



BUREAU OF FRESHWATER FISHERIES MONTHLY REPORT



January 16, 2022 – February 15, 2024

Shawn Crouse, Chief
Craig Lemon, Superintendent
Edward Conley, Superintendent

Christopher Smith, Principal Fisheries Biologist
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Shaun Young, Sr. Wildlife Worker
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Andrew Hutnik, Wildlife Worker
Travis Nitko, Wildlife Worker

Steve Jeffries, Repairer

Seasonals: Gerald Bender, Lynsey Bell, Thomas Goetschkes, Kaitlin Kolakowski, Sarah Kyryczenko, Mike Leshko, Karl Lightner, Brooke Wakefoose, and Cheryl Weeks

FISHERIES MANAGEMENT

Spring Lake (Burlington) Fish Kill - A fish kill was reported on 2/9/24 at Spring Lake, located within the Country Lakes development. The lake is surrounded by homes however, the waterbody and spillway are maintained by Pemberton Township. The township applies annually to lower the water level for maintenance and vegetation control. The water level was lowered in November and brought back to normal at the end of December. Due to the generally mild conditions throughout the winter, no significant ice had formed, and winter kill was not suspected to be the cause of the kill. The resident reported seeing dead and dying fish for approximately two weeks. Most of the fish were reported to be Black Crappies however a few sunfish were also observed. The resident reported upwards of around 100 fish, but other residents said they saw more than that. Due to the limited access around the lake, only the spillway and boat ramp were visually inspected by staff. No additional fish were found at these locations. The resident collected three deceased crappies earlier in the day which we retained for analysis. The conditions suggest that the kill may possibly be bacteria related due to the recent change in water temperature. The dissolved oxygen was 11.7 mg/l and temperature were 7.8°C. (Smith)

Multi-Stressor Study – NJDEP’s Division of Science and Research’s proposal for a study to determine the role anthropogenic stressors (contaminants, degraded water quality) have on sensitive fish populations in Northern New Jersey was accepted with partnership with Fish & Wildlife and the Bureau of Freshwater and Biological Monitoring (BFBM). With the recent discovery of the role of tire anti-degradant 6 p-Phenylenediamine (6PPD; and degradant byproducts) in urban runoff mortality syndrome in coho salmon, there is an increased interest how this chemical interacts with other salmonids across the country. While trout species in New Jersey are not as acutely sensitive to these anti-degradants as coho salmon, additional stress from degraded water quality and acutely toxic compounds in run-off may contribute to a multi-stressor scenario. NJFW has committed to stream temperature monitoring on the study sites along with conducting electrofishing surveys on the current fish assemblage. Work completed includes:

- Between May 23rd and June 9th, a total of 22 sites were selected to install continuous stream temperature monitors. Streams included in the study, Rinehart Brook, Sun Valley Brook, Raritan River South Branch (trib.)(N of Drakestown), and Raritan River South Branch (trib.)(Drakestown)
- Standardized backpack electrofishing surveys were completed in August.
- Assistance was given to DSR for collection of water quality samples in the field. Preliminary analysis detected 6PPD in all but two sites.
- Continuous stream temperature loggers were collected in the field for download and data was shared with the project leader, Dan Milleman.
- Fish surveys that were conducted were analyzed and the data was shared with the project leader. (Collenburg, F-48-R)

Federal Aid Annual Report – Began compiling information from staff to incorporate in the Bureau’s Federal Aid Annual Report. A draft document will be finalized and submitted by March 1st. (Smith, F-48-R)

INVASIVE SPECIES MANAGEMENT

Aquatic Invasive Species Management Plan Development – The Public Comment Period for the draft Aquatic Invasive Species Management Plan ended on 2/6/24. A total of seven comments were received during the comment period. These comments as well as preliminary comments from the ANSTF were incorporated into the draft document. The next step is the plan will be submitted to the Governor’s Office for approval, which is required before it can be submitted to the ANSTF. (Smith)

INFORMATION AND EDUCATION

Participated in a meeting between the Bureau of Information and Education’s fishing R3 team & Freshwater Fisheries. Future plans related to R3 goals and efforts were discussed, including potential upcoming locations for “Fishing Meet-ups” as well as potential fish stocking that could be coordinated for events. (Crouse, Rozema, & Smith)

Consulted and reviewed documents, regulations and data sets with Office of Fish and Wildlife Information Systems staff on the ongoing development of their freshwater fishing regulations application. (Boehm & Rozema)

Continued to review and clarify anadromous inventory data points, timing restriction delineations, and fishing regulations for respective GIS applications. (Boehm)

TECHNICAL ASSISTANCE

Pine Hill Conservation Management Team (PHCMT) – Participated in a virtual meeting with the PHCMT on 1/23/24. Representatives from Princeton Hydro presented information regarding a feasibility study that was completed at Mason’s Run to determine remediation efforts that could help improve habitat in Mason’s Run. The focus area was downstream of the main access road. The presentation and options presented were very informative, however a significant funding source is necessary for the project to be initiated. (Smith)

C1 Workgroup Meeting – On February 6th the C1 Workgroup reconvened on recommendations that were made to alter the approach of classification definitions and implications. A few of the topics that were discussed during the meeting included the updated list of endangered and threatened species, justification for including FIBI as primary criteria in addition to AMNET, Highlands Waters protections, and FW1 water protections. (Collenburg and Crouse)

Highlands Watershed Protection Plan – Was invited and accepted a role as a committee member to help guide projects to protect the watersheds within the Highlands. Other partners include Raritan Headwaters Association, Rutgers Water Resources Program, and NJ Water Supply Authority. (Collenburg)

Northeast Regional Taxonomic Team – On January 17th the Northeast Fish and Wildlife Diversity Technical Committee led a meeting to outline the obligation of members to review the 2023 Regional Species of Greatest Conservation Need (RSGCN) list. Review of this list will take place soon. (Collenburg)

Raritan Headwaters Association Meeting – Met with Kristi MacDonald and Ben Harris of Raritan Headwaters Association on 2/12/2024 to discuss potential project collaboration. (Collenburg)

Round Valley Reservoir Fish Habitat Enhancement Project – Collaborating with Round Valley Trout Association, NJ State Parks, and the New Jersey Water Supply Authority to make use of trees that are being cleared from camp site areas within the Round Valley Recreation Area. These trees grew up in the typically submerged area of the reservoir and will be utilized to construct pyramid shaped “crib” structures that forage fish can use for habitat. The Lands Management Review application was approved by all project reviewers and volunteer forms completed. Work will take place during a 1-2 day period sometime in March of 2024. (Collenburg)

Freshwater Fisheries Permits – Reviewed water lowering and fish stocking applications and contacted applicants to obtain necessary information. Reviewed LMR’s from a freshwater fisheries perspective. (Staff)

PEQUEST TROUT HATCHERY (Ed Conley)

Inventory Data

<u>Stocking Program</u>	<u>Length</u>	<u>Average Daily Length Increase</u>	<u>Conversion</u>
Spring 2025 RBT (4 months old)	3.2"	.025	1.10
Spring 2024 RBT (16 months old)	10.0"	.018	1.75
Fall 2024 RBT (16 months old)	10.6"	.020	1.70

Flow Rates – January 2024

6.74 inches of precipitation fell during the month of January.

Production Well Pumping Rate Average for January was 6155 gpm with an average 8.86 million gallons per day pumped during the month.

The potable well pumped 5,464 gallons for the month of January.

Fish Culture Activities

Inventory on 2025 production stock was completed at this time. All fish are now being fed by automated feeders now. They are currently on 1.5 mm and 2.0 mm feed. Also, 27,000 surplus 3-inch rainbow trout was given to Hackettstown Hatchery for forage.

Monthly inventories of the Spring 2024 production stock (48 pools) and the 2024 Fall Program fish (2 pools) were completed during this time. Feed quantities have been adjusted to regulate growth rates to reach our final goal of 10.5 inches for the Spring Stocking. These fish are being fed by the feed truck 4 times a day with 5.0 mm feed. Screens are being cleaned twice a day and basins weekly.

Staff power washed all break screens and lower full screens on the raceways to provide maximum flow through the raceways.

Had a stocking preparation meeting for the upcoming 2024 Spring Stocking Season. Starting to prepare equipment and stocking trucks.

Pequest Maintenance

Alarm on 2/13/24 after a power fluctuation during a snowstorm. Was caused by an auto accident in the area. Well 1 went into bypass and had to be reset.

Created a purchase order for PSI to calibrate the flow meters on the wells, in which four of them were completed on 02/14/23. The other 3 wells will be scheduled for another upcoming date due to vendors' time restraints. Waiting on a purchase order for asbestos abatement on a couple of pipes so Core Mechanical can finish the recommended Trane upgrades on chiller system. Radon monitoring was completed 01/23/24, which is Part 2 of a year-round testing.

Lighting was fixed on the H-line as well as the one in front of the main building. Three exit signs were fixed in the maintenance building. Completed oil changes on several vehicles, a brake job, and a plow repair.

Miscellaneous Activities

Had a supervisor meeting on 01/23/24 in which we discussed upcoming issues for 2024 for both of the hatcheries. Worked on organizational charts.

Had a facility inspection on 1/31/24 of the Waste Treatment Plant and Well houses. Still waiting on an official report. Had a phone meeting with the treatment plant operator before the inspection for preparation.

Looked over the new T1486 fish feed contract that will be beginning on Monday, April 1, 2024, and is set to expire on March 31, 2027. The new contract will be about a 17 percent yearly increase from the last extension of the old contract.

Completed hourly interviews, sent a couple of names in for Human Resources to process, and received start dates. Also, set up an individual with the employment agency.

Staff have been purchasing supplies for the upcoming Spring Stocking season. They have been working on getting purchase orders and DPA paperwork set-up for vendors. Worked on oxygen deliveries.

Staff cleaned up from a winter storm on 02/13/24 that dumped about 8-10 inches of heavy wet snow at the hatchery pictured below. Also, cleaned up from a couple of smaller storms during this time period.

Hackettstown State Fish Hatchery (Craig Lemon)

Intensive Culture (Inventory)

<u>Species</u>	<u># Fish</u>	<u>Avg.”</u>
Landlocked Salmon	3,200	6.5”
Muskellunge	3,750	10.2”
Largemouth Bass	2,000	6.8”
Largemouth Bass	2,000	4.9”
Hybrid Striped Bass	1,500	4.8”
Mosquitofish	50,000	1.0”

Stocking Totals (January 16 – February 15)

No stocking during this period.

Intensive Culture

Landlocked Salmon

Currently culturing 3,200 fish about 6.5” in two 2,000-gallon tanks. Staff are cleaning and feeding them daily. Regional biologists informed staff that they will be fin clipping the Right Pectoral fin this year. Planning clipping next week.

Muskellunge

Currently culturing 3,750 10.2”-inch fingerlings in two 2,000-gallon rectangular tanks. They are being fed live forage fish.

Hybrid Striped Bass

Currently culturing 1,500 4.8” fingerlings in two 350-gallon circular tank. The 80°F recirculation system was shut down, so they are in 52°F spring water. They are not growing nearly as fast as they did last year. These fish got a later start than the fish from last year.

Mosquitofish

Currently culturing approximately 50,000 Gambusia in three 1,000-gallon tanks. Camden County Mosquito staff dropped off three mosquito transport tanks to look over and repair. Work is completed and they will be back to pick them up.

Largemouth Bass

Currently culturing two different lots of bass. Both lots are about 2,000 fish each. The bigger fish are a lot of fish that came from NJ on site broodfish and were converted here on site and the second lot of smaller fish were purchased from Arkansas. Both lots are being fed a dry diet and are doing great. They will be part of a future pilot fishing program.

Intensive Production Work

We are currently pumping 750 gpm of 52°F spring water. Staff are preparing to start up the 68°F recirculation system for spring Esox culture. Cleaned and organized the feed room preparing for fresh 2024 orders.

Extensive Culture

Largemouth Bass/Smallmouth Bass

The adult Largemouth and Smallmouth ponds have all been harvested and the broodfish were returned to their wintering ponds.

Channel Catfish

All broodstock catfish are in pond 90. Pond 74 has 600 two-and-a-half-year-olds.

Hybrid Striped Bass

Staff moved 1,290 ten-inch Hybrid Stripers out of the Intensive Rearing Building on 4/5/23 to Pond 77. These fish were sampled several times throughout the season, but they did not reach their target size of 16 inches. They are being overwintered in Pond 77 again.

Hatchery Pond Work

Staff started to fill the first ponds of the year. Pond 41, the Education Pond and Springhole are all filling. The staff sickle bar mowed the short willow bushes growing on the bottom of 4-Acre and ran the skid steer for a day to skim off the pond moss in the same pond. Ordered air bubbler discs for the Education Ponds and replaced the four in the Old Ed. Pond. Repaired all pond screens, plugs, and slides. Built several new screens for the non-typical flumes.

Information & Education

Provided information and photos for four GoFishFriday's posts 140-143.

1,755 likes, 54 comments, and 71 shares. Answered as many questions as possible on these posts

Meetings/Trainings

Attended a managers' meeting with PA Fish & Boat staff at the Lake Wallenpaupack Education Center. Short meeting to discuss the First Catch Center events for 2024. Met with Bureau Chief Crouse to discuss the 2024 season. Met with numerous vendor reps to discuss biofiltration, pond treatments and management. Supervisors completed full days of eLearning Diversity and Equality training.

Purchasing and Budget

Working on purchases for the 2023 season. Working with Sarah to get as many vendors as possible to prepare their DPA paperwork for upcoming 2024 purchases. Having issues getting PO's, and PV's back from Purchasing in Trenton, which is making our busiest time for buying in the spring nearly impossible. Spent the better part of this period working on Vendor DPA packets, payment vouchers, creating POs, and PCards.

Intensive Culture System Startup

Staff are preparing to startup the 68°F intensive culture system for the spring 2024 growing season. Replaced a gearmotor on the 68 system that was failing at the end of 2023 and trying to order a replacement. Dom ordered aluminum to replace seals on both drum filters. Working with PSI Pumping Services to make a couple of upgrades to the alarm system. Staff test pumped the emergency well.

Trap nets, Boats, Stocking Trucks

Inspected and repaired all the trap nets, anchors, and buoys preparing for the upcoming broodstock collection season. Ran both boat motors and repaired bunks and lights on both boat trailers. Cleaned all trucks and tankers. Checked and repaired all oxygen systems including lines, stones, and diffusers.

Snowstorm/Power Failure

Staff cleaned up a 6-8-inch snowfall on 2/13 & 14. Steve J. did a nice job of keeping up plowing during the storm. Steve and Chris both responded to a power outage and reset all the alarms and equipment.

2024 Seasonal Staff

Plan to return two staff from last year. Interviewed three people, two in person and one on Teams. They all submitted resumes which were forwarded to Trenton along with HARP forms and all three promptly received start dates. Two of them started work on 2/12 and the third is a college student that won't begin until May.