

Endangered and Nongame Species Program
Monthly Report for 16 May – 15 June 2024

Staff:

Kathy Clark, Chief
Christina “Kashi” Davis, Principal Zoologist
Gretchen Fowles, GIS Specialist
MacKenzie Hall, Environmental Specialist II
Emily Heiser, Assistant Biologist
Alex Kisurin, Assistant Biologist/Aquatics
Kim Korth, Assistant Biologist/Planner
Sharon Petzinger, Senior Zoologist
Bill Pitts, Senior Zoologist
Melissa Roach, Biologist Trainee
Kris Schantz, Principal Zoologist
Robert Somes, Senior Zoologist
Brian Zarate, Principal Zoologist
Robert Criollo, CWF Biotics
Daniel Turcios, CWF Biotics

Administration – K. Clark

K. Clark worked on agency planning and policy issues, and regional actions as part of the Northeast Wildlife Diversity Managers technical committee.

Landscape Project –

Staff are meeting monthly with Office of Information Services on the tasks of revising the Landscape Project mapping. Tasks include the review and testing of new species models and model parameters.

Technical Guidance & Policy/Planning – all staff

Staff reviewed and commented on DEP land use permit applications, energy project reviews, and internal NHR land projects.

Staff continued to work with the Office of Environmental Review on outreach to other DEP Divisions conducting permit and plan reviews (e.g., Site Remediation, Solid Hazardous Waste) to discuss the apparent exclusion of E/T species concerns.

Biotics Database – G. Fowles

Biotics staff continued to work on several efforts aimed at streamlining data flow and ingesting data from other or expanded sources that will either flow into Biotics if appropriate or be used to target survey efforts. In addition, new outreach materials were created for NJ Wildlife Tracker with the help of I&E.

Connecting Habitat Across New Jersey (CHANJ) – G. Fowles, B. Zarate, M. Hall

The CHANJ Team had a call with the North Jersey Transportation Authority (NJTPA) as a follow up to our State of CHANJ meeting. NJTPA gave the team a demo of a new spatially explicit “library” program they have developed for planning/recommendations/needs. The CHANJ team was invited to enter several high priority road mitigation locations and accompanying information into the system so that those locations can be considered as transportation planning happens. NJTPA’s new system may be expanded to the two other MPOs in NJ, as well as the DOT in the future.

G. Fowles attended the spring Conservation Blueprint Steering Committee meeting Mercer County, where there were updates related to land conservation, specifically updates on Blueprint, TNC's acquisition efforts, the SADC new formula, State Plan, etc.

G. Fowles continued to participate in Steering and Program Committees calls for the upcoming Northeast Transportation and Wildlife Conference to be held in September in CT.

The CHANJ team put together ideas and materials for the 'Summer of CHANJ' communication campaign and is getting help from I&E and the DEP Communications Office to put the campaign together.

The CHANJ team had a call with the Rowan GIS lab to talk through CHANJ efforts and layers that Rowan is developing that might be useful.

The CHANJ team and a couple of DOT staff had a conversation with Rutgers University's Alan M. Voorhees Transportation Center researchers regarding wildlife corridor efforts in New Jersey.

G. Fowles had a conversation with ARC Solutions as part of TNC's Northeast Transportation and Connectivity Project, wherein best practices are being compiled to inform coordinated integration of wildlife considerations into transportation planning and projects.

The CHANJ team completed and shared a CHANJ priority parcel layer with upper management in the Northern Appalachian Region in NJ.

G. Fowles led the bi-monthly Roads and Wildlife Working Group Meeting, made up of individuals from ENSP, DOT, USFWS, and DEP Watershed Protection and Restoration. Several topics were discussed including follow-up from our State of CHANJ meeting and a desire to address other mitigation issues that arise during permitting for wildlife mitigation projects.

The CHANJ team had a call with Green Acres after a TNC hosted landowner meeting to debrief on the meeting and discuss ways in which Green Acres can incorporate CHANJ information in their parcel reviews with plans to collaborate more going forward.

G. Fowles had a call with researchers from the Rocky Mountain Research Station regarding modeling they are running using the NJ multispecies genetic dataset gathered for the CHANJ gene flow study a couple of years ago. Preliminary results were shared and plans were discussed for putting together a manuscript.

Habitat Conservation Management on Public Lands – All staff

S. Petzinger conducted bird surveys between May 14 and June 7 to evaluate the bird species response to forest management. Approx. 62 managed sites and nine control sites (separate from GWWA) were surveyed.

Species Status Review – K. Clark

The rule amendment to update the lists of endangered and nongame wildlife was published in the NJ Register on June 3. Staff filed the required additional notices on the NJ gov listservs, websites, and press. Public comment is open until August 2.

State Wildlife Action Plan – K. Korth

K. Korth had several meetings with database contractors. Staff tested the habitat association form providing valuable feedback to the contractor. Contractor updated the form, pre-loaded all wildlife SGCN into the form that will allow biologists to more quickly assign habitat to their various life stages. S. Petzinger, R. Somes, K. Schantz, and K. Clark tested the process using several of their species. Data Entry Training is being scheduled.

K. Korth continues to work on process to create Actions for regional threats. The SWAP TAG along with B. Pitts, R. Somes, and A. Kisurin tested the process. ENSP staff also tested the process during a staff meeting. Contractor is creating a form for Action data entry. Korth is working on scheduling meetings for regional Action development with Technical Stakeholders.

K. Korth continues work on content for the digital enabled SWAP, participated in the NE Regional SWAP Coordinator's monthly meeting, and attended the SWAP Learning Series meetings.

HERPTILES

Snake Fungal Disease – K. Schantz

No new report.

Snakes – K. Schantz

K. Schantz has continued re-enlisting trained venomous snake response team members and helping new members become official NJFW Wildlife Conservation Corps members.

K. Schantz is working with the DEP's Grants and Loans office and Rutgers University on the first payment for contracted copperhead research (work conducted in 2023).

SGCN Turtles – B. Zarate and B. Pitts

B. Zarate participated in a monthly bog turtle coordination call and another quarterly or bi-monthly call on communicating regional turtle work.

ENSP seasonal staff are in the midst of standardized wood turtle surveys at three new transects, which will conclude in Spring 2025. The last of the Spring 2024 surveys occurred during this reporting period.

ENSP-organized bog turtle surveys continued during this period, scheduled weekly between April 15 and June 15 at three northern locations. Survey effort goals were met during this reporting period, with the final group survey performed on May 28. This concludes the group surveys at the three northern locations for this calendar year. Group surveys were conducted at five southern locations, with the final survey on June 13.

As part of planned box turtle release project of Law Enforcement-seized turtles, ENSP-organized group surveys started at the target lands to assess the current, wild population of turtles. Two surveys occurred during this reporting period, with no wild box turtles found.

Eastern Tiger Salamander – B. Pitts

No new report.

Diamondback Terrapins - B. Zarate

B. Zarate began identifying potential areas for staff and volunteers to conduct land-based terrapin headcount surveys, beginning in 2025, once regional protocols are available. We are aiming to monitor priority populations, but also range gap areas where existing partners are not currently conducting conservation work. ENSP seasonal staff will ground-truth these areas beginning in the next reporting period.

MAMMALS

Bobcat Project – G. Fowles

There were no reported roadkilled bobcats during the reporting period.

Bat Conservation – M. Hall

M. Hall and several NJDOT personnel met with the DOT's aeronautics unit for a field trial, testing the possible use of drones to inspect and detect presence of bats roosting in bridges, in cases where a thorough visual survey and/or emergence survey is not possible or practical. We tested two different drone models at a structure known to be used by bats every summer. The high-quality images captured by the drones clearly showed guano accumulations on the pier cap (beneath the expansion joint where bats roost), indicating that drones could be a useful survey tool in some "hard to reach" situations.

ENSP field techs continued work to survey bridges for bats, as part of our collaboration with the NJDOT and USFWS. M. Hall continued to co-manage an inflow of data and reports from DOT consultants doing these surveys as well.

A team of researchers from USGS/Virginia Tech visited NJ for two weeks in late May-early June to kick off a project looking into northern long-eared bat distribution and habitat use across central and southern NJ. The project will be a Master's student's thesis project, using acoustic detectors to detect species presence and radio-tracking to locate roosts. During this visit, 15 acoustic detectors were deployed (for a time period of at least 1 month) and nighttime mist-netting was done on a few state forests and wildlife management areas. One northern long-eared bat was captured in central NJ and tracked to one roost tree.

Maternity colony monitoring is underway at bat houses, barns, and other annual roost sites that participate in the NJ Summer Bat Count. The Conserve Wildlife Foundation of NJ provides much of the access coordination and field support for the project.

M. Hall gave guidance to approx. 12 homeowners and nuisance wildlife control companies related to issues with bats in buildings during this period.

Allegheny Woodrat – G. Fowles

G. Fowles led a regional woodrat working group meeting with representatives from several states and zoos across the region focused on the captive breeding programs that are being initiated for the first time this year. The group also met subsequently to specifically discuss several "nuisance" Allegheny woodrats that were trapped in Virginia and needed to be re-homed. It was decided that several of the woodrats would be founders for captive breeding programs in Maryland, Ohio, and Pennsylvania. The

others would be translocated to occupied woodrat habitat in IN, PA, and NJ to help increase genetic diversity in those populations.

ENSP collaborated with EcolSciences and Picatinny Arsenal to deploy bait tubes and cameras at a historic woodrat site within Picatinny where an unidentified rodent was picked up on a camera last fall.

BIRDS

Colonial Waterbirds – C. Davis

C. Davis, M. Roach and contractors completed aerial surveys for wading birds (late May) and gulls, terns, and skimmers (early June). Data is anticipated to be compiled and analyzed in later summer and early fall so results are not yet available but nearly 300 (current and historic) marsh island colonies were surveyed. The lack of a large storm/flooding in May and June meant that the colonies were looking robust and full of nests/chicks. If the weather holds, marsh-nesting species are anticipated to have a good reproductive year, even though many of their overall numbers are down from historic highs.

Beach-Nesting Birds - C. Davis & E. Heiser

Beach-nesting bird activity reached its peak on state and municipal beaches in mid-June. NJFW and partners participated in the range-wide Piping Plover census held June 1-9 each year. This is an effort to document all known nesting pairs across the range and any unpaired birds that may be prospecting different areas. C. Davis and E. Heiser expect the pair number in the state to drop considering poor productivity in 2023 but remain hopeful for the season that productivity will be on the rise. The first fledglings of the season are expected in the last two weeks of June.

In an effort to better understand American Oystercatcher fledging results, a pilot study looking at chick provisioning began this season. Data is currently being collected by field technicians and results will be analyzed in the coming months.

Colonial species nesting activity increased in June. Two large colonies of Black Skimmers are now situated at Stone Harbor Point and Horseshoe Island. Least Terns have settled into only a handful of colonies this year. Common and Royal Terns are also currently breeding in the state at monitored nesting sites.

Horseshoe Island continues to provide excellent conditions for beach-nesting birds. Few incidents of human disturbance have been documented so far this season. NJFW Law Enforcement has been instrumental in enforcing the closure of the island.

Bald Eagle Monitoring - K. Clark

To date, ENSP and CWF-NJ have reported 248 active eagle nests statewide, plus 17 territorial and 51 in the unknown category. Data and observations from volunteer nest monitors will continue to come in through early August.

Staff documented and took possession of several deceased eagles found across the state or died while in rehab care. Dr. E. Miller has been conducting the necropsies to document causes of death.

Peregrine Falcon Monitoring – K. Clark

Staff and volunteers are monitoring nests and maintaining trailcams on coastal nests for a prey study. We've documented high turnover in nesting adults that suggests mortality that may be related to HPAI. Staff will be banding all accessible nestlings with field-readable bands during May and early June. Three nests are visible on webcams: [Union County courthouse](#), and [two bridges](#) owned by Burlington County Bridge Commission.

American Kestrel – B. Pitts

As quickly as the kestrel nesting season began, the ending of the season is already coming into focus. Barring any late nesting attempts, the season total for 2024 will be 138 attempts. By the end of just the third week in June, the fate of 108 nest boxes (78.3%) is already known. Just 18 (16.7%) have failed and 90 (83.3%) have been successful. Banding was missed at 2 boxes, the first one belongs to a landowner new to the kestrel project who installed the box in an inaccessible way, the second had fledglings earlier than expected.

There have been 55 adults captured so far this season (49 female, 6 male), with 22 newly banded and 33 recaptures (60%). Total chicks banded in 88 nest boxes stands at 382 (4.34 young/box). While we will not likely top 500 chicks in the 2024 season, we may get very close to that with the remaining nests.

Osprey Monitoring – K. Clark

Staff and CWF biologists are preparing for nest surveys that begin in late June.

Other Raptors – K. Clark

Staff are coordinating with partners on nest checks and banding of Barn Owls in Cape May and Cumberland counties.

Migratory Shorebirds – B. Pitts

The 2024 shorebird migration through the Delaware Bay was already coming to a close just days after Memorial Day. By the time the last aerial survey for the season was flown on Tuesday May 28, the only species with sizeable flocks still on the Bay were Semipalmated Sandpipers. All seasonal beach restriction postings were left up for the following weekend, but as there were no large, late-season flock arrivals, all signs and posts were removed on June 3. Shorebird stewards covered important beaches on weekends baywide starting May 11 through Memorial Day.

The peak count was recorded on the May 23 baywide aerial survey, when 14,225 Red Knots were counted (13,970 in NJ, 225 in DE), and 21,481 Ruddy Turnstones (13,045 in NJ, 8,436 in DE). The last aerial survey was conducted on May 28, when 181 Red Knots were counted (171 in NJ, 10 in DE), and 3,470 Ruddy Turnstones (2,153 in NJ, 1,317 in DE).

Secretive Marsh Birds – C. Davis and E. Heiser

C. Davis and the Black Rail hourly technician continue call-playback surveys and acoustic unit recording of high marsh habitat in an effort to locate Black Rails. As of this month's report, no Black Rails have been detected by either survey method, a disappointing and somewhat distressful outcome. Further, Davis is not aware of any reports of Black Rails in the state at all, including from the public. Staff worked with I&E on an informational video about Black Rails that will be posted in the near future.

Scrub-shrub/Open Field birds (GWWA) – S. Petzinger

S. Petzinger participated in an advisory team meeting for the federal status assessment for GWWAs and is compiling data to help inform the assessment.

S. Petzinger conducted bird surveys targeting golden-winged warblers between May 16 and June 10. Approx. 39 locations (separate from forest mgmt) were surveyed.

Regional & National Bird Coordination – S. Petzinger

S. Petzinger is participating in the Wood Thrush range-wide nanotag research project. Deployment of nanotags on Wood Thrush breeding on state lands near existing MOTUS stations began on June 1. Half of the 24 active nanotags were deployed in six days from June 1 through June 15.

INVERTEBRATES & AQUATICS

Butterflies, Dragonflies and other Insect Species – R. Somes

R. Somes and seasonal staff and volunteers conducted dragonfly surveys at a variety of sites throughout the state with numerous occurrences of listed species documented. Some points of interest record-early emergence dates of a large number of species and the discovery of a new Grey Petaltail population in northern NJ, and a new population of Sable Clubtail in southern NJ. Previously, Sable Clubtail was only known from northern NJ.

R. Somes and seasonal staff worked on several habitat management projects for the Frosted Elfin butterfly in Cape May County. Site assessments were conducted for future habitat management and 100 Wild Indigo plants were planted at 3 different restoration sites. Further management and planting efforts are planned for August and September when environmental conditions improve.

R. Somes conducted habitat assessments and scouting surveys for the Northern Metalmark butterfly to plan upcoming management efforts and surveys. Several new areas of potential habitat were documented and will be part of this summer's survey effort.

Pollinators – R. Somes

R. Somes met with Joint Base Dix McGuire Lakehurst staff to plan pollinator management projects on the base.

Freshwater Mussels – R. Somes, A. Kisurin

R. Somes attended the Chinese (Silty) Pondmussel Management Working Group meeting at Rutgers University. Topics included upcoming surveying and management needs as well as budgetary shortfalls related to this year's eradication efforts planned for the Wickecheokee Ponds. NJ Conservation Foundation was able to secure additional funding from the NJ Corporate Wetlands Restoration Partnership to finance the treatment of the ponds and treatment was conducted over the course of one week in June. Surveys for live mussels failed to detect any living CPM but numerous shells were found as well as some potential juvenile mussels that will be sent for analysis. Follow up surveys will be conducted and Rutgers is in the process of developing a more refined eDNA analysis. Rutgers University is in the process of developing an Early Detection and Rapid Response Management Plan for Chinese Pondmussel to help address any future occurrences of this or other similar aquatic invasive species.

A. Kisurin assisted the US Fish and Wildlife Service (USFWS) with freshwater mussel eDNA surveys on the Raritan River and Flat Brook. The objective was to compare eDNA results with previous Brook

Floater records and evaluate the effectiveness of mussel community assessments. Six sites were sampled at each water body.

A. Kisurin conducted a snorkel survey for mussels at Dart's Mill, in collaboration with non-profit partners and the Davies Environmental Group. The purpose of the survey was to relocate any live mussels in preparation for upcoming stream alteration activities.

eDNA TECHNOLOGY – A. Kisurin

As noted above, A. Kisurin assisted the USFWS with eDNA surveys of mussels from the Raritan River and Flat Brook. These surveys will investigate Brook Floater records and the effectiveness of mussel community assessments.