

Endangered and Nongame Species Program
Monthly Report for 16 April – 15 May 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 contributed to reviews of DEP draft rules and rule amendments.

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 catching up on entering backlogged data from the past several years into the Biotics database, as well as working on several other efforts aimed at streamlining data flow and ingesting data from other or expanded sources.

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

The CHANJ Team hosted two “State of CHANJ” meetings on April 18, in person at the Assunpink Wildlife Management Area; the morning meeting focused on land acquisition and management and the afternoon meeting focused on transportation strategies related to habitat connectivity in NJ. These by-invite meetings brought together close to 50 colleagues in total, including both internal (DEP)

personnel and others from outside our agency. We updated everyone on the main accomplishments and tools of CHANJ since the project launched in 2019, reviewed some of the challenges we've faced in implementing connectivity goals, and sought ideas about strategies and collaborations to help accomplish more, more efficiently, together. We are following up with several attendees/groups to further those discussions.

The CHANJ Team continued internal (DEP) meetings in the weeks after our State of CHANJ meetings, both to debrief on the outcomes and next steps from the meetings and to plan out larger-scale CHANJ outreach campaigns. The team also finalized new CHANJ stickers, magnets and CHANJ/NJ Wildlife Tracker postcards with the help of I & E and will start distributing.

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.

M. Hall had a web meeting with a counterpart from New Hampshire Fish and Game and her non-profit partner, to share design advice and insights on installing an amphibian road-underpass system as they explore the idea for a roadway in NH. The CHANJ Team also continue to work with Watershed & Land Management advising on road mitigation projects in New Jersey.

ENSP seasonal staff began conducting North Atlantic Aquatic Connectivity Collaborative (NAACC) culvert inventories on a prioritized list of structures that intersect the CHANJ mapping. They also developed an online map to coordinate survey efforts across agencies that now that additional organizations have NAACC trained staff including DOT and Bureau of Freshwater Fisheries.

Habitat Conservation Management on Public Lands – All staff

S. Petzinger conducted the first of two grassland surveys at South Branch WMA on May 6.

Bird surveys to evaluate the response to management began on May 14.

Species Status Review – K. Clark

Staff completed edits to the draft rule amendment for species status updates.

State Wildlife Action Plan – K. Korth

K. Korth had several meetings with database contractors. K. Korth, G. Fowles, and K. Clark met with BGIS and database contractor to begin the planning process for the SWAP Query tool and web-enabled SWAP.

Public Comment Period for the list of Species of Special Concern closed on May 10th. Over 50 comments were received, substantive comments were addressed. K. Walz with Natural Heritage Program finalized her list of plant SGCN along with their selection criteria – public comment period will open later in May for the plant list.

K. Korth continues to 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

Snakes (pinesnakes, cornsnakes, kingsnakes, rattlesnakes) have occasionally been observed/reported exhibiting minor to moderate symptoms of snake fungal disease. When such snakes have been

observed (often by Pinelands Commission research personnel) prior to true emergence (i.e., snakes surfacing in winter to bask and heal), the snakes have been transferred to Woodlands Wildlife Refuge for care.

Snakes – K. Schantz

K. Schantz has begun re-enlisting trained venomous snake response team members and held two trainings (16 people including one retrained).

Through the DEP's Grants and Loans office, K. Schantz provided collective responses to questions from prospective grant applicants for a copperhead survey technique development grant. The grant opportunity had been posted in March.

ENSP seasonal staff have continued to work with ENSP's research partners, the Friends of Hopewell Valley Open Space, on copperhead research in central NJ.

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 3 new transects, which will conclude in Spring 2025.

ENSP-organized bog turtle continues during this period, scheduled weekly between April 15 and June 15 at three northern locations.

Significant planning continued for the box turtle repatriation project later this summer. A release site was identified and coordination with BLM staff continued, as the likely location will be a WMA. As part of this effort, health samples were taken from two batches of confiscated turtles and results will be available from the lab within the next month. ENSP-organized group surveys have started at the target WMA to assess the current, wild population of turtles.

Eastern Tiger Salamander – B. Pitts

No new report.

Diamondback Terrapins - B. Zarate

No new report.

MAMMALS

Bobcat Project – G. Fowles

There were 2 reported roadkilled bobcats. Both carcasses were recovered, mapped and sampled.

Tick and blood samples collected by ENSP and/or E. Miller during necropsy from 30 bobcat individuals, were shared with Rutgers professor Jim Occi for an ongoing research project.

G. Fowles is working on a collaborative research project with the University of Delaware and NJDOT that received funding from NJDOT for both the scoping and 2-year study. The project involves analyzing bobcat habitat connectivity in NJ via cameras under 6 major highways as part of a Master Thesis project and will kick off in May.

Bat Conservation – M. Hall

After receiving a call about a possible bat “sighting” (chirps reported) at the entrance to a former military battery in Monmouth Co., M. Hall joined grounds staff and naturalists on site to inspect two bunkers on April 23. No bats were found using the structure where the possible bat sounds were heard, but seven hibernating tricolored bats were found roosting throughout the second bunker. This surprise discovery confirms a “new” bat hibernaculum for our records, a new location for tricolored bats in NJ, and the southernmost known bat hibernaculum in the state. It has led to a renewed interest in surveying other former military batteries in NJ. A mid-winter follow-up survey will be done this coming winter.

A NJ Natural Lands Trust technician at Petty's Island (L. Cairnes) continued to maintain an acoustic detector on the island and will continue acoustic bat surveys through the summer. The island is located roughly between Camden NJ and Philadelphia PA in the Delaware River.

J. Martinez (technician) continued with acoustic monitoring outside a highway box culvert in Sussex County, where a tricolored bat was found roosting last May. During his maintenance visit on May 6, a single male tricolored bat was again found roosting inside the structure. This is further evidence that the culvert (which is approx. 300 ft long, 7 ft tall and 12 ft wide) is used as a migration stopover by at least this one individual bat. Our findings are shared with NJDOT and the USFWS NJ Field Office for consultation purposes, since this structure is scheduled for replacement in the next couple years and will require conservation measures for tricolored bat, a proposed state endangered and federal endangered species.

M. Hall worked with project partner L. Wells (Conserve Wildlife Foundation) to process our 2023 NABat summer acoustic survey data, write a report of our volunteer-based Mobile Acoustic Bat Survey 2023 results, and prepare the mobile data to upload to the NABat partner portal.

Allegheny Woodrat – G. Fowles

G. Fowles led a regional woodrat working group meeting in early May with representatives from several states and zoos across the region. The focus of the call was an update on captive breeding programs for Allegheny woodrats that are starting up this year. The Maryland Zoo received its first founder from PA in April. The female founder was pregnant and gave birth to 3 pups at the zoo. [A press release](#) about the founder and effort was released. The Toledo Zoo is also nearing ready to initiate its captive breeding program. NJ will likely not contribute founders to the effort but will receive captive bred individuals to increase genetic diversity and population numbers.

BIRDS

Colonial Waterbirds – C. Davis

C. Davis finalized preparations for the regional survey of colonial waterbirds that will take place in late May and early June. She sought out new information on inland night-heron colonies and recruited volunteers to survey those nests.

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

Seasonal technicians have been out monitoring and managing beach-nesting bird sites. Nests for Piping Plovers and American Oystercatchers have been documented. Active predation management is ongoing at various sites as levels of depredation are already high on all beaches. Non-lethal predation management techniques will be trialed again this season.

Signage and posts were placed on Horseshoe Island to further protect nesting birds and ENSP staff continue to work and communicate with NJFW Law Enforcement on enforcing the closure of the island – no major incidents to report at this time.

E. Heiser and C. Davis worked together to launch a pilot research study on the provisioning rate of American Oystercatchers to their chicks. Initial review of long-term banding data indicated that chicks on recreational beaches are overall heavier at banding than chicks being reared on low disturbance beaches. To better understand this phenomenon, staff will be conducting brood observations on chicks across the state (including state, federal and NGO-managed beaches). Initial project kick-off meeting was held in the beginning of May and staff will be collecting data throughout the summer. The first American Oystercatcher nests hatched in mid-May.

Black Skimmers and Least Terns have been regularly noted in the state. Colonial nesting species will begin nesting over the next month.

Bald Eagle Monitoring - K. Clark

To date, ENSP and CWF-NJ have reported 246 active eagle nests statewide, plus 13 territorial and 46 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 of May 15, there are 129 confirmed nesting attempts. This total already exceeds the 2023 season of 125 attempts, and there is still at least a month of nest initiation left in the season. Of these attempts, 11 nests have hatched, and one has failed. Banding of young will begin next week.

There have been 42 adults captured so far this season (38 female, 4 male), with 19 newly banded adults and 23 recaptures (54.8%). There have been a few noteworthy recaptures, first a female with individually inscribed flag 5A7 was a recapture of a bird banded as a fledgling last year in NH. This is the farthest north recapture by ENSP. Shortly after, B. Pitts recaptured a female at Duke Farms that was banded as an adult in 2017, which makes that bird in at least its ninth year, a longevity record for the project. Last, we recently recaptured a female that was rehabilitated by Woodford Cedar Run last summer. This bird was found alone at the Joint Base last summer, and she was held until she was proficient at flying and hunting.

Osprey Monitoring – K. Clark

No new report.

Other Raptors – K. Clark

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

Migratory Shorebirds – B. Pitts

All Delaware Bay beaches were posted for seasonal access restriction that will be in place between May 7 and June 7 to provide protection of feeding and roosting beaches for migratory shorebirds. Two resighters were trained and have been collecting flag resighting data in the field. Shorebird stewards began working on important beaches on May 11, and they will be present until after Memorial Day.

Shorebirds are more evenly disbursed along the Bay than they were last year. Large flocks have been observed on beaches throughout Cape May and Cumberland Counties. The first of three aerial surveys was conducted on May 16, and a total of 3,845 Red knots were counted on the Bay (3,635 in NJ, 210 in DE).

Secretive Marsh Birds – C. Davis and E. Heiser

C. Davis trained her hourly technician on how to conduct call-playback surveys and deploy acoustic recording units in areas around the Cumberland, Cape May, and Atlantic coastal marshes to survey for Black Rail. Her technician has taken to this work very well, and 2 (of 5) rounds of call-playback surveys have taken place, surveying 40 points. Acoustic recording units were placed at seven locations and have been moved every two weeks, thus sampling 14 locations. There was no Black Rail technician in 2023, but ARUs were placed and the 2024 technician is working on analyzing those results, helping to reduce this backlog. C. Davis and A. Kisurin worked with an outside partner, who applied for funding to support a Black Rail eDNA project in 2025, in hopes of increasing the techniques available to detect this highly secretive bird.

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

S. Petzinger attended a virtual Golden-winged Warbler Working Group meeting on April 22.

Golden-winged warblers began arriving in New Jersey end of April/early May. A male was observed on breeding territory April 30.

S. Petzinger will participate on the advisory team for the federal status assessment for GWWAs and is compiling data to help inform the assessment.

Regional & National Bird Coordination – S. Petzinger

S. Petzinger is participating in the wood thrush range-wide nanotag research. Deployment of nanotags on wood thrush breeding near existing MOTUS stations will begin end of May/early June.

INVERTEBRATES & AQUATICS

Butterflies, Dragonflies and other Insect Species – R. Somes

R. Somes conducted surveys for Hoary Elfin in several areas of Warren Grove and Stafford Forge Wildlife Management areas to assess the impacts of last year's wildfire on the population at these locations. The foodplant has rebounded from the fires and several Hoary Elfin were observed.

R. Somes and Department of Defense Staff conducted surveys for Hoary Elfin, Frosted Elfin and Hessel's Hairstreak on the Joint Base Dix McGuire Lakehurst. A new population of Hoary Elfin was

documented, and some conservation and habitat management projects were planned to benefit the Frosted Elfin population at this site. Photo of a Hoary Elfin on Bearberry, its larval host plant:



R. Somes and Information and Education staff and the Curators for the NJ State Museum met and discussed the upcoming Ecosystems of New Jersey and their Conservation exhibit. The layout of the exhibit was discussed as well as material needs such as photos, videos, and specimens for display.

Volunteer staff are conducting odonate surveys in northern New Jersey and recorded several record early emergence dates for a variety of species along with a new Harpoon Clubtail site.

Pollinators – R. Somes

R. Somes met and worked together with camp staff on pollinator habitat management project planning at Mount Allamuchy Scout Reservation. Camp staff are interested in implementing habitat management projects and plantings to benefit native pollinators and butterflies.

R. Somes worked with an Eagle Scout on a pollinator and butterfly garden project in Stanhope, NJ. Met with Woodbridge Township Parks staff and local volunteers to help create several areas of pollinator habitat on public property in the township.

R. Somes met with NJ State Forest Service staff to plan upcoming pollinator and butterfly conservation plantings and propagation at the State Tree Nursery, plus habitat management projects at the facility.

Freshwater Mussels – R. Somes, A. Kisurin

R. Somes met with the Chinese Pondmussel Working Group to discuss planning for this spring's surveys and the eradication effort at the original pond site.

The USFWS funded 3 days of physical surveys for the Chinese Pondmussel in the Raritan and Millstone Rivers and R. Somes and A. Kisurin provided survey and technical assistance during the surveys. No Chinese Pondmussels were documented but a variety of native mussels were observed. A large number of Eastern and suspected Giant Floaters were observed and genetic samples were taken to confirm identification and ensure that any mussel of unusual morphology were not Chinese Pondmussels. Several rare species were documented in an entirely new stretch of river previously lacking records. Two Creepers (SC) and one Triangle Floater (T) were observed as well as a single Tidewater Mucket was also found. The Tidewater Mucket was a unique find because before this survey, this species was only known from the Delaware River and its tributaries from the area of Trenton and south.

R. Somes conducted a freshwater mussel survey at Lake Hopatcong and in the Musconetcong River to plan for this season's Brook Floater surveys and documented several fresh Eastern Lampmussel (T) valves in the lake. A. Kisurin participated in the Brook Floater Conservation Working Group meeting.

R. Somes and A. Kisurin met with the NJ Freshwater Mussel Conservation Group at an annual working group meeting where a variety of topics were discussed, including eDNA, Brook Floater

grant, and Chinese Pondmussel. The working group is planning a mussel conservation and identification workshop this summer with the Raritan Headwaters Association.

eDNA TECHNOLOGY – A. Kisurin

A. Kisurin and K. Davis met with representatives from Rutgers University to discuss the implementation of eDNA surveys aimed at monitoring the presence and population of Black Rail. The meeting focused on the methodologies, logistical considerations, and potential collaboration opportunities for the eDNA surveys.

A. Kisurin attended a meeting hosted by the US Fish and Wildlife Service that concentrated on DNA-based water quality monitoring techniques. The discussions covered innovative methods for assessing aquatic health, with a particular focus on the application of DNA technologies to track and manage aquatic ecosystems effectively.

A. Kisurin, alongside NJ Fisheries representative S. Collenburg, C. Sedor, and K. Civalier, conducted eDNA sampling at the state hatchery. The purpose of this activity was to monitor for the presence of a bacterial pathogen that poses a threat to salmonid species. The team collected samples and analyzed them to ensure the health and safety of the hatchery's fish population.

Photo of the month: Kathy Clark rappelling to band the Palisades Peregrine Falcon chicks.

