

OFFICE OF FISH AND WILDLIFE HEALTH AND FORENSICS

MONTHLY REPORT

March 2024

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FISH AND WILDLIFE HEALTH PROJECT (FW-69-R21)

Diagnosis of Diseases in Freshwater Fish (Job F-1)

Ovarian fluids from northern pike used for spawning at the Hackettstown Facility were procured and submitted to the Animal Health Laboratory in Ewing for viral detection. The results were negative.

Diagnosis and Research of Diseases in Marine Fish (Job F-2)

Non-Project Activities

UPDATE: Shellfish Pathogen Surveillance Program

Analysis of the PCR data for detection of three oyster pathogens, including *Perkinsus marinus* - the etiological agents for Dermo, *Haplosporidium nelsoni* - the etiological agent of MSX, and *Haplosporidium costale* - the etiological agent of SSO, was completed from three groups of 60 oysters from three commercial facilities obtained in August & September 2023. The reports with the final results have been completed.

Eel Survey

The OFWHF has begun sampling glass eels and yellow eels for the detection of various anguillid pathogens.

Wildlife Disease Surveillance and Investigations (Job W-1) and Wildlife Toxicology (Job W-2)

Mass bird mortality event – Long Beach Island, Ocean County

On March 18th OFWHF received notice of 3 dead buffleheads at Manahawkin WMA. On March 19th, OFWHF was informed of 30+ dead buffleheads in the vicinity of Brant Beach. Carcasses were collected and frozen on March 20th for diagnostics. USDA-WS collected swabs for avian influenza virus testing on March 20th; results pending. Reports of dead sea ducks, as well as at least one gull, continued in the following days. Initially, residents reported a methane smell in the area which was determined to be due to a sewerage gas leak in the vicinity. Cause of death is not yet determined.

Red-shouldered hawk – Bridgewater, Somerset County

OFWHF performed a necropsy on an adult red-shouldered hawk that had been shot, and then presented to The Raptor Trust, where it was euthanized due to poor prognosis. Death was attributed to the extensive gunshot wound which created a pitting lesion with damage to underlying musculature and boney anatomy. Samples were frozen for future research needs.

UPDATE: Cooper's hawk - Little Falls, Passaic County

Heavy metal analysis revealed lead levels to be 522ug/kg (well above the toxic threshold) and chromium levels of 10,600 ug/kg. Gross pathology supports the toxicology findings and a diagnosis of chronic lead toxicity. Source and clinical relevance of the high chromium levels are unknown at this time.

A female Cooper's hawk suspected of dying due to rodenticide exposure was collected by CO Nicholas DellaVella on January 6 and necropsied by OFWHF on January 8. The hawk was in poor body condition and had mild pulmonary hemorrhage. Anticoagulant rodenticide analysis revealed the hawk had detectable, sub-lethal levels of three rodenticides: Brodifacoum: 8.5ng/g; Bromadiolone: 4.8 ng/g; Difethialone: 32 ng/g. Histopathology is pending.

UPDATE: Red-tailed hawk – Jersey City, Hudson County

PCR analysis by the New York State Animal Health Diagnostic Laboratory presented a "non-negative" result for avian influenza H5. Confirmatory testing by the National Veterinary Services Laboratory supported this diagnosis, detecting influenza virus H5 2.3.4.4 (HPAI). Anticoagulant rodenticide analysis revealed the hawk had detectable, sub-lethal levels of three rodenticides: Brodifacoum: <0.8 ng/g; Difenacoum: <0.8 ng/g; Difethialone: 3.0 ng/g. Histopathology is pending.

On January 30th OFWHF was contacted by Liberty Park staff to state they had found a deceased red-tailed hawk on a public walking path. The animal was transported to the Clinton Pathology Lab the following morning for necropsy. The adult female hawk was in excellent body condition with abundant intracelomic fat stores. Approximately 1ml of hemorrhage was present in the oral cavity. Air sacs were clear, but lung lobes were diffusely dark-red. Pale-tan streaking occurred across liver surface.

Chronic Wasting Disease Surveillance

Annual CWD surveillance has been finalized, with all deer (n=865) testing negative via immunohistochemistry.

Fisher Project

Dr. Connelly performed a necropsy on a fisher that died during handling. Tissues were frozen for future testing.

Deer Health Questions

The OFWHF was contacted for opinions/advice on deer health issues as follows:

- A deer with suspect food impaction on March 31st.
- A deer with a pelvic organ prolapse on March 20th.
- A deer with suspect food impaction on March 12th.
- A deer with an open abscess on March 4th.
- A deer with high tick burden on March 1st.

Miscellaneous Activities

- Dr. Groff presented Chronic Wasting Disease and Hemorrhagic Disease at the New Jersey State Federation of Sportsmen's Clubs on March 1st.
- Dr. Connelly presented on Deer Diseases of New Jersey at a meeting organized by Citizens United to protect the Maurice River and Its Tributaries, Inc. on March 13th.
- Drs. Connelly and Groff met with USDA-WS to discuss disease surveillance collaborative opportunities in New Jersey on March 18th.
- Dr. Connelly organized a CWD Response planning meeting on March 19th.
- Dr. Groff attended the Toxics in Biota Committee meeting on March 21st.

Non-Project Activities

OFWHF has consulted with the Endangered and Nongame Species Program concerning non-lethal sampling of salamanders and semi-aquatic turtles for various pathogens.

Non-lethal sampling of salamanders for fungal and viral pathogens was initiated this month and will continue into the later spring months.

OFWHF has consulted with the New Jersey Department of Agriculture regarding Culicoides vector control. Dr. Connelly performed a site-visit on March 25th to identify areas of environmental risk and artificial breeding sites at a farm with bluetongue virus positive cattle.