

**Endangered and Nongame Species Program
Monthly Report for 16 November - 15 December 2024**

Staff:

Kathy Clark, Chief
Christina “Kashi” Davis, Principal Zoologist
Gretchen Fowles, Research Scientist II
MacKenzie Hall, Environmental Specialist II
Emily Heiser, Senior Zoologist
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 planning and policy issues and regional actions as part of the Northeast Wildlife Diversity Managers technical committee.

Landscape Project –

Staff completed review of revised Landscape Project mapping. The revision will be released concurrent with the species status changes adoption on January 6, 2025.

Technical Guidance & Policy/Planning – all staff

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

Staff continued to work with the Office of Environmental Review to address issues with DEP units conducting permit and plan reviews. Staff assisted in making suggestions for site remediation rules that would improve compliance with ENSCA.

Biotics Database – G. Fowles

Biotics staff continued the ongoing work of processing rare species data from NJ Wildlife Tracker into Biotics. Biotics staff also continued to work on building species specific range maps for the State Wildlife Action Plan update and incorporated all new SGCN species into Biotics and the ENSP database and preparations are being made to update the list of species represented in NJ Wildlife Tracker to expand the list and make updates to common and scientific names to coincide with the new species listing rule.

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

M. Hall represented the CHANJ project as part of the DEP Fish and Wildlife exhibit at the League of Municipalities.

G. Fowles coordinated and led the bi-monthly Roads and Wildlife Working Group meeting, attended by staff of ENSP, DEP's Land Resource / Watershed Protection staff, NJDOT, and USFWS. Various updates were provided on collaborative projects, and the new NJ FHWA representative joined the call and will participate in future calls and provide the group updates from FHWA. Separately, members of the CHANJ Team met with individuals from DOT, Land Use, consultants, and Green Acres about a project along Route 70 that is in the pre-application phase and would be a good location for a wildlife passage system.

The CHANJ Team identified a North-South corridor through central NJ using the CHANJ mapping for future prioritization efforts including prioritization of parcel protection along the route and a wildlife crossing feasibility study.

Habitat Conservation Management on Public Lands – All staff

S. Petzinger summarized data and presented preliminary results about invasive plant response to forest management and impacts on bird habitat at the fall meeting of the NJ Chapter of The Wildlife Society. In summary, there was a weak negative correlation between canopy cover and invasive plant cover, which means managing forests to open the forest canopy often does not result in invasive plant cover. Instead, invasive plant cover was higher in unmanaged wetland sites, and other likely confounding factors effecting invasive plant cover included deer abundance, and proximity to residential and/or agricultural areas. Bird SGCN, however, had a strong negative correlation with canopy cover, a strong positive correlation with herbaceous cover, and a weak positive correlation with invasive plant cover. Birds do not avoid breeding in areas with invasive plants, and in areas with high deer densities, invasive shrubs may provide the only suitable structure for shrub-nesting birds. That said, invasive shrubs likely result in reduced vegetative diversity and caterpillar abundance, an important food source for birds during the breeding season.

Species Status Review – K. Clark

The species status changes proposed in June are scheduled for adoption on January 6, 2025. A revised version of the Landscape Project critical habitat mapping will be released the same day. In addition, a related proposal will be published to amend the status of NJ Chorus Frog from unknown to special concern; this change was overlooked in the June proposal that contained over 100 amendments.

State Wildlife Action Plan – K. Korth

K. Korth completed the final review of actions addressing regional level 3 priority threats. Korth worked with DJ Case (contractor) to finalize the action prioritization process. B. Zarate and K. Korth reviewed options to collect prioritization data from FW staff and invited technical stakeholders. Korth worked with DJ Case to create a simplified spreadsheet for data collection. DJ Case created a "how-to" video for staff and stakeholders explaining the prioritization process and Korth wrote instructions. A few ENSP staff will do a final run-through of the process later in December. This task will be assigned to FW staff and invited stakeholders in early January.

Korth completed first draft of statewide actions that incorporated actions from regional plans, USFWS program plans, and ENSP's federal aid grants.

R. Criollo and D. Turcios revised and presented draft range maps for marine species to H. Corbett and B. Neilan who approved them.

K. Korth continues drafting content for the digital-enabled SWAP, including working with seasonals on Species Profiles; and participated in the NE Regional SWAP Coordinator's monthly meeting, and the NE Database Steering Committee Meeting.

K. Korth attended a Better Buildings seminar to learn best practices to avoid bird strikes.

HERPTILES

Snake Fungal Disease – K. Schantz

No new report.

Snakes – K. Schantz

K. Schantz began working with the DEP's Grants and Loans Office and OPTLA (legal counsel) to draft the Grant Agreement with Friends of Hopewell Valley Open Space (FoHVOS) to fulfill the awarded Eastern Copperhead Survey Technique Development and Assessment grant. She also began compiling copperhead data to share with FoHVOS as part of this Grant Agreement.

K. Schantz coordinated the effort to have ENSP's Biotics personnel and researcher, Tyler Christensen, begin mapping the boundaries of copperhead dens and gestation sites/rookeries for more accurate representation of these sensitive areas. During this field work, personnel cataloged sites with photographs for future use.

K. Schantz has continued to gather time/mileage sheets from the Venomous Snake Response Team volunteers.

SGCN Turtles – B. Zarate and B. Pitts

B. Zarate participated in regional bog turtle calls this month centered around the coordination of a Hudson-Housatonic Recovery Plan meeting that was held on December 10. New Jersey provided an update at the meeting to the group on 2024 recovery actions for bog turtle within the unit and other relevant updates such as the upcoming update to our species status/listings, launch of an updated Landscape Project, and a revised State Wildlife Action Plan.

There were no meetings for wood or spotted turtle this period.

NJ continued to explore the potential for a Competitive-SWG grant to continue and expand work on box turtles in the Pinelands region, in coordination with the Pinelands Commission. B. Zarate held a meeting with USFWS grants staff to review project ideas and how well they would rank. We are also investigating the capacity and interest for a multi-state C-SWG on box turtle with Maryland, Pennsylvania, and Massachusetts and states will have a check-in call on Dec. 18 on this.

B. Zarate provided comments on the 2026 Fish Code, in coordination with management and Bureau of Freshwater Fisheries, to update the code in relation to changes to snapping turtle regulations and harvest.

ENSP turtle seasonals finalized fall wood turtle surveys this period. Standardized surveys are being conducted at three transects this fall as part of our overall demographic assessments where each transect receives nine total visits (3 spring, 3 fall, 3 spring).

The box turtle “re-wilding”/release/repatriation project concluded this period in relation to weekly tracking of the cohort. All turtles were tracked to their brumation/overwintering site. Bringing tracking data into GIS will occur next reporting period and first season results will be shared with appropriate staff and managers ahead of next season.

Eastern Tiger Salamander – B. Pitts

B. Pitts and A. Kisurin have continued to coordinate with DEP, NGO, Cornell, and regional working group partners to plan for the upcoming and 2025-26 field season projects. Staff from DE Fish and Wildlife have expressed a willingness to host a C-SWG grant application for regional eDNA work for the 2025-26 field season.

Conserve Wildlife Foundation (CWF) staff have purchased supplies for adult salamander marking for this season. B. Pitts and CWF staff have continued to monitoring water levels at key sites, and even with the recent rains, there is only shallow standing water at a few sites.

Diamondback Terrapins - B. Zarate

Coordination calls continued related to the active Northeast RCN terrapin project, specifically Job 1, which is standardized headcount surveys from land or water. NJ will identify land and water routes for these surveys that will be surveyed primarily by volunteers to generate match for the overall grant.

B. Zarate coordinated a meeting with Marine Fisheries and NGO partners to receive a group update from Marine on 2024 terrapin BRD trials and plans for 2025, including where ENSP and partners may be able to assist. Next steps include exploring avenues for 3D printing of novel BRD sizes/dimensions and conducting some controlled indoor tank trials this winter.

B. Zarate gave a virtual presentation on nongame conservation to a class at the Marine Academy of Technology and Environmental Science, where terrapin partner and researcher Dr. John Wnek is a teacher and supervisor.

A small team continued planning for the 10th Triennial Meeting on terrapin conservation, a national meeting that is scheduled to be held in Cape May in October of 2025.

MAMMALS

Bobcat Project – G. Fowles

G. Fowles discussed testing of lungworms in bobcats (tissue and fecal samples) with E. Miller, P. Connelly, J. Groff, and J. Neugebauer. E. Miller will continue to collect tissue samples from bobcats she necropsies and will also collect fecal samples from any bobcat in hand to freeze and analyze.

A master’s degree candidate from University of Delaware was invited to give a presentation to the ENSAC on a collaborative study she is working on with ENSP and DOT, monitoring 40 structures under 6 major east-west running highways in CHANJ mapped areas for use by bobcats and other mammals.

There were 5 reported roadkilled bobcats. All 5 carcasses were collected, necropsies were performed and samples taken. There were also 9 bobcats reported trapped that NJFW responded to during the reporting period. Samples were taken from all individuals.

Bat Conservation – M. Hall

M. Hall and Rutgers PhD student D. Fisher began fleshing out details for a pilot investigation using air filter techniques to sample for environmental DNA (eDNA) outside three or four bat hibernacula this winter. This pilot is our first step to see whether this type of sampling can detect presence of bat species hibernating in different types of features with varying air flow (mine/tunnel/structure).

M. Hall discussed with the NJDOT potential follow-up surveys in 2025 at four bridges where guano samples and/or acoustic recordings have indicated presence of rare bat species (eastern small-footed bat, tricolored bat).

M. Hall completed and submitted reports on acoustic bat survey results and other 2024 activities on Monmouth and Hunterdon county park lands, and requested access for work planned for 2025.

Allegheny Woodrat – G. Fowles

G. Fowles led the bi-monthly regional woodrat working group meeting with representatives from several states and zoos across the region. Topics discussed included a captive breeding program update from the 6 zoo facilities interested in a program. Maryland Zoo, Toledo Zoo, and Zoo America now have woodrats at their facilities and Maryland Zoo may beginning attempting breeding in late January. Other topics discussed included how the group will track translocations/reintroductions efforts and statuses, and biologists from the PA Game Commission gave a presentation on supplemental feeding and associated trapping results as well as habitat work they've conducted including building talus "stepping stone" habitat between extant sites to increase habitat connectivity and associated trapping results. Lastly, OH expressed interested in leading a C-SWG regional grant for Allegheny woodrats. A call scheduled for late December is planned to brainstorm ideas and assess interest among states and zoos.

BIRDS

Colonial Waterbirds – C. Davis

C. Davis posted the results of the aerial and ground 2024 surveys on the NJFW website. In general, the number of individuals has stayed relatively stable for most species, but the number of colonies is quickly declining. C. Davis continued to work on spatial data from the aerial survey, trying to get it into the AKN (Avian Knowledge Network) for the regional survey effort across the coast.

C. Davis and E. Heiser also continued to work on planning efforts for a habitat enhancement project in Hoboken for Common Terns nesting in an urban environment.

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

The annual statewide Beach-Nesting Bird meeting, organized by ENSP staff, will be held on December 17, 2024. A comprehensive report on nesting and the management of Horseshoe Island will be available in early 2025. The Shore Protection Rule proposal will appear in the NJ Register on December 16, 2024.

Bald Eagle Monitoring - M. Roach

The 2024 Bald Eagle report is basically complete and will be posted on the F&W website soon. It includes productivity stats, nest monitoring details, resightings, and mortalities. In summary, 293 eagle pairs were monitored. Of which, a record 264 were documented to be active (with eggs) and 29 were territorial or housekeeping pairs. There were 20 new eagle pairs found this year. We had 241 nests with known outcomes (i.e., failed or successful fledging). Of these, 182 (76%) successfully fledged at least one young. In total, there were 288 fledglings resulting in a productivity rate of 1.2

young per active nest. Nests with unknown outcomes were not included in the productivity calculation.

There were 4 eagle mortalities the past month, bringing the mortality total for 2024 to 54 birds. Two eagles were euthanized due to their injuries, which were likely the result of eagle combat. One died in transport to wildlife rehab (necropsy pending). The other, found dead in Princeton, had been banded (E/84 banded 2019 at Medford, NJ); necropsy and testing determined it was positive for HPAI.

Peregrine Falcon Monitoring – M. Roach

Staff and volunteers visited the Laurel Hill nest site in Hudson County seeking to make some improvements, but the upper cliff was deemed too unstable for a rappel approach.

Now that the Bald Eagle report is complete, focus will shift to finalizing the Peregrine report.

American Kestrel – B. Pitts

B. Pitts has continued coordinating new nest box installations in Readington and Raritan Townships. Staff from Readington Twp have identified three additional locations where nest boxes will be installed this winter, bringing their total of new boxes available for the upcoming field season to 10. Raritan Township has identified six new potential locations, and installation of those will be done in coordination with Raritan Headwaters staff and volunteers.

Osprey Monitoring – M. Roach

No update.

Other Raptors – M. Roach

No update.

Migratory Shorebirds – B. Pitts

No new report.

Secretive Marsh Birds – C. Davis and E. Heiser

C. Davis and E. Heiser worked on plans for 2024, which include a seasonal who will work on Black Rail and Saltmarsh Sparrow. This is the first time this has been attempted so it is unknown how successful it will be. They anticipate the person will do acoustic surveys for Black Rail at a number of sites using ARUs and in-person surveys at a select number of restoration areas for Saltmarsh Sparrow. E. Heiser reached out the Atlantic Coast Joint Venture to receive technical guidance on methods for Saltmarsh Sparrow surveys.

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

S. Petzinger virtually attended the monthly GWWAG (Golden-winged Warbler Working Group) meeting.

Regional & National Bird Coordination – S. Petzinger

S. Petzinger virtually attended the monthly AMJV (Appalachian Mountain Joint Venture) bird monitoring meeting.

S. Petzinger virtually attended the monthly Atlantic Flyway Nightjar meeting.

INVERTEBRATES & AQUATICS

Butterflies, Dragonflies and other Insect Species – R. Somes

R. Somes met with State Museum staff to plan for the upcoming Ecosystems of New Jersey Exhibit. We have been assembling materials and information for exhibit, and it is moving forward rapidly with an opening date of April 19, 2025.

Pollinators – R. Somes

R. Somes met with NJ State Forest Service staff to plan work for the 2025 planting season. We also discussed habitat management projects and the expansion of some of our work during 2025. We are also looking into ways to expand collaboration between the Forest Service and Fish and Wildlife.

Freshwater Mussels – R. Somes, A. Kisurin

No new update.

eDNA TECHNOLOGY – A. Kisurin

A. Kisurin attended the monthly Government eDNA Working Group meeting.