



YOUR STATE WILDLIFE AGENCY  
**FISCAL 2019-20 ANNUAL REPORT**  
JULY 1, 2019 – JUNE 30, 2020

# OPENING MESSAGE

I am proud to present the Game Commission's 2020 Annual Report.

In the following pages, you'll come to learn more about the agency's outstanding accomplishments over the past year. There are three themes you will notice in this report that permeate everything we do at the Game Commission – scientifically manage wildlife, create opportunities for license buyers, and provide quality customer service.

Achieving these three core goals has been our focus over the past year. From researching otter populations to determine which areas can support more harvest, to studying the best habitat practices for elk management, to expanding the number of managed dove fields on game lands, to implementing Sunday hunting, to increasing our communication efforts so that hunters are aware of new opportunities, and much more – all of these efforts further the philosophy that underpins everything we do.

These accomplishments can only be achieved through working closely with our partners, such as hunting and trapping organizations, legislators, local governments, and federal and state agencies.

They also require the dedication and professionalism that is a hallmark of our employees and Commissioners, who make up one of the most highly trained and respected conservation workforces in North America. It was never clearer to me how much the Game Commission is powered by a relentless determination to fulfill its mission than in this past year when we rose to the occasion to face the challenges presented by the pandemic and continued to deliver the high level of service that all Pennsylvanians have come to expect.

Thank you for taking a moment to read about our year in review, and for your continued support of the Commonwealth's natural resources.



Game Commission Executive Director  
Bryan J. Burhans



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**Celebrating 125 Years of Conservation Leadership** — a 7-minute film celebrating the agency’s 125 years. Established by law in 1895, the Game Commission quickly became a leader in wildlife conservation that attracted attention and requests for guidance from across the country. Depleted game populations were brought back, songbirds were protected, a State Game Lands system was assembled to provide habitat and hunting opportunities, and laws to ensure fair-chase and fair-share standards were enforced to enhance the experiences of all Pennsylvanians.



A PDF of this document is available at [www.pgc.pa.gov](http://www.pgc.pa.gov). Links to films viewable at [www.youtube.com/pagamecommission](http://www.youtube.com/pagamecommission) are included where this symbol is located throughout the online report.

White-tailed deer on front cover,  
Jacob Dingel



# MANAGING WILDLIFE

Managing diverse and sustainable wildlife for current and future generations



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Black bear, Jacob Dingel

## The Wildlife Futures Program

The Wildlife Futures Program is a partnership between the Game Commission and the University of Pennsylvania's School of Veterinary Medicine aimed at creating a robust, science-based wildlife health program to improve disease surveillance, support more comprehensive disease management, and promote innovative research aimed at enriching wildlife resources in the Commonwealth.

The program helped establish a state-of-the-art diagnostic laboratory for chronic wasting disease (CWD) surveillance at the University of Pennsylvania. This lab has substantially decreased the turnaround time for testing samples submitted by hunters, reducing it by half since 2017. Projects include a collaboration with Cornell University to design a CWD surveillance plan with comprehensive disease prevalence modeling capabilities coupled to real-time budgetary analysis. Another project is training dogs to detect CWD-infected animals through scent. The Wildlife Futures Program is also engaging stakeholders such as the National Deer Association to help educate hunters about CWD.

Nongame species are vital for cultivating healthy and diverse ecosystems. The Wildlife Futures Program has developed and validated COVID-19 testing for bats. The testing program was initially designed to assist wildlife rehabilitators in returning injured bats back to the wild and preventing bat-human COVID-19 exposure. The diagnostic tool aids with wildlife surveillance of COVID-19 in native bat species and provides a framework to develop similar testing methods for other species and pathogens.

The program recently hired several wildlife health technicians throughout the state, and two additional veterinarians to help coordinate field activities. These veterinarians have created training protocols, reviewed wildlife disease surveillance plans, helped streamline research requests, and assisted in drafting threat assessments for diseases such as hemorrhagic disease in rabbits and hares, and COVID-19 in bats as well as wild and propagated mink.

This collaboration will serve as a model for wildlife disease surveillance, research and communications for the Commonwealth and other states striving to maintain balanced and diverse ecosystems throughout the United States.



Research Specialist Jan Yacabucci prepares samples in the new CWD lab at New Bolton Center.



Annual CWD tests and results by calendar year for free-ranging deer and elk in Pennsylvania from 1998-2020.

\*Test results through June 30, 2020

Year	Free-Ranging Deer		Free-Ranging Elk	
	Tested	CWD Detected	Tested	CWD Detected
1998-2001	>200	0	27	0
2002	566	0	61	0
2003	2052	0	64	0
2004	3662	0	35	0
2005	3927	0	43	0
2006	4314	0	43	0
2007	3887	0	43	0
2008	4358	0	48	0
2009	4189	0	57	0
2010	4105	0	47	0
2011	3887	0	51	0
2012	5138	3	60	0
2013	5124	2	73	0
2014	4269	5	89	0
2015	5654	12	93	0
2016	5707	25	110	0
2017	7911	79	128	0
2018	9631	123	122	0
2019	15686	204	161	0
2020*	1499	20	49	0
<b>Total</b>	<b>&gt;95,766</b>	<b>473</b>	<b>1404</b>	<b>0</b>

## Updating Goals and Strategies to Manage Chronic Wasting Disease (CWD)

The Game Commission recently completed a new CWD Response Plan that was approved by the Board of Commissioners in July of 2020. The plan identifies agency goals and strategies for managing the disease.

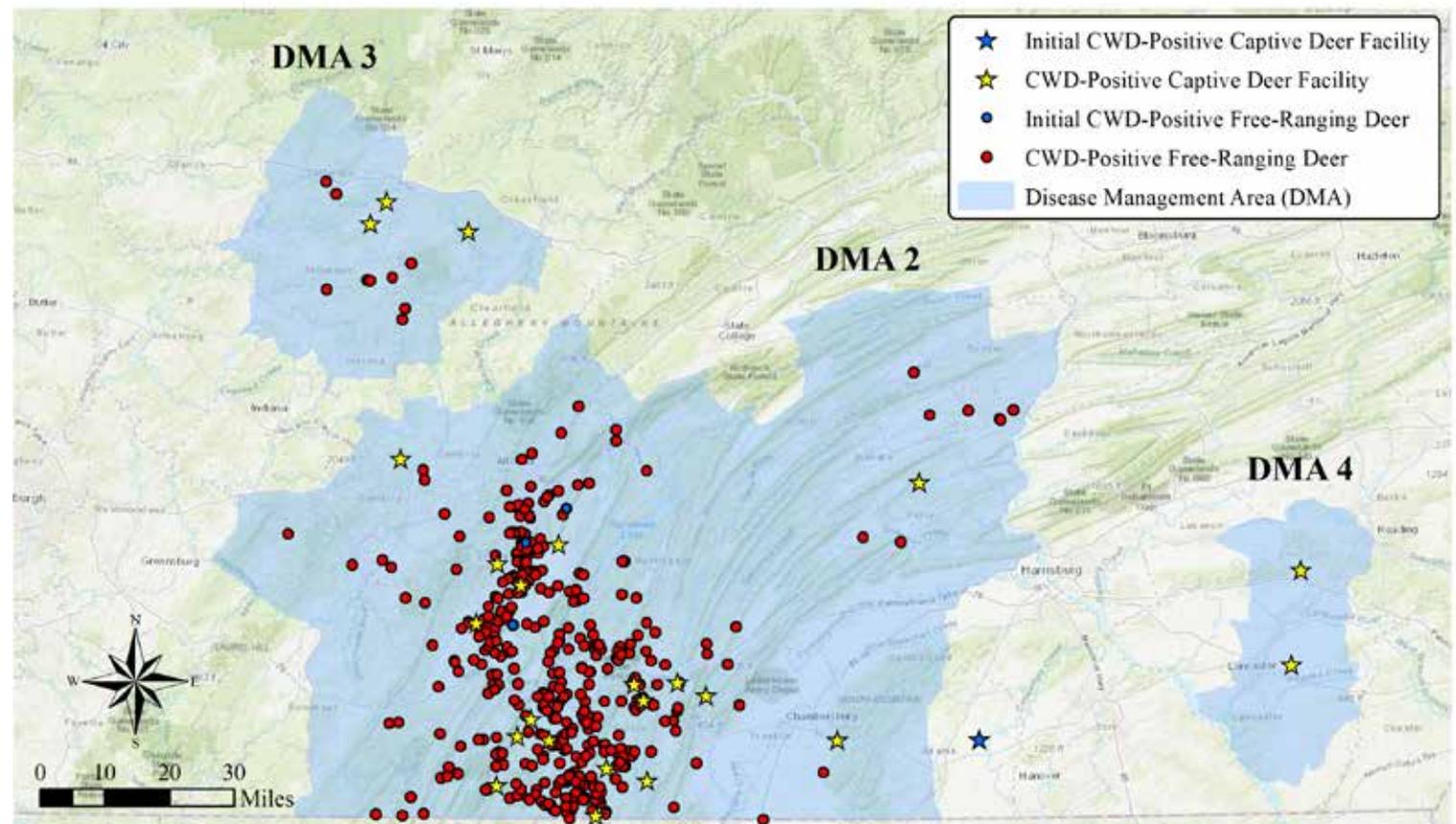
Among the strategies identified in the plan are continuing to enforce the ban on movement of high-risk cervid parts outside of Disease Management Areas, increasing hunting opportunities to reduce deer abundance and remove more CWD-positive deer from the landscape, providing accurate and timely information of CWD testing results, and conducting educational and outreach and campaigns to communicate key messages about CWD to stakeholders.

The strategies described in the plan are based on the best-available science, with input from a multitude of stakeholders. Many of these strategies focus on reducing deer abundance, as this is currently the only known way to address CWD on the landscape.

Implementation of the plan is necessarily dependent on public support and hunter cooperation. Harvesting deer and providing samples remains key to addressing CWD and monitoring the effects of management actions.

Effectively mitigating the effects of CWD requires a long-term commitment by the agency and the public. Through cooperation and collaboration with stakeholders, Pennsylvania's deer and elk populations will be protected for current and future generations.

Disease Management Areas and CWD detections as of June 2020. The blue star, represents the initial detection in 2012, within DMA 1, which was dissolved in 2017.



 CWD Management; What's New in 2020, 43:47

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## Counting Tundra Swans

In late December 2019 and early January 2020, Pennsylvania again participated in the annual tundra swan productivity and mid-winter surveys. As with most waterfowl surveys and management, these surveys are a collaborative effort. Seven states participate in addition to Pennsylvania: Delaware, Maryland, New Jersey, New York, North Carolina, Virginia, and South Carolina. These surveys are completed by biologists in the northwest and southeast corners of the state. The productivity survey counts the total number of adult (white in color) and juvenile (gray in color) tundra swans. And the mid-winter survey, which is conducted a few weeks later, counts the total number of tundra swans observed.

Productivity throughout the multistate region increased slightly for the December 2019 survey with 8% of the tundra swans observed being juveniles and an average of 1.5 juveniles per family, compared to 5% juveniles and 1.3 juveniles per family in 2018. In Pennsylvania, 20 out of 312 tundra swans were juveniles for 6% recruitment, with an average of 1.3 juveniles per family. The January 2020 mid-winter survey observed 61,354 swans, including 798 in Pennsylvania. The total count was the lowest observed in the last 20 years.

These surveys are important to management of tundra swans across the country, and help determine how many total swans can be harvested each year.



Tundra swans, Jacob Dingel

## Fall Sandhill Crane Survey

Pennsylvania has been conducting fall Sandhill Crane Surveys for seven years; 2019 marked the most successful. During the October/November survey period, 288 cranes were observed, nearly doubling the previous state high-count and 120 more cranes than observed in any previous year. This is further evidence that the sandhill crane population continues to expand in the Commonwealth. Cranes are most often seen in Pennsylvania in the northwest, northeast and southeast. While there is no crane season in Pennsylvania, data are important to their management. The U.S. Fish and Wildlife Service uses state-level data to monitor and make decisions about hunting populations in the eastern United States.

The most exciting sighting occurred when the locally-famous B|2-banded crane was observed near his original 2011 hatch site. This makes four important sightings of B|2 since he was banded in 2011 as a colt (young sandhill crane). In 2013, B|2 was observed with another crane near the Seneca Division of the Erie National Wildlife Refuge in Crawford County. Nine months later, B|2 was observed in a flock near St. Cloud, Florida. This was the first confirmation of a wintering area for a sandhill crane from the northeastern U.S. Then, in August 2015, a photographer captured an image of B|2 with an unbanded mate and chick in the same area of Crawford County. In this year's survey, B|2 was observed again with a mate and juvenile. This type of sighting information can be obtained only through careful observation and reporting by our valuable partners in the birding community. Cranes are a dramatic species and a wonderful ambassador for eastern wildlife agencies. This conservation success story generates excitement wherever sandhills show up in the Commonwealth.



Sandhill cranes, Jacob Dingel



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Virginia rail, Jacob Dingel

## Marsh Bird Survey—A Citizen Science Initiative

Citizen scientists and Game Commission staff braved the state’s wetlands to gather important information about Pennsylvania marsh bird species and populations. This year, the effort was made easier thanks to a new mobile app that provided navigation to the observation site, protocols, and data collection tools. After venturing into a wetland area, survey participants played digital recordings of the calls of target marsh bird species, then recorded information about the species that were seen or heard.

In the past, observers needed to carry a lot of equipment: binoculars, a clipboard, data forms, pencils, a GPS unit, a speaker, and a playback device. After the surveys were completed, participants had to return the hard copy data sheets to agency biologists to be tabulated and analyzed. Now, observers need only binoculars, a smart phone, and a Bluetooth speaker. Birders enter data about their observations directly into the mobile application: species, GPS location, date, time, and important habitat features.

Game Commission technology specialists created the digital form to streamline data collection, speed up data processing and improve the integrity of the data. The digital format has empowered both Game Commission staff and volunteers with more efficient and accurate data collection methods and amassed nearly 1,000 surveys conducted statewide. This survey provided one of the most comprehensive assessments of the distribution and abundance of Pennsylvania’s rare marsh bird species, including eight Species of Greatest Conservation Need and three Pennsylvania Endangered species.

A map of the lands surveyed by volunteers in the Marsh Bird Survey citizen science initiative.



## Elk Buffet Helps Guide Management Decisions

What Do Elk Prefer to Eat?, 35:27



The resurgence of the elk population in Pennsylvania represents a conservation success story that has benefited hunters, wildlife watchers, and local communities in the northcentral region of the state. In order to better manage the herd and determine the best practices for habitat management operations, research was conducted to understand which specific herbaceous grasses and forb species elk prefer to eat. Forage species were planted in 150- by 50-foot strips and ranged from broad-leaf forbs such as clovers and chicory, to grasses like orchard and little bluestem. Each strip is monitored by a trail camera to determine the proportion of time elk forage in each unique planting.

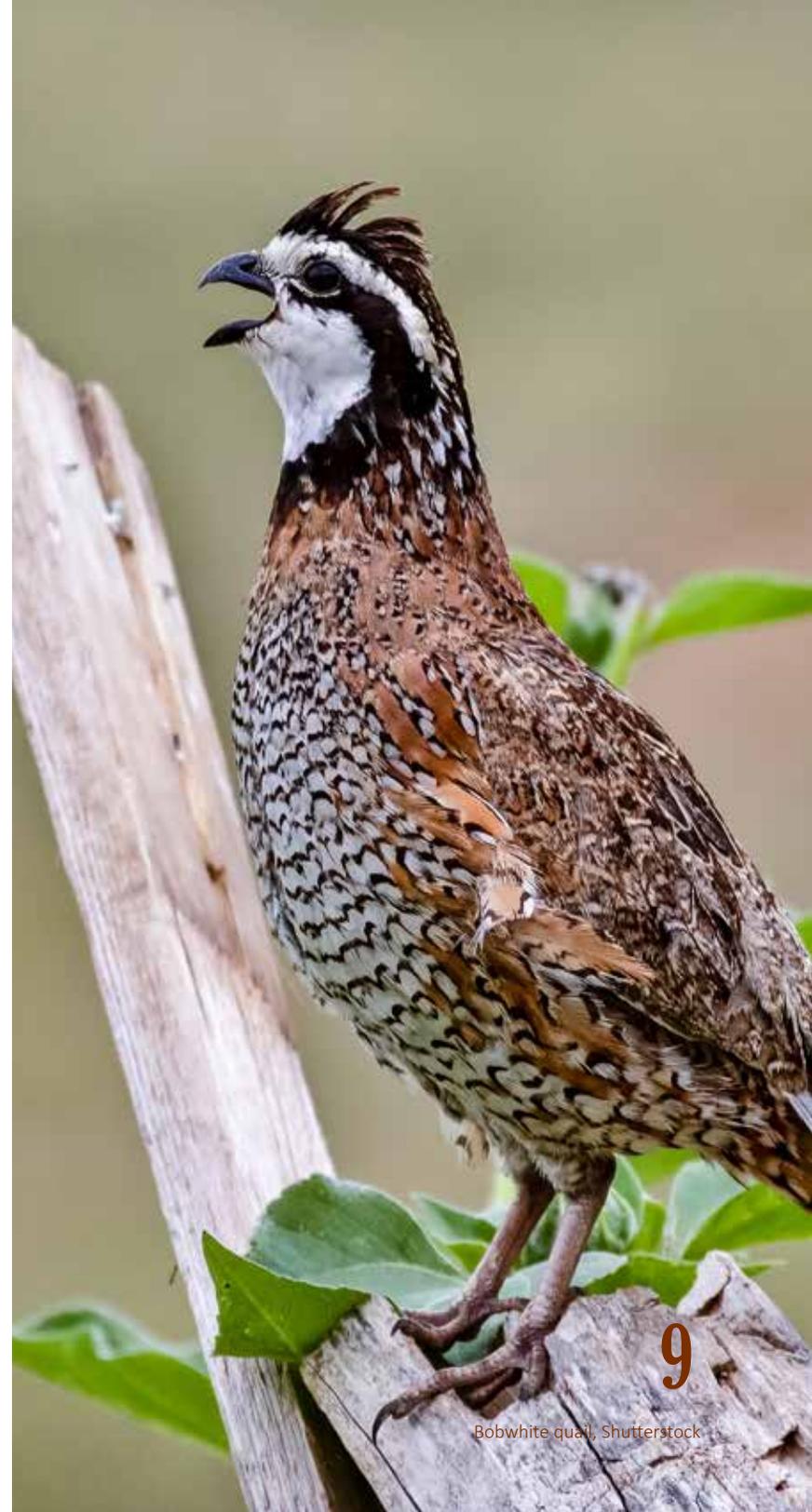
Small wire-framed exclosures placed randomly in each planting allow researchers to see how the forage grows in the absence of grazing. By comparing the dry mass of vegetation samples from both inside and outside the exclosures, researchers are able to determine the amount of forage that was consumed. Biologists plan to continue the study for at least three years and hope to improve habitat management by providing an ideal mix of forage species that are most preferred by elk for year-round grazing.

Forage plots of varying grasses and forbs are being monitored to help determine which foods elk prefer.



## Bobwhite Quail

With the extirpation of quail thought to have occurred at the end of the last century, managers are now prioritizing the restoration of this native species to the Commonwealth. Since 2017, habitat restoration efforts have focused on Letterkenny Army Depot near Chambersburg. Quail prefer a habitat mixture of warm-season grasses, forbs, and shrubs, also called early successional habitat. In order to “reset the clock” on succession, managers removed much of the overstory allowing herbaceous vegetation to recolonize. A mix of heavy disking and prescribed fire promote warm-season grasses like little and big bluestem as well as butterfly milkweed, ragweed, and wild bergamot. More than 2,500 acres of the 3,756-acre focal area have been impacted. Managers continue to work closely with potential source states for translocating wild quail into the area once habitat work is complete. This project not only restores a native bird, but directly benefits a variety of game and non-game species in the area through habitat restoration.



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Bobwhite quail, Shutterstock



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A technician measures the bill of an American woodcock, Tracy Graziano

## Woodcock Research

Since 2018, the Game Commission has participated in a multistate study of woodcock migration to assess the timing, flight path, and survival rates of these migrating birds. American woodcock have been declining at a rate of 1.1% per year in the Eastern U.S. since the 1960s. Information is needed regarding migration, habitat use, and reproductive factors to adequately manage woodcock and reverse the population decline. In particular, information is lacking regarding specific migration patterns, stop-over areas, habitat use during migration, and how these affect survival.

To answer these questions, Game Commission biologists have captured 12 woodcock each year in the northwest and northeast areas of the state. Birds are caught using mist netting and night-lighting. Each bird receives an aluminum leg band and a tiny harness holding a GPS transmitter. Every few days, during winter migration, the transmitters report bird locations to satellites passing overhead. Most eastern states participate in the study and hundreds of woodcock transmitters are reporting to satellites. Data are painting a fascinating and complex picture of woodcock migration.

The most striking finding is the keystone role that Pennsylvania plays in supporting woodcock across the entire eastern U.S. and Canada. Woodcock make extensive use of the airspace over Pennsylvania, as well as stopover locations within the Commonwealth. There are thousands, and possibly millions, of woodcock migrating through and over Pennsylvania each spring and fall. A change in wind, temperature, precipitation, or other weather event can put exhausted birds down on the ground with little notice. The habitat work being done in Pennsylvania is a safety net these birds need.

## Snowshoe Hare Response to Habitat Management

A 2019 pilot project using field cameras showed snowshoe hares were using an area of scrub oak that had recently been burned during a prescribed fire. This use had not been indicated by winter track transects. To better understand the snowshoe's use of these scrub oak stands and their response to other habitat management initiatives, habitat managers and collaborators at Penn State University trapped snowshoe hares and deployed GPS collars on captured adults. Trapping and monitoring efforts for collared hares began in March 2020. More than 12,000 GPS locations were collected from 28 collars during the year. Locations will be used to evaluate habitat use before, during, and after habitat management activities including prescribed fire and timber harvest, so biologists can determine best practices for managing hare habitat. GPS locations will also be compared with data collected through field cameras, track transects, and fecal pellet plots to evaluate the most effective methods of monitoring snowshoe hares statewide.

A snowshoe hare in a trap, Joe Kosack



## West Nile Virus Research Continues

Turkey Egg Hunt – #WildSciPA, 1:54



Funding from a U.S. Fish and Wildlife Service Multistate Conservation Grant and the Pennsylvania Chapter of the National Wild Turkey Federation is helping the Game Commission, the University of Georgia Research Foundation, Inc., the Southeastern Cooperative Wildlife Disease Study, and National Wild Turkey Federation continue to learn about the effects of West Nile virus.

The study is assessing and measuring the effects of experimentally infecting wild turkey poults and bobwhite quail chicks with West Nile virus to determine if the virus is impacting these game bird species the way it has impacted ruffed grouse. Turkey poults and quail chicks were inoculated with West Nile virus in 2019; one group at about 7 weeks old, another group at about 16 weeks old, and control groups (inoculated with a placebo) for each age group.

All birds inoculated in the 7-week age group survived, with no related effects. No quail and only one turkey poult showed symptoms of infection when inoculated at around 16 weeks. All birds in the control groups were housed with inoculated birds and showed no signs of infection. No virus was isolated in post-trial blood samples with the exception of one turkey in the older age group.

Preliminary microscopic analyses for the younger age group showed mild heart inflammation in some birds of both species and mild brain inflammation in some turkeys.

Further analyses were not possible during the fiscal year due to COVID-19 laboratory closures.

The study also tests for antibodies. Presence of antibodies to West Nile virus signifies that the bird survived infection and developed specific antibodies, which can circulate in the blood for years. During the fall 2019 wild turkey season, turkey hunters submitted blood samples from 194 turkeys across Pennsylvania. Of these, 34% had antibodies to West Nile virus or a closely related virus. This percentage suggests some turkeys are surviving infection.



Capturing turkeys with a 40- by 60-foot rocket net in early March, Tim Wenrich.

## Turkey Trapping—Not for Transfers Anymore

Winter turkey trapping started again in 2019. Trapped male turkeys were leg-banded and released at the trap sites. Reports of banded turkeys, which have been harvested or found dead, are being used to determine spring harvest rates and annual survival rates in Wildlife Management Units. This effort is part of the Game Commission's Wild Turkey Management Plan, 2018-2027, available at <http://bit.ly/PGCWildTurkey>.

The estimated 2020 spring turkey population of 196,260 was 7% below 2019 (212,170) and 9% below the previous 10-year average (214,650). The management goal to allow the population to increase is achievable through continued habitat and harvest management to improve survival and reproductive success.



A lab technician holds a wild turkey poult, Tracy Graziano



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Little brown bats, Joe Kosack

## Helping Pennsylvania Bats Survive White-Nose Syndrome

Biologists continue to make progress helping bats survive white-nose syndrome, a disease that has devastated populations of bats that hibernate in North America. White-nose syndrome is caused by a fungus that thrives in the cool, humid conditions of caves and mines, where bats hibernate for up to six months to survive the winter when food is limited. Upon entering these sites, bats are exposed to fungal spores that immediately start digesting their wing and skin tissues, causing extensive mortality. Sudden and dramatic losses caused several bat species to become so rare they are now listed as state endangered. The Game Commission partnered with Temple, Lock Haven, and Ohio universities to pioneer a technique that treats the spores and fungus inside these sites during summer. A compound called Poly-Ethylene Glycol 8000 (PEG 8000) makes exposed fungi act water-stressed and prevents its growth. The treatment is designed to delay the time at which bats are first exposed to viable fungus in an effort to reduce tissue damage and keep bats healthier throughout the winter.

Early results show the technique is proving successful. The amount of infected wing tissue on little brown bats hibernating at the treated site was 46% less than at control sites in the first year. The project has expanded to three treated sites to verify the approach and consistency of results. If success is replicated at multiple sites, high-priority sites statewide could be treated, become refugia to help stabilize populations, and support hibernating bats on their long road to recovery.



Biologist Greg Turner applies PEG 8000 to the interior of Sabula Railroad Tunnel in Clearfield County, Pete Pattavina, USFWS.

## Otter Populations

During the winter of 2020, biologists began an intensive monitoring effort for river otters in the northwest and northeast areas of the state. More than 100 sites were evaluated for otter sign and activity and motion-triggered cameras were placed at 81 sites. Cameras were placed at sites with a variety of habitats including lakes, ponds, rivers and wetlands. Cameras were also placed at crossover sites (paths between bodies of water that otters and beavers use to travel) and latrine sites (areas where otters visit routinely as part of social interaction).

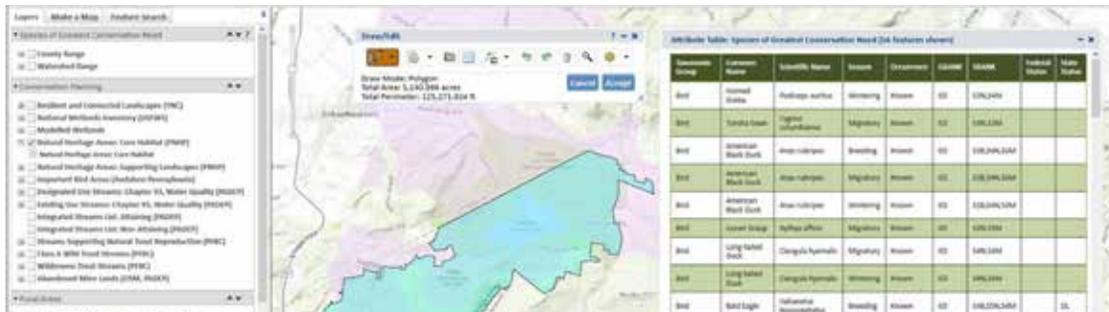
Otters were detected in all major habitat types. The highest probability of detecting otters was at sites that had both a latrine and crossover. Group size was also documented and ranged from one to four otters. Times of activity, and time between site visits was also recorded. The presence of muskrats, beavers, mink, fishers, bobcats and foxes was also documented.

Monitoring is scheduled to continue for the next two years. This information will be used to track otter populations in areas that allow for harvest currently, or may in the near future. This information also will be used to evaluate potential harvest in new Wildlife Management Units and make adjustments to season lengths or timing.

## Conservation Opportunity Area Tool launched

Management actions to support imperiled wildlife species will be most effective in areas where the species is known or suspected to occur. This information became more readily available to Pennsylvania citizens as the Pennsylvania Game Commission and Fish & Boat Commission transformed Pennsylvania's 2015 Wildlife Action Plan into an interactive map and reporting application called the Conservation Opportunity Area Tool. This new resource delivers the heart of the state's blueprint for conservation action as a free, web-based map application built with location data for more than 500 (of 664) Species of Greatest Conservation Need. It is fueled by more than 400,000 wildlife observations, and fine-scaled to summarize species' occurrences in 10-acre cells that cover every corner of the state. The user creates a self-defined Area of Interest report that summarizes those wildlife data, general habitats, and conservation actions to benefit the species and their habitats. There is also a statewide search feature to provide county and large watershed queries.

From conservation professionals to private landowners, this application has been well-received. The Conservation Opportunity Area Tool is available at <https://wildlifeactionmap.pa.gov>. The effort is a collaboration of many Pennsylvania Natural Heritage Program partners, with major contributions from Western Pennsylvania Conservancy (database development & management), NatureServe (web-enabling), and federal funding by the U.S. Fish and Wildlife Service State and Tribal Wildlife Grants Program.



# STATE GAME LANDS and HABITAT MANAGEMENT

Optimizing opportunities to enjoy and experience wildlife in its natural habitat

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State Game Lands 280, Berks County, Hal Korber

P E N N S Y L V A N I A   G A M E   C O M M I S S I O N

## State Game Lands — More Than 1.5 Million Acres Dedicated to Wildlife

The State Game Lands system provides more than 1.5 million acres of habitat for wildlife, along with opportunities for hunting, trapping and wildlife viewing on 308 State Game Lands in 65 of Pennsylvania's 67 counties.

During FY 2019-20, 759 acres were acquired through 14 land purchase contracts. These contracts included one interior, two indentures, two acquisitions to improve access into existing State Game Lands and two properties with sensitive habitats for Species of Greatest Conservation Need.

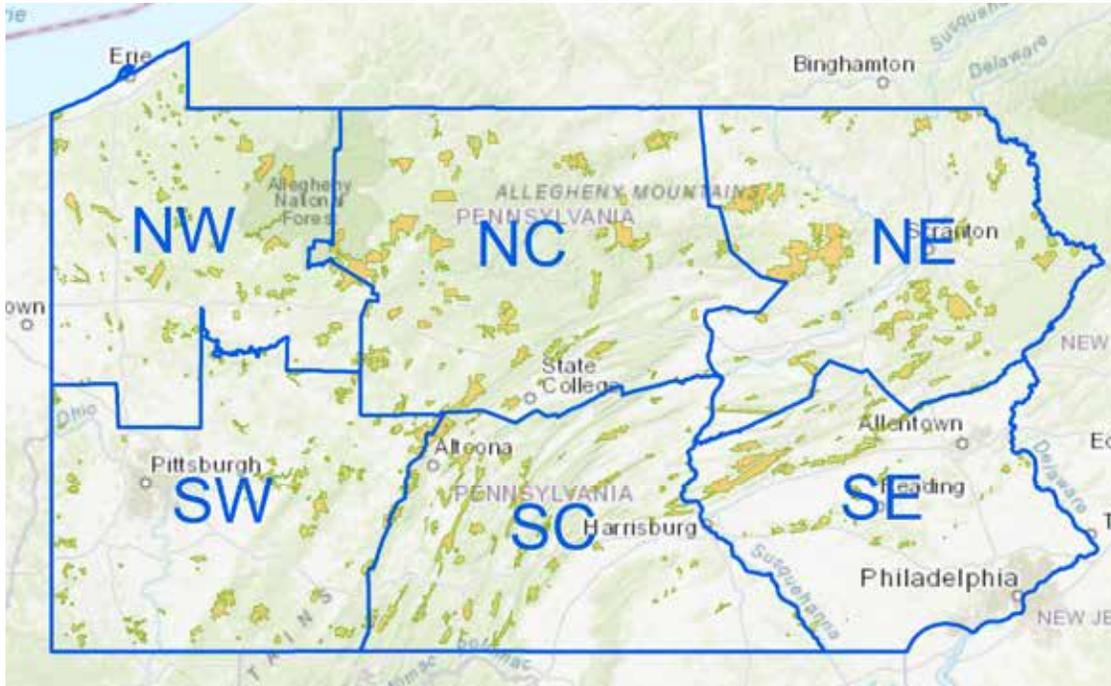
Eleven new Right-of-Way licenses and three Special Use permits were issued and one Cooperative Agreement was executed. Program revenue deposited into the Game Fund totaled \$4,989,595, a decrease of \$497,482 (-9%) from the previous fiscal year.

Land surveys accounted for the creation and/or recovery of approximately 671,008 lineal feet, or 127 miles of State Game Lands boundary and the placement and/or recovery of more than 1,004 property corners.

This year a large portion of paper maps, survey field-books, and other land records were digitized, allowing for more efficient retrieval. Scanning, cataloging, archiving, and preserving these historical documents also freed-up limited office space.

During FY 2019-20, the Game Commission paid \$1,813,205.41 in lieu-of-taxes in equal amounts to the counties, townships, and school districts where State Game Lands acres are located.

The agency is divided into six regions. Map by ESRI.





## Private Lands Program

The Game Commission's Hunter Access Program continues to provide hunting and trapping opportunities on private lands. More than 12,000 parcels encompassing some 2.1 million acres are enrolled, making Pennsylvania's Hunter Access Program the nation's largest, truly voluntary access program. The Game Commission strives to improve the program for both landowners and hunters. Landowners receive complimentary wildlife calendars, subscription to the agency's *Pennsylvania Game News Magazine* and online ordering of seedlings and wood products. Landowner agreements and property information are updated regularly to ensure accurate content is available on the agency's public Mapping Center.

The Game Commission partners with Pheasants Forever to assist the Natural Resources Conservation Service. The partnership employs six biologists, funded by the Farm Bill, to work throughout the Chesapeake Bay watershed to improve wildlife habitat while sustaining agricultural production. Another six agency-sponsored biologists also assist landowners with wildlife habitat management, offering recommendations for the conservation of Species of Greatest Conservation Need. During FY 2019-20, biologists participated in 58 outreach events, reaching more than 700 participants. Nearly 250 landowners were reached through targeted mailings and more than 1,300 landowner visits impacted more than 24,200 Pennsylvania acres through 79 new conservation plans, status reviews, contract updates and on-site habitat management.

The Game Commission also hired a forester to help implement Farm Bill projects. During FY 2019-20, 59 site visits and 8 forestry plans impacted more than 450 acres of private lands. Technical assistance included data collection, timber marking, boundary line marking, and project layout to benefit species such as the golden-winged warbler, cerulean warbler, and ruffed grouse.

## Habitat Protection

The Game Commission evaluates projects submitted through the Pennsylvania Natural Heritage Program and screened using the Pennsylvania Natural Diversity Inventory for impacts to species and resources under the agency's jurisdiction.

Average review time was 20 business days. One hundred ninety-one projects were determined to have potential impacts. Avoidance measures were required or recommended for 105 of those projects. Surveys were requested for 15 projects to accurately determine potential impacts to bat hibernacula, Pennsylvania threatened eastern small-footed bats, Pennsylvania threatened northern harriers, Pennsylvania threatened peregrine falcons, Pennsylvania endangered little brown bats, and/or Pennsylvania endangered tri-colored bats.

## Howard Nursery

More than 7,400 nesting structures for wildlife were built and distributed to game lands and cooperator properties, and another 680 were sold to consumers during FY 2019-20.



Blue bird at nest box,  
Jacob Dingel

## Prescribed Fire on State Game Lands

Prescribed fire is an important and cost-effective tool to manage State Game Lands and Hunter Access properties. It is a management tool useful in a variety of habitats from grasslands to oak forests. During FY 2019-20, agency personnel used fire to enhance nearly 7,500 acres of State Game Lands, roughly 60% of which was forested habitat.

Prescribed fire improves wildlife habitat and hunting opportunity by increasing soft-mast production in shrubs such as blueberry, huckleberry, and blackberry; rejuvenating succulent browse plants preferred by deer and elk; promoting oak habitats; and maintaining grasses and broad-leaf plants sought by brooding turkeys and grouse.

Fires are prescribed and conducted under specific weather and “fuel” conditions to meet management objectives. Fuel refers to the dried leaves, grasses, and brush that are consumed in the fire. Prescribed burns often reduce the risk of wildfires. Burn crews are highly trained to ensure safety, both for themselves and the public.

Ignition patterns are designed to provide wildlife with escape routes as the burn progresses. Before the smoke clears, animals often are seen returning to burned areas. During spring burns, people often worry about impacts to ground-nesting birds such as turkeys and grouse. While burns may disrupt a few nests, hens often re-nest and some nests in the burn area may not be harmed.

Most importantly, burns occur on less than 1% of the landscape. Direct impacts are quite small and the benefits of using fire as a management tool far outweigh potential negatives.

Pennsylvania State Game Lands—  
Hidden Habitats, 2:43



## Forests, Oil, Gas, and Minerals

More than 20,000 acres of forest habitats were improved for wildlife through the agency’s forestry program this year, including 8,246 acres of timber harvested through timber sales, more than 7,500 acres of non-timber sale forest improvements such as crop tree release, aspen cutting, and thinnings, as well as more than 4,600 acres treated with selective herbicides to promote vegetation valuable to wildlife food and cover needs.

Volatile market forces, tariff wars, and COVID-19 reduced operations in the fiscal year resulting in lower revenues and less acres harvested than last year. Associated services in lieu of cash from timber sales included 11 miles of new haul roads, 92 miles of improved roads, 139 culverts placed, 3 new stream crossings, 18 new or improved parking lots, 14 new gates, and 78 acres of new manageable openings of non-woody plants.

Non-commercial habitat improvement projects occurred on 7,561 additional acres, including regeneration treatments, crop-tree releases, and pre-commercial thinning. Deer fencing was removed from 380 acres and 405 acres of fencing was installed.

During FY 2019-20, the Game Commission received royalty from 713 gas wells of which 301 are unconventional. Of those unconventional wells, 228 have been drilled from pads on adjoining properties and required no impacts to the surface of State Game Lands, thereby maintaining the use of State Game Lands for the purpose of managing wildlife and habitat.

Three oil and gas development projects were approved by the Board of Commissioners during FY 2019-20. The combined total acreage of these projects totals 4,772.11 acres, none of which will require impacts to the surface of game lands.



# HUNTING, TRAPPING and WILDLIFE VIEWING

Providing and promoting world-class opportunities for wildlife-related recreation



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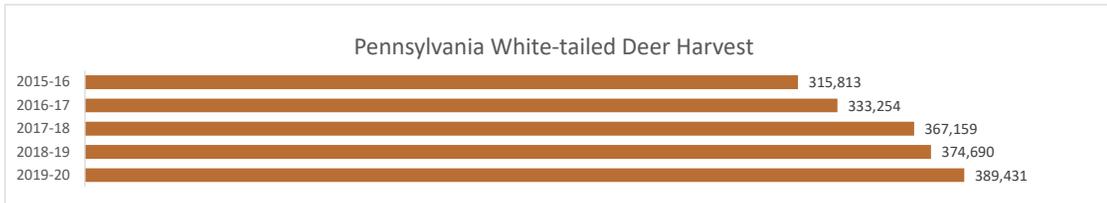
Abby Wurzbach of Brogue, PA harvested her first deer, this six point, on opening day of 2019 firearms season in Susquehanna County.

## Premier White-Tailed Deer Hunting

2020-21 State of the Deer Herd Address, 1:44

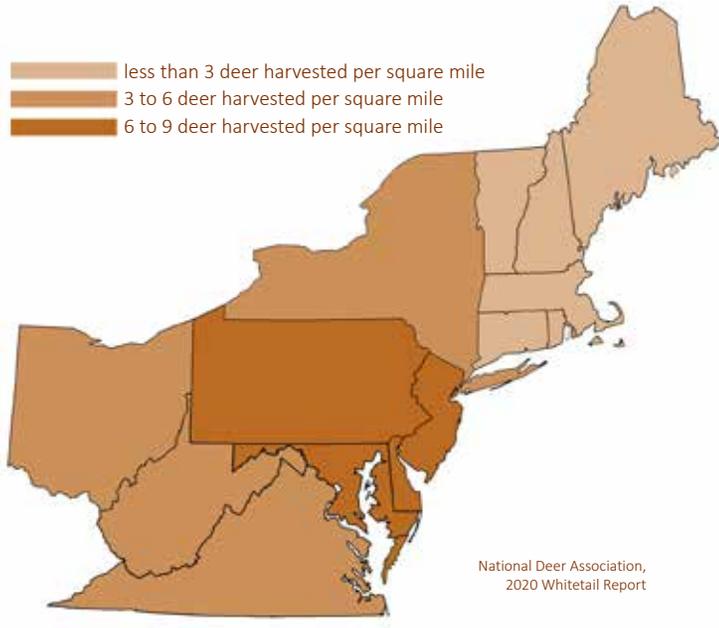


In recent years, Pennsylvania deer hunters have harvested more deer per square mile than any state in the nation. Pennsylvania hunters harvested an estimated 389,431 white-tailed deer during the 2019-20 hunting season, which is a slight increase from the estimated 374,690 harvest during the 2018-19 hunting seasons. Of the antlered deer harvested, 66% were two years of age or older. This represents a significant change from the late 1990s when only 20% of the antlered harvest was older than two years of age. In 2019-20, 19% of all licensed hunters took a buck, while 25% of antlerless licenses were used to tag an antlerless deer. The consistency of these success rates throughout the past 15 to 20 years demonstrates the sustainability of Pennsylvania's deer population.



### Deer Harvest Density

Pennsylvania was in the top three for antlered and antlerless deer harvests individually, and No. 1 in the country in total deer harvest density.



### Harvest Monitoring

Pennsylvania's deer harvest is a critical part of the deer management program. Every year, more than 75 trained deer agers visit more than 400 deer processors throughout the Commonwealth. Data are collected on days following the top harvest days during the two weeks of firearms season.

During 2019, these 31 teams collected harvest data from more than 23,500 deer. These data are critical, but only part of the information used to make management recommendations for the following year's deer seasons.



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Russell Horn, of Mount Bethel, and nephew Tripp, with Russell's Northampton County buck



## Sunday Hunting Opportunities Expanded

It's official. During FY 2019-20, Gov. Tom Wolf signed into law Senate Bill 147, permitting additional hunting on three Sundays per calendar year – one within the archery deer season, one within the firearms deer season and one selected by the Game Commission. The law took effect Feb. 25, 2020, with the first new Sunday hunting opportunities available in November 2020.

In Pennsylvania, Sunday hunting generally is limited to the hunting of foxes, coyotes, crows and feral hogs during open seasons. Providing opportunity to experience hunting on previously closed Sundays has game-changing potential for hunters with tight schedules and, in many cases, will make a difference by enabling those hunters to hunt alongside their children, setting them on a path they'll follow the rest of their lives.

Prior to passing the House of Representatives, Senate Bill 147 was amended to require all hunters on private land on the selected Sundays to obtain written permission from the landowner. This requirement does not apply on Sundays when only foxes, coyotes, crows and feral hogs may be hunted. The bill also gives Game Commission wardens the authority to investigate private-land trespassing complaints and enforce trespassing violations as a primary offense. Previously, trespassing violations were referred to police unless a Game & Wildlife Code violation also was alleged.

## Dual-Carry Rule Change Increases Opportunity

While carrying firearms generally is prohibited while bowhunting, archery deer hunters long have been permitted to carry muzzleloaders to hunt deer during times when the archery and muzzleloader deer seasons overlap. A regulatory change adopted by the Board of Commissioners now allows properly licensed hunters to carry both a bow and muzzleloader afield when an archery deer season overlaps with a muzzleloader bear season. The rule also applies to an archery bear season that overlaps with a muzzleloader deer or bear season. The change intends to reduce confusion among hunters during overlapping seasons, and increase the opportunities for those afield.

A muzzleloader bear season that overlaps with the October muzzleloader deer season and archery deer season was adopted as part of 2020-21 hunting seasons, so a properly licensed hunter was able to carry a muzzleloader to hunt bears and antlerless deer, as well as a bow to hunt antlered or antlerless deer. When the carrying of both muzzleloaders and archery equipment is permitted, hunters must possess valid licenses and tags to use both and are required to follow the fluorescent-orange requirements for the muzzleloader season.

## More Opportunity for Exceptional Elk Hunting

In 2019, elk hunting opportunities were expanded to include an early 2-week archery season, followed by the traditional general season, and then a late season in January. These seasons provided Pennsylvania hunters opportunity for an additional 20 days of elk hunting. With more than 64,000 applications and just 142 licenses, being drawn for a Pennsylvania elk license is a unique achievement all on its own. From those 142 license winners, 127 elk were harvested with 10 bulls estimated to weigh more than 700 pounds. Several bulls donned impressive antlers, including a 10 x 9 bull taken in Cameron County.

## Mentored Hunting Program Made Simpler

Initially open only to youth under 12, Pennsylvania's mentored hunting program has expanded incrementally in recent years to offer opportunities to unlicensed hunters of all ages. Because the program is a tool to recruit new hunters, it only made sense to open it to everybody. Phasing-in program eligibility for hunters of different ages brought about a mix of different rules that many found confusing to follow—potentially undermining the goal of hunter recruitment.

The Board of Game Commissioners adopted new standards that simplify the program and make it more uniform for hunters of all ages. Mentored hunters of all ages now are eligible to hunt the same species. This expands opportunities in each age class and eliminates confusion about which species different-aged hunters may hunt. While mentored hunters under the age of 7 continue to be issued permits that do not contain deer or turkey harvest tags—meaning the deer and turkey tags they use continue to be provided through transfer from their adult mentors—mentored hunters of all other ages now are issued their own tags. And, mentored hunters ages 7 and older now can apply for their own antlerless deer licenses and Deer Management Assistance Program (DMAP) permits, as well as migratory bird licenses and pheasant permits.

Now, all mentored hunters may hunt rabbit, snowshoe hare, ruffed grouse, mourning doves, bobwhite quail, pheasants, crows, squirrels, porcupines, woodchucks, coyotes, deer and wild turkeys. Safety requirements that prohibit mentored hunters under 17 from carrying a firearm while moving, limit mentors to accompanying one youngster at a time, and require the mentor and mentored hunter under 17 to possess no more than one sporting arm between them remain unchanged.

Mentored Deer Hunt at John Heinz National Wildlife Refuge, Derek Stoner





## Big Game Scoring Program

Though many of us do not go hunting for the purpose of taking a record-book trophy, record-book animals bring to attention the excellence of habitat and wildlife-management practices that help produce healthy wildlife populations. More than 5,000 trophies are listed in Pennsylvania's records.

During the past 10 years, nearly 1,600 deer entries—138 last year alone—have been added to Pennsylvania's Big-Game Records listings. Bradford County again was the top producer of record-book bucks, a distinction the county has held for some time. The largest whitetail added to the 2020 record book was a big nontypical buck taken in Somerset County with archery equipment that scored 183-7/8 inches and ranks 25<sup>th</sup> in the nontypical archery category. A whopping 11 new Pennsylvania record-book whitetails also qualified for the Boone & Crockett Club record book, which is quite an achievement. There is little doubt antler restrictions have paved the way for the addition of these immense bucks to the deer herds that roam the hills and forests of our Commonwealth.

Forty-two bears, including eight taken with archery gear, were added to Pennsylvania's Big Game Records book in 2020. All but nine of those bears also qualified for entry into Boone & Crockett Club records. The largest new bear entry in Pennsylvania's records was taken in Monroe County during the 2019 season. Its skull measured 23-00/16 inches and is ranked third in the firearms category.

Five bull elk taken in 2019 were added to the state's records, including a new No. 1 in the nontypical archery category for a bull taken in Clinton County during the inaugural September 2019 archery season that scored 372-6/8 inches.

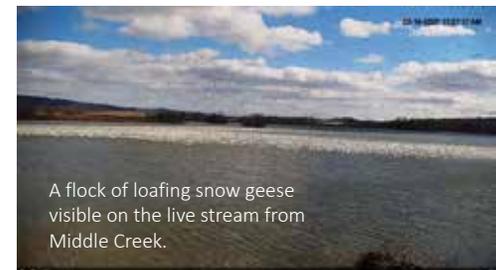
## Wildlife Watching

Two of the largest wildlife viewing opportunities in the Commonwealth are elk viewing in the agency's northcentral region during autumn and the snow goose migration in the southeast region each winter.

Elk viewing areas in the northcentral region had a high number of visitors during the peak of the rut in September and October. Large crowds gathered on the weekends at the two main elk viewing areas. Established viewing areas on State Game Lands were able to handle the large crowds. Visitation appeared to be larger than typical.

Middle Creek Wildlife Management Area is located in Lancaster and Lebanon counties in the agency's southeast region. Newly-installed monitoring systems will help gauge visitation annually. From July 1 through the COVID-19-related closure of the Visitor's Center in March, door counters logged more than 45,000 people (21,600 during the snow goose migration). Trail use was heavier than usual during COVID-19. Tour road counters indicated that 35,000 cars passed through Middle Creek during FY 2019-20, 9,500 of those during the snow goose migration.

The agency published three wildlife livestreams through partnerships with HDOnTap, Comcast Business, and the North Central Pennsylvania Regional Planning and Development Commission. One camera streamed from the elk range during the peak of the elk rut, mid-September through mid-October with 1,025,427 unique page views. Another camera streamed from Willow Point at Middle Creek featuring the winter snow goose and waterfowl migration with 153,733 unique page views. And a third camera featured a bald eagle nest, which fledged two young, with 1,103,060 unique page views during FY 2019-20.



A flock of loafing snow geese visible on the live stream from Middle Creek.

## Managing Dove Fields for Hunting Opportunities

Managed Dove Fields, 5:27



A new opportunity for hunters is continuing to grow throughout the Commonwealth. Managed dove fields expanded through all six of the agency's regions with more than 550 acres prepared for the 2020 season. Locations were selected through a mapping tool that analyzes landscape features that attract doves such as large agricultural areas, available open water, gritting areas, and loafing and roosting cover. Dove fields were planted with wheat, milo, sorghum, millet, and sunflower and carefully managed throughout the growing season. Fields were mowed and burned beginning in mid-August to expose the seed at ground level and begin attracting doves prior to the September 1<sup>st</sup> opening day. Hunters are flocking to these public fields to take advantage of the hard work put in by the agency's land management crews and to have a chance at a limit of mourning doves. Surveys conducted after the season indicate that across the Commonwealth 1,791 hunters fired 32,716 shots and harvested 6,807 doves; averaging four doves per hunter. This was the first time that dove hunters in Pennsylvania had a dedicated location on public lands to enjoy some fast-action wingshooting with family and friends.

Dove hunter; State Game Lands 252, Lycoming and Union Counties



## Wild Turkey Hunting

The fall 2019 harvest of 9,056 turkeys was similar to 2018 (9,219) but 7% below the previous 3-year (2016-18) average of 9,776. Part of this decrease was due to the 2019 Thanksgiving season being shortened from the standard three days to two days to accommodate the deer rifle opener. In 2020 the Thanksgiving season returned to three days, Wednesday-Friday. Other factors that contributed to lower harvests included an abundant mast crop in some parts of the state, which made birds more difficult to locate; carryover effects of below-average reproduction in 2018; and decreased hunter participation of 95,800, which was 18% below the previous 3-year average of 117,400.

During the spring 2020 season, there was a 13% increase in turkey hunters from the previous 3-year average, however the 2020 spring wild turkey harvest of 34,492 was 11% below the previous 3-year average, demonstrating that in Pennsylvania, more turkey hunters afield does not always translate to an increased harvest of this elusive bird. Hunter success for their first bird (15%) was lower than the previous 3-year average of 19%, but similar to the previous 10-year average. With the increase in the number of turkey hunters, sales of the 2020 special spring turkey license increased by 20% from the previous 3-year average, to 25,524. Sales have exceeded 20,000 annually since 2017. Of those who hunted for a second bird, 54% were successful, which is similar to the previous 3-year average of 52%.



23

Chad Hodge of Bushkill, PA harvested this gobbler in Monroe County.

# AGENCY COMMUNICATIONS and BRANDING

Communicating and promoting the value of agency programs, services, and resources

24

A father and daughter learning about Pennsylvania wildlife, Tracy Graziano

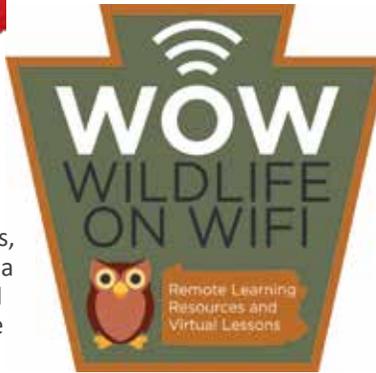
P E N N S Y L V A N I A   G A M E   C O M M I S S I O N

## Wildlife on WiFi

Build Your Own Beaver Dam Activity, 3:12



The Game Commission launched Wildlife on WiFi in April 2020 with the vision to connect Pennsylvania residents to their state's wildlife from anywhere. The Wildlife on WiFi program provides innovative online learning opportunities, virtual lessons, and educational resources about wildlife and its conservation. Through July 1, 2020, an estimated 30,000 users engaged with Wildlife on WiFi online education lessons, activities, videos, and other resources, and Game Commission educators provided hundreds of Pennsylvania students with virtual wildlife lessons. The program received national recognition, winning the prestigious Stephen Kellert Award from the Association of Fish and Wildlife Agencies, for outstanding service in advancing connections between humans and the natural world.



[www.pgc.pa.gov/Education/VirtualLearning](http://www.pgc.pa.gov/Education/VirtualLearning)

## Call of the Outdoors Podcast

At the Game Commission, our passion is WILD, and Call of the Outdoors—the agency's podcast—is all about wildlife, hunting, habitat and conservation efforts in the Keystone State. Each episode includes a unique look into a Pennsylvania wildlife-related subject, a few laughs, and is sure to leave listeners with a renewed sense of knowledge and pride in the work being done on behalf of wildlife. Join us in exploring lots of ways to promote and enhance Pennsylvania's wildlife resources for current and future generations. <https://calloftheoutdoorspgc.com>



## #WildSciPA

#WildSciPA Playlist



Got five minutes? Take a quick trip into wildlife science with Game Commission biologists for up-close experiences. Learn about elk ultrasounds, tame grouse, tracking peregrine falcons, turkey egg hunts and more. During FY 2019-20, the agency YouTube channel received more than 2.7 million views, an increase from the prior year's 2.2 million. Viewers watched 238,000 channel hours, an increase from the prior year's 137,000 hours.



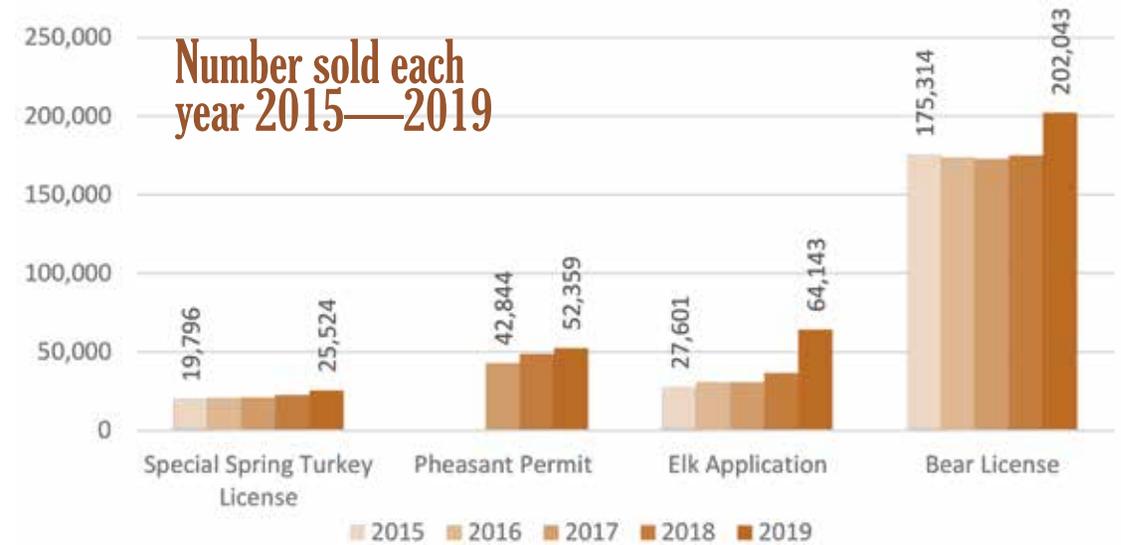
25

A virtual wildlife lesson.



## Marketing Helps Promote Hunting Opportunities

In order to recruit new hunters and retain existing license buyers, the Game Commission significantly increased its marketing efforts, launching several digital campaigns. These campaigns were designed to raise awareness of opportunities for hunting pheasants, spring gobbler, elk, and bear. The campaigns proved to be successful, as the Commission saw an increase in licenses sold for these species. The Commission also promoted the sale of general hunting licenses and the new Saturday opener for firearm deer season. As a result, sales of hunting licenses increased. The Commission sold almost 5,000 more licenses in 2019 than it had in 2018. Prior to this increase, license sales had been steadily decreasing through most of the past three decades.



## Hunter-Trapper Education

A person wishing to purchase a license to enjoy hunting or trapping in Pennsylvania must first successfully complete a hunter education course. In Pennsylvania, a training certificate, recognized throughout North America, is awarded after passing a test. Successful students also receive a complimentary 1-year subscription to the agency's *Pennsylvania Game News Magazine* to help further their introduction to hunting and trapping.

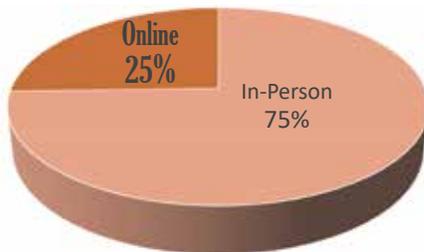
A person must be at least 11 years old to enroll in a Pennsylvania Hunter-Trapper Education class. The program is designed to produce safe, responsible, knowledgeable outdoor enthusiasts. The results have been remarkable. Since 1959, hunting-related shooting incidents have declined nearly 80%.

In response to the cancellation of in-person events due to COVID-19, the agency adapted to allow students aged 11 and older to take the online Hunter-Trapper Education class, typically available only for students 16 and older. The online course host, Kalkomey Enterprises, agreed to waive the \$19.99 course fee.

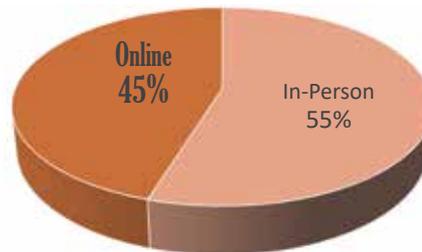
During FY 2019-20, 15,216 students graduated from 441 Basic Hunter-Trapper Education classes held statewide by 1,849 volunteer instructors. Another 12,560 students graduated from the course online. Though there was a 10% drop in graduates of the basic course overall, the percent of students who took the class online grew substantially. Cable Restraint Certification was acquired by 152 students in-person and another 452 online. Fifteen people completed the in-person Furtaker course (which includes Cable Restraint training) and 438 completed in-person and online Successful Bowhunting. Nineteen hunters completed Remedial Hunter-Trapper Education to reacquire a license. Total number of graduates from all Hunter-Trapper Education classes was 28,852, a 10% decrease from the prior fiscal year.

A hunting-related shooting incident (HRSI) occurs when a person's injury results from the discharge of a sporting arm while hunting or trapping. Incidents often result from failure to follow basic firearm and hunting safety rules. A total of 26 HRSIs occurred during the 2019 calendar year, with an incident rate of 3.06 per 100,000 basic license holders: 11 were self-inflicted (3 fatally), 15 were inflicted by others (1 fatally). Twelve incidents involved deer (6 rifle, 1 handgun, 1 compound bow, 3 crossbow, 1 muzzleloader), 8 involved small game (all shotguns), 1 involved bear (rifle), 3 involved furbearers (1 shotgun, 1 rifle, 1 longbow), and 2 involved waterfowl (both shotguns). Causes reported included 11 victims in line of fire, 8 unintentional discharges, 2 hunters slipped/fell, 2 hunters dropped their sporting arm, 1 defective sporting arm, 1 stray shot, and 1 other.

### Basic Hunter-Trapper Education Graduates

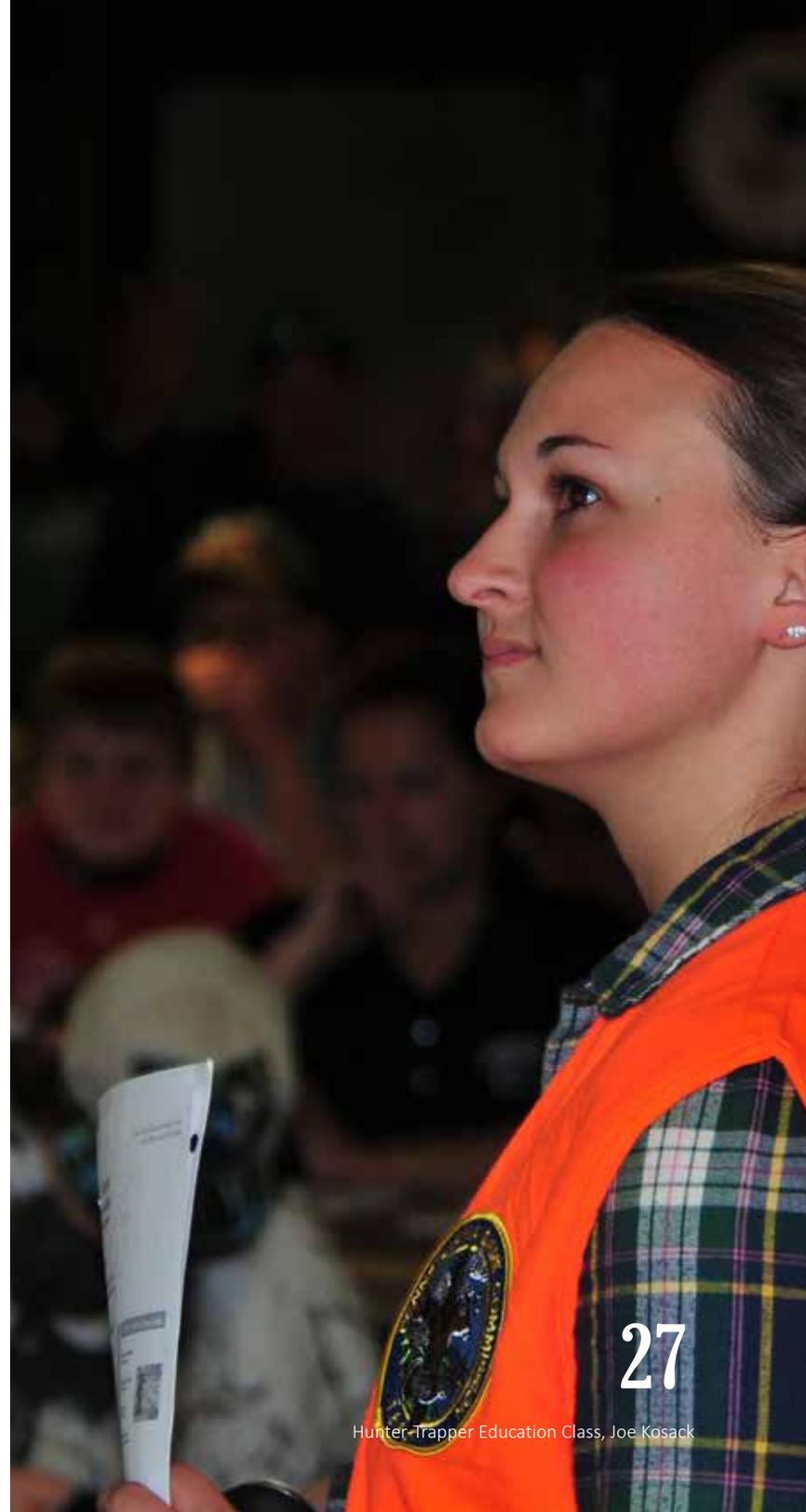


FY 2018-19



FY 2019-20

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# AGENCY SUSTAINABILITY, OPERATIONS and CUSTOMER EXPERIENCES

Embracing emerging technologies, enhancing operations, and maintaining financial sustainability and accountability to sustain the agency into the future



## Leading the Nation in Pheasant Propagation

Pheasant Hunting Promo



Current farmland habitat in Pennsylvania is inadequate to support large-scale huntable populations of wild pheasants and quail. Stocked pheasants fill an important recreational niche contributing to hunter recruitment, retention and reactivation. The Game Commission operates the largest pheasant propagation program of any agency in the nation, distributing birds from two farms, one in Armstrong County and the other in Lycoming County.

Infrastructure improvements and significant changes to the propagation business model in recent years have allowed the agency to stock the same number of birds as a decade ago, but at lower cost. And, hunter satisfaction has increased with 75% of stocked pheasants now being male, compared to about 50% prior to 2017.

Stocking is a logistically-complex effort requiring coordination between many job classifications and organizational units. Pheasants are stocked on more than 230 properties across 62 of the Commonwealth's 67 counties. Birds are released on State Game Lands, other public lands, and select Hunter Access locations.

During the 2019-20 seasons, about 36,000 hunters spent about 221,000 hunter-days pursuing pheasants. Statewide, 209,290 ring-necks were released, including 14,279 pheasants for the youth pheasant season (both general stockings at designated, advertised sites and club-sponsored mentored hunts), 174,275 birds for the regular fall season (spread out across one preseason and four in-season releases), and 20,736 pheasants for the late small game season.

Pheasant hunters, Derek Stoner





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A father passes down a tradition, Derek Stoner



Mentored Deer Hunt at John Heinz National Wildlife Refuge, Derek Stoner

### Coming Soon!

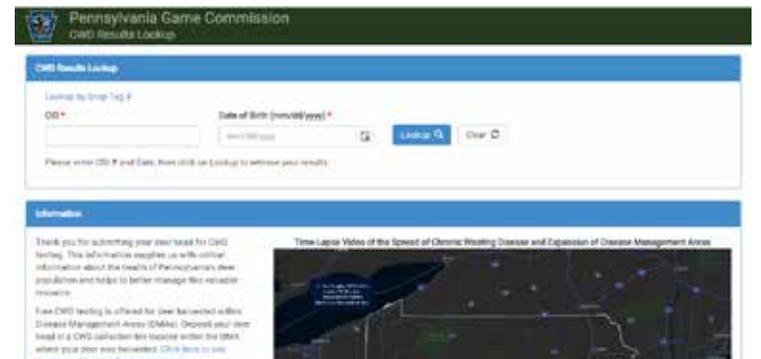
Staff have been busy preparing the new Hunt Fish PA online license sales system, scheduled to debut in January 2021. The responsive system functions as a 'home base' for individual customers, consolidating all their licensing information on any device, at their fingertips. A customer portal will provide enhanced content, email automation, digital licensing options, license auto-renewal, and improved customer experience.

In an effort to make the current online license sales system an all-inclusive, one-stop shopping experience, customers now can purchase shooting range permits, snow goose permits and Game Commission merchandise at the same website from which hunting and furtaker licenses are purchased.

# HUNT Fish PA

### Check CWD Test Results Online

A CWD Results Lookup feature on the agency website now allows hunters to view test results from deer heads they have submitted for chronic wasting disease testing. Results can be searched by the hunter's CID number from their license and their date of birth. Recent statistics and important information about the Game Commission's response to the disease is also available.



## Operation Game Thief

Operation Game Thief provides a way for people to efficiently and confidentially report tips about wildlife crimes. During FY 2019-20, 1,617 calls were received, an increase of 8% over the previous year. The hotline continues to resonate well with the public and maintains an average time of around 20 minutes from when a tip comes in until an officer is dispatched to the incident.

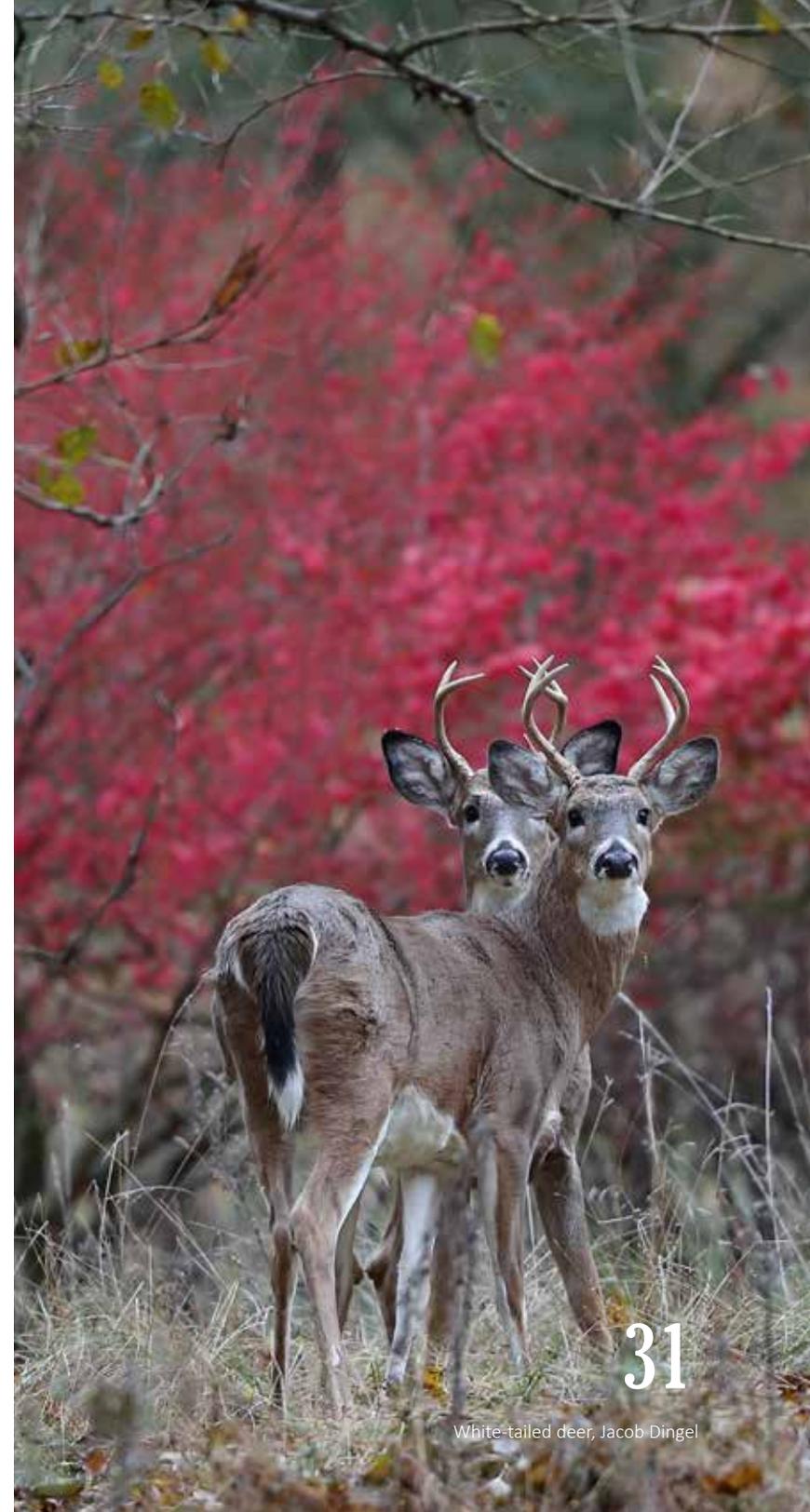
Anyone can report wildlife crimes by calling Operation Game Thief toll-free at 1-888-PGC-8001 or filling out an online form available from the agency's home page at [www.pgc.pa.gov](http://www.pgc.pa.gov) or from the Operation Game Thief page at <http://bit.ly/PGCOGT>.



Game warden, Hal Korber

## Increasing Efficiency for Wardens in the Field

The agency is increasing efficiency by providing game wardens access to vital hunter information in the field. The new Pocket Warden mobile application allows game wardens to scan hunting licenses, harvest tags, and driver's licenses in the field with their smart phones. Data gathered through the application also provides analytics on field checks, hunter-officer interactions, and areas of the Commonwealth with a high number of crimes against wildlife.





## State Game Wardens

Game wardens are sworn peace officers with statewide law-enforcement authority. They are trained and equipped as well as any police officer. They are expected to follow standards for protecting civil rights, gathering evidence that will hold up in court, and prosecuting violations of many different laws. Being a game warden requires a diversity of skills.

While wildlife law enforcement is a core responsibility, a warden’s full range of duties requires significant training. There is no “off” season. Duties extend into wildlife surveys, field research, Hunter-Trapper Education, and conservation education programs for civic groups and public schools. Wardens also represent the agency at conservation and sportsmen’s club meetings, and respond to nuisance wildlife complaints, reports of injured wildlife, and calls about wildlife suspected to be diseased.

During FY 2019-20, 247 part-time deputies (down 37 from last year) assisted 103 full-time state game wardens (down from 116). Thirty-one of the agency’s 134 districts were vacant. Wardens in neighboring districts often help cover the vacancies. On average, each full-time warden covered more than 400 square miles.

A total of three citizen complaints against game wardens and deputy game wardens were received and adjudicated during FY 2019-20. After investigations, one complaint was not-sustained and two resulted in a finding of exonerated.

## Officer Training

In January 2020, the hiring process for the 33rd state game warden cadet class began; class is expected to start during March 2021.

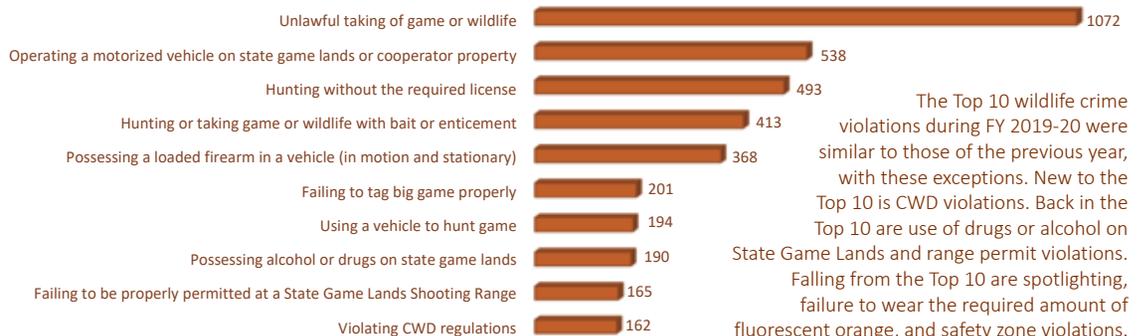
In early March 2020, 19 candidates successfully completed deputy game warden basic training.

On March 29, 2020, the 32nd class of state game warden cadets began their nearly yearlong training at the Ross Leffler School of Conservation. The class of 29 cadets is anticipated to graduate in February of 2021 and will fill currently vacant districts throughout the Commonwealth.

Become a State Game Warden, 0:37 

## Wildlife Protection—Citations, Warnings, Prosecutions

During FY 2019-20, game wardens issued 6,030 warnings for a ratio of almost one warning per citation. A total of 6,708 prosecutions were initiated within the Pennsylvania court system. This is a decrease from the 6,824 initiated during the prior fiscal year. The agency was successful in 6,038 prosecutions; 210 were unsuccessful, and 471 were withdrawn or dismissed, providing a prosecution rate of 96.6%. Seventy-seven misdemeanor and nine felony charges were prosecuted. Twenty-two of 31 appeals were successful.



The Top 10 wildlife crime violations during FY 2019-20 were similar to those of the previous year, with these exceptions. New to the Top 10 is CWD violations. Back in the Top 10 are use of drugs or alcohol on State Game Lands and range permit violations. Falling from the Top 10 are spotlighting, failure to wear the required amount of fluorescent orange, and safety zone violations.

## A K-9 Team for Each Region

The Game Commission's K-9 program was re-established in 2015. The use of highly-trained dogs in wildlife law enforcement continues to be effective.

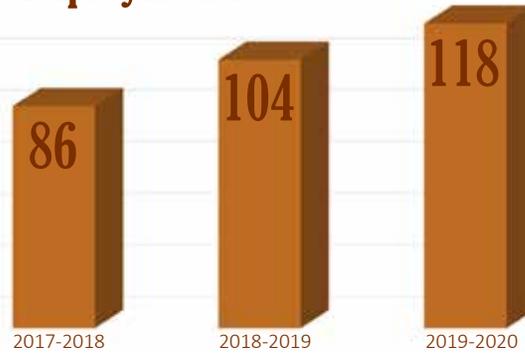
Each K-9 is trained in three disciplines: article searches—finding dropped or discarded firearms, ammunition or knives used in wildlife crimes, wildlife detection—searching for hidden wildlife parts from deer, elk, bear, turkey and waterfowl, and tracking—leading their handler on a scent trail of a missing person or fleeing violator.

Labradors are the breed of choice. Traditionally a well-respected hunting dog, labs are able to detect all types of scent and are appropriately rugged for performing both in water and on woodland terrain.

Annual requests for service increased again last year. In response, the agency has added three new K-9 teams to its roster. There now is a team in each of the agency's six regions.

Last year K-9 teams responded to 118 requests to assist in investigating wildlife crime as well as assisting local, state, and federal law enforcement agencies.

## K-9 Deployments



## K-9 Ayla Makes an Assist

K-9 Ayla and handler Warden Shawn Barron were deployed to southern Somerset County to assist Warden Brian Witherite with an investigation involving the possible taking of a white-tail at night.

Warden Witherite had encountered two individuals emerging from the woods with a spotlight at around 10:30 PM. The two admitted to discharging an arrow from a compound bow from their vehicle, just minutes before Witherite's arrival. The pair assured the warden that they did not wound the deer. Witherite took their information and contacted Barron the following morning.

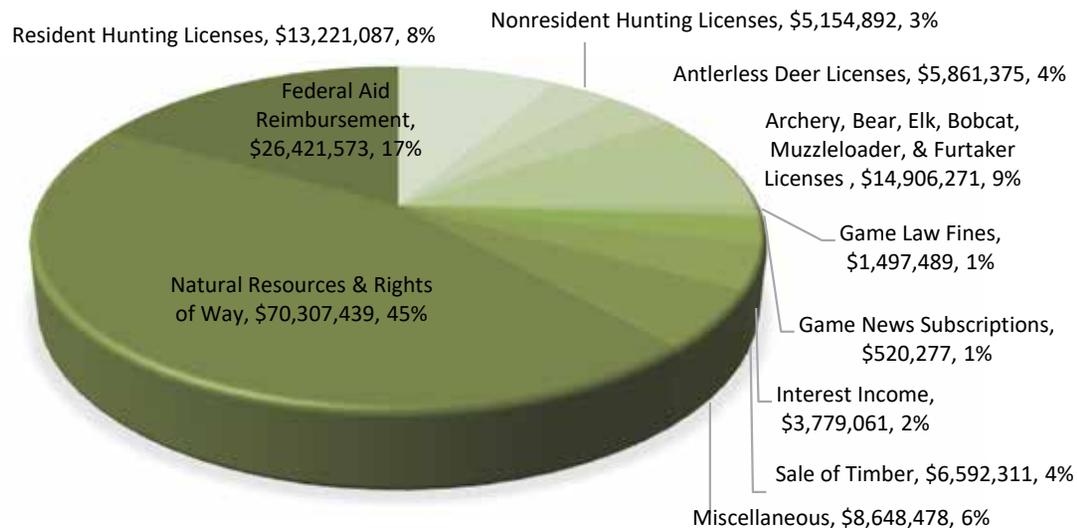
When the K-9 team arrived on the scene, Ayla was cast in a large grass field approximately 40 yards by 60 yards. Within minutes, the K-9 located blood where the deer had been shot. Ayla was cast again in the direction of the blood trail and followed it down over a steep bank. She alerted and located an arrow. Shortly thereafter, Witherite located the deceased white-tailed deer.

Both individuals were charged with spotlighting with a firearm and the unlawful taking of a white-tailed deer.

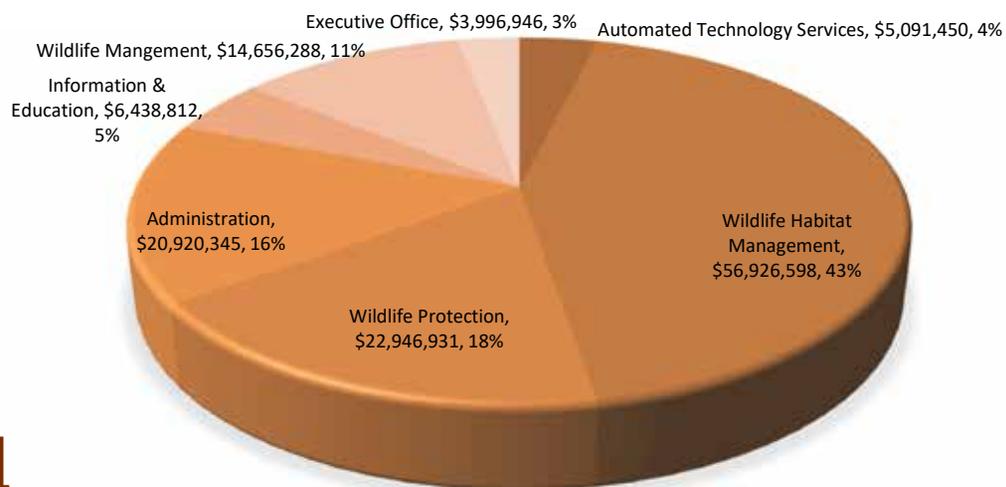


# GAME FUND REVENUES & EXPENDITURES—July 1, 2019-June 30, 2020

## Revenues—\$156,910,253



## Expenditures—\$130,977,370



This content was prepared using the modified accrual basis of accounting. Revenues are reported when they become measurable and available to finance expenditures of the current period. Expenditures are recognized when they will be paid with current financial resources.

Total revenues were \$156,910,253, a decrease of \$33,019,318 (17.4%) from the prior year's \$189,929,571. Included in the prior fiscal year were revenue and expenditures from escrow accounts that were associated with acquired land transactions, which were not included in prior period financial statement reports.

There was an increase in revenues from gas and oil lease royalties of \$10,630,411 as a result of favorable market conditions and new gas and oil wells. Adult nonresident hunting licenses also increased slightly, up \$264,507 or 5.7%. Revenue from adult resident hunting licenses decreased \$103,680. Sales from the Federal Duck Stamp (eDuck), which allows residents and nonresidents to hunt migratory birds, continued to grow. Sales totaled \$647,793—a 3.9% increase.

Total expenditures were \$130,977,370. This represents a decrease of \$43,062,580 (24.7%) from the prior year's expenditures of \$174,039,950. The majority of the decrease can be attributed to the prior year's acquired land transactions, which increased prior year expenses. There was an increase in legal and specialized services expenditures of \$3,597,772, attributable to the Game Commission's initiative for State Game Lands road maintenance and habitat restoration projects.

The Game Fund's Restricted Fund Balance was \$114,599,006 at the fiscal year end. This represents an increase of \$25,932,883 or 29.2% from the prior year-end balance. The increase is mainly attributable to both an initiative with the Department of General Services for the Game Commission's capital building project fund and a change in the reporting of State Game Lands escrow accounts.

The Game Code stipulates that a minimum of \$4.25 from each resident and nonresident license, and a minimum of \$2.00 from each antlerless deer license issued for which the full fee has been paid, is to be used for habitat improvement, development, maintenance, protection, and restoration. The Game Commission reported that during fiscal year 2019-20, the number of resident and nonresident licenses sold totaled 1,470,912, and the number of antlerless deer licenses sold totaled 875,909. This mandated that a minimum of \$8,003,194 be expended and appropriated into a separate restricted account for the above-mentioned habitat improvement provision. Actually \$11,675,112 was expended. A \$3,194 deficit amount will be added to the appropriations request for the 2020-21 fiscal year.

## Game Fund Statement of Revenues, Expenditures, & Changes in Fund Balance

REVENUES	
Licenses and fees	\$ 48,072,270
Intergovernmental	26,421,574
Charges for sales and services	77,869,299
Investment income	3,779,061
Miscellaneous revenue	768,049
<b>TOTAL REVENUE</b>	<b>156,910,253</b>
EXPENDITURES	
Recreation and cultural enrichment	118,777,078
Capital outlay	6,200,292
Operating transfer out	6,000,000
<b>TOTAL EXPENDITURES</b>	<b>130,977,370</b>
<b>NET CHANGE IN FUND BALANCE</b>	<b>25,932,883</b>
FUND BALANCE JULY 1, 2019	88,666,123
<b>FUND BALANCE JUNE 30, 2020</b>	<b>\$114,599,006</b>

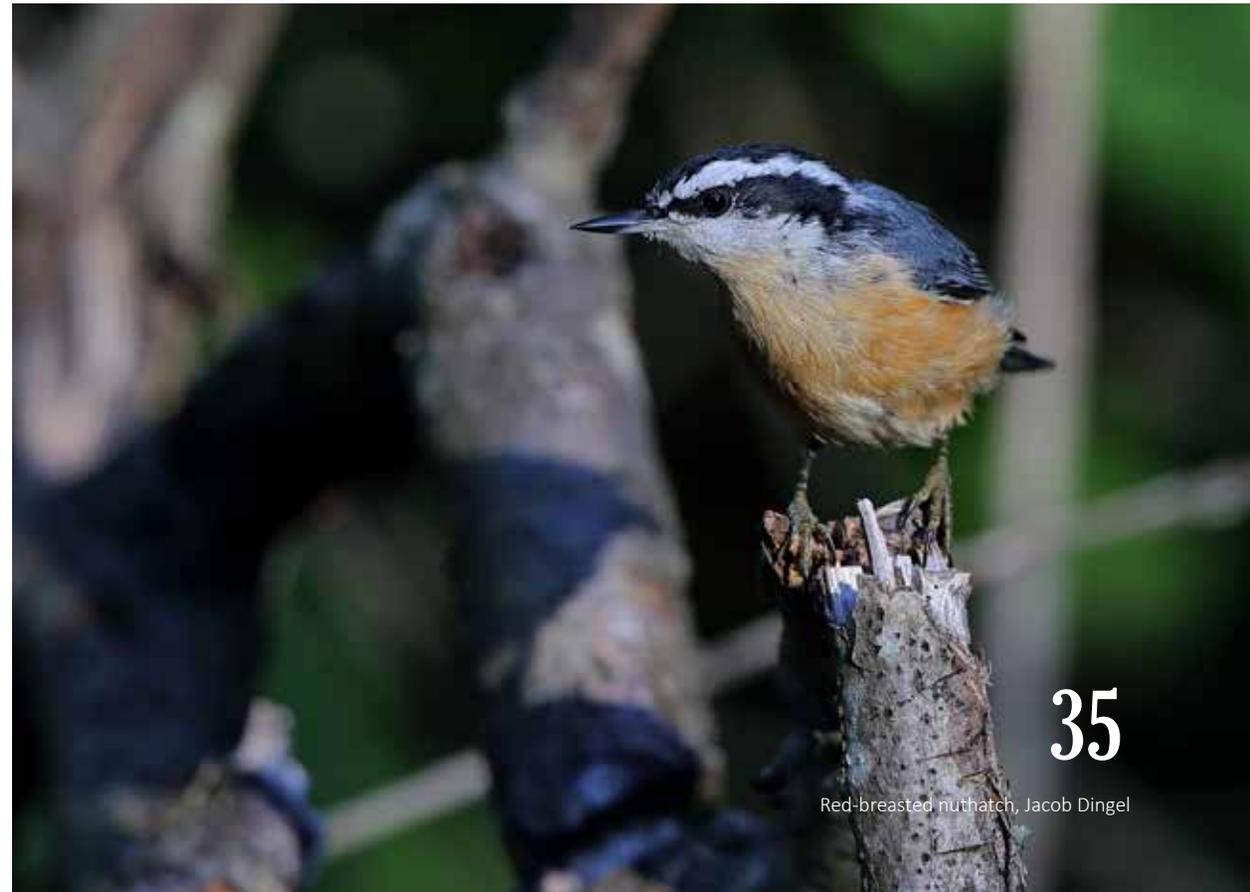
## Game Fund Balance Sheet — June 30, 2020

ASSETS	
Cash	\$ 9,113,589
Temporary investments	42,719,131
Long Term Investments	75,697,337
Accounts receivable	128,932
Due from federal government	12,494
Due from other governments	10,548
Due from other funds	332,964
<b>TOTAL ASSETS</b>	<b>128,014,995</b>
LIABILITIES AND FUND BALANCE	
<b>Liabilities:</b>	
Accounts payable and accrued liabilities	\$ 8,211,285
Securities lending obligations	1,167,173
Due to other funds	1,092,573
Due to political subdivisions	9,968
Due to other governments	177,163
Due to fiduciary funds	650,066
Unearned revenue	2,107,761
<b>Total Liabilities</b>	<b>13,415,989</b>
<b>Fund balance:</b>	
Restricted Fund Balance-Environmental Protection	114,599,006
<b>TOTAL LIABILITIES AND FUND BALANCE</b>	<b>\$128,014,995</b>

## Third-Party Obligations

The Game Commission is the beneficiary of several third-party obligations to mitigate damages or otherwise provide funds for projects or research. In the majority of these instances, the obligation is for land. The obligation listed below as *White Nose* was an account set up by and between the United States Fish and Wildlife Service and Consol Coal Company to provide funds for research into white-nose syndrome. Finally, three obligations, PSU, IBAT and White Nose, are specifically subject to United States Fish and Wildlife Service control and approval.

OBLIGATION:	Balance as of June 30, 2020
PSU	\$102,339.45
IBAT	\$3,453,552.78
White Nose	\$7,442.09
Rice Poseidon (LOC)	\$510,000.00
Regency Marcellus Gas Gathering, LLC (Parent Guaranty)	\$600,000.00
Appalachia Midstream	\$115,000.00
<b>TOTAL</b>	<b>\$4,788,334.32</b>



## Strategic Goals

The Pennsylvania Game Commission exists to manage the Commonwealth's wild birds, wild mammals, and their habitats for current and future generations, a mission it has followed faithfully since 1895. Although its focus has remained static since the agency was created, the suite of challenges and opportunities facing the agency are fluid and dynamic. The agency is focused on the work ahead — adapting to challenges it faces using innovation to accomplish the task of protecting and promoting wildlife in Pennsylvania in the most efficient manner possible.

1. *Manage Wildlife*
2. *State Game Lands and Habitat Management*
3. *Hunting, Trapping and Wildlife Viewing*
4. *Staff Recruitment, Development, Retention and Support*
5. *Agency Sustainability, Operations and Customer Experience*
6. *Agency Communication and Branding*

## Executive Staff

Bryan J. Burhans, *Executive Director*  
Richard Palmer, *Deputy Executive Director*  
Thomas P. Grohol, *Deputy Executive Director*

## Board of Game Commissioners

Charles E. Fox, *President, Troy*  
Stanley I. Knick Jr., *Vice President, Dupont*  
Michael F. Mitrick, *Secretary, York*  
Scott H. Foradora, *Dubois*  
Dennis R. Fredericks, *Amity*  
Brian H. Hoover, *Oxford*  
Timothy S. Layton, *Windber*  
Kristen Schnepf-Giger, *Warren*

## Partners Make it Possible

The agency is committed to being connected with its constituents and engages with its partners in actively conserving Pennsylvania's wildlife resources. While they are too numerous to name and only a few are mentioned in this report, we thank all the volunteers and organizations who help, for their persistent support and generosity in protecting and promoting the state's wildlife. Partners make it possible.

## Mission

Manage and protect wildlife and their habitats while promoting hunting and trapping for current and future generations.

## Vision

Recognized and respected as the leader in innovative and proactive stewardship of wildlife and their habitats.



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