverse terrains to enhance the divisions Search and Rescue abilities. A newly formed Drone Team, leveraging cutting-edge technology, enhances the unit's aerial capabilities, adding a layer of modern sophistication to their

operations. Moreover, the Hunting and Boating Incident Teams are available to assist CPOs throughout the state in complex investigations. Finally, to culminate this impressive array of responsibilities, the Special Operations Unit assumes the revered duty of overseeing the esteemed Honor Guard Unit.



Meghan Marchetti/DWR

THE DWR CONSERVATION POLICE

Conservation Police Officers protect:



More than **8 million** Virginia residents



68,626 acres of State Forest land



27 major lakes



95 counties



250,000 acres of DWR Wildlife Management Areas



3,500 miles of trout streams



371 rivers & creeks



1.6 million acres of National Forest land



Meghan Marchetti/DWR

SOLVING WATERWAY ISSUES

In December 2022, the position of **Waterways Manager** was filled, a new role that oversees the management of Virginia's waterways and waterway issues. The Waterways Manager's role includes oversight of the regulatory marker process, coordination with other divisions and law enforcement to ensure proper management of waterway user conflicts, working with access issues regarding waterways, working with water body associations, homeowner associations, private lakes, and user groups. The position uses mapping and GIS solutions, data management, and organizing more than 30 years' worth of paper documents to properly ascertain waterway marker ownership, placement, cataloging, inspection schedules, and compliance.

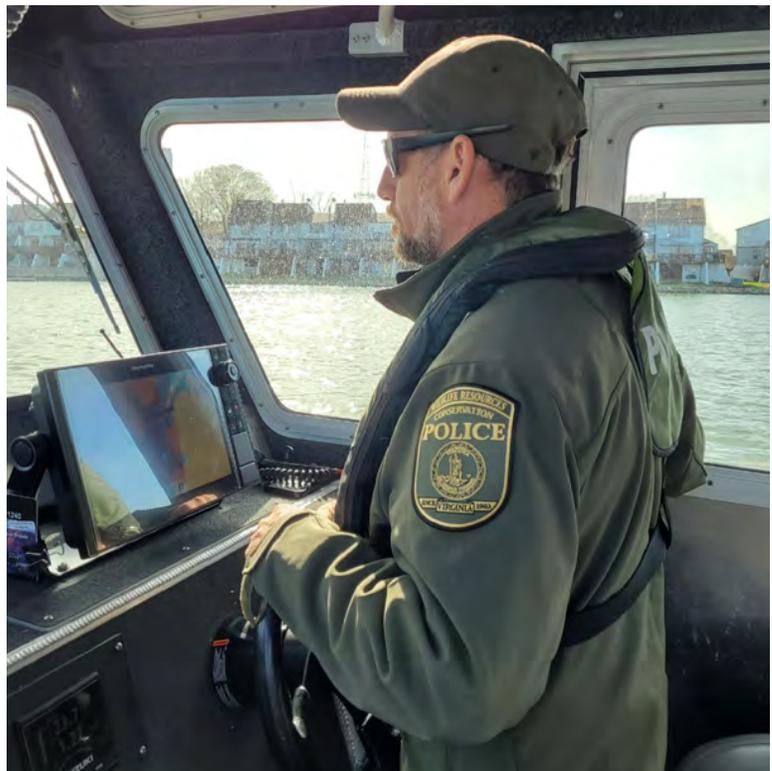


DWR led a multi-agency initiative to develop the **Wildlife Corridor Action Plan**, one of the first state-wide plans with a clear emphasis on protecting vital wildlife habitat corridors and reducing wildlife-vehicle conflicts, such as collisions, to promote driver safety, improve wildlife corridor connectivity, and advance mutual benefits.

CONSERVE. CONNECT. **PROTECT.**

Office of Professional Standards Established

The DWR Conservation Police established their **Office of Professional Standards (OPS)** and an **OPS Advisory Council** to help promote the Professional Standards Creed within the Law Enforcement division of DWR. The Creed expects Conservation Police Officers (CPOs) and all law enforcement personnel in the agency to conduct their public service with unwavering ethical values. Additionally, their management and supervision commit to benchmarking against best practices in their professional conduct.





Funding our Future

DWR depends on sustainable revenue from a number of sources. These include hunting and fishing licenses and permits, boat registrations and titles, and federal funds—some of which are based in part on the number of hunting and fishing licenses sold and the number of boats registered each year.

The department's conservation and outdoor recreation efforts also benefit from the sale of Virginia Conservation License Plates, branded merchandise, *Virginia Wildlife* magazine and calendar sales, Restore the Wild memberships, and donations.

Just as importantly, DWR increasingly depends on the transfer by the Virginia General Assembly of funds associated with the Virginia sales and use taxes on watercraft, as well as the sales tax on hunting, fishing, and wildlife-watching equipment (commonly referred to as HB38), purchased in the Commonwealth.

DWR is constantly seeking ways to increase these existing funding sources and to develop funding partnerships with other state agencies, non-profits, and private businesses.

HOW YOU CAN HELP

- By purchasing hunting and fishing licenses and permits
- By becoming a Restore the Wild member
- By purchasing a firearm or ammunition, or equipment for fishing, archery, or wildlife watching
- By registering and buying fuel for your boat
- By subscribing to *Virginia Wildlife* magazine and purchasing a *Virginia Wildlife* calendar
- By purchasing DWR-branded merchandise from DWR's website
- By purchasing a Conservation License Plate through DMV
- By donating to DWR and the Wildlife Foundation of Virginia Partnership Fund
- By engaging DWR through sponsorships and public-private partnership opportunities





CONSERVE. CONNECT. PROTECT.

VIRGINIA DEPARTMENT OF WILDLIFE RESOURCES

www.dwr.virginia.gov

General
Information
804-367-1000

License Sales
Customer Service
1-866-721-6911

Boat Registration
& Titling
1-866-721-6911

Wildlife
Conflict Helpline
1-855-571-9003

Report a
Wildlife Crime
1-800-237-5712

Wildlife
Damage Permit
804-367-1000