

BUREAU OF WILDLIFE MANAGEMENT

MONTHLY REPORT

July 2021

Carole Stanko, Chief

NEW JERSEY WILDLIFE RESEARCH AND MANAGEMENT GRANT NO. W-68-R

STUDY PLAN I. WHITE-TAILED DEER

Jodi Powers, Senior Wildlife Biologist (Northern Region)

Vacant (Southern Region)

Annual Deer Harvest (Job I-A)

J. Powers continued to send out harvest data to county park systems and municipalities upon request.

Special Areas

J. Powers sent 2021-22 season dates to NWS Earle (DMZ 39).

Hunting and Trapping Digest

J. Powers and J. Leskie reviewed and submitted edits to the 2021-22 Hunting and Trapping Digest and forwarded edits to Chief Stanko.

Extension Activities

J. Powers and J. Leskie attended the Division's Wildlife Narrative meeting and submitted comments to Chief Stanko.

J. Powers forwarded 2020-21 deer harvest data and 2021-22 deer season dates to several municipalities.

Other Activities

J. Powers and J. Leskie forwarded several farmer depredation inquiries to appropriate Law Enforcement office.

J. Leskie received a call about a sick deer in a resident's yard, located in Galloway Township, Atlantic County. The owner was upset that the deer was going to die from the "tumors" it had. J. Leskie was able to perform a site visit and watch the deer, an adult doe, with cutaneous fibromas on the head. The deer was feeding normally and moving freely. The fibromas were close to the eye, however, after watching the deer for over 25 minutes with binoculars, the deer was blinking and moving normally without any noticeable issues.

J. Leskie updated and submitted the early Summer turkey poult survey data reports onto the Division's Turkey Poult link page.

Community Based Plan for Management of Suburban Deer Populations: Job I-C

J. Powers attended a Zoom meeting with staff from Mercer County Parks Commission about submission of a CBDMP application.

STUDY PLAN III. UPLAND WILDLIFE AND FURBEARERS

Ted Nichols, Supervising Biologist
Andrew W Burnett, Principal Biologist
James Sloan, Senior Biologist
Joseph R. Garris, Wildlife Technician I
Keith Santini, Seasonal Technician

Objective 1 – Conduct annual or periodic monitoring programs of the upland game and furbearer resource, their users, and the habitats on which they depend.

Hunter and Trapper Harvests

During the current segment, turkey hunters reported harvesting 2 coyotes opportunistically. Reported harvest total to date is 322 coyotes and 34 gray fox. Over half (163) of coyotes were reported by trappers, followed by shotgun deer hunters (57), special permit holders (48), archery deer hunters (31), muzzleloader deer hunters (8), and spring turkey hunters (14). In addition, 2 nuisance coyotes were killed by farmers and 15 were killed by vehicles bringing the total coyote mortality for FY21 to 339.

A total of 27 gray fox harvests were reported for FY21 (11 by shotgun hunters, 9 by trappers, 5 by archers, and 1 each by muzzleloader and modern rifle hunters.

Beaver and River Otter

The Office of Fish and Wildlife Information Systems was requested to randomly select 360 beaver and otter sample points and produce maps for each point. Points will be sampled this fall.

A request for nuisance beaver reports was filed with USDA-APHIS.

Northern Bobwhite

Raw data from the 2010 Northern Bobwhite Assessment Survey were found while clearing out the Nacote Creek Office. Data are being entered into an Excel spreadsheet.

Ruffed Grouse

Burnett and Garris visited the Flatbrook WMA Young Forest project on July 14. Information on the agency website will be updated during the next reporting segment.

Wild Turkey

Sloan spent a significant amount of time handling turkey harvest reporting errors and reviewing databases to provide harvest data to stakeholders. P. Winkler (BLM) and A. McBride assisted with database updates and modifications.

Sighting Reports

Turkey brood sightings were reported via the agency's online form as they occurred. A request for nuisance coyote reports was filed with USDA-APHIS.

Objective 2 – To participate in business, meetings, and monitoring programs of the National Bobwhite Technical Committee (NBTC), Northeast Fur Resources Technical Committee (NEFRTC), Northeast

Upland Game Bird Technical Committee (NEUGBTC), and Short-leaf Pine Initiative (SPI).

National Bobwhite Technical Committee (NBTC)

Sloan met S. Chapman (NBCI Forestry Coordinator) and G. Hagan (NBTC Forestry Committee Chair) on June 21 to discuss the upcoming Committee meeting on August 3-5 in Bentonville AR. As some committee members will be precluded from attending in-person, the Committee will hold a virtually meeting the week of July 26.

Sloan attended the NBTC Translocation Ad-hoc Committee meeting on June 30. Discussions included developing guidelines to increase probability of success, improve scientific management and promote long-term learning for practices involving interstate translocation of northern bobwhite. Meetings will continue to establish rules and regulations for donor and recipient states during translocation projects and to develop a NBTC review team.

Northeast Fur Resources Technical Committee (NEFRTC)

An in-person meeting is scheduled for September 13-16 in Litchfield CT.

Objective 5 – To disseminate accurate and appropriate information on upland game and furbearer programs to sportsmen, public, state, and local agencies, and other organizations.

Sloan attended the Ocean County Federation of Sportsmen's Clubs meeting on June 16. Discussions included proposed legislation regarding competitive hunting, fund-raising complications arising from COVID-19, and the 2022 trash clean-up.

Sloan attended the State National Wild Turkey Federation board meeting on June 27. Presentations were provided on this year's spring gobbler harvest and data trends to guide future hunting regulation decision making.

Garris provided input and identified various species of wildlife and scat from pictures/videos/audio and conversations with constituents.

Hunting Digest

Sloan attended the in-person *NJ Hunting and Trapping Digest* meeting on June 30. Sloan also worked with P. Woerner (OFWIS) to review the current "Where to Hunt" sections for deer and turkey. Current lists will need to be updated.

Other Activities

Sloan completed billing and paperwork for contracted work on Dix WMA.

Sloan provided M. Woerner (BLM) with suggestions regarding interested stakeholders for an upcoming Greenwood Forest WMA Forest Stewardship Plan external stakeholder public comment period.

Sloan participated in the remote *Website Wireframe & Narrative* meeting on July 6 to discuss the framework of the hunting and wildlife layouts.

Garris conducted pre-capture scouting followed by capture and banding of Canada geese in Hunterdon, Mercer, Sussex, and Warren counties.

Burnett met with A. McBride on July 20 to discuss project planning.

The project's coyote database contains 13,017 records of mortalities, sightings, and other incidents from a minimum 471 municipalities in all 21 counties.

WATERFOWL – STUDY PLAN IV

Ted Nichols, Supervising Biologist

Lisa Clark, Senior Biologist

Objective 1 – Migratory game bird monitoring programs

Atlantic Flyway Breeding Waterfowl Survey

Division personnel and cooperators completed the New Jersey portion of the annual Atlantic Flyway Breeding Waterfowl Survey during early May. The 2021 estimates were: 13,351 mallard pairs, 5,201 black duck pairs, 7,816 wood duck pairs, 23,923 Canada goose pairs, and 63,841 total Canada geese.

In New Jersey, the mallard estimate was 38% below the 1993-2019 long term average (LTA; survey not done in 2020) of 21,441 pairs; the mallard pair estimate has persisted below 20,000 pairs since 2010. In New Jersey, black ducks were observed in the salt marsh and coastal plain strata and the pair estimate was 18% above the LTA; 2021 was the first time the black duck pair estimate was above 5,000 pairs since 2010. Although not statistically different from the LTA, the NJ wood duck pair estimate was 13% below the LTA. The NJ Canada goose total population estimate was 15% below the LTA. Canada goose estimates peaked during the early 2000s at about 95,000 birds and have declined since that time due to expanded hunting seasons and cull operations. The state goal for Atlantic Flyway Resident Population Canada geese in New Jersey is 41,000 birds.

Preseason Canada Goose Banding

Program staff completed preseason banding of Atlantic Flyway Resident Population Canada geese. A total of 1,720 Canada geese were leg banded including 1,233 adults (586 female; 646 male; 1 unknown) and 487 goslings (277 female; 210 male) from 23 – 30 June. Captures were made at 34 sites in 10 counties. 686 Canada geese banded in previous years were recaptured. The band distribution was reasonably geographically proportional to the distribution of geese observed during the Breeding Waterfowl Survey. An effort was also made to band birds across the various landscape types (i.e. rural, tidal marsh, suburban, urban) in the state. The banding goal was 1,300 geese, which represents about 1.5% of the state's resident population of Canada geese. The banded sample targeted 67% adult geese and 33% goslings as outlined in the Atlantic Flyway Resident Population Canada Goose Management Plan. Banding objectives were met. Recoveries of banded geese will provide information on the proportion, timing, distribution and derivation of the Canada goose population (Resident versus Migrant Populations) that are harvested during the hunting season. Recapture data from live, previously banded birds, play a critical role in calculating annual survival rates (e.g. Beston et al. 2014). Interns and volunteers from Cape May NWR, Supawna NWR, and Forsythe NWR provided critical logistical and labor needs. Banding data were entered into the appropriate software and sent to the USGS Bird Banding Laboratory.

References:

Beston, J. A., T. C. Nichols, P. M. Castelli, and C. K. Williams. 2014. Factors affecting survival of Atlantic flyway resident population Canada geese in New Jersey. *Journal of Wildlife Management* 78:612–619.

Preseason Duck Banding

Preseason duck banding operations began. Preseason banding will continue until the end of September.

Objective 2 – To participate in programs of the Atlantic Flyway Council and Joint Ventures

As Atlantic Flyway Council Technical Section representative, T. Nichols participated in 3 virtual meetings of the AFWA Waterfowl Working Group, Federal Duck Stamp Task Force. The role of the Task Force is to work with the United States Fish and Wildlife Service and to develop recommendations for consideration at AFWA's 2021 Annual Meeting. The Task Group will review stamp sales data (physical and e-Stamp) and other available information on sales, marketing, and policy issues pertaining to the sale of the "e-Stamp".

T. Nichols wrote portions of and commented on the 2022-26 revision of the Atlantic Flyway Canada Goose Cooperative Research and Survey Program.

T. Nichols prepared the AFC comment letter to the Federal Register Proposed Rule to reinstate the traditional art work requirements for the Federal Duck Stamp.

Objectives 3 and 4 – Research studies

Blood Lead Levels in American Black Ducks

Over the past year, T. Nichols coordinated with lead author Nicole Lewis (DFW Health and Forensics) and other collaborators on a manuscript examining contemporary versus historic blood-lead levels in wintering black ducks in New Jersey. The manuscript was recently published:

Lewis, N.L., T.C. Nichols, C. Lilley, D.E. Roscoe, and J. Lovy. 2021. Blood-lead declines in wintering American black ducks in New Jersey following the lead shot ban. *Journal of Fish and Wildlife Management* 12:174-182.

Key findings are included in the abstract below:

ABSTRACT Waterfowl managers first recognized the problem of lead poisoning in ducks from the ingestion of spent lead shot (pellets) over 100 years ago. The phase-out of lead shot for waterfowl hunting began in the Atlantic Flyway in the 1970s. Lead shot was subsequently banned throughout the United States and Canada prior to 2000. We compared blood-lead levels in American black ducks wintering in coastal New Jersey in 1978, prior to the lead ban, and in 2017, about 39 years after lead shot was first banned for use in Atlantic coastal marshes and 27 years after it was banned for waterfowl hunting in New Jersey. The prevalence of blood-lead ≥ 0.2 ppm, a level commonly used to indicate lead exposure, declined nearly four-fold from 1978 (79%) to 2017 (20%). We found no significant differences in the prevalence of birds with blood-lead levels ≥ 0.2 ppm between sexes in either year or between age classes in 2017. The prevalence of ducks with blood-lead levels ≥ 1.0 ppm, considered clinically evident toxicity, declined from 19% in 1978 to 1% in 2017. Our study provides further evidence that the ban on the use of lead shot over 20 years ago throughout North America has resulted in lower blood-lead levels in waterfowl. Notwithstanding, we still found evidence of lead exposure in black ducks in 2017, which warrants further investigation.

Atlantic Brant Integrated Population Model

T. Nichols coordinated with lead author Anthony Roberts (USFWS) and other collaborators on a manuscript to develop an Atlantic brant population model. The manuscript was recently published:

Roberts, A.R., J.L. Dooley, B.E. Ross, T.C. Nichols, J.O. Leafloor and K.W. DuFour. 2021. An integrated population model to inform harvest management of Atlantic brant. *Journal of Wildlife Management* 85(5):897-908.

Key findings are included in the abstract below:

ABSTRACT Atlantic brant (*Branta bernicla hrota*) are important game birds in the Atlantic Flyway and several long - term monitoring data sets could assist with harvest management, including a count - based survey and demographic data. Considering their relative strengths and weaknesses, integrated analysis to these data would likely improve harvest management, but tools for integration have not yet been developed. Managers currently use an aerial count survey on the wintering grounds, the mid - winter survey, to set harvest regulations. We developed an integrated population model (IPM) for Atlantic brant that uses multiple data sources to simultaneously estimate population abundance, survival, and productivity. The IPM abundance estimates for data from 1975–2018 were less variable than annual mid - winter survey counts or Lincoln estimates, presumably reflecting better accounting for observer error and incorporation of demographic estimates by the IPM. Posterior estimates of adult survival were high (0.77–0.87), and harvest rates of adults and juveniles were positively correlated with more liberal hunting regulations (i.e., hunting days and the daily bag limit). Productivity was variable, with the percent of juveniles in the winter population ranging from 1% to >40%. We found no evidence for environmental relationships with productivity. Using IPM - predicted population abundances rather than mid - winter survey counts alone would have meant fewer annual changes to hunting regulations since 2004. Use of the IPM could improve harvest management for Atlantic brant by providing the ability to predict abundance before annual hunting regulations are set, and by providing more stable hunting regulations, with fewer annual changes.

American woodcock migration ecology study

During the fall of 2018 and 2019, the Division worked with several state agencies and study leader Erik Blomberg and his PhD student, Alex Fish (University of Maine), using GPS satellite telemetry units on a study of the migration ecology of woodcock in eastern North America.

T. Nichols commented on and wrote portions of a draft manuscript which uses this telemetry data entitled: *American woodcock fall and spring migration phenology in Eastern North America; implications for hunting season timing*. Coauthors include Blomberg, Fish, and several other state and provincial collaborators.

Additional information on the project can be found at: www.woodcockmigration.org

Population dynamics of Atlantic brant

Since 2019, the Division has worked on a collaborative study with the University of Missouri, New York DEC, and Canadian Wildlife Service, partially funded with an Arctic Goose Joint Venture grant. Dr. Mitch Weegman at the University of Missouri is the principal investigator. Part of the study involves examining climatic and weather variables that govern annual and cross-seasonal Atlantic brant productivity. As part of this work, T. Nichols commented on and wrote portions of a draft manuscript entitled: *Environmental conditions during spring staging and the breeding season drive productivity of Atlantic brant*. University of Missouri graduate student Frances DiDonato is lead author. Coauthors include other study collaborators at University of Missouri and NYDEC.

WILDLIFE SERVICES SECTION

Anthony McBride, Supervising Wildlife Biologist

Mike Madonia, Principal Wildlife Biologist

Joe Burke, Wildlife Technician I

Amy DeCheser, Wildlife Technician I

Emilia Topp, Wildlife Technician II

Michael Patrick, Wildlife Technician II

Peter Stark, Wildlife Worker

Bear Control: Lethal and Non-Lethal

The black bear unit received a total of 103 bear calls from June 20, 2021 to July 21, 2021; this compares with 239 calls from the same time period in 2020.

The black bear unit received 5 Category I calls, 28 Category II calls and 69 Category III calls for the time period June 20, 2021 to July 21, 2021; this compares to 10 Category I calls, 108 Category II calls and 119 Category III calls for the same time period in 2020.

The black bear unit received a total of 464 bear calls from January 1, 2021 to July 21, 2021; this compares with 720 calls from the same time period in 2020.

The black bear unit received 25 Category I calls, 178 Category II calls, and 258 Category III calls for the time period January 1, 2021 to July 21, 2021; this compares to 27 Category I calls, 315 Category II calls and 373 Category III calls for the same time period in 2020.

As of July 21, 2021, the total number of calls received by the Division decreased 35.6 percent from the same time period in 2020. Category I incidents decreased by 7.4 percent, Category II calls decreased 43.5 percent and Category III calls decreased 30.8 percent from 2020. This data does not include calls made to local police departments.

Research

Project personnel continue to edit and input research data into the bear database.

Damage/Nuisance Control

Project personnel continue to provide technical advice for damage complaint incidents and set traps for Category 1 behavior.

Cooperative Research

Project personnel continue to work on cooperative research projects with East Stroudsburg and Stockton University.

White-tailed Deer Calls and Complaints

USDA staff removed a deer from a fence in Old Bridge, Middlesex County.

USDA staff removed a deer from a manhole in Manchester, Ocean County. The deer was released on site.

Coyote Calls and Complaints

Unit staff along with staff from the Bureau of Law Enforcement responded to two reports of coyote attacks on people at a park in Randolph, Morris County. In each case, an aggressive coyote was destroyed at the site, and traps were also set. Both coyotes tested positive for rabies.

Other Activities

A. McBride met with A. Burnett to discuss furbearer and upland project planning.

A. McBride provided digest edits for the August 2021 hunting and trapping issue.

Wildlife Nuisance Complaints/ Technical Guidance (Federal Aid Project)

BREAKDOWN OF COMPLAINTS BY SPECIES

Bat	3	Mink	3
Bear	103	Mountain Lion	1
Beaver	5	Opossum	1
Bird	13	Rabbit	3
Bobcat	3	Raccoon	17
Coyote	26	Skunk	11
Crow	1	Snake	3
Deer	67	Squirrel	2
Duck	3	Swan	26
Fox	57	Turkey	5
Frog	1	Turtle	2
Goose	5	Unknown	2
Hawk	5	Woodchuck	17

282 calls for the Federal Aid Project.

Total calls: 385 (*black bear calls are not included in this project)

Wild Turkey Research Project (Federal Aid Project W-68-R-16)

J. Sloan and A. McBride attended a NWTF State Chapter board meeting and gave a presentation on factors affecting spring turkey harvests.