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 licensesales 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 withinthe responsibilities of the Office.

Introduction

Behind the individual program reports shared below is the backdrop of COVID-19. Agency staff and administrators transitioned to remote work for (we thought) two weeks on March 17, 2020. We are just now (in June 2021) beginning our transition back to regular office work after 15 months. During that time, we developed COVID protocols in accordance with the Centers for Disease Control guidance and Illinois Department of Public Health directives that allowed critical work to continue while keeping the public and state employees safe. In short, IDNR staff re-invented the wheel over and over again. Dove, waterfowl, deer and upland game hunting continued under strict controls, while some events, like urban fishing clinics, regrettably were cancelled. Overall, IDNR staff did an extraordinary job providing continuity of our popular programs, scientific research and habitat stewardship, while preventing COVID spread in the workplace.

Division of Fisheries

Lake Michigan Program

Charter and non-charter recreational anglers expended 229,520 angler-hours to harvest 7,090 yellow perch and 40,256 trout and salmon from the Illinois waters of Lake Michigan last year. Effort and harvest during the March-September season declined by over 40% compared to the previous year due in large part to lakefront and harbor closures for COVID-19 precautions during mid-March through May, the active spring fishery. The popular late fall and winter fishery for yellow perch continued off Chicago where anglers expended an estimated 33,975 angler-hours to harvest 48,034 yellow perch from October 2019 through February 2020.

Fish Hatcheries

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 FY20, the hatchery system produced and stocked a total of 6,640,211 fish of 16 species into state and public waters. These stockings included 800 alligator gar, 217,372 black crappie, 568,061 bluegill, 132,221 brown trout, 767,257 channel catfish, 317,577 Coho salmon, 185,734 Chinook salmon, 248,676 largemouth bass, 29,503 muskellunge, 82,984 rainbow trout, 644,579 redear sunfish, 1,795,852 sauger, 239,652 striped bass hybrids, 225,580 smallmouth bass, 59,126 steelhead, and 1,125,237 walleye. In addition, the Hatchery System supplied 969,457 fish from

fry to 12" fish for district and program rearing ponds, several state university research programs, neighboring states, and 4,500 eyed eggs for Trout in the Classroom programs in the greater Chicagoland area school system. Brood fish for Muskellunge, Walleye, and Sauger were not collected or collected at very reduced numbers due to COVID 19 restrictions during spring spawning resulting in less than average fish production in FY20.

Aquatic Nuisance Species

Asian carp continues to take significant effort in Illinois. Ongoing efforts in partnership with the ACRCC has established standardized monitoring for all stages of carp in the Illinois River to inform management actions. Offensive removal actions continue to harvest 1 to 1.5 million pounds of carp annually in the upper Illinois River with the leading population showing densities falling nearly 97% since being monitored in 2012. Additional, downstream actions enhance removal with contracts to fishers to remove from Peoria Pool, and marketing/branding tools to be launched this summer. These efforts should heighten commercial efforts (for management purposes) not only in the Illinois River, but provide tools for other commercial fishers, processors, and seafood industries across the country.

Considerable work on Asian carp assessment and removal is ongoing in the Mississippi River and Ohio/Wabash in partnership with our state and federal partners.

Starry Stonewort (*Nitellopsis obtusa*), not previously found in Illinois, was confirmed in April 2021 in a 232 acre glacial lake in southwestern Lake County. Lake Zurich is part of the Flint Creek drainage of the Fox River Watershed and is at the top if the Flint Creek Watershed. Early detection and rapid response (EDRR) efforts are underway in partnership with Lake County Health Department.
Be A Hero, Transport Zero continues to be the messaging campaign in Illinois to prevent the introduction and transport of invasive species in Illinois waters. A non-aquatic campaign is ongoing as well.
www.transportzero.org

Urban Fishing

Urban fishing has been hampered with the COVID-19 pandemic and lack of many outdoor activities this past year. 2021 looks brighter but, stocking efforts in the country, responding to increased fishing activity, has proven to be a significant challenge in procurement of a new contract for hybrid bluegill to be stocked at education locations. The industry will be affected for several years (nationally) due to increased stocking and utilizing younger year classes in meeting current needs for both catchable panfish and channel catfish.

Region 1

An Intensive Basin Survey of the Spoon River basin was completed in 2020. Fish population samples were taken at 31 sites. The surveys were highlighted by improved index of biotic integrity values at all the main stem sites, and only 2 tributaries fell into the Limited Aquatic Resource Category (D). The 2020 surveys produced stable population levels for Flathead Catfish, Channel Catfish and Smallmouth Bass in the Spoon Basin.

The Rock River was sampled in the fall of 2020 by the Illinois Department of Natural Resources (IDNR) Region 1 Fisheries crew. A total of 11 locations were sampled within the Illinois portion of the Rock River using a large DC electro-fishing boat. The surveys produced a high catch rate of Walleye, which are stocked annually, in addition to natural populations of Smallmouth bass, Channel catfish, Sauger, Flathead Catfish and Northern Pike. The state threatened American Brook Lamprey was also collected at 3 locations.

The Nature Conservancy's Emiquon Preserve is cooperatively managed with the IDNR Division of Fisheries. In 2020, the fish population in Thompson and Flag Lakes were sampled by D.C. boat electro fishing in October. The Largemouth Bass, Bluegill, Black Crappie, White Crappie, Bowfin, Warmouth Sunfish, Pumpkinseed Sunfish, Golden Shiner, Channel Catfish and Gizzard Shad populations were stable in 2020. Bigmouth Buffalo, Freshwater Drum, Yellow Bass and White Bass have now all been consistently sampled over the past 3 years. The total non-native fish collected in these surveys were 61 Common Carp, 6 Silver Carp and 2 Grass Carp. Large numbers of Silver Carp were also observed jumping throughout the lake basin during the October boat electrofishing survey. The Silver Carp and Grass Carp probably entered the Preserve from the Illinois River through the new control structure site. No reproduction and recruitment has been

documented at this time. The presence of an expanding population of Grass Carp and Silver Carp is an ominous sign for the future aquatic habitat in the Preserve. The rapid removal of the submerged aquatic plant community through consumption by the Grass Carp, and decreased water clarity from algal blooms stimulated by the Silver Carp biomass may soon reach a critical tipping point. Then the reduced water clarity will allow the Common Carp to achieve very high reproduction and recruitment in the Preserve. A rapid degradation of the aquatic habitat, the submerged aquatic plant community and native fish population is the factual, proven result from a high Common Carp density.

The Lake Le-Aqua-Na rehabilitation project: During the dewatered status, the lake has been excavated in areas with organic materials to reduce the nutrient load and increase water volume. A total of three new jetties have been created and an underwater island to create more fish habitat and angler opportunity on the lake. Fish habitat structures are being placed now around the lake to attract fish for better fishing success. The lake's inflow has been reconstructed to reroute the water over riffles and back water areas to improve water quality and reduce the sediment load on the lake. Fish stocking will begin this fall with a bright future for this lake.

A state record pumpkinseed was certified from Hennepin-Hopper. The fish was 254 mm long and weighed 1.12 pounds. (Recent surveys suggest even larger fish are available at this location, and perhaps elsewhere in Illinois).

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 2020. 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 1,300 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.

In another cooperative project, the Illinois B.A.S.S Nation and district fisheries biologist planned and implemented habitat improvements at the Mazonia Lake Complex's North Unit (Mazonia-Braidwood State Fish and Wildlife Area). Twelve habitat structures were placed into Goose Lake in 2020, and two other lakes will receive structures in 2021. Illinois B.A.S.S Nation procured grants from The Bass Fishing Hall of Fame and AFTCO to fund the project.

Region 3

An Intensive Basin Survey of the Mackinaw River basin was completed in 2020. Fish population samples were taken at 29 sites. The surveys were highlighted by signs of a recovering Smallmouth Bass population. A five-year Smallmouth Bass stocking program was initiated in the basin following surveys that revealed missing year classes and declines in catch rates up to 80% from historic highs throughout the basin. The 2020 surveys produced significant increases in catch rates and the collection of young-of-the-year Smallmouth Bass at several sites. Among the nongame species collected, there were notable increases in the populations of Goldeye and Chestnut Lamprey.

An Intensive Basin Survey of the Iroquois River basin was completed in 2020. Fish population samples were taken at 23 sites. The surveys produced good numbers of Walleye, which are stocked annually, in addition to natural populations of Channel Catfish, Northern Pike, and Smallmouth Bass.
Region 3 Streams personnel took possession of a Lake Sturgeon that was illegally harvested from the tailwaters of Lake Bloomington in Money Creek of the Mackinaw River basin on May 7, 2020. The fish was a sexually mature male 45 inches long and 41.3 pounds. The incident prompted a Lake Sturgeon Alert posted to the IFish webpage to remind fishermen that it is illegal to harvest Lake Sturgeon from Illinois waters.

For the second year in a row, Region 3 Streams assisted the City of Charleston in their efforts to de-water the stilling basin at the Charleston Dam on the Embarrass River. Flow was maintained to the river utilizing multiple pumps to avoid a fish kill in this diverse section of the river.

Within the first year following the removal of Ellsworth Park Dam on the North Fork Vermilion River and Danville Dam on the Vermilion River, first collections of two fish species were recorded from the river system in 2020. The Tippecanoe Darter and Streamline Chub were discovered in Illinois for the first time. Both species were collected at multiple sites in the Vermilion River up to the former location of the Danville Dam, and the Tippecanoe Darter was found upstream of the former dam site into the North Fork Vermilion River at the former location of the Ellsworth Park Dam. These are promising signs of recovery for this river system that suffered from these barriers to fish migration for over 100 years.

In cooperation with Eastern Illinois University, the results of several years of a fish kill recovery study were published in 2020. "Recovery of riverine fish assemblages after anthropogenic disturbances" was published in the journal, Ecological Applications.

The Kaskaskia River in Shelby County has been supplementally stocked with relatively low numbers of Smallmouth Bass since 2006. This isolated population of Smallmouth Bass is located downstream of the Lake Shelbyville Dam and suffers from unnatural and inconsistent flows released from the reservoir that result in lost year classes from failed spawning seasons. Thanks to captive spawning efforts undertaken at Jake Wolf Memorial Fish Hatchery, the river received a full stocking rate in 2020. The stocked fish received a pelvic fin clip to identify them as stocked fish as biologists monitor the stocking success for years to come.

With assistance from the IDNR Fisheries Division, U.S. Army Corps of Engineers, fishing clubs, and local businesses the Lake Shelbyville Fish Habitat Alliance (LSFHA) continues to enhance the quality of the Lake Shelbyville fishery for anglers and the economic benefit of local communities. Since January 2017, the LSFHA has raised well over $100,000 through fundraising and grant writing activities, solicited tens of thousands of dollars' worth of donated materials, and coordinated thousands of hours' worth of volunteer time to put towards projects to improve aquatic habitat in Lake Shelbyville. To date, the LSFHA has built and placed 1,153 cube structures (PVC/field tile cubes, 270 artificial stumps, 420 porcupine balls, 18 rock reefs (380 tons of total rock), as well as raising and planting numerous aquatic/semi-aquatic plants. The Illinois Natural History Survey is conducting a study monitoring the changes in fish assemblages in coves where cubes or full trees have been added as habitat, which will help quantify the benefits of these various habitat additions.

Lake Shelbyville had an almost complete loss of its muskellunge population 10-15 years ago. Efforts to restore the population have shown little promise until the most recent survey. Several muskie were captured during the latest survey, all of which represented a subset of fish that were held in a rearing pond and stocked later in the year. Although these results are preliminary, we have hope that this new stocking regime may help rehabilitate a once popular fishery in Lake Shelbyville.

Region 4

In 2020, with the assistance of the local crappie club, 70 artificial 'caterpillars' were placed at 10 sites within the year-round fishing zone at Sangchris Lake State Park. These structures utilized almost 100% free materials, and early angler reports indicate that they are holding fish. A map indicating the waypoints of the sites was made available to the public. Additionally, ongoing efforts to reestablish aquatic vegetation were conducted. Existing exclosures were expanded, and several new ones were created. One of the exclosures was removed from the most successful planting. Careful monitoring is being done to determine the success of the area without any protection. Key species transplanted are: American pondweed, White Water Lily, and American Lotus.

Stocking efforts continue at Lake Springfield, with the hope of establishing a trophy Blue Catfish fishery. In 2020, almost 28,000 fish were stocked, bringing the total to almost 150,000 since their initial stocking in 2006. A joint research project is being conducted in partnership with Eastern Illinois University, where catfish length-at-age data, sampling methods, and exploitation are being studied. In the past 2 years, over 500 Blue Catfish have been tagged with a T-bar style tag. Anglers are encouraged to call the number on the tag to report their catch. A small incentive is offered for their information.

IDNR fisheries completed the placement of about 40 Christmas trees at fish attractor locations in Washington County Lake. IDNR adds new trees collected annually by the City of Nashville, IL to 11 attractor locations in

the lake. The 301-acre lake is located in Washington County State Recreation Area in Southern Illinois and is home to numerous bass tournaments each year.

Region 5 Fisheries Habitat Partnerships

Fisheries managers worked cooperatively with both Federal partners, municipalities, and private entities to place fish habitat structures at 19 lakes in southern Illinois. Most notably, approximately 250 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 cedar tree structures were constructed and placed at 10 sites and 174 spider blocks were placed in Crab Orchard Lake with the assistance of the U.S. Fish and Wildlife Service and Blue Heron Boat Club.

In addition, 40 structures were placed in Lake Murphysboro with assistance from the City of Carbondale, 80 cedar tree structures and 20 pallet structures were placed in Little Grassy Lake, 24 spider blocks at the Crab Orchard Visitor Pond, 50 spider blocks at Mermet Lake, 85 structures at Pyramid State Park, and 16 structures in USFS lakes in the Shawnee National Forest.

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.

Illinois River

The Illinois River Program, in conjunction with the state hatchery system, stocked over 1.3 million sauger fry ranging from 1-2 inches into the upper Illinois River in 2020. 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 75,335 smallmouth bass measuring 1.5 inches and 7,242 black crappie measuring 4 inches and 10,350 northern pike measuring 9.4 inches into the middle and upper Illinois River in 2020.

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

The Illinois River Program annual sport fish community monitoring funded by the Sport Fish Restoration Act surveyed 16 Illinois Waterway sites via boat electrofishing in 2020. The 2020 fish survey resulted in the collection of 63 species of fish and 6 hybrids.

Mississippi River

Fish community assessments occurred at 29 locations using boat electrofishing throughout the 581-mile section of river bordering Illinois. Additionally, 40 small-fish community assessments using a minnow seine supplemented electrofishing samples in the lower river reach. These efforts were completed as a component of the historic Mississippi River fish monitoring program.

IDNR biologists continued collaborating with state and federal partners on important river projects such as: Habitat Rehabilitation and Enhancement Projects as part of the Upper Mississippi River Restoration Program, onsite dredge material placement inspections, bridge demolition fish surveys, aquatic nuisance species management, and water level management discussions.

Mississippi South Central Stream Basin Survey –

The Mississippi South Central Stream Basin Survey was successfully completed in 2020 as part of routine monitoring to assess stream health in Illinois. A total of 16 stations were sampled in June – August. Conditions remain relatively consistent with recent surveys (2010, 2015). Some of these stations and watersheds occur in the heavily populated Metro East St. Louis urban area and therefore do not offer much in terms of habitat and species diversity. However, other watersheds and sampling stations in this basin are quite unique and considered 'hidden gems' despite their proximity to the Metro East St Louis area. It is not uncommon to find cool water species such as the banded sculpin, or a diversity of darter and minnow species in some of these watersheds including Fountain Creek, Prairie DuPont Creek and Mill Creek. Sportfish opportunities for channel catfish, flathead catfish, white bass, largemouth bass, and panfish are available in these watersheds, although some are limited.

Sangamon River Mainstem Biennial Survey -

Three stations on the Sangamon River are sampled every other year (Riverton, Petersburg, and Oakford). The Sangamon River offers adequate habitat including riffle/run/pool sequences, rock/gravel/sand, and large woody debris. The Sangamon River continues to show good catfish populations for channel and flathead catfish. Additional sportfishing opportunities for species such as white bass, largemouth bass, bluegill, walleye and sauger are present. The widespread prevalence of Asian carp, primarily silver carp, continue to pose a problem in the Sangamon River system. IDNR received a few reports from recreational anglers regarding the catch of shovelnose sturgeon in the Sangamon River during 2020. Potential further investigation into the shovelnose sturgeon population in the Sangamon River may be warranted in the future.

Division of Wildlife

2020-21 Deer Season Harvest

Hunters in Illinois harvested a total of 162,752 deer during the 2020-21 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. The prior year's total deer harvest was 153,174 (55:45 male to female ratio), and the Illinois record harvest of 201,209 occurred in 2005-06.

Chronic Wasting Disease (CWD)

During the period of July 1, 2019 – June 30, 2020 (FY2020), IDNR staff collected and submitted 9,300 tissue samples statewide from white-tailed deer, yielding a total of 176 CWD cases in 17 northern Illinois counties from 9,264 testable samples. Disease prevalence in CWD counties for adult deer harvested by hunters was 3.2%, with adult males (3.9%) less than twice that of adult females (2.2%). To date in FY2021, 148 cases of CWD have been confirmed from 8,281 tested samples, and we are waiting for confirmation on an additional 12 sharpshooting samples. If the remaining samples are confirmed, this will be a 9% decrease in cases from last year. A total of 5,767 hunter-harvested samples were collected (5,735 tested) revealing 73 CWD-infected animals; however, firearm deer check stations were not held this past fall due to Covid-19 which would have resulted in additional hunter samples and CWD-positive deer. IDNR sharpshooting operations concluded on March 25, 2021 and 69 CWD-infected deer were identified from 1,544 collected samples (1,542 tested). These include 18 samples from Kaskaskia Island (Randolph Co.) as part of surveillance to detect potential CWD-positive deer across the Mississippi River from Missouri. No CWD-positive deer were found on Kaskaskia Island. Since 2002 when first detected in Illinois, CWD has spread from 4 initial counties to include 19 counties in northern Illinois. Lee County was added this year from two archery harvested deer which tested positive for CWD. Prevalence rates which approximate 1% have remained relatively steady over the 19-year history of the disease in this state.

Urban Deer Population Control

A total of 45 Deer Population Control Permits (DPCPs), not including permit extensions for additional time and/or deer, were issued to 12 natural resource management agencies, arboretums/botanical gardens, federal research facilities, park districts, and homeowner associations in eight northern Illinois counties during winter 2020-2021. Permittees were authorized to remove a total of 1,747 white-tailed deer via sharpshooting (1,727) and live-capture followed by mechanical euthanization (20); 1,467 (84%) deer were collected over the five-month period (November 2020-March 2021). All usable deer carcasses were processed for human consumption, resulting in the donation of 59,779 pounds of venison to charity. 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 231 Deer Removal Permits (DRPs) were issued in 53 counties in 2020, compared to 239 permits in 60 counties the previous year. Four permits authorized hazing of deer only; 227 DRPs authorized the lethal removal of 1,877 deer. These permits resulted in the collection of 950 animals (51%). Excessive damage to corn and soybeans accounted for 71% of the DRPs issued during 2020. Approximately 19% of the 2020 DRPs were issued due to concerns about deer on airport runways/taxiways. Permits were also issued for deer-related damage to specialty/truck crops (e.g., strawberries, tomatoes, bell peppers, etc,.), nursery stock, and fruit trees/orchards. As usual, DRP issuance peaked in June and July with 61% of the permits issued during these months.

Epizootic Hemorrhagic Disease (EHD)

IDNR produces news releases each summer asking citizens to report dead/moribund deer they observe in their area, particularly those associated with water. Reports are compiled by local biologists and conservation police officers throughout the summer, and staff follow-up when possible to collect samples for potential virus isolation.

HD was nearly non-existent in 2020 with 17 suspected cases reported from 11 counties. The disease was reported at very low levels across the southern third and western central portions of the state. HD virus was not isolated this past year.

HD reporting levels in 2020 were lower than 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).

2021 Spring Turkey Harvest

Through May 6th, Illinois turkey hunters had harvested a preliminary total of 12,800 wild turkeys during the 2021 spring turkey season, including the youth season. This date is the first day of the 5th season segment in the North Zone and the last day of the 5th season segment in the South Zone. This harvest total compares with 14,873 birds harvested at the same point in the 2020 season. The total harvest in 2020 was 15,831 and the state-record total harvest of 16,605 turkeys was set during the spring of 2006. Youth turkey hunters harvested a preliminary record total of 1,310 birds during the 2021 Illinois Youth Turkey Season. Last year's youth season harvest total was a record setting 1,744 birds. The number of Illinois counties open to spring turkey hunting remained at 100 of the 102 counties statewide.

2019-20 Waterfowl Season

Unlike several other recent years, wetland habitat quality across much of Illinois was above average in fall 2020. Growing season water levels on many of Illinois' major rivers remained below flood-stage, allowing

management practices beneficial for migrating waterfowl on associated wetlands. Similarly, lack of nesting-season flooding appeared to contribute to average or better temperate-breeding Canada goose production throughout the state.

As fall migration began, a slight cold front at the end of August into early September brought abundant blue-winged teal to the Illinois and Mississippi River valleys, with peak counts along both rivers reaching over double the most recent 10-year average on September 2. As fall advanced, ducks arrived along the Illinois and Mississippi Rivers in relatively high abundance, presumably taking advantage of quality food resources developed during the summer growing season. Peak abundance in the Illinois River valley reached 427,525 on 17 November, 28% above the most recent 5-year average. Peak abundance along the Mississippi River reached 830,485 on 2 December, 7% above the most recent 5-year average. Unfortunately, aerial surveys were not conducted consistently in other portions of the state. Only the Mid-Winter Survey, conducted during the first full week of January, was completed for northeast, west-central and southern Illinois, thus, comparisons of abundance and migration chronology to previous years is difficult, but anecdotal observations indicated average or better duck numbers in many areas. Despite above average duck numbers, hunter success was inconsistent or below average at many sites. Hunters and waterfowl managers in several Mississippi Flyway states reported wary ducks that moved out of refuges or rest areas infrequently and provided fewer opportunities for harvest than in most years. Preliminary harvest reports from state managed waterfowl hunting areas indicate mixed success around the state, with some areas reporting average harvest and others reporting harvest well below average.

Goose hunters in Illinois reported significant success, especially for Canada geese in the north and central portions of the state through mid- and late-January. An extended period of cold temperatures coupled with snow cover forced many Canada geese out of southern Wisconsin and the most northern tier of Illinois to hunters further south. Midwinter survey results revealed more Canada geese in Illinois during the 2021 survey period than in 2020, but fewer greater white-fronted geese. However, white-fronted goose abundance was 274% above the 5-year average along the Illinois and Mississippi Rivers throughout fall migration, while Canada goose abundance was 22% above the 5-year average, potentially contributing to increased harvest in those regions.

2018-19 Upland Harvest

The 2019-20 survey estimated that 13,706 hunters (11% increase) shot 23,570 wild pheasants in Illinois (24% decrease), compared to the 2018-19 totals of 12,241 hunters and 31,066 wild birds. The number of days each hunter spent in the field decreased from 2018-19. The 2019-20 quail survey estimated that 6,749 hunters shot 45,270 wild quail (27.6% increase) compared to 6,995 hunters and 35,490 quail in the 2018-19 survey. The number of quail per hunter/day was up 33%. This is the second year in a row harvest and birds harvested per day increased. Estimates from 2019-20 indicate that 25,958 hunters (down 10.2%) harvested 387,185 doves (down 20.8%). The number of birds per hunter/day was up 10.6% for mourning doves. The number of rabbit hunters in 2019-20 (23,258) was up 4% from the previous year and they harvested 76,627 rabbits (down 1.5%). The number of rabbits per hunter/day also decreased 12%.

Hunter Heritage: Recruitment, Retention, and Reactivation

The IDNR Hunter Heritage Program saw successes and challenges during the pandemic. Our Hunter Heritage Program Manager, Jared Duquette left us to become Michigan's Wildlife Chief in November 2020. Congratulations, Jared! The position remains vacant for the foreseeable future.

In an effort to provide contemporary resources for hunters, we launched the new Hunt Illinois website in the fall of 2020. The website includes information on Illinois hunting seasons, places to hunt, licenses and permits needed, hunting and trapping regulations, hunter harvest reporting, hunter safety, wildlife management, and conservation programs. The new website was developed by the IDNR in cooperation with the National Great Rivers Research and Education Center, with funding support from the U.S. Fish and Wildlife Service Wildlife Restoration Program. The Hunt Illinois website can be accessed through most desktop and laptop computer web browsers, or by using most mobile devices, at https://huntillinois.org/. We are also working on moving our annual hunting and trapping digest to a modern software platform and translating the full digest into both Spanish and Polish.

The Learn to Hunt Program is part of a PR-Wildlife Restoration funded research grant that investigates "hands-on" approaches to recruit new adult hunters. It provides free workshops to teach adult participants how to hunt deer, turkey, squirrels, pheasants, ducks, geese and other game. The in-person workshops were cancelled due to the pandemic. The team pivoted and developed eLearning Modules on how to hunt waterfowl, deer, turkey, and upland game. The modules were quite popular, and they garnered invitations for the Department to provide presentations on R3 at two State Senators' virtual sportsmen's updates.

The Department hosted a mentored archery hunt on one of our state sites in east-central Illinois. We have proposed an administrative rule change to allow for special hunts focused on youth and new and lapsed adult hunters. We are nearing completion on a user-friendly deer hunting program development guide for municipalities.

Feral Swine

IDNR (IL Department of Natural Resources) 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 527 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 36 FS reports were investigated in 2020, but no new populations were discovered.

After local hunters and agricultural producers alerted WS to an emerging FS population in Pike County, IL in 2017, 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 a total of 26 FS from the Township. No reports of FS among this area have been received nor has WS surveillance identified any FS damage or documented their presence upon trail cameras in this area since January 2019.

WS received reports of FS in both Pope and Pulaski Counties in southern Illinois in 2019. 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 confirmed one adult boar among private properties in Pulaski County and it was successfully removed on 1/09/2020. Blood samples collected from the boar indicated this FS was negative for Classical Swine Fever, Swine Brucellosis and Pseudorabies. Genetic samples were analyzed, and results indicated a very close association with FS located in Wayne County, Missouri over 50 miles away. No other FS have since been confirmed in Pulaski County.

A self-sustaining breeding population was identified in Pope County among private properties and Shawnee National Forest lands spanning approximately 50 sq. mi in 2019. Extensive WS management efforts (trapping, ground sharpshooting & aerial control) resulted in the successful removal of 41 FS from this region in 2020. All FS tested negative for Classical Swine Fever, Swine Brucellosis and Pseudorabies in 2020. Genetic analysis is still underway to determine the possible source population and what state/region these FS were translocated from.

Bobcat Hunting

Illinois offered its Fifth hunting and trapping season for bobcat since 1972. Almost 6,500 people applied for 1,000 permits to take a bobcat by hunting, trapping, or salvage (roadkill, incidental, etc.). The season starts November 10 and ends on February 15. Successful permit holders tagged a total of 361 bobcats. Hunters and trappers took 339 bobcats, and an additional 22 bobcats were salvaged by permit holders.

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. Due to the Covid pandemic, opened positions remain unfilled and the Habitat Team continued operations with two full-time employees and one part time employee. For the year 2020, the team reported the following accomplishments: sprayed 364.3 acres for invasive plant control and site preparation, mowed 230.0 acres for exotic control, fire breaks and site preparation, cleared 10 acres of trees along waterways to manage for treeless landscapes and conducted prescribed burns on 140.2 acres and planted 185.0 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 2020, IRAP had over 25,000 acres under lease in 49 counties for spring turkey, archery deer, youth shotgun 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.

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 powersand duties, including approval for dedication of nature preserves and registration of land and water reservesin 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 localgovernments 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, habitatsfor 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 bystaff employed by the IDNR.

In calendar year 2020, the INPC permanently protected 13 sites, including two new nature preserves, five additions to existing nature preserves, five new land and water reserves, and one addition to an existing land and water reserve. The total acreage dedicated was 771.80 and the total registered 726.34 acres. Adding these 13 sites into the Illinois Nature Preserves System brings the statewide, total number of dedicated Nature Preserves to 404 comprising approximately 61,682 acres; and the total number of registered land and water reserves to 200 with approximately 54,767 acres. Altogether, at the end of 2020, there were 604 sites comprising close to 116,450 acres.

Division of Natural Heritage

Endangered Species

Throughout 2020, Department personnel further refined an enhanced recovery planning process for setting priorities and developing conservation actions for the full range of native species in the State. In a broad sense, this collaborative iterative process has three cyclical components with the goal of delisting threatened and endangered species: Assessment, Planning, and Implementation. Thus far, a Recovery Charter has been created that spells out the roles of various groups or individuals. Priority species for recovery have been selected, and species leads have been named.

IDNR staff are participating in a continental-scale study of acoustic phenology to improve population monitoring and inform management of hibernating bats. Acoustic monitoring at cave entrances during spring emergence may provide a less invasive, low-cost alternative to internal cave counts if acoustic data provide a reliable index of numbers of bats roosting in each hibernaculum. The objectives of the initiative are: 1) Measure

phenology of fall swarm, hibernation duration, and spring emergence across the latitudinal gradient of the WNS-established zone for Little brown bat and Tri-colored bat, and, 2) Determine whether indices of bat activity during spring emergence correlate to colony counts during late winter with enough precision to serve as a monitoring option during years when internal counts are not feasible or desired**.** IDNR biologists installed acoustic bat detectors at the entrances of two Illinois hibernacula which will be monitored through 2022.

During the summer of 2020, IDNR staff joined other agencies in a "last-minute" rescue of a small group of Federally endangered piping plovers coming from Wisconsin. Several pairs of piping plovers nesting near Green Bay, Wisconsin had been impacted by avian botulism, with resulting piping plover mortality. The USFWS recovery team was able to capture five fledgling plovers in the area of major concern and sought release of the birds further south in their migratory path to avoid further threat from botulism outbreaks in the region. The birds were released on the protected lake front of Illinois Beach State Park. It is our hope these young birds will return to nest in 2021.

IDNR staff developed a habitat model for Hall's bulrush (State threatened) to inform surveys for the species. Hall's bulrush was found at 13 locations during these Spring 2020 surveys: 7 out of 13 were known locations; 6 out of 13 were new locations. Using this predictive habitat model, biologists then initiated surveys in the Fall of 2020 with an emphasis on historic locations in both eastern and southern Illinois. Based upon data collected in late 2020, staff are now better prepared to implement a broader statewide sampling initiative beginning in 2021.

Natural Areas Stewardship

The Illinois Natural Areas Stewardship Grant Program was established and is currently accepting applications through May, 2021. $500,000 was made available for the program's inaugural round of grants. Authorized by Natural Areas Stewardship Act, grants will provide funding to Conservation Land Trusts in Illinois to expand their stewardship capacity and conduct stewardship action on land permanently protected by the Illinois Nature Preserve Commission.

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 235 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, solar 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.

Monarch Butterfly Conservation

The Illinois Monarch Action Plan was signed into action on September 28, 2020 by the leaders of the Department of Natural Resources, IL Department of Agriculture, IL Department of Transportation, and IL Environmental Protection Agency. The plan includes five goals to reach Illinois' stem goal of 150,000,000 new stems of milkweed embedded in diverse nectar sources by 2038. Five virtual engagements, held October, 2020 – May 2021, helped moved Illinois' monarch conservation efforts from planning to implementation. Nearly 400 people participated in the virtual events, and 65 volunteered for committees and leadership roles.

Division of Forestry

IDNR Nursery Program (Mason Nursery)

For FY21, the IDNR Nursery Program produced 602,000 native bare-root trees and shrubs of 29 different species. Additional production included 3,000 native containerized trees and shrubs of 24 different species; 6,000 containerized native wildflowers and prairie grasses of 52 different species; 1,515 pounds of cleaned wildflower seed of 45 different species; 2,314 pounds of cleaned prairie grass seed of 5 different species. The Mason Nursery also produced 785 pounds of Monarch/Pollinator native wildflower seed mix consisting of 38 different species. Most of this material was sold and distributed widely across Illinois habitats and projects.

Wildland Fire Programs

IDNR staff prescribe burned approximately 9,500 acres in several 100 units during the last burn season. Five introductory wildland firefighting classes were held for IDNR staff and volunteers. The Midwest Wildfire Training Academy was canceled due to Covid. Six G130 – 190 Wildland Fire classes were presented to the volunteer fire departments. A total of 28 fire departments were represented with 420 firefighters completing the classes. Through federal excess equipment programs, IDNR acquired approximately $17,000,000 of surplus fire equipment, including fire, trucks, rescue boats, trailers, generators, small tools and a variety of other items. IDNR Forestry had two 20-person Type 2IA crews deployed to Colorado and Idaho to assist on 3 different fires. Illinois also has a representative on the esteemed NASF Wildland Fire Committee and represents the Big Rivers Fire Council on the Eastern FS Region.
The Fire Program recently hired a new Manager to replace a retirement. We are extremely optimistic for new growth.

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 545,000 enrolled forest management acres engaging 9,700 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.

Illinois Forest Utilization & Marketing Program

IDNR Division of Forest Resources bonded and licensed 351 individual timber buyers or companies listing 726 total authorized agents who may legally purchase timber from any Illinois forestland owner. Seventy 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 again this year. The total economic value of the forest products industries to Illinois, including all primary and secondary sectors, exceeded $23 billion as measured in 2012 and measured again in 2020. A new current economic output analysis for forestry is available from the Division.

IDNR Urban and Community Forestry Program (UCF)

IDNR's 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 City USA Growth, Tree Campus, and Tree Line USA programs in partnership with the Arbor Day Foundation and the USDA Forest Service. In 2020, IDNR's Urban and Community Forestry Program touched 10,054,336 Illinois residents through direct and partner assistance which included directing $228,197 in USFS dollars to local communities resulting in $393,634 in local match for a total of $621,831 in tree planting, urban forest inventory data collection and urban forest management plan development work. In 2020 Illinois has maneuvered to be among the top three states in Tree City USA programs, among the top two in TCU Growth communities and top five in Tree Campuses in the nation. In 2020 Illinois approved 188 Tree City USA Communities, 40 Tree City Growth Award communities (all-time best) 19 Tree Campus USA campuses, and 2 Tree Line USA utilities.

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 andKaskaskia River watersheds to be restored, enhanced and protected over a period of time from 15 years toperpetuity. Since CREP was established in 1999, 1.324 easements have been placed, protecting 90,427 acres. Due to the lack of a state budget for fiscal years 2016 and 2017, the State of Illinois was unable to offer state options under CREP; therefore, USDA and the State of Illinois suspended CREP enrollment. Recently, funding for the state side of CREP has been restored and revisions to the Memorandum of Agreement between the USDA, CCC and the State of Illinois has begun. It is hopeful that CREP enrollments will begin again in the near future.

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 throughoutthe 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 federalagencies, 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 32 State Wildlife Grant (SWG) Projects. Collectively these projects include monitoring and assessment for hundreds of amphibian, bird, fish, insect, mussel, and reptile SGCN. The four Projects completed over the past year identified an approach for determining restoration criteria for freshwater mussels in Illinois, assisted with coordinating our state strategy for Monarch Butterfly conservation, inventoried amphibians and reptiles in the Green River Conservation Opportunity Area, and assessed SGCN of bottomland forest and swamps in southern Illinois. Five new Projects were started that focus on surveys and conservation assessments of dragonflies, updating biological characterizations of streams and rivers, providing information necessary for conservation planning of the Blanding's Turtle and the Eastern Massasauga Rattlesnake, and conducting stewardship work at Illinois Natural Areas Inventory sites that contain populations of state-listed endangered or threatened species. Four new Projects are being developed that will provide information on the health of turtle and snake populations, seasonal habitat use of grassland birds, and provide stewardship in high-quality natural communities and large connected grassland habitats.

For More Information

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