



## Wisconsin Department of Natural Resources 2019 State Report *June 3, 2019*

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### DEPARTMENT OF NATURAL RESOURCES STRATEGIC ALIGNMENT EFFORT

WDNR continues its efforts regarding a strategic alignment effort with the purpose of designing an organizational structure and allocating its limited resources to excel at delivering on all elements of the department's mission while improving customer service and enhancing resource protection.

The department is continually evaluating the success of the strategic alignment implementation through key metrics to achieve identified goals.

### BUREAU OF WILDLIFE MANAGEMENT

#### Wisconsin Elk Translocation and Management

In 2017, the Wisconsin Elk Translocation project shifted its focus to northern Wisconsin, near the site of the original 1995 elk reintroduction in Clam Lake. Following a translocation of Kentucky elk, 32 animals were released into the Flambeau River State Forest in July of 2017. These additional animals are expected to diversify herd genetics, quickly fill quality habitat, and provide the herd with a population boost. As a result of these efforts, the Clam Lake elk herd reached just over 200 animals following the 2018 calving season. No elk were translocated in 2018, however, trapping and translocation efforts resumed in the winter of 2019 with 48 animals being captured and transferred to the quarantine pen in the Flambeau River State Forest. Following the calving season, the herd will be released into the area immediately surrounding the pen.

Since the Clam Lake elk herd reached 200 animals in 2018, the department authorized Wisconsin's first elk hunting season in modern history. A total of 10 elk hunting licenses and tags were issued for the season with five allocated to the Ojibwe tribes in the ceded territories of Wisconsin, four were awarded to Wisconsin residents through a department drawing, and one was raffled through the Rocky Mountain Elk Foundation to another WI resident with a total of 9 bull elk being harvested. Wisconsin's second elk hunt will be held in 2019 with over 23,000 people applying for tags through the DNR in 2019. Out of every \$10 application fee, \$7 will be earmarked for elk management in Wisconsin.

## **Deer Management**

In 2018-19, the department completed its fourth full year of working with County Deer Advisory Councils (CDAC) to assist with local deer management decisions. During the 2017 meetings, the CDACs made recommendations on 3-year deer population objectives (increase, maintain or decrease the herd), revising deer management unit boundaries, and discussed chronic wasting disease impacts. The department continues to see increased public interest and participation in the CDAC process and is pleased with the progress of this relatively new effort to involve the public in deer management decisions.

Another program, the Deer Management Assistance Program (DMAP), completed its fifth year of enrollment in March 2019. The program involves wildlife biologists and foresters working with private landowners and public land managers to improve habitat for deer and other wildlife on their properties. The program currently has over 309,000 acres enrolled across the state. DMAP cooperators are invited to get involved in the program by networking with local landowners, developing cooperatives with neighboring landowners, participating in citizen science opportunities, and attending DMAP workshops. The program also provides DMAP cooperators the option to provide mentored hunting and trapping opportunities to novices by working closely with conservation organizations.

## **Chronic Wasting Disease**

The Wisconsin Department of Natural Resources (DNR) began monitoring the state's wild white-tailed deer for chronic wasting disease (CWD) in 1999. Three positive deer were identified from Dane County through random testing of hunter harvested deer in November 2001. Since 2002, over 227,000 deer have been tested in Wisconsin for CWD, with over 5,200 testing positive as of June 2019. CWD was detected in the wild in Marquette County in 2018-19, the county's first wild positive.

A number of new counties were included in the list of counties where baiting and feeding of deer is restricted, specifically Waushara, Racine, Kenosha, Green Lake and Marquette counties and a baiting and feeding ban in Wood County was re-established following the identification of another positive in Portage county within 10 miles of Wood County. A wild positive in Walworth County caused the feeding ban in Racine County and a wild positive in Illinois within 10 miles of the Wisconsin/Illinois border caused a two-year ban in Kenosha County. The first CWD positive deer was detected in Marquette County, which will result in a three-year ban in Marquette County and a two-year ban in Green Lake County. Two wild deer harvested in southern Portage County will initiate a two-year ban in Waushara County, while CWD-positive detections at two Portage County captive deer farms will re-instate a two-year ban in Wood county.

Surveillance continued in the southern farmland zone as well as other select locations in CWD-affected counties. New in 2018 was disease detection surveillance of the entire West Central District as the start to a statewide surveillance sweep outside of the southern farmland zone over the next several years. No targeted surveillance occurred in the four-county surveillance area surrounding the Washburn County CWD positive after six consecutive years of surveillance not detecting any additional positives. The DNR sampled deer around CWD-positive wild deer locations in Adams, Juneau, Portage, Eau Claire, Lincoln and Oneida counties and captive deer

CWD positive locations in Marathon, Eau Claire, Oneida, Shawano, Waupaca, Marinette and Oconto counties. New for the 2018 season were “adopt-a-kiosk” and “adopt-a-dumpster” programs, which were created in response to good will of individuals desiring to help in the fight against CWD, enhance CWD sample numbers and provide adequate options for deer carcass waste disposal.

Since 2002, CWD prevalence within Wisconsin’s western monitoring area has shown an overall increasing trend in all sex and age classes. During the past 17 years, the trend in prevalence in adult males has risen from 8-10 percent to over 35 percent and in adult females from about 3-4 percent to over 15 percent. During that same time, the prevalence trend in yearling males has increased from about 2 percent to about 13 percent and in yearling females from roughly 2 percent to about 10 percent. It is important to keep in mind that annual prevalence estimates are subject to sampling variation, and that trends over time give better information.

### **Wolves**

In 2017-18, monitoring efforts detected an overwinter minimum wolf count of 905-944 and 238 packs – though the number of packs increased, this represents a 2.2 percent population decrease from 2016-17 following three years of growth, including a 6.8 percent increase last year. Data available include the 2017-18 overwinter minimum wolf count and packs identified during the monitoring period. These data were collected through the assistance of over one hundred [volunteer trackers](#) - these volunteers surveyed over 16,000 miles in 2017-18.

This leveling off has been anticipated and may suggest that wolves are beginning to occupy less-suitable habitat as their range has expanded in the state. Wolf count efforts are conducted in winter when the population reaches its annual low point. Wolf pups born in spring cause population increases, followed by reductions resulting from pup and adult mortalities.

In March, the U.S. Fish and Wildlife Service published a rule in the Federal Register that would delist wolves across the lower 48 states. The rule is available for public comment through July 15. After public comment, the Fish and Wildlife Service has until March 15, 2020 to publish the final rule, though that could be delayed or prevented by legal challenges from special interest groups.

### **2019-2029 Bear Plan**

In May, staff presented the 2019-2029 bear plan to the Natural Resources Board. The updates to the plan are Wisconsin’s first since the early 1980s and involved years of development with 11 stakeholder groups. Since then, the state’s bear population has tripled, with an estimated population of 24,000 bears in spring of 2019. With that, hunter interest has increased as well, with over 120,000 applicants for preference points or permits in 2019.

The plan provides an up-to-date approach to bear management with new population management tools and a better understanding of bear ecology and populations.

## **BUREAU OF FISHERIES MANAGEMENT**

### **Trout Habitat and Fishery Management**

From July 1, 2016 through June 30, 2017 over 65 stream reaches were improved or maintained with multiple partners and cooperators. These projects ranged from brushing and improving access to fixing eroded banks and restoring stream channels. The development projects totaled over 25 miles of habitat work and many more miles of streams were maintained and brushed for access. Beaver management on trout streams was ongoing throughout the year.

The Wisconsin fisheries program initiated an effort in 2017 to write a trout management strategy and in the fall of 2017, the DNR trout team developed a trout management public involvement plan. This included the formation of a stakeholder group and the public process was presented to the Natural Resources Board in December 2017. The DNR trout team began selecting diverse stakeholders to represent anglers, businesses, non-consumptive groups, landowners, Wisconsin Conservation Congress and other partners. Members of the public were also invited to apply to become a member-at-large. Based on the applications, a member-at-large was randomly selected from each district of the state. The first stakeholder meetings were held in January and March 2018. The management plan was drafted using input through the stakeholder meetings and the plan will be available for public review in late spring of 2019, on line surveys and input will be available along with four public meetings to be held around the state.

### **Fish Propagation**

Fisheries staff raised and stocked over 6.1 million fish this past year. Our walleye stocking continues to exceed 800,000 large fingerlings (>6 inch) per year and we are meeting stocking goals for most of the stocking in the Great Lakes. Walleye continue to be stocked in conjunction with Tribal and private aquaculture partners. The Department has taken bids for the construction of a new recirculation aquaculture facility at the site of the current Kettle Moraine Springs Hatchery in Sheboygan County, Wisconsin so that we can meet stocking goals for steelhead in Lake Michigan. During construction steelhead will be raised at state facilities as well as under public private partnerships. Where private partners will be raising 50,000 yearling steelhead for Lake Michigan. Construction is due to begin in spring of 2019 with expected completion in spring of 2020.

### **Great Lakes**

The Wisconsin Fisheries program initiated an effort in 2018 to update the over 30-year-old Lake Superior Fisheries Management Plan. In late summer and fall of 2018, meetings were held with the Lake Superior advisory panel and other interested stakeholders to form the basis for the updated plan. The program also finalized the ten-year Lake Michigan Integrated Management Plan as well as the Lake Michigan Stocking Strategy for the next three years. We have been working closely with many external partners - particularly within the Green Bay area. These projects include use of acoustic telemetry with the assistance of UW-Stevens Point, collaboration between commercial fishers and department staff to study by-catch, and a guide reporting system to better characterize the winter angler ice fishing season.

## **OFFICE OF APPLIED SCIENCE (Wildlife and Fisheries Research)**

### **Chronic Wasting Disease Research**

The Office of Applied Science along with collaborators from the University of Wisconsin and the USGS National Wildlife Health Center have initiated multiple studies on Chronic Wasting Disease. These include research on 1) advanced CWD diagnostics, 2) CWD forecasting which aims to understand long-term impacts on the growth and spread of CWD across landscapes, and 3) prion persistence in the environment. In addition to those projects we recently concluded the 3<sup>rd</sup> field season of the Southwest Wisconsin CWD, Deer and Predator Study. The study is principally concerned with the potential for chronic wasting disease to negatively impact deer populations. To date we have trapped and radio-collared over 550 adult deer, nearly 200 fawns, and 100 predators as part of this study.



### **Stocked Brook Trout Survival in Driftless Area streams**

The Wisconsin DNR's 'wild' trout stocking program was designed to propagate, and stock trout derived from eggs of wild parentage. This program is based on studies that have shown first filial generation (F1) Brown Trout (i.e., fertilized eggs from wild parents) to exhibit survival rates 2-4 times greater than trout derived from domestic hatchery brood stock. Program constraints for the 'wild' Brook Trout stocking program led to the propagation of second filial generation (F2) Brook Trout to supplement F1 Brook Trout propagation. Preliminary results confirmed F1 Brook Trout survival was more than 2 times greater than F2 Brook Trout and that F1 and F2 survival were 7 times and 3 times greater, respectively, than domestic Brook Trout survival. This study will help inform strategies to maximize the cost effectiveness of trout stocking practices to maintain stocked or to re-establish self-sustained fisheries.

## **BUREAU OF NATURAL HERITAGE CONSERVATION**

### **Proactive Monarch Butterfly Conservation**

In 2018 Natural Heritage Conservation staff continued to support the MAFWA-led Mid-America Monarch Conservation Strategy initiative. NHC staff partnered with over 70 representatives from agriculture, transportation and utility rights of way, urban and suburban landowners, and public and private conservation lands to form the Wisconsin Monarch Collaborative and draft the Wisconsin Monarch Conservation Strategy that will be finalized in 2019. NHC hired a full-time coordinator for the Collaborative in early 2018 who facilitated the drafting of the state strategy and entry of data from all sectors into the USFWS Monarch Conservation Database in preparation for the listing decision.

### **Habitat Management Gets a Boost from Volunteer Stewards**

A significant amount of habitat management and restoration work was achieved on department lands managed by the NHC program in 2018. Major accomplishments by NHC Field Ecologists and Technicians included 2,200 acres of woodland prescribed burns and 5,600 acres of prairie, barrens, and grassland prescribed burns; 5,500 acres of invasive species control; 580 acres converted to native habitats; 428 acres of conservation grazing; and 1,400 acres of forest management. In addition to program field staff work, volunteers provided over 5,000 hours of time (valued at \$127,000) completing habitat work at 43 department properties. Volunteers helped control invasive species, clear brush, and collect seed on prairie, oak, and barrens habitats. This work benefits both rare and game species and the people who enjoy these unique landscapes for hunting, hiking, and other recreational activities.

### **Lake States Forest Management Bat Habitat Conservation Plan**

Michigan, Minnesota, and Wisconsin are working collectively on the Lake States Forest Management Bat Habitat Conservation Plan (Lake States HCP). The HCP, on schedule for 2019 completion, will streamline permitting under the federal Endangered Species Act while maintaining quality forest habitat across the three states. The HCP will cover Northern long-eared bats, little brown bats, tricolored bats and Indiana bats (not found in WI) for forest management activities.

### **Investment in Citizen Science Successes**

More than 12,000 volunteers now participate in citizen-based monitoring projects coordinated by the department each year. They contribute significantly to our understanding and are essential to many projects on plants, animals, and important habitats. For example, the Wisconsin Breeding Bird Atlas started over 20 years ago to document distribution and abundance of the state's breeding birds. During the most recent phase of this effort (2014 – 2019) 1,700 volunteers have confirmed breeding behavior of 6.6 million birds of 242 bird species across the state. NHC's newest citizen-based monitoring project, the Bumble Bee Brigade, launched as a pilot year in 2018 to resounding success: nearly 100 volunteers submitted over 1,000 photo vouchered bumble bee observations from across the state, documenting 17 of our 20 native species, including the endangered rusty patched bumble bee in 7 new counties.



### **Wisconsin's Cave Bat Population in Trouble**

In the 2018-19 hibernation season (Nov-April) NHC staff visited 50 caves, mines, and other suitable hibernation sites for white-nose syndrome (WNS) surveillance and to understand the local and regional effects of the deadly disease on Wisconsin's cave bat population. All sites visited had evidence of infection, and WNS is known in 26 of 28 counties with hibernacula in Wisconsin. Three species affected by WNS are experiencing sweeping declines in Wisconsin: northern long-eared, little brown, and tricolored bat. At sites in year five of disease progression, populations have declined 93% when compared to pre-WNS averages. NHC continues to assist in two on-going WNS-treatment projects - one evaluating vaccine candidates (UW-Madison and USGS NWHC) and the other using Ultra-Violet light as a treatment for WNS infected bats

(Bucknell, UW-Madison, USFS). Ongoing surveillance and WNS treatment research will be crucial for bat populations going forward in Wisconsin and across North America.

### **Wood Turtle Habitat Improvement and Hatchling Research Project**

In 2018, NHC Biologists continued work to improve turtle nesting success, reduce adult turtle road mortalities, and assess the effectiveness of conservation actions for river turtle populations including the state-threatened wood turtle. We also launched a hatchling wood turtle survival research project in cooperation with University of Wisconsin-Madison researchers. Project goals were to decrease nest predation and road mortalities, improve potential nesting sites, and investigate survival of hatchling wood turtles. Conservation results included: creation of three new turtle nesting areas, maintenance of 17 existing nesting areas, nesting surveys within five



different watersheds, and documentation of 30 wood turtle nests in three watersheds. Biologists successfully captured and radio-tagged 20 hatchling wood turtles in late August. Eleven hatchlings survived through late October and were held in overwintering structures placed in nearby rivers for the winter.

### **Wisconsin Bird Conservation Initiative**

The Wisconsin Bird Conservation Initiative (WBCI) is a partnership of 180 entities collaborating on bird conservation activities across the state. In 2018, WBCI created a new strategic plan intended to guide bird conservation action through 2022. The plan identifies six major areas of emphasis: 1. Optimize organization capacity; 2. Promote an active, engaged partnership; 3. Maximize habitat quality and quantity for birds; 4. Maximize public awareness of and connection with birds; 5. Minimize or mitigate threats to birds; 6. Support research and monitoring. Efforts are underway to utilize Wisconsin's Important Bird Area (IBA) Program, a product of earlier WBCI efforts, to achieve progress within the six major areas of emphasis.

## **BUREAU OF LAW ENFORCEMENT**

### **Law Enforcement Squad Marking**

To improve BLE marketing and with increased law enforcement presence on state properties selected staff began to mark some law enforcement vehicles. In addition, magnets with the law enforcement logo have been purchased for wardens to selectively mark their vehicles while patrolling as opportunities were presented.

### **Succession Planning**

Due to some anticipated retirements of staff in management and promotional positions within the Bureau of Law Enforcement, the Bureau held a succession planning event with interested staff (over 80 people participated as mentors and learners). In summary, the event was an internal career fair. Attending staff participated in both group and one on one discussion specific to

particular positions. The planning session ended with an open session of Q and A. Staff comments following the training were positive and showed continued interest for future sessions.

### **Strategic Planning**

The BLE began strategic planning for FY 2020 and 2021. The two-year plan cycle will coincide with legislative sessions and biennial budgets into the future. A team of 20 BLE staff from all levels and disciplines began planning in late February and will conclude the process by June 30, 2019.

### **Conservation Congress Voting**

The department uses an independently run citizen input process to collect feedback and recommendations about conservation issues (thus the Conservation Congress). In the past, input has been collected by in-person voting. This year the Congress opted to allow electronic (on-line) and in-person input. Results will be reported after the Congress meeting to be held April 8, 2019.

About the Conservation Congress -

<https://dnr.wi.gov/About/WCC/Documents/DelegateResources/WCCBrochure.pdf>