

**ILLINOIS
STATE REPORT
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Overview

The Office of Resource Conservation within the Illinois Department of Natural Resources manages Illinois' wildlife, fisheries and forest resources, along with stewardship and restoration of natural lands. The office manages fish and wildlife populations through hunting and fishing regulations based on scientific data and promotes the state's hunting and fishing heritage. Primary funding comes from hunting and fishing license sales and Federal Fish and Wildlife Funds, State Wildlife Grant Funds, Illinois Forestry Development Funds and Natural Areas Acquisition Funds. The Office also works with the Federal Government and other agencies to remediate lands contaminated by industrial discharges or accidental release of pollutants. The Office administers the state portion of Federal Farm Bill programs including the Conservation Reserve Enhancement Program and others. Regulation of state-endangered and threatened species also falls within the responsibilities of the Office.

Fish and Wildlife Highlights

Division of Fisheries

Illinois Asian Carp

Through statewide planning efforts, Illinois DNR (IDNR) has brought together Illinois Department of Commerce and Economic Opportunity, Illinois Department of Corrections, and several academic and municipal governmental bodies to consider action to reduce Asian carps in Illinois waters. Prior efforts have been slow but revisiting and bringing together current knowledge and statewide experts has resulted in significant progress including formation of a fishing cooperative in the Peoria area, a location with high carp densities and no local fish buyers. Local city and business partners have since engaged bringing a renewed energy in removal efforts to 1) aid managers in preventing the spread of carp to un-infested waters and 2) reduce densities where they exist with an economic benefit to the area being hopeful. Efforts are being assisted in part with those actions that follow:

Illinois Asian Carp Actions in the Illinois Waterway/River

The IDNR, as a major partner in the Asian Carp Regional Coordinating Committee, continues to work above and below the Corps of Engineers' electric barrier system to monitor and prevent the upstream migration of Asian carp on the Illinois River and in the Chicago Area Waterway System (CAWS). Some highlights of the past year (as of Spring 2020) from our coordinated Asian carp efforts are as follows:

- Contracted harvest efforts have contributed to over 9.6 million pounds of Asian carp removed from the IWW below the Electric Dispersal Barrier since 2010.

- Asian carp mean density in Dresden Island Pool, as described by Southern Illinois University hydroacoustic estimates, appears to have decreased by 96.7% from fall 2012 to fall 2019. This is likely influenced by continued contracted commercial harvest efforts in the IWW.
- Contracted removal in the upper Illinois waterway exceeded 1.5 million pounds in 2019.
- Only two Asian carps have been found upstream of the electric dispersal barriers since intense actions began in 2010 despite continued and intensive monitoring in the CAWS.
- Enhanced contracted harvest efforts farther downstream in Peoria Pool, Illinois River began in fall 2019 with a 10 cents/lb. award for those participants. These efforts have increased harvest rates in this pool with over 1.5 million pounds removed since launching in fall 2019.
- Coordination between IDNR and other local, state, and federal partners on this issue remains high.
- For further details regarding ongoing efforts: www.asiancarp.us

Illinois Asian Carp Actions in Mississippi and Ohio River Basins

The IDNR has been working vigilantly in coordination of management and control of Asian carps in the Mississippi and Ohio river drainages.

Mississippi River management projects have utilized limited contracted commercial fishing above LD19, like the Upper Illinois River. While relative abundance is low to moderate in this area, limited spawning has occurred. Illinois has developed an Asian carp plan with the Upper Mississippi River States of Missouri, Iowa, Wisconsin, and Minnesota along with our federal partners. Current removal efforts, led by Illinois, are targeting Mississippi River Pools 16 downstream to Pool 19 with 528,533 lbs. removed from fall 2015-present.

Illinois, in partnership with the Ohio River member states is appreciative of significant funding increases coming to bear late in 2019. Illinois' role in Ohio River management has been limited previously due to funding availability and management goals and priorities. With these additional funding opportunities, Illinois, in partnership with Indiana, Kentucky, Tennessee, and the Ohio River Asian Carp Plan member states and federal agencies are drafting workplans for 2020 and beyond to increase management and control activities on the Wabash River, a significant contributor to Asian carp spawning in the Ohio River Basin. These efforts are resulting in coordinating significant regional partnerships to address these invasive fish in the Ohio River Basin.

Aquaculture

The Aquaculture Program has permitted over 68 Aquaculture facilities across Illinois during 2019. This includes facility applicants that are new and renewing for the year. In addition to permitting aquaculture facilities, the Aquaculture program also issued 138 VHS/Salmonid Importation Permits allowing the safe import from outside Illinois and production facilities. These permits are mostly for private waterbody stockings but includes fish and eggs for other uses, including live fish markets for human consumption. An additional 176 Restricted Species Transportation Permits were issued to Aquaculture facilities, Resident and Non-Resident Aquatic Life Dealers, various University's, and Research Institutions. Restricted Species permits are issued for the importation, transportation, and/or possession of any aquatic species not listed on Illinois' Approved Aquatic Life List.

Lake Michigan Program

Charter and non-charter recreational anglers expended 350,006 angler-hours to harvest 11,323 yellow perch and 76,373 trout and salmon from the Illinois waters of Lake Michigan last year. The sport fishery remains stable; estimates of fishing effort increased by 7%, salmon and trout harvest decreased by 5% and yellow perch harvest decreased by 35% compared to the previous year. Yellow perch harvest remained near historic lows for the spring-summer season (March-September). However, a strong 2015-year class of perch contributed to a popular winter fishery off Chicago where anglers expended an estimated 44,080 angler-hours to harvest 70,220 yellow perch from October 2018 through February 2019.

Illinois River

The Illinois River Program, in conjunction with the state hatchery system, stocked over 7.9 million sauger fry ranging from 1.3-1.6" and 19,129 smallmouth bass fingerlings ranging from 3.8-4.7" into the upper Illinois River in 2019. The upper Illinois River continues to be known for producing a world-class sauger fishery and hosts the Master's Walleye Circuit Tournament out of Spring Valley every spring. This tournament provides LaSalle Hatchery with brood sauger for production of sauger and saugeye for fish stocking throughout the State of Illinois. The Program and hatchery system also stocked 216,099 channel catfish fingerlings measuring 4" into the lower Illinois River in 2019. The lower Illinois River continues to support a thriving catfish fishery both for sportfish angling and commercial harvest.

IDNR, in conjunction with other agencies continued to prepare for lock closures for lock maintenance on the Illinois Waterway that will occur in the summer of 2020 in order to monitor the response of the aquatic ecosystem to reduced boat and barge traffic during the lock closures. IDNR staff conducted pre-lock closure fish monitoring in the Alton Pool of the Illinois River in 2019 using a multi gear, stratified, random sampling approach during the spring, summer and fall time periods.

Region 1

Several Region 1 capital projects began in 2019 including construction and/or rehabilitation projects in small to medium size reservoirs (Argyle Lake, Citizens Lake, and Lake Le-Aqua-Na). Projects included new boat ramp, new boat docking facilities and the repair/resurfacing of the dams, draining and excavating, and developing mitigation strategies. Each of these reservoirs/impoundments have been on the landscape for 40-60 years. This work will develop increased sportfishing opportunities and decrease management and/or maintenance concerns.

IDNR Fisheries continues to work with partners such as municipalities via cooperative agreements and management activities to increase fishing opportunities in the state. One of these with The Wetlands Initiative (NGO) that IDNR has partnered with has been highly successful with increased fishing opportunities in isolated floodplain lakes of the Illinois River. This project not only has a great fishery, now as a result of this partnership, but meets needs of migratory birds and is a destination of bird watchers and other outdoor enthusiasts.

Region 2

In a cooperative project that has been conducted annually since 2007, artificial fish habitats were placed at various sites throughout Braidwood Lake in 2019. The location for placement of these units is based upon input provided by anglers in cooperation with the district fisheries biologist. Emphasis is placed on those portions of the lake that do not typically experience the highest water temperatures. Since the project's inception, nearly 1,000 of these habitats have been placed. Funding for this project is provided by Braidwood Generating Station and assistance is provided by the members of various bass fishing clubs.

An Incidental Take Authorization (1.5 years in the making) was completed allowing a non-profit group to run a weed harvester in the Fox Chain' O Lakes' Channel Lake and Lake Catherine. The goal is to reduce the amount of herbicide going into the system, remove excess vegetation (which can help reduce phosphorus recycling in the lakes) and improve plant diversity, water clarity and lake aesthetics and recreational opportunities.

Chicago Area Waterway Habitat Improvement Project

Friends of the Chicago River and Illinois DNR received a grant from the Chi Cal Fund in late 2017 to reconnect Mill Creek to the Cal Sag Channel. A natural limestone shelf, as well as the base of a bike trail bridge, blocked fish passage into Mill Creek from the Cal Sag Channel. The Cal Sag Channel, like other rivers of the Chicago Area Waterway System (CAWS), has experienced a recovery in recent years with increases in fish species diversity and abundance. In 2016, only five fish species were collected in Mill Creek, despite the presence of excellent habitat. Typically, a stream the size of Mill Creek can support over 20 fish species. The loss of species richness occurred over time due to poor water quality stemming from septic tank out flows to the creek. In recent years, updated sewer systems have been installed in the surrounding communities and the water quality has improved markedly. Without connection to a downstream recruitment source, fish were not able to repopulate Mill Creek. In April 2019 the bridge foundation was notched to allow fish passage and rock riffle structures were installed at the mouth of the creek to restore the natural morphology. Results of the first post project fish survey found Channel Catfish and several other new species in Mill Creek upstream of the fish passage structure.

Regions 3 and 4

Removal of Danville Dam on the Vermilion River and Ellsworth Park Dam on the North Fork Vermilion River were completed in October 2019. The eleven ft high Danville Dam, constructed in 1914, served as the downstream-most impoundment between the Wabash River and the Vermilion River basin. The dam was an effective barrier between the lower 22 miles of the Vermilion River mainstem and the 1,290 mi² drainage area upstream, hindering distribution of several aquatic organisms, including 96 species of fish and 46 species of mussels. Ellsworth Park Dam was a low-head dam constructed in 1920, near the confluence of the North Fork Vermilion River with the Vermilion River. This outdated dam served as a barrier to approximately four river miles of excellent habitat downstream of Lake Vermilion. This dam removal project removed a barrier to 1,115 stream miles upstream of these dams in the Vermilion River basin, benefitting an extraordinarily high number of Species in Greatest Need of Conservation (83) of the Illinois Wildlife Action Plan (33 mollusks, 28 fish, 15 amphibians, 5 reptiles, and 2 crustaceans. Benefitting species include two Federally listed mussel species (Northern Riffleshell and Clubshell), 26 state-listed species, and many game species, including Smallmouth Bass. The project also opens downstream access to the Middle Fork Vermilion River, Illinois' only National Scenic River.

Instream work for the Saline Branch (Vermilion River basin) habitat enhancement project was completed in December 2019. The project included the construction of three artificial riffles, three pairs of double rock deflectors, and 150 feet of streambank re-sloping with stone toe protection. The project was funded with Natural Resource Damage Assessment funds stemming from a 2002 fish kill event. Fish population response will be monitored and compared to pre-restoration survey results.

The Salt Fork Vermilion River experienced an algae bloom in August 2019 that extended at least 61 miles. Large diurnal swings in dissolved oxygen that reached peaks over 20 mg/L and 228% saturation caused a fish kill event that extended 17.59 miles and killed an estimated 8,734 fish. A large die-off of Corbicula clams was also documented, but native mussel mortality was not observed.

Two large Corps of Engineers reservoirs located on the Kaskaskia River received considerable attention in 2019. Habitat restoration efforts continued on Lake Shelbyville (11,000 acres) with around 1,000 artificial structures (cubes and stumps) constructed and placed since 2016. A modified version of the Georgia Cube, aptly named the “Shelbyville Cube”, has received heavy fish usage (particularly by crappie) and high marks from local anglers. These and similar efforts have emanated through the Lake Shelbyville Fish Habitat Alliance (LSFHA), a consortium of stakeholders furthering IDNR/USACE initiatives with funding through grants and volunteer help on habitat projects.

Region 5 Fisheries Habitat Partnerships

Fisheries managers worked cooperatively with both Federal partners, municipalities, and private entities to place fish habitat structures at 21 lakes in southern Illinois. Most notably, approximately 280 structures were constructed and placed in Rend Lake with the Assistance of the Army Corp of Engineers and the Sesser-Valier Outdoorsmen Club, and approximately 100 structures were constructed and placed in Crab Orchard Lake with the assistance of the U.S. Fish and Wildlife Service and Blue Heron Boat Club. Placement of these fish habitat structures provides benefits to both fisheries and anglers, and maps or coordinates of habitat structures were posted on the Division’s IFishillinois.org website. In addition, Fisheries Managers worked cooperatively with U.S. Forest Service to manage invasive aquatic vegetation on several lakes.

IDNR Fish Hatchery System Report

The IDNR operates three state hatcheries located strategically across the state including Jake Wolf Memorial Fish Hatchery, Little Grassy Fish Hatchery and the LaSalle Fish Hatchery. In FY19, the hatchery system produced and stocked a total of 19,975,873 fish of 18 species into state and public waters. These stockings included 39 alligator gar, 62,857 black crappie, 32,138 blue catfish, 623,203 bluegill, 141,138 brown trout, 450,685 channel catfish, 270,057 Coho salmon, 159,416 Chinook salmon, 1,401,180 largemouth bass, 76,068 muskellunge, 84,780 rainbow trout, 299,881 redear sunfish, 8,196,640 sauger, 273,196 striped bass hybrids, 249,845 smallmouth bass, 52,684 steelhead, 7,189,305 walleye, and 412,761 walleye-sauger hybrids.

Division of Wildlife

2019-20 Deer Season Harvest

Hunters in Illinois harvested a total of 153,174 deer during the 2019-20 seasons, including all methods and special hunts. Male to female sex ratio was 55:45 (46% antlered; 54% antlerless) in the total harvest. The same number of counties (20) were open for the Late-Winter season (antlerless only) compared to last year, with one removed and one added. The prior year’s total deer harvest was 151,709 (55:45 male to female ratio), and the Illinois record harvest of 201,209 occurred in 2005-06.

Chronic Wasting Disease (CWD)

To date, 172 cases of CWD have been confirmed from 9,112 tested samples in 2019-20, which is a 91% increase in cases from last year (90). This brings the cumulative number of cases in Illinois to 998. A total of 7,089 hunter-harvested samples were collected (7,049 tested) revealing 117 CWD-infected animals, while IDNR sharpshooting operations detected 42 CWD-infected deer from 1,107 collected samples (1,105 tested). Historically, most CWD positive cases (56% of the cumulative total of 998) have come from the original 4 counties (Winnebago, Boone, McHenry, and DeKalb), but this has shifted in recent years. Over half (67%) of the cases this past year came from the counties of McHenry (28), Stephenson (25), Jo Daviess

(25), LaSalle (20), and Grundy (17). Although CWD has spread from 4 counties in 2003 to a total of 18 counties in 2019-20 (Cook County was added this year), prevalence rates have remained low, approximating 1% throughout the 18-year history of the disease in the state.

Urban Deer Population Control

A total of 42 Deer Population Control Permits (DPCPs), not including permit extensions for additional time and/or deer, were issued to 11 natural resource management agencies, arboretums/botanical gardens, federal research facilities, and homeowner associations in seven northern Illinois counties during winter 2019-2020. Permittees were authorized to remove a total of 1,480 white-tailed deer via sharpshooting (1,460) and live-capture followed by mechanical euthanization (20); 1,394 (94%) deer were collected over the five-month period (November 2019-March 2020). All usable deer carcasses were processed and donated to charity. Several deer control programs ended early (in mid-March) due to restrictions put in place by the governor of Illinois to slow the spread of COVID-19, thereby reducing the ability of those programs to achieve their seasonal goals. Additionally, some municipalities and homeowner associations in more rural areas of Illinois have implemented, or are considering, controlled hunting programs to address site-specific, deer-related problems.

Deer Removal Permits (DRPs)

A total of 239 Deer Removal Permits (DRPs) were issued in 60 counties in 2019, compared to 232 permits in 55 counties the previous year. Three permits authorized hazing of deer only; 236 DRPs authorized the lethal removal of 1,832 deer. These permits resulted in the collection of 1,055 animals (58%). Excessive deer damage to corn and soybeans accounted for 67% of the DRPs issued during 2019. Approximately 16% of the 2019 DRPs were issued due to concerns about deer on airport runways/taxiways. Permits were also issued for deer-related damage to specialty/truck crops (beets, cantaloupes, lettuce, onions, organic vegetables, peppers, radishes, strawberries, tomatoes, turnips, watermelons, etc.), nursery stock, and fruit trees/orchards. As usual, DRP issuance peaked in June and July with 57% of the permits issued during these months. However, there was a shift in the timing of permit issuance with fewer permits than usual being issued in May and more permits than usual being issued in July and August due to a prolonged wet spring which delayed planting of crops during 2019.

Epizootic Hemorrhagic Disease (EHD)

Low levels of EHD were reported in 2019 with 198 suspected cases reported from 39 counties. The disease was reported at low levels across the southern third and west central portions of the state. EHD virus was isolated from 5 spleen samples submitted; EHDV₂ was detected in 3 cases, and serotype was not determined in 2 cases.

EHD reporting levels in 2019 were typical for most years. By comparison, the worst three outbreaks observed during the last 20 years were 2012 (2,968 dead deer from 87 counties), 2007 (1,966 dead deer from 54 counties), and 2013 (1,224 dead deer from 64 counties).

2020 Spring Turkey Harvest

Illinois turkey hunters harvested a preliminary statewide total of 15,800 wild turkeys during the 2020 Spring Turkey Season. This year's preliminary harvest total compares with the 2019 statewide turkey harvest of 15,190. The statewide preliminary total includes the 2020 Youth Turkey Season harvest of 1,744 birds, a record total, and compares with the 2019 youth harvest of 1,392 turkeys. The statewide record total was set in 2006 when 16,569 turkeys were harvested.

Spring turkey hunting was open in 100 of Illinois' 102 counties. The 2020 season dates were April 6-May 7 in the South Zone and April 13-May 14 in the North Zone. The Youth Spring Turkey Season was March 28-29 and April 4-5 statewide. Spring turkey hunting was suspended at Illinois Department of Natural Resources sites during the 2020 season due to the COVID-19 pandemic.

Turkey hunters this spring took a preliminary total of 6,285 wild turkeys during all season segments in the South Zone, compared with 5,959 last year in the south. The North Zone preliminary harvest total this year was 7,771 wild turkeys, compared with 7,832 in northern counties in 2019. The top five counties for spring wild turkey harvest in 2020 were Jefferson (508), Jo Daviess (464), Marion (444), Pike (404), Randolph (379).

2019-20 Waterfowl Season

As a mid-latitude state, waterfowl abundance and hunter success in Illinois largely depends on habitat quality and food resources available. Habitat conditions varied across the state in 2019. Relatively consistent precipitation prolonged flooding into the summer growing season in some areas, delaying management actions that promote waterfowl food resources. Additionally, late summer or early fall flooding prevented other food sources from maturing, further limiting resources available to migrating ducks in Illinois. Early unseasonably cold weather moved many early-migrant species (e.g., green-winged teal) out of the state in November but was not significant enough to move late migrant species (e.g., mallard) into Illinois. Thus, waterfowl abundance remained below average in many areas through the middle part of the waterfowl hunting season. In the North and Central waterfowl hunting zones, duck numbers peaked along the Illinois River 5 November and were 37% below the 5-year average. Duck numbers along the Mississippi River peaked 14 November, 32% below the 5-year average. Northeast Illinois duck abundance peaked 13 December 41% above the 10-year average. Duck abundance remained below the 10-year average throughout much of waterfowl season in the South Central and South waterfowl hunting zones. Following a warming trend and ducks beginning to migrate north from southern wintering locations, duck numbers peaked 22 January in southern Illinois, at 387,575 ducks; this estimate was 103% greater than the 2018 peak and 452% above the 10-year average. Timing of peak abundance of total ducks in southern Illinois was much later chronologically than in 2017 (28 December) and 2018 (11 December). Unfortunately, this large influx of ducks was at the very tail end of the South Zone waterfowl season, and after the close of the South-Central Zone season. Mild temperatures and little snow cover through late-January allowed Canada geese to remain in Wisconsin or in Illinois but north of aerially surveyed areas throughout most of the hunting season. Canada goose abundance peaked in northeast Illinois on 23 December 19% above the 10-year average, but quickly declined following a short period of cold. Canada goose abundance in other parts of Illinois remained below long-term averages; peak estimates in west-central and southern Illinois were the second and fourth lowest on record, respectively. In contrast, peak numbers of white-fronted geese were the highest ever recorded in west-central Illinois and the third highest on record in southern Illinois. White-fronted goose abundance was above average throughout much of the season in many locations and may offer opportunities for harvest that no longer exist with changing Canada goose distribution.

2018-19 Upland Harvest

The 2018-19 survey estimated that 12,241 hunters (3% decrease) shot 31,066 wild pheasants in Illinois (8% decrease), compared to the 2017-18 totals of 12,575 hunters and 33,876 wild birds. The number of days each hunter spent in the field increased from 2017-18. The 2018-19 quail survey estimated that 6,995 hunters shot 35,490 wild quail (21% increase) compared to 8,597 hunters and 29,385 quail in the 2017-18 survey. The number of quail per hunter/day was up 27%. Estimates from 2018-19 indicate that 28,906 hunters (down 3%) harvested 488,832 doves (down 5%). The number of birds per hunter/day was down 3% for mourning doves. The number of rabbit hunters in 2018-19 (22,322) was down 18% from the

previous year and they harvested 77,769 rabbits (down 41%). The number of rabbits per hunter/day also decreased 20%.

Agency Highlights

Hunter Heritage: Recruitment, Retention, and Reengagement

The IDNR Hunter Heritage Program is guiding hunter R3 efforts in Illinois by couching the Outdoor Recreation Adoption Model (ORAM) within a larger business model framework informed by scientifically collected data. The ORAM model is a proven feedback process by which programs recruit, retain and reactivation (R3) people in an outdoor recreation activity. The ORAM model fits well within a business framework because natural resource agencies typically view the public as customers and provide services constituents are encouraged to participate in, such as hunting. Using a business framework guided by objective data also allows hunter R3 programs to be developed and adapted to maximize the likelihood of engaging current and potential hunters. This framework has been developed into a statewide hunter R3 strategy that incorporates input from dozens of state and federal agencies and stakeholder groups. The strategy is anticipated to launch in early fall and will be used as a guide to first optimize existing R3 programs and possibly create new programs that fill gaps in key audiences currently being overlooked or underserved. The strategy will be adapted into a comprehensive R3 plan over several years.

The statewide R3 strategy includes numerous components related to hunting and target shooting. One component is tracking the trend in hunting license sales and associated R3 rates. Last year the number of resident hunters in Illinois decreased by 4.1%, continuing the downward trend in hunting license sales. However, non-resident hunting license sales increased 2.2%. Other prominent components of the statewide strategy include bolstering land access for hunting, reducing the complexity of hunting regulations, developing shooting ranges and mentoring novice hunters. Identifying constraints to hunters and non-hunters is being actively conducted through scientifically designed human dimensions surveys, including of hunter, non-hunters and meat processors. Scientific modeling is being conducted to identify spatially explicit areas across Illinois that would be fruitful for implementing specific R3 programs, purchasing public land for hunting and developing shooting ranges. A population model, like those used for wildlife, is being developed to provide a tool for projecting demographic trends in hunters and associated economic revenue to the state and local economies.

Hunter Heritage has also been diligent in increasing hunting opportunities at existing state-owned sites and establishing new opportunities with municipalities across Illinois. Increasing hunting opportunities at the municipal level is a notable focus for the program because it accomplishes the goals of properly managing localized deer populations and mitigating issues (e.g., deer herbivory) that municipalities often want assistance with. Hunter Heritage has developed a team of IDNR staff to develop a user-friendly guide, municipalities can use to decide if and how to conduct a deer hunting program.

Hunter Heritage has also been working on developing contemporary resources for hunters, such as the annual Hunting and Trapping Digest and several websites, including one designed for hunters. Over the next few months the program will be focusing on completing the statewide R3 strategy and working with government agencies and stakeholder groups to increase hunting access, including identifying regulations that hinder access and hunting participation in general.

Feral Swine

IDNR has teamed up with USDA – Wildlife Services (WS) to identify areas with feral swine (FS), develop and implement a technical assistance program for landowners experiencing FS conflicts, coordinate and expand disease surveillance, conduct outreach to stakeholders and the general public, and provide direct

control management assistance. Technical assistance and/or direct control assistance has been provided to numerous State, County, and Private landowners throughout the state since 2011 and a total of 485 FS have been removed. A total of four known, self-sustaining breeding populations of FS in Illinois have been successfully eliminated. IDNR and WS continue to monitor reports of FS received from deer and turkey hunters as well as citizens throughout the state. Follow-up investigations are conducted to confirm the presence of this invasive species. A total of 38 reports were investigated in 2019, with one new isolated population of FS being confirmed in Pope County as well as one adult boar in Pulaski County.

After local hunters and agricultural producers alerted WS to an emerging FS population in Pike County, IL, the USDA-WS program worked closely with the IDNR, Pike County Soil and Water Conservation District, Pike County Farm Bureau, Illinois Department of Agriculture, USDA NRCS, and the Illinois State Police (aerial surveys) to identify the source of this population. WS removed 26 FS from the Township and continues to conduct surveillance for additional FS in the region. No other reports of FS among this area has been received since January 2019.

WS has received reports of FS in Pope and Pulaski Counties in southern Illinois. On the ground surveillance and removal efforts began on March 19, 2019 in an effort to determine distribution, density and begin to eliminate populations before they become self-sustaining. WS has confirmed one adult boar among private properties in Pulaski County and at least 10 adult FS in Pope County among private properties and Shawnee National Forest lands spanning approximately 100 sq. mi. FS damage management efforts among these two counties will continue through 2020.

Bobcat Hunting

Illinois offered its Fourth hunting and trapping season for bobcat since 1972. Almost 5,800 people applied for 1,000 permits to take a bobcat by hunting, trapping, or salvage from roads. The season starts November 10 and ends on February 15. Successful permit holders tagged a total of 335 bobcats. Hunters and trappers took 306 bobcats and an additional 29 bobcats were salvaged by permit holders.

Midwest Fish and Wildlife Conference

IDNR, along with the Illinois Chapters of the American Fisheries Society and Wildlife Society, hosted a successful Midwest Fish and Wildlife Conference on Jan 26-29, 2020. The theme, *Bringing Science Back to the Forefront of Resource Management*, challenged attendees to think about how science is/should be used to inform management decisions. IDNR had more than 80 staff members planning, volunteering and/or participating in the conference. Hosting this conference was a team effort and would not have been possible without everyone's support!

Illinois Habitat Team

The Illinois Habitat Team Program provides technical assistance, seed, plants, equipment and labor for wildlife habitat establishment and improvement on state Pheasant Habitat Areas, Habitat Areas and private lands. After hiring two new Habitat Team Members last year, the Habitat Team Coordinator was promoted in November to a job outside the Program. The position was posted and closed in December and a new Coordinator should be hired in early 2020. For the year 2019, the team reported the following accomplishments: sprayed 689.8 acres for invasive plant control and site preparation, mowed 367.0 acres for exotic control, fire breaks and site preparation, treated 800.0 grassland acres for woody encroachment, conducted prescribed burns on 760.5 acres and planted 139.5 acres of native grasses and forbs.

Illinois Recreational Access Program (IRAP)

With nearly 97% of the land in Illinois is privately owned land, finding a place to enjoy the great outdoors is becoming more difficult. Developed in 2011 from its first Voluntary Public Access-Habitat Improvement Program (VPA-HIP) grant, the IDNR launched its first public access program, the IL Recreational Access Program (IRAP). In 2019, IRAP had over 22,100 acres under lease in 48 counties for spring turkey, archery deer, squirrel, rabbit, quail, pheasant and waterfowl hunting. Several sites are also available for pond and riverbank fishing as well. In addition to outdoor access, IRAP provides new and updated habitat management plans for the landowners, that are specifically written to provide a diverse habitat to improve Illinois' Wildlife Action Plan targeted species and are written in cooperation with IDNR, USDA and SWCDs. IRAP plays an important role in implementing plan habitat projects on leased acres by providing guidance, manpower and up to a 75% cost-share to implement needed habitat improvement projects. The majority of practices include nonnative invasive species control, timber stand improvement, prairie prep/planting, tree plantings, and prescribed burning. In March 2020, IRAP received its fourth VPA-HIP grant to continue and expand the program, adding youth shotgun deer and targeting counties near larger metropolitan areas and wetland reserve easement acres.

Illinois Nature Preserves Commission

The Illinois Nature Preserves Commission (INPC) consists of nine members appointed by the Governor. Pursuant to the Illinois Natural Areas Preservation Act (525 ILCS 30/6), the Commission has certain powers and duties, including approval for dedication of nature preserves and registration of land and water reserves in the Illinois Nature Preserves System. The Commission, in partnership with the Illinois Department of Natural Resources (IDNR), protects lands in perpetuity for landowners of all types including state and local governments such as the IDNR and forest preserve and park districts, not-for-profit corporations, land trusts, other companies and individuals. Lands protected include high quality natural communities, habitats for endangered and threatened species, geological features, and archaeological sites. The INPC is a great example of a public-private partnership that has been successful for more than 55 years and is supported by staff employed by the IDNR.

In calendar year 2019, the INPC permanently protected 20 sites, including 10 new nature preserves, two additions to existing nature preserves, six new land and water reserves, and two additions to existing land and water reserves. The total acreage dedicated was 1,655.4 and the total registered 732.4 acres. Adding these 20 sites into the Illinois Nature Preserves System brings the statewide, total number of dedicated nature preserves to 402 comprising approximately 60,910 acres, and the total number of registered land and water reserves to 195 with approximately 54,041 acres. Altogether at the end of 2019, there were 597 sites comprising close to 115,000 acres.

Division of Natural Heritage

Endangered Species

Throughout 2019, the Department developed a conservation matrix in which the prioritization of species for recovery planning will now be based on G-ranks and S-ranks. Collectively, these ranks combine information on the rarity, trends, threats to a species, and the relative importance of Illinois to the species

survival overall. Both recovery and inventory priority schemes were developed for 158 animals and 325 plants in Illinois. Amongst the top ten animal and plant species are the: Rattlesnake Master Borer Moth, Scaleshell Mussel, Rusty Patched Bumble Bee, Kankakee Mallow, and Lea's Bog Lichen. S-ranks were updated for all species in greatest conservation need with plans to update plant S-Ranks soon. In conjunction with this conservation matrix, an enhanced recovery planning process is being finalized

In the Fall of 2019, the five-year review of Illinois' List of Endangered and Threatened Species was completed. Highlights included a status change from endangered to threatened for the Bigeye Chub and Smooth Softshell Turtle; changes from threatened to endangered status for the Elfin Skimmer and Prairie Buttercup; and, complete de-listing of the Eastern Woodrat, Iowa Darter, Barn Owl, and Mountain Clematis.

During the reporting period, the Department developed formal Land Management Guidelines for Bat Conservation in Illinois targeted at Federally Listed Species. These guidelines, which include an ArcGIS Online mapping component, were prepared for use by Department staff as well as private contractors performing management actions on IDNR owned, managed, and leased properties.

Natural Areas Stewardship

The Department's Division of Natural Heritage implements an active stewardship program on Natural Areas. Since July 1, 2019, Heritage staff have initiated 169 projects costing an estimated \$937,000 and have several ongoing projects that began prior to July 1.

The Department continues to work toward formalizing the Illinois Natural Areas Stewardship Grant Program. The program will provide grants to eligible Conservation Land Trusts for stewardship activities on lands protected by the Illinois Nature Preserves Commission as Dedicated Illinois Nature Preserves and Registered Land and Water Reserves. The Department has adopted administrative rules to govern this new grant program. Internal grant program process is now being work out, but the pandemic and anticipated budget impacts may delay the start of this program.

Incidental Take Authorizations

The IDNR has the authority to permit the take of listed species, if the taking is incidental to some otherwise legal action. Since 2001, the Department has 221 Incidental Take Authorizations either issued or pending. Examples of project types for which this permit is sought include transportation (river, road, and rail), utility corridors (power and pipeline), wind farms, mining, dam removals, and commercial development. The Department continues to strive to apply a consistent standard for mitigation of potential impacts to imperiled species as required by statute. The Department defines adequate mitigation as bringing conservation benefit to the species. Applicants are encouraged to provide support for on-the-ground efforts such as habitat acquisition and restoration; propagation, translocation, or species/habitat research to support recovery efforts; or outreach materials that provide land management and impact minimization recommendations for future applicants. Through this effort, the Department continues to experience an increase in partnerships between the agency and local land trusts, biological consultants, university researchers, and other conservation agencies to define timely and applicable mitigation strategies to support species.

Division of Forestry

Wildland Fire Programs

IDNR staff managed 8,500 acres in 100 units with prescribed fire during the last burn season. Seven introductory wildland firefighting classes were held for IDNR staff and volunteers. Ten IDNR staff

completed advanced wildland fire training classes at the Midwest Wildfire Training Academy. Fourteen G130 – 190 wildland fire classes were presented to the volunteer fire departments. A total of 68 fire departments were represented with 420 firefighters completing the classes. Through federal excess equipment programs, IDNR acquired approximately \$18,000,000 of surplus fire equipment, including fire engines, trucks, rescue boats, lighting standards, generators, tools and a variety of other items. IDNR had two 20-person Type 2IA crews on ready status to assist in wildland firefighting efforts in Western States.

IDNR Nursery Program

For FY20, the IDNR Nursery Program produced 490,000 native bare-root trees and shrubs of 29 different species. Additional production included 3,800 native containerized trees and shrubs of 24 different species; 7,122 containerized native wildflowers and prairie grasses of 52 different species; 1,486 pounds of cleaned wildflower seed of 45 different species; 4,727 pounds of cleaned prairie grass seed of 5 different species. The Mason Nursery also produced 995 pounds of Monarch/Pollinator native wildflower seed of 38 different species. Most of this material was sold and distributed widely across Illinois habitats and projects.

Illinois Forestry Development Act (IFDA) Forest Management Program

IFDA requires landowners to have a current IDNR-approved forest management plan. These comprehensive forestry plans define forest and associated natural resources that are present, their current condition, the needs of the forested area for long term forest health, and technical recommendations to reach land management objectives. Wildlife remains a primary goal for most landowners. Illinois has approximately 500,000 enrolled forest management acres engaging 9,500 forest landowners. This equates to approximately 15% of non-industrial private forestland in Illinois being managed for wildlife, timber, recreation, clean water and long-term forest health. Recommended forest management practices vary parcel to parcel.

Illinois Forest Legacy Program

The Forest Legacy Program is a partnership between the IDNR and the USDA Forest Service to identify and acquire environmentally important and threatened forests in Illinois. Conservation easements owned by the IDNR are the main tool used for protecting these important forests in Illinois to date. The IDNR Division of Forestry maintains federal eligibility to complete up to three projects per year within traditionally important and threatened Illinois forest landscapes. Illinois has seven Forest Legacy Program properties under easement within its borders totaling 558 acres.

Urban and Community Forestry Program (UCF)

The Urban and Community Forestry program assists Illinois communities, counties, townships, military bases, park districts, and forest preserves with urban forest management through education, technical and financial assistance. The program administers the Tree City USA, Tree Campus, Tree Line and Growth programs in partnership with the Arbor Day Foundation and the USDA Forest Service. In 2019 Illinois' UCF program touched 7,781,108 Illinois residents through local urban and community forestry assistance and included communities as small as Cerro Gordo's 492 acres and as large as the Forest Preserve of Cook County's 70,000 acres of managed land. Illinois is among the top states in Tree City USA programs and has been ranked first for the number of Tree Campuses in the nation since program began. In 2019 Illinois approved 169 Tree Cities, 21 Tree Campuses, 24 Growth Award applicants and 3 Tree Line USA utilities.

Illinois Forest Utilization & Marketing Program

IDNR Division of Forest Resources bonded and licensed 360 individual timber buyers or companies having an additional 718 authorized agents (1078 total buyers) who may legally purchase timber from any Illinois forestland owner. Seventy-five sawmills and a few dozen additional hobby or portable mills are currently operating in the state. Verified sales of timber and products, primarily as hardwood logs, from private forests exceeded \$50 million. The total economic value of the forest products industries to Illinois, including all primary and secondary sectors, exceeded \$23 billion as measured in 2012. The IDNR Forest Utilization and Marketing Program, with support from the Illinois Forestry Development Council, repeated the economic output analysis this last year. Forestry and forest industries show a direct output of \$12.9 billion with a total contribution of \$21.9 billion in output.

Illinois Conservation Reserve Enhancement Program (CREP)

The Illinois Conservation Reserve Enhancement Program (CREP) is a State Incentive Program combined with the USDA Federal Conservation Reserve Program (CRP). CREP provides long term environmental benefits by allowing 232,000 acres of eligible environmentally sensitive lands within the Illinois River and Kaskaskia River watersheds to be restored, enhanced and protected over a period of time from 15 years to perpetuity. Since CREP was established in 1999, 1,408 easements have been placed, protecting 90,990 acres. However, CREP was temporarily suspended effective July 1, 2015 and has not accepted any new easement enrollments to date.

Nutrient Loss Reduction Strategy

IDNR staff are involved with planning and implementation efforts for The Illinois Nutrient Loss Reduction Strategy (NLRs). The 2008 Gulf Hypoxia Action Plan, calls for each of the 12 states in the Mississippi River Basin to produce a plan to reduce the amount of phosphorus and nitrogen carried in rivers throughout the states and to the Gulf of Mexico. In 2011, U.S. EPA provided a recommended framework for state plans. Illinois' plan was developed by a working group that includes representatives from state and federal agencies, including IDNR, agriculture, and non-profit organizations as well as scientists and wastewater treatment professionals. IDNR staff are actively involved in the Nutrient Monitoring Council that is charged with coordinating water quality monitoring efforts by government agencies, universities, non-profits, and industry; the Agriculture Water Quality Partnership Forum that steers outreach and education efforts to help farmers address nutrient loss; the Urban Stormwater Working Group that coordinates and improves stormwater programs and education; and the Policy Working Group that considers policy issues, funding opportunities and identifies needed legislative initiatives.

Illinois Wildlife Action Plan

The Illinois Wildlife Action Plan (IWAP) continues to guide conservation efforts designed to maintain, enhance, and restore Species of Greatest Conservation Need (SGCN) and the habitats that sustain them. Over the past year, implementation continued on 26 State Wildlife Grant (SWG) Projects. Collectively these projects include monitoring and assessment of hundreds of amphibian, bird, fish, insect, mussel, and reptile SGCN including at least 36 State-listed wildlife species. The five Projects completed over the past year improved communication with our conservation partners, and developed information on impacts of invasive woody plant species on shrubland birds, ecological responses to hydrologic reconnection, health assessments of herptile species, and supported management actions on native prairie and savannas. Ten new Projects are being developed that continue our focus on recovery planning and conservation assessment of SGCN, stewardship of natural communities, and management of SGCN on high-priority state sites.

For More Information

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