

OFFICE OF FISH AND WILDLIFE HEALTH AND FORENSICS
MONTHLY REPORT
December 2021

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FISH AND WILDLIFE HEALTH PROJECT (FW-69-R20)

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

Annual health inspection at the Pequest Trout Hatchery update:

In November, fish and tissue sample collection was completed for the annual health inspection of Rainbow Trout raised at the Pequest Trout Hatchery. Testing has been completed this month and no listed pathogens of concern were detected in any of the fish. Virology has been completed at the AHDL (NJ Dep of Agriculture). Viral screening for IPNV, VHSV, IHNV, and OMV from 150 fish did not detect any of these viruses. Screening for *Renibacterium salmoninarum* (bacterial kidney disease) and whirling disease caused by *Myxobolus cerebralis* was not detected in the fish. Bacteriology did not detect *Aeromonas salmonicida* or *Yersinia ruckeri*. This concludes the annual fish health testing at the Pequest Trout Hatchery.

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

Detection of viral nervous necrosis virus (VNNV) from Black Sea Bass:

Viral nervous necrosis virus (VNNV) is a marine virus that occurs in the nervous system of a wide range of marine fish species. We are doing surveillance to better understand the prevalence of this virus in black sea bass off the NJ coast. Molecular screening for VNNV from Black Sea Bass collected from the artificial reefs has been completed. A total of 120 fish that were collected in the summer were tested by real-time PCR specific for the virus. The virus was detected in a total of 4 fish at low levels. There were no disease signs associated in these fish. In the future we will work to obtain a genetic sequence of these detections to understand the virus genotype present in these fish.

Atlantic Menhaden project: data analysis and report writing:

Data analysis and histopathologic evaluation has continued on Atlantic Menhaden samples that were collected from the menhaden mortality from the Raritan Bay area collected between April and May 2021. The Atlantic menhaden mortalities were associated with the bacterium *Vibrio anguillarum*. Data analysis is ongoing and over the next several months a manuscript draft will be prepared to document the cause of these seasonal mortalities in this species.

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

Updates:

White-tailed deer, High Point State Park, NJ:

CWD testing was negative.

Blue Jay, Ringoes, NJ:

Necropsy showed evidence of predation, likely by a cat due to the puncture pattern.

Tissues were collected for pesticide testing and were negative.

New Cases:

White-tailed deer, Burlington Co, NJ:

CPO Garafalo received pictures of a buck that had been shot and was extremely emaciated. The buck was collected and transported to the Clinton Pathology Lab for evaluation. On necropsy there was significant scarring the size of a soft ball over the femorotibial joint of the right hind leg suggesting there had been trauma that had healed. With the amount of scar tissue, it was likely the buck was not mobile for an extended period of time and therefore not able to eat properly in order to maintain his body weight. The joint had healed, and the deer was likely just becoming mobile. CWD testing was negative.

Cedar waxwings, Sparta NJ:

A resident contacted the Sparta animal control after finding 10 dead cedar waxwings on her property at one time. Six were collected and transported to the Clinton Pathology Lab for necropsy. All were found to have tomato seeds and skins in abundance in the stomach suggesting the birds ate fermented tomatoes resulting in trauma and death.

Raccoons, Warren County, NJ:

Warren County Animal Control alerted Dr. Lewis of needing to euthanize around 7 raccoons over a week's span and was concerned of a disease outbreak. The raccoons were negative for rabies but found to have distemper. Animal Control created messaging to alert the public of the illness.

Great Blue Heron, Readington Twp., NJ:

Eagle volunteers found a heron deceased by the side of the road near a shooting range and were concerned that the bird may have been illegally shot. The heron was transported to the Clinton Pathology Lab and necropsy revealed that the heron was likely hit by a vehicle based on the trauma seen. No bullets or trauma suggestive of a shooting were found.

CWD Surveillance 2021:

CWD sampling is wrapping up for the season. The northern region has collected approximately 400 samples since the beginning of November. Samples were also collected simultaneously during 6-day firearm for COVID-19, results are pending.

Meetings:

- Dr. Lewis gave a talk on EHD, CWD and the songbird mortality event at the virtual NJ association of wildlife rehabilitators meeting.

NON-PROJECT ACTIVITIES:

- Dr. Lewis and Captain Shannon Martiak gave a joint lecture on Wildlife Forensics to forensics majors and a high school class at NJIT in Newark.

- Dr. Lewis attended the Rutgers pre-vet club student mixer as a panelist discussing careers in veterinary medicine.

-Dr. Lovy collaborated with a researcher at University of Minnesota on microsporidial infections in Golden Shiners.