

**BUREAU OF WILDLIFE MANAGEMENT**

**MONTHLY REPORT  
DECEMBER 2023**

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

**STUDY PLAN I. WHITE-TAILED DEER**

Jodi Powers, Principal Wildlife Biologist  
Megan Mills, Assistant Biologist (Northern Region)  
Megan McCafferty, Assistant Biologist (Southern Region)  
Brian Schumm, Assistant Biologist

**Objective 1 – To determine the composition, size, distribution, productivity, and other aspects of the annual deer harvest mortality by deer management zone, unit, county, municipality, land ownership, date, and season.**

The Deer Project Team continues to receive calls regarding harvest report errors as the six-day season begins, leading to harvest report corrections and transfers across several ongoing seasons.

Deer Project Team continues to download weekly harvest database.

M. McCafferty and M. Mills continue to monitor harvest reports for errors and complete error corrections as the season progresses.

J. Powers provided preliminary harvest results to AD Barno for the Council meeting.

**Objective 2 – To coordinate a statewide Suburban Deer Management Program for management in areas of high human density where standard hunting practices are not feasible.**

B. Schumm, M. Mills and J. Powers had a site visit with Edison Township in Middlesex County. Deer staff and Edison officials visited multiple sites within the township that had the potential of safely holding hunters.

J. Powers and B. Schumm finalized review and presented CBDMP applications to The Fish and Game Council. Five applications were received and approved.

J. Powers and B. Schumm met with AD Barno to discuss options for distribution of funds for communities dealing with over-abundant deer populations.

**Objective 3 - To participate in business meetings and monitoring programs of the Northeast Deer Technical Committee, and other related meetings and conferences.**

J. Powers provided feedback to the NEDTC regarding CWD regulations in regard to baiting, feeding, lure bans, and carcass bans.

**Objective 4 - To conduct one white-tailed deer research study.**

*Effects of White-tailed Deer Herbivory on Atlantic White Cedar*

This study began in 1989 in cooperation with Stockton University with the objective of measuring the long-term effects of deer herbivory on vegetation in the Pine Barrens of southern New Jersey.

Nothing to Report.

**Objective 5 – To disseminate accurate and appropriate information on white-tailed deer and habitat management to sportsmen, public, local, and state agencies, and other organizations.**

The Deer Project Team continued compiling questions for hunter surveys on APR and the potential Game Code changes.

The Deer Project Team met with Assistant Director L. Barno to discuss the survey distribution and timeline along with the contents of the survey.

**Objective 6 – Develop, maintain, and make adaptive changes to a white-tailed deer Chronic Wasting Disease (CWD) Response Plan.**

M. McCafferty, G. Canale, and J. Bauer continued CWD sampling in the southern region of New Jersey, with a total of 245 deer sampled and approximately 400 aged.

M. Mills, J. Gyurcsak and J. Bauer continued sampling in the central region of New Jersey, with a total of 117 deer sampled and 171 aged.

M. Mills, K. Barone, K. Ollo, and J. Santini concluded CWD sampling with a total of 390 deer sampled and 428 aged.

**Extension Activities**

The Deer Project Team has received reports for injured or sick deer from the public and continues to work with USDA APHIS Wildlife Services to decide best course of action for these deer.

## **Other Activities**

J. Powers provided information to the DEP Press Office about how to avoid/deter aggressive deer.

## **STUDY PLAN III. UPLAND WILDLIFE AND FURBEARERS**

Ted Nichols, Supervising Biologist  
James Sloan, Senior Biologist  
Joseph R. Garriss, Wildlife Technician I  
Peter Stark, Biologist Trainee  
Alexandrea Nickel, Seasonal Technician  
Shelby Gravatt, 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.**

#### *Coyote Harvest*

A total of 87 coyotes have been reported to the Automated Harvest Reporting System (AHRS) as being harvested during the 2023-24 hunting and trapping seasons thus far.

A total of 64 coyote mortalities were reported through the AHRS for the segment. Four of the 64 coyotes were harvested incidental to hunting for deer during the archery deer seasons, 36 were harvested by shotgun while small game hunting or incidental to deer hunting, 8 were taken with muzzleloading rifle incidental to deer hunting, and 16 were harvested by cable restraint.

Coyotes were harvested from the following counties: Atlantic (4), Bergen (1), Camden (1), Cape May (5), Cumberland (11), Gloucester (2) Hunterdon (8), Middlesex (3), Morris (2), Passaic (1), Ocean (2), Salem (3), Somerset (3), Sussex (6) and Warren (12).

By sex, the harvested coyotes were: Male (25), Female (33) and Unknown (6). By pelt color: Black (3), Blonde (22), Typical (36), Red (2) and White (1). A total of 4 of the 64 reported coyotes had mange.

Ten gray foxes were reported via the AHRS during the reporting segment (for a total of 11 so far for the 2023-24 season). Of the ten, 5 were harvested with archery equipment incidental to archery deer hunting, 5 were harvested by shotgun during the small game seasons or incidental to deer hunting, 1 was harvested by muzzleloading rifle and 1 was taken with cable restraint.

Gray foxes were harvested from the following counties: Atlantic (2), Bergen (1), Burlington (1), Gloucester (1), Monmouth (1), Salem (2), Sussex (1), and Warren (1).

By sex, the harvested gray foxes were: Male (4), Female (4), Unknown (2).

#### *Beaver and River Otter*

Beaver and river otter harvests are encouraged to be reported through the AHRs during the course of the beaver/otter trapping season (Dec. 26, 2023 – Feb. 9, 2024). In addition, pelts must be physically measured and sealed at the mandatory check station date on February 24, 2024.

J. Garris set up a query structure within Aspira Insights so that the 2023-24 beaver harvest data could be monitored daily.

Pelt seals and other materials for the upcoming beaver and otter check stations were prepared and organized, and the boxes of materials are awaiting distribution to the check stations.

#### *Northern Bobwhite*

No report.

#### *American Woodcock*

#### *Ruffed Grouse*

No report.

#### *Wild Turkey*

J. Sloan submitted the online Brood Survey Data to the National Wild Turkey Federation Technical Committee to determine poult-per-hen for our survey period (July 1-Sept. 1, 2023). Please see table below, highlighted portion is the Statewide poult-per-hen .

Table 1: Poult-per-hen (PPH) ratios & 95% CIs and standard deviations for each region and at the statewide scale:

Region	PPH	2.5%	97.5%	SE
Central	4.18	3.41	4.99	0.42
North	3.18	2.41	3.96	0.40
South	2.78	2.28	3.33	0.27
Unknown	3.00	3.00	3.00	0.00
Statewide	3.24	2.87	3.67	0.21

J.Sloan met with PA Game Commission personnel on December 13<sup>th</sup> and 18<sup>th</sup> to provide a learning workshop to seasonal technicians who will be participating in the upcoming multi-state hen research project.

J.Sloan met with telemetry manufacturer E-Obs to discuss updating firmware and drivers for currently owned telemetry units. All telemetry units have been programmed and are ready for deployment in January 2024.

*Fisher*

Staff programmed cameras, tested various field equipment, and continue to prepare for the project launch in January. Staff have also spent time in scouting areas for trail camera deployment and securing landowner permissions.

**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 Shortleaf Pine Initiative (SPI).**

*National Bobwhite and Grassland Initiative (NBGI)*

No report.

*Northeast Upland Game Bird Technical Committee (NEUGBTC)*

J.Sloan met with other members of the Steering Committee for the Eastern Grouse Working Group to work on the Strategic Plan on November 30<sup>th</sup> and December 14<sup>th</sup>. Weekly meetings will be held until February to complete this Strategic Plan.

*National Wild Turkey Federation Technical Committee*

*No report*

*Northeast Fur Resources Technical Committee (NEFRTC)*

P. Stark fielded a request from a researcher at Middlebury College to use harvest data on canids to inform research into tick distribution in the Northeast. P. Stark forwarded the request to the chair of NEFRTC for distribution to member states and provinces.

**Objective 4 – To provide technical guidance to landowners interested in providing wildlife habitat on their lands.**

No report.

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

P. Stark spoke with the program chair of the New Jersey Mosquito Control Association Annual Meeting, who has extended an invitation to give a presentation on beaver management during the conference (Mar. 20-22, 2024) in Atlantic City, NJ.

Staff answered numerous questions and provided input to identify various species of wildlife and scat from pictures/videos/audio and conversations with constituents.

**Other**

J. Garriss completed a draft of the Winter 2023-24 Furbearer Newsletter. The draft was sent to P. Stark for approval/editing.

Staff responded to several incidental bobcat captures in Mansfield Twp, Warren County.

Staff assisted the black bear project by manning check stations during the recent hunt.

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**NOVEMBER 2023**

**WATERFOWL - STUDY PLAN IV**

Ted Nichols, Supervising Biologist

Lisa Clark, Senior Biologist

Austin Dammingier, Assistant Biologist

**Objective 1 – Migratory game bird monitoring programs**

*Recruitment Surveys for Atlantic Brant and Tundra Swans*

Program biologists conducted productivity surveys for Atlantic brant and tundra swans. Recruitment is measured on the wintering grounds because these species nest in remote arctic wilderness. Productivity surveys are done by examining flocks of birds with spotting scopes and discerning plumage differences between young and adult birds. Plumage differences in brant are subtle in that juveniles have light-edging on wing coverts whereas adults have uniform-colored wing coverts. Productivity surveys measure the proportion of young in the fall flight and can be used in population modeling. Ancillary data also include the mean number of young in family

groups surviving from hatching through migration to the wintering grounds. Results will be reported in the next monthly segment.

In New Jersey, surveys were conducted 13-20 November and Atlantic brant flocks ( $n=13,090$  birds examined) contained 21.9% young. New York conducted a similar survey ( $n=16,424$  birds examined) and combined with New Jersey data, indicated 20.7% young in the 2023 fall flight. This fall flight ratio was 22% above the long-term (1976-2022) average of 17.0% young and the first time in 6 years where the age ratio was above average.

Program staff conducted recruitment surveys for tundra swans on 11-13 December. Productivity surveys measure the proportion of young in the fall flight and can be used in population modeling. Because tundra swans nest in remote arctic wilderness, recruitment is measured on the wintering grounds. Productivity was 16% young in the fall flight ( $n=50$  birds examined) similar to the long-term average (mean=14% young).

#### *Mid-Winter Waterfowl Survey*

Several logistical arrangements for the 2024 Mid-Winter Waterfowl Survey (MWS) were made. Staff completed appropriate online US Department of Interior flight training modules. NJFW uses US Department of Interior aircraft and pilot at no cost to NJFW. The MWS will be conducted in early January.

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

#### **Objectives 3 and 4 – Research studies**

##### *New Jersey Waterfowl Hunter Survey*

**During fall 2023, staff conducted a comprehensive survey of New Jersey waterfowl hunters. An introductory paragraph and survey link was sent by e-mail to hunters who purchased a NJ Waterfowl Stamp in at least one of the past 3 years and provided an e-mail address. In addition, the survey was sent to over 40,000 individuals who were subscribed to NJFW's Hunting Listserv. A report of survey results is available at:**

**<https://dep.nj.gov/wp-content/uploads/njfw/waterfowl-hunter-survey-2023.pdf>**

Salient points from the survey were:

- Most hunters are satisfied with NJ's current geographic zoning alignment.

- Hunters preferred, by a 5:4 margin, the current 3-zone, 2 segment season (status quo) alignment over a hypothetical 2-zone, 3-segment alignment.
- For duck seasons:
  - North Zone hunters had the strongest preference for the early October split, but hunters were equally divided on whether to maintain the 1-week early split or LENGTHEN the early split to 2 full weeks at the expense of days taken from the second split.
  - South Zone hunters seem to be generally satisfied with season date structure but seem to not understand the tradeoff between hunting in late January at the expense of losing Thanksgiving and late November period.
  - Coastal Zone hunters would prefer hunting to the end of the season framework (Jan. 31).
- Canada goose hunters seemed generally satisfied with season dates in the current 45-day season structure in the North and South Zones. Hunters were satisfied with dates in Coastal Zone.
- Duck hunters preferred the status quo of Sundays closed to duck hunting over a 10-week period versus a hypothetical change whereupon Sundays would open to hunting within an 8.5-week season (both options offer 60 days of duck hunting).
- 20% of waterfowl hunters used guides. ~70% reported excellent or good experience, ~20% mediocre service, and 10% a poor experience. Less than 1% reported an unsafe experience.
- About 40% of hunters only hunted 1 zone while 60% of hunters cross zones for duck hunting.
- Response rate was low at 4.5%. This is standard for convenience surveys. Convenience surveys yield similar results when determining attitudes or opinions when compared to statistically designed, random sampling surveys (e.g., mail surveys) but at a fraction of the cost.

### ***Atlantic Brant Ecology Study***

Program staff distributed maps to Atlantic brant hunters who recovered geolocators during the last 5 years and cooperatively returned the unit for data retrieval. Geolocators store data internally and do not offload their data remotely, thus requiring returning the device to extract the data. Over the course of the study, program staff shipped packages to hunters so they could return recovered units in exchange for a replica device. Canadian Wildlife Service and NJFW staff created 77 maps from hunter geocator recoveries. The collection of maps showed breeding and wintering areas and migratory routes of brant throughout their annual cycle and provided hunters with a visual keepsake.



#### *American woodcock migration ecology study*

During the fall of 2018 and 2019, NJFW worked with several state agencies and study leader Erik Blomberg (University of Maine), using GPS satellite telemetry units on a study of the migration ecology of woodcock in eastern North America. T. Nichols contributed as coauthor by commenting on a revision of a draft manuscript which uses this telemetry data entitled:

*"American woodcock migration phenology in Eastern North America: implications for hunting season timing"*. Lead author is Alex Fish, Doctoral student at UME, and other coauthors include several other state and provincial collaborators. The paper was submitted for publication in the Journal of Wildlife Management.

#### *Sea Duck Fecundity Study*

From 2018 – 2022, Atlantic Flyway states implemented a pilot photo survey to evaluate the ability of digital images to estimate annual productivity of sea ducks. The recent MS graduate work of Jacob Hewitt (State University of New York - Brockport) indicated reliable fecundity estimates can be obtained through the photo survey and a decision to continue the photo survey during 2023. Biologists across the Atlantic Flyway collected photos of scoters (white-winged, black, and surf) and long-tailed ducks during the fall and used plumage patterns to develop age ratios for each species. Reliable estimates of productivity are expected to aid in the development of future population models and inform sea duck harvest management. Program staff collected 30 photos at Avalon from 30 October – 16 November which will be pooled with photos from other states for a flyway-wide productivity estimate for sea ducks.

#### **Objective 5 – To provide technical guidance for enhancement and acquisition of migratory game bird habitats.**

No report.

#### **Objective 6 – Outreach**

No report.

**Extension Services/Other** T. Nichols participated in an exercise to identify statewide wildlife priority threats for the State Wildlife Action Plan.

L. Clark participated in a meeting with NJFW Lands Management, The Nature Conservancy, and various stakeholders concerning design plans for the Hyper Humus restoration project at Paulinskill River WMA.

### **Black Bear Research Project**

Mike Madonia, Principal Wildlife Biologist  
Joe Burke, Wildlife Technician  
Emilia Topp, Biologist Trainee  
Michael Patrick, Wildlife Technician  
Peter Stark, Biologist Trainee  
Maureen Kinlan, Biologist Trainee  
Ryan Ferraro, Biologist Trainee  
Benjamin Laubach, Senior Wildlife Worker  
Christian Nitko, Senior Wildlife Worker  
Amy DeCheser, Wildlife Technician  
Grace Johnson, Senior Wildlife Worker

### **Bear Control: Lethal and Non-Lethal**

The black bear unit received a total of 43 bear calls from November 20, 2023 to December 21, 2023; this compares with 41 calls from the same time period in 2022.

The black bear unit received 8 Category I calls, 13 Category II calls and 22 Category III calls for the time period November 20, 2023 to December 21, 2023; this compares to 1 Category I calls, 22 Category II calls and 18 Category III calls for the same time period in 2022.

The black bear unit received a total of 1358 bear calls from January 1, 2023 to December 21, 2023; this compares with 2209 calls from the same time period in 2022.

The black bear unit received 121 Category I calls, 593 Category II calls, and 634 Category III calls for the time period January 1, 2023 to December 21, 2023; this compares to 234 Category I calls, 1021 Category II calls and 937 Category III calls for the same time period in 2022.

As of December 21, 2023, the total number of calls received by the Division decreased 38.5 percent from the same time period in 2022. Category I incidents decreased 48.2 percent, Category II calls decreased 41.9 percent and Category III calls decreased 32.3 percent for the same time period in 2022. 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 University.

### **Wildlife Nuisance Complaints/ Technical Guidance (Federal Aid Project)**

#### **BREAKDOWN OF COMPLAINTS BY SPECIES**

Bat	1	Opossum	1
Bear	43	Otter	1
Beaver	35	Rabbit	1
Bird	4	Raccoon	3
Bobcat	1	Red Fox	36
Coyote	26	Skunk	1
Deer	56	Swan	1
Goose	1	Turkey	5
Gray Squirrel	2	Unknown	2
Hawk	1		

**178 calls for the Federal Aid Project.**

**Total calls: 221 (\*black bear calls are not included in this project).**