



MARYLAND DEPARTMENT OF NATURAL RESOURCES  
**Annual Report 2019**

**50<sup>TH</sup> ANNIVERSARY EDITION**



# Celebrating Our History and Future

2019 marked DNR's 50<sup>th</sup> anniversary and was also declared by the governor the Year of the Veteran. Several celebrations took place throughout the year to honor our department's rich history and the dedicated individuals that help us achieve our mission every day. 2019 ended with a declaration that 2020 would be the Year of the Woman.



Governor Larry Hogan and Secretary Jeannie Haddaway-Riccio awarded the Employee of the Year Award to Rachel Temby of the Maryland Park Service at the 2019 DNR Annual Meeting.



The department recognized Black History Month with a panel discussion on the topic of "African Americans in Natural Resources." The 2019 Dr. Carter G. Woodson Leadership Icon Award was presented to Felicia Graves of the Maryland Park Service and Christopher Harrison of the Licensing and Registration Service.



A Veterans Day recognition ceremony was held in the Helen Avalynne Tawes Garden on November 6, 2019. The ceremony included the presentation of colors by the Maryland Veterans of Foreign Wars State Honor Guard, remarks by Secretary Jeannie Haddaway-Riccio and Maryland Department of Veterans Affairs Secretary George W. Owings III. DNR employees who are veterans were recognized during the ceremony.



Secretary Jeannie Haddaway-Riccio joined Governor Hogan, Maryland Department of Commerce Secretary Kelly Schulz, and other members of the governor's cabinet to kick off Maryland's Year of the Woman, commemorating the 100<sup>th</sup> anniversary of the ratification of the 19<sup>th</sup> amendment, which gave women the right to vote, at an event in December 2019.



July 1, 2019 marked exactly 50 years since Governor Marvin Mandel replaced the former Board of Natural Resources with a cabinet-level Department of Natural Resources and our operations began.

Department staff and special guests commemorated the anniversary with an event at Patapsco State Park.

# Annual Report 2019

Chesapeake and Coastal Service .....	1
Engineering and Construction .....	2
Fishing and Boating Services: Boating .....	3
Fishing and Boating Services: Fishing .....	4
Maryland Forest Service .....	5
Land Acquisition and Planning .....	6
Maryland Park Service .....	7
Natural Resources Police .....	8
Resource Assessment Service .....	9
Wildlife and Heritage Service .....	10
Conservation Education Matrix Team .....	11
Licensing and Registration Service .....	12



The facilities and services of the Maryland Department of Natural Resources are available to all without regard to race, color, religion, sex, sexual orientation, age, national origin, or physical or mental disability. This document is available in alternative format upon request from a qualified individual with disability.



# Chesapeake & Coastal Service



**100+** World War I-era ships, known as the “Ghost Fleet,” will be protected by the newly designated Mallow's Bay - Potomac River National Marine Sanctuary.

**10** research and development grants awarded through the Innovative Technology Fund.

Through investment in land use and annual best management practices, the Chesapeake and Atlantic Coastal Bays Trust Fund prevented **2,754,711 pounds** of nitrogen, **25,311 pounds of phosphorus**, and **2,073 tons of suspended solids** from reaching the mainstem of the Chesapeake Bay and Atlantic Coastal Bays.

**450+** professionals across Maryland were equipped with the skills needed to meet the challenges of climate change through Maryland's Climate Leadership Academy.

**24** projects completed to enhance and improve public boating access, facilities, and navigation throughout the state.

**22,250** students engaged in hands-on, outdoor learning experiences.

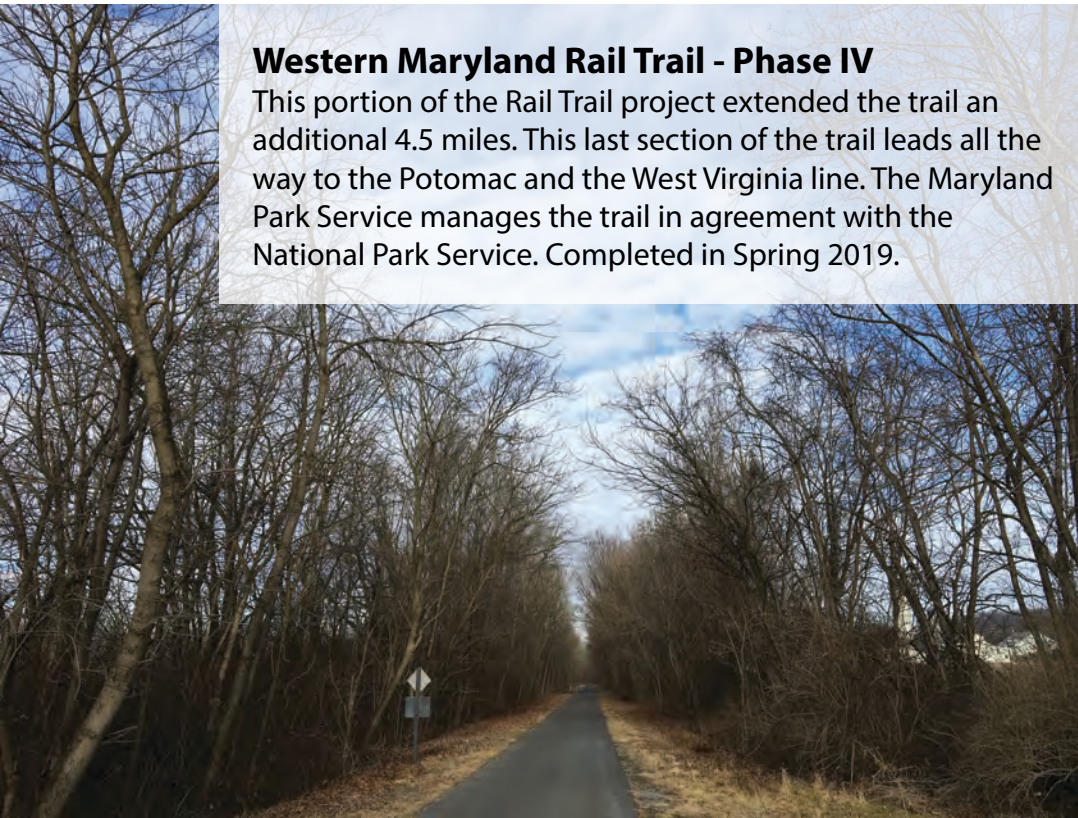


**6** marine sewage pumpout grants were approved for the purchase/ installation of marine sewage pumpout facilities and were funded by the Federal Clean Vessel Act (75%) with supporting funds (25%) from the Maryland Waterway Improvement Fund.

# Engineering & Construction

## Western Maryland Rail Trail - Phase IV

This portion of the Rail Trail project extended the trail an additional 4.5 miles. This last section of the trail leads all the way to the Potomac and the West Virginia line. The Maryland Park Service manages the trail in agreement with the National Park Service. Completed in Spring 2019.



## Sandy Point Plaza

The project included upgrading the plaza hardscape, renovating the existing nature/environmental center, and installing a new playground at the South Beach Area of Sandy Point State Park. The plaza hardscape was completely removed and replaced with a combination of pavers, pervious pavers, timber boardwalk, concrete sidewalks, crushed shells, and extensive landscaping.

The renovation of the nature center included doubling the size of the space, a complete remodeling of the space to include all new flooring, wall finishes, ceiling materials and lights, and the addition of large windows that face out onto the Chesapeake Bay. The old playground was replaced with a new nature-themed playground.

Completed in Summer 2019 (current adjusted value of the construction contract is \$1,994,382).



## Fair Hill Special Event Zone Improvements

This multi-year effort will improve existing equestrian infrastructure at Fair Hill NRMA. Work included safety improvements for competitors and their horses, turf installation, construction of steeplechase racing and training areas and new dressage and show jumping areas.



## Fishing and Boating Services: Boating



Hydrographic Operations maintains a network of over **4,000 buoys, signs, and markers** in Maryland that are an active part of the Federal Aids to Navigation system. These buoys, signs, and markers protect the boating public and delineate natural resource areas.

State ice breaking vessels had only one week of ice season in 2019 due to the mild conditions, but notable missions include **trips to Smith Island and U.S. Coast Guard Station Annapolis**.








During the 2019 boating season, **12** different yacht club organizations visited Somer's Cove Marina. In 2019, the Marina's annual Labor Day weekend event drew **100 + boats and yachts** that provided the best attendance in the past four years.

**67** boats removed from the waters of the state that had been determined to be derelict or abandoned. Fishing and Boating Services partnered with the Natural Resources Police, Fishing and Boating Services to complete the process required to have commercial contractors and state personnel. Derelict boats are hazards to navigation and pollute waterways with debris.

The Boat Act Advisory Committee, which is made up of citizen representatives from various boating user groups, conducted several site visits across the state and processed **four requests for regulation changes** petitioned by constituents.



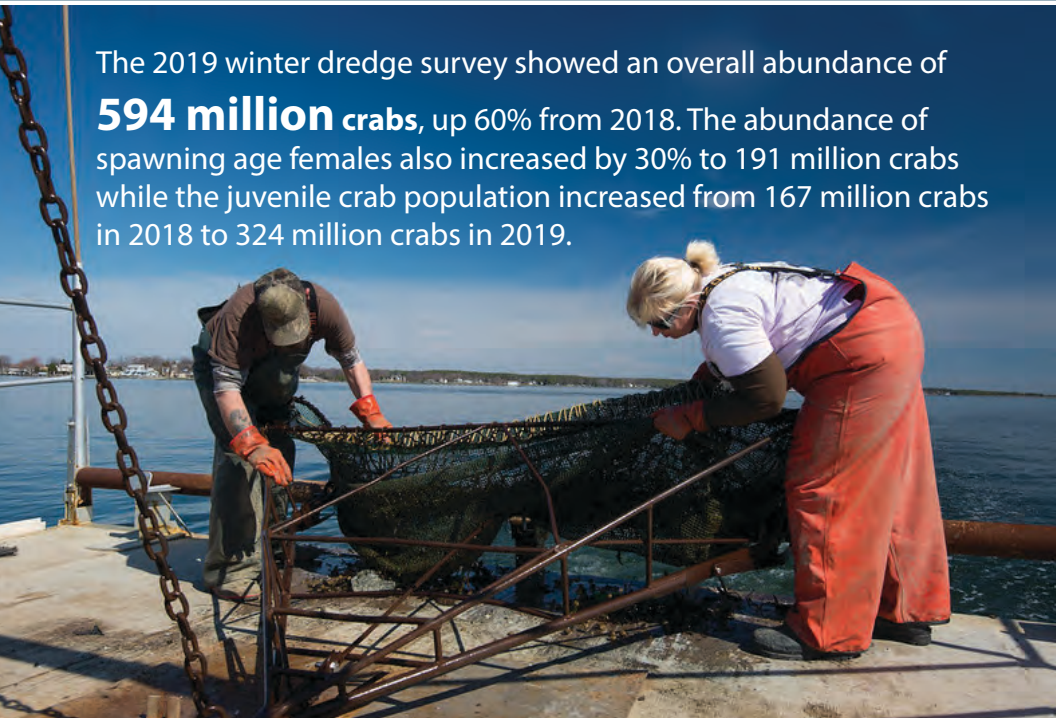
# Fishing and Boating Services: Fishing

STRIPED BASS 7-DAY FISHING ADVISORY FORECAST							AUGUST 14 - AUGUST 20	
WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY	MONDAY	TUESDAY		
								
87°F	85°F	87°F	91°F	93°F	92°F	91°F		
GREEN	GREEN	GREEN	YELLOW	YELLOW	YELLOW	YELLOW		

Source - high temperature forecast taken each Wednesday at noon from the National Weather Services BWI Airport Forecast Office. Slight changes in the forecast may occur.

Launched **striped bass fishing advisory forecast** web page to reduce striped bass mortality during the summer fishing season. This awareness campaign uses a color code system to advise anglers of fishing conditions up to seven days in advance. We posted and promoted forecasts through Sep. 3 (Labor Day). In 2019 there were 5,410 page views, most were from June 26-September 3.

The 2019 winter dredge survey showed an overall abundance of **594 million crabs**, up 60% from 2018. The abundance of spawning age females also increased by 30% to 191 million crabs while the juvenile crab population increased from 167 million crabs in 2018 to 324 million crabs in 2019.



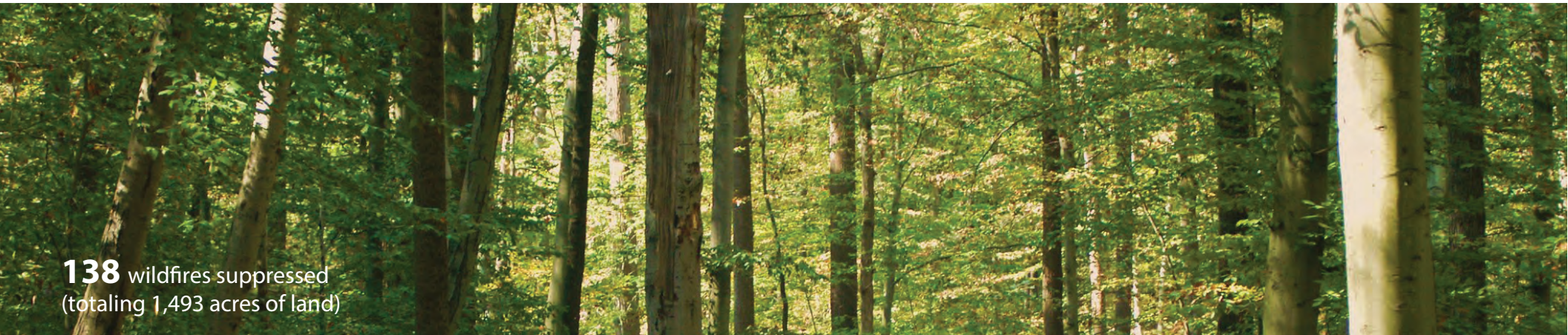
Stocked **323,350 spring trout** (197,599 pounds) and **27,000 fall trout** (20,000 pounds).

**39 new shellfish aquaculture leases** for the planting and harvesting of oysters in Maryland waters processed and issued by the Aquaculture and Industry Enhancement Division. As of December 31, 2019, there were a total of 457 shellfish aquaculture leases on 7,306 acres in our state and these leases produced nearly 60,000 bushels of oysters last year.

**10** new state fishing records were set in 2019. The record catches included fallfish, bullhead catfish, longnose gar, Florida pompano, white hake, dolphinfish (twice), Atlantic tripletail, grey triggerfish, and big-scale pomfret.

Completed a new Oyster Management Plan, the first update in nearly a decade, incorporating the 2018 Oyster Stock Assessment and updated science and management.

# Maryland Forest Service

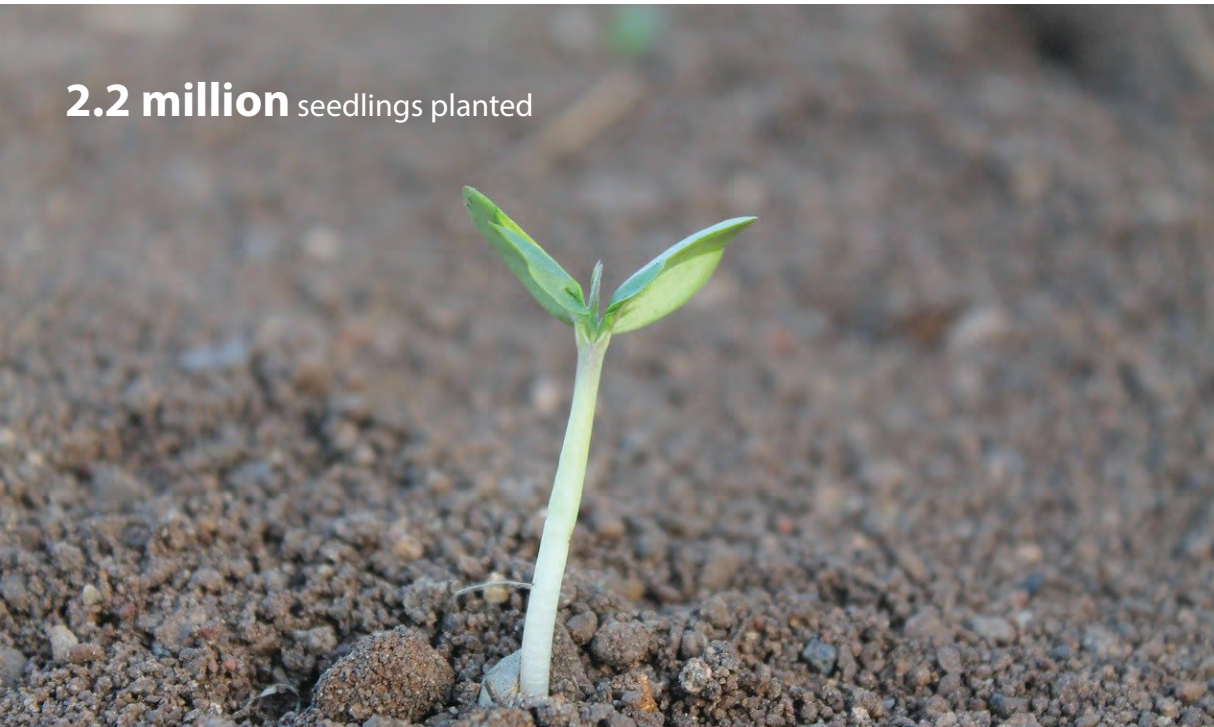


**138** wildfires suppressed  
(totaling 1,493 acres of land)

**3,462 acres** conserved through Forest Conservation Act long-term protection, contributing to stable green infrastructure in developing communities.

**345 acres** reforested for mitigation through the Forest Conservation Act.

**2.2 million** seedlings planted



**1,615** roadside tree permits issued due to utility work, development, and roadwork.

**520 acres** of forest land restored (afforestation and reforestation)

**482** Integrated Forest/Wildlife Stewardship Plans completed. 24,781 acres are now covered by Forest Stewardship Plans, with 29,175 total acres implementing management practices.



# Land Acquisition & Planning

Program Open Space-Local provided **\$56 million** in grant funding for 161 local park and recreation projects across Maryland, including the acquisition of 640 acres for public recreation and open space.

**43 state land acquisition projects** were approved by the Board of Public Works. These Program Open Space-Stateside projects **protect more than 3,600 acres**. Program Open Space-Stateside preserves natural areas for public recreation and watershed and wildlife protection across Maryland through the purchase of fee-simple and easement acquisitions. Fee simple purchases are managed by the department as state parks, forests, and wildlife and fisheries management areas.



Provided **\$17 million** in Rural Legacy Program grant funds to protect over **5,000 acres**. The program hit the milestone of conserving over 100,000 acres in 2019.



Rackliffe House (Assateague State Park)

**16 historic structures** located on department lands throughout the state were photographed and catalogued by the Curatorship Program, which presented the results of some of these investigations at the Maryland Historical Trust's Architectural Field Work Symposium.

Began a new curatorship agreement for the Americus Dawson House at Seneca Creek State Park. The Maryland Resident Curatorship Program offers curators the right to lifetime tenancy in a historic property on department lands in exchange for restoring it, maintaining it in good condition, and periodically sharing it with the public.

# Maryland Park Service



**3,696** hikers took **36** hikes at **32** state parks on January 1! Hikers totaled 8,470 miles on the trails on New Year's Day.

This is approximately three times as many participants as the previous year. The "I Hiked" stickers proved to be quite popular once again, with some sites even running out of stickers due to the sheer volume of hikers.

Nearly **7,500** annual Park Passports and **3,000** Golden Age Passes were sold in 2019. The popular Golden Age Pass entitles seniors free day use entry to all state parks that charge service fees and is valid for half price camping for one site Sunday - Thursday.



In 2019, the CJC employed 353 youths to work in parks across Maryland to complete 111 projects at 15 sites.

The number of visitors to Maryland's 75 state parks jumped **10%** in 2019 to 14.9 million from 13.4 million the previous year. The popularity of our parks lead to a sharp 35% increase in capacity closures across 12 parks, from 66 in 2018 to 101 in 2019.



Lieutenant Governor Boyd Rutherford paddles at Tuckahoe State Park at a stop on his "bucket list" quest to visit every Maryland state park.

The Maryland Conservation Jobs Corps is a unique program in which underserved youth members work to conserve Maryland state parks, learning practical skills that translate into real-world experience.

The orientation film **Harriet Tubman: Soldier of Freedom** premiered at the Harriet Tubman Underground Railroad State Park State Park Visitor Center in September. The film is also posted on DNR's YouTube channel, and is presently the most viewed video on the channel. Thanks to the media and publicity storm surrounding the premiere of the Focus Features film Harriet, which premiered on November 1, visitation at Harriet Tubman State Park rose considerably over the final months of the year.

# Natural Resources Police



The Reserve Officer Program, through the Maryland Natural Resources Police, initiated the National Association for Search and Rescue's Hug-A-Tree program. The program teaches children what to do if they become lost in the woods. Programs taught in the southern and eastern regions of Maryland reached **more than 200 children**.

**22,155** boating inspections completed

Maryland Natural Resources Police Reserve Officers spend busy weekends performing courtesy vessel safety inspections starting in the spring and continuing through the fall. While doing inspections they educate boaters about the importance of having all of their flares, life jackets, fire extinguishers, and other items up to date and in good working order.

Reserve Officers performed a total of **591** of these inspections throughout the state in 2019.



**10,754** students took and passed the online Maryland Basic Boating class.

The Natural Resources Police responded to **530 boating emergencies**, including boat accidents, vessels in distress, and vessel explosions.

**183 aviation missions were flown** by the Natural Resources Police in 2019



# Resource Assessment Service



## MARYLAND GEOLOGICAL SURVEY

**215** sediment samples collected from dredge material, lakes, reservoirs, and rivers

**100** square miles of updated geologic mapping

**474** groundwater wells monitored to ensure Marylanders have a safe and sustainable water supply

**12.6 billion** observations measured for earthquake monitoring (200 samples per second, 24/7, 2 stations)

### POWER PLANT RESEARCH PROGRAM

Assessed the environmental and socio-economic impacts of **11 energy projects** (more than 1190 MW, with 86% of it coming from renewable energy).

Negotiated a settlement agreement between transmission developers, landowners, county government, and state agencies for a **\$400 million transmission line** in Harford and Washington counties, which will improve reliability while protecting agricultural land and natural resources.

Worked with a diverse group of stakeholders to complete an **\$800,000 comprehensive report** on Maryland's Renewable Portfolio Standard (RPS) that will be the gold standard across the U.S. for evaluating a state's RPS for years to come.

### MONITORING AND NONTIDAL ASSESSMENT PROGRAM

Approximately **57,000** stream insects and other benthic macro-invertebrates were identified and counted from more than **230 samples** to help assess stream ecological condition.

**35,540 fish** were identified and counted from 95 sites sampled to help assess stream ecological condition.

**123 individuals** were trained in Maryland Biological Stream Survey sampling protocols.

**650 people** attended the 2019 annual Maryland Water Monitoring Council Conference.

## Wildlife & Heritage Service

In 2019 **eight new parcels of land totaling 2,051 acres were acquired** and added to our statewide system of Wildlife Management Areas. That increased the number of properties being managed by the Wildlife and Heritage Service to 64, bringing the combined areas they encompass to well over **127,000 acres in total**. Steady additions of public hunting lands over time has led to an increase of over 28,000 acres in the last 20 years.

Wildlife and Heritage Service staff captured and banded **2,945 migratory game birds** as part of regional monitoring and research projects. Information derived from banding provides the foundation for much of the migratory game bird management in North America.



Compiled research and field data to propose **three species** recently rediscovered in the state for addition to the Maryland Threatened and Endangered species list and to propose **53 species** for downlisting or delisting.

In 2019, Wildlife and Heritage Service staff tagged **17 cubs** from 6 sows in Garrett and Washington counties. Since this survey began in 1986, 475 cubs have been born to 162 sows for a long-term average of 2.9 cubs per sow. Our average annual litter size has ranged between 2.5 and 3.5 cubs per sow indicating good quality habitat and a healthy black bear population.



Wildlife and Heritage Service staff responded to a total of **1,378 distinct wildlife emergency situations** which occurred on privately owned lands across the state.

There were **2,522 special wildlife permits** issued in FY19. Special wildlife permits issued include those for wildlife rehabilitation, falconry, taxidermy, waterfowl outfitting and guiding, wildlife damage control, game husbandry, and 984 offshore blind and shoreline licenses to riparian landowners.

# Conservation Education Matrix Team



**88 staff** from throughout the department and partners participated in the annual Conservation Education Matrix Team professional development workshop, to learn and share the latest topics and practices to keep programs current.

**More than 450 students** from Somerset County participated in environmental literacy efforts through the Shoring Up Resiliency through Education (SURE) project. Students in grades 5, 7, and 9 across the county participated in extended classroom and outdoor experiences to learn about ways to keep coastal communities resilient over time.

**5 elementary WILD at Schools lesson plans** were developed and placed online for educators to use. Between August 2018- June 2019, approximately 168 one-hour WILD at Schools sessions were conducted with 4,445 students across Maryland.



**More than 500 educators** across Maryland attended Project WILD professional development workshops in 2018-2019. **18 workshops** were provided by Wildlife and Heritage Service staff and **20 workshops** were provided by volunteer facilitators who donated more than 400 service hours.



The Chesapeake Bay National Estuarine Research Reserve-Maryland (CBNERR-MD), made up of component sites Anita C. Leight Estuary Center (Harford County), Patuxent River Park (Prince George's County) and adjacent Jug Bay Wetlands Sanctuary (Anne Arundel County), and Monie Bay (Somerset County), serve thousands of Marylanders annually. This year, the sites engaged **nearly 7,000 students** Pre-K through college and **over 74,000 walk-in visitors**; and **reached more than 10,000 participants** through public outreach and community programs. State staff and site partners are helped by volunteers who contributed **nearly 11,700 hours** to these programs for education, research, monitoring, administrative and other support.

# Licensing & Registration Service



Licensing and Registration Service opened a new Service Center in Solomons Island at the Solomons Island Visitor Center to replace the Prince Frederick Service Center.

There were **approximately 564,000** unique users in the COMPASS licensing system in 2019.

**Approximately 160** products were offered in COMPASS in 2019.



**More than 572,000** transactions were processed in COMPASS in 2019.

**More than 1.1 million** items were processed in COMPASS in 2019.

Purchasing a license is more convenient than ever before. This site will allow you quick and easy access to hunting and fishing licenses, regulations and other important information about outdoor recreation in Maryland.

## Using COMPASS you can...

- 🔗 Purchase a License
- 🔗 Register as a Saltwater Angler
- 🔗 Reprint a License
- 🔗 Sign up for a Lottery
- 🔗 Report a Harvest



**DOWNLOAD OUR APP!**



**Renew Vessel Registration**

