



BUREAU OF FRESHWATER FISHERIES MONTHLY REPORT



March 16, 2022 – April 15, 2024

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FISHERIES MANAGEMENT

2024 Spring Trout Stocking - The spring 2024 trout season is underway. The three weeks of pre-season trout stocking have been completed and we are now into the trout fishing season. The Opening Day of the 2024 trout season was Saturday, April 6th. Cool and cloudy weather was prevalent throughout the state, with moderate winds reported by survey clerks in some areas. Temperatures across the state Saturday morning ranged from the upper 30^os and low 40^os, up to 50^o closer to noon. In the northern parts of the state, scattered rain was reported after 10am by survey clerks. Heavy rains in the week leading up to Opening Day caused high waters and flooding throughout New Jersey. High, cold, and muddy waters usually make for difficult fishing, which likely deterred many anglers from going out early this year, particularly to rivers and streams.

On opening day of trout season, volunteers and staff conducted 28 creel surveys and 9 spot checks conducted by volunteers and Fish and Wildlife staff. Of these, 25 were on lakes or ponds and 12 were on rivers. The turnout for the 2024 Opening Day seemed lower than previous years, with survey clerks recording 779 anglers, compared to an average of 1,317 over the past 14 years full surveys were conducted. Of these, there were 752 anglers on lakes/ponds and 27 anglers on rivers/streams. The average catch rate during the 2024 Opening Day Angler Survey was 0.47 fish per angler, which is noticeably lower than the average catch rate of 0.55 fish per angler, though not alarmingly so. The significant rainfall experienced by much of the state leading up to Opening Day left many rivers and lakes high, muddy, and in some cases flooded. Combined with the cold, wind, and light rain across much of New Jersey on Saturday morning, both the lower-than-average turnout and success rates are expected. (Shramko and staff)

Monksville Reservoir (Passaic) - On the nights of 4/9/24 and 4/10/24, Monksville Reservoir was electrofished to assess the population of Walleye within the reservoir. A total of 3.6 hours of electrofishing were conducted, capturing 87 Walleye, 99 Largemouth Bass, 50 Chain Pickerel, and 24 Smallmouth Bass. 5 Muskellunge were also captured, with the largest reaching an impressive 51.5" and over 30lbs. CPUE for Walleye was calculated at 24 Walleye/hour, which is above the benchmark considered high at 20/hour. Additional data analysis is ongoing. (Rozema, F-48-R).

Sunset Lake (Cumberland) - A boat electrofishing survey was completed at Sunset Lake, located in Bridgeton, on 4/16/24 to determine the status of the Largemouth Bass population. The 1.25-hour daytime survey resulted in the collection of 54 bass with the largest measuring 499 mm and weighing 2.124 kg. The population was balanced based on the sampled population with a PSD of 67 and PSD-P of 39. The population was well distributed, and most individuals appeared to be in good condition. The population may not be extremely abundant given the surface water temperature of 20.5°C should have had a lot of fish actively spawning. We will continue to monitor the population after the lake is stocked with supplemental bass in 2024. Common Carp continue to be extremely abundant and a nuisance species, which should be reduced to a more acceptable level. Northern Snakeheads were confirmed in the Cohansey River and Sunset Lake in 2023. Three adult snakeheads were collected during the survey. (Smith, F-48-R)

INVASIVE SPECIES MANAGEMENT

MAPAIS (Mid-Atlantic Panel on the Aquatic Invasive Species) – Participated in annual spring MAPAIS meeting on April 10th and 11th. MAPAIS is a sub-committee of the ANS Task Force. Highlights of the meeting include reviewing grant proposals, regional species updates, and a presentation by NJDEP Joe Bilinski about the New Jersey Invasive Species Management Plan. The plan was recently signed off by the Governor’s Office and will be submitted for review by the ANS Task Force in May (Smith).

INFORMATION AND EDUCATION

Reviewed Anadromous Fish GIS data points and layer with Office of Fish and Wildlife Information Systems staff. (Boehm)

TECHNICAL ASSISTANCE

Darlington Lake (Bergen) Fish Salvage Investigation - During permitted construction work along the dam at Darlington Lake, contractors noticed seepage occurring on 3/19/24. In coordination with Dam Safety, the lake was lowered to approximately 5ft below full pool (initially permitted to lower 1ft). On 3/22/24, BFF staff conducted a site visit to determine if an emergency fish salvage was necessary due to the additional lowering of the lake. Upon inspection of the lake and conversations with the project engineer and staff, it was determined that a deep pool of water below the dam (estimated 12ft deep at the lowered level) was enough volume of water to not require an immediate salvage as no immediate signs of fish distress were noticed. Installation of an aeration system (completed 4/9/24) to add additional oxygen into the water and frequent monitoring of fish health was recommended for the duration of the extended lowering (estimated to be completed in early May). (Rozema)

Lake Sonoma (Passaic) Siphon Results Meeting - In the summer of 2023, a coldwater siphon was installed in the outlet of Lake Sonoma. BFF staff met on 2/28/24 with multiple partners involved in the project to present the findings of data collected on this project since 2021 and to make recommendations for the upcoming summer of 2024. Siphon influence was unable to be confirmed, however an approximately 3-4 week period was witnessed in the summer of 2024 where model-predicted temperature fluctuations did not match actual stream temperatures, suggesting some influence from the siphon was occurring. Other topics of discussion included installation of addition dissolved oxygen/temperature meters and installation of cameras to better document tampering events. (Rozema & Collenburg)

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 (6 months old)	4.0"	0.010	1.10
Spring 2024 RBT (18 months old)	11.0"	0.018	2.00
Fall 2024 RBT (18 months old)	11.8"	0.015	2.03

Flow Rates – March 2024

7.20 inches of precipitation fell during the month of March.

Production Well Pumping Rate Average for March was 5,312 gpm with an average 7.65 million gallons per day pumped during the month.

The potable well pumped 10,280 gallons for the month of March.

Submitted Quarterly Water Diversions on 4/1/24.

Fish Culture Activities

The 2024 Spring Stocking program began on March 18th, 2024. 185,360 Rainbow Trout were stocked before the season opener on Saturday April 6th, 2024. The trout stocked included some brood-stock weighing up to 7lbs. Another 68,730 additional Rainbow Trout were stocked during the first week of the seven in-season stockings. So far, 24 Hook a Winner tags have been reported.

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



Spring sorting of the 2025 production stock (over 800,000) has begun in which smaller fish graded off using metal grader boxes and pools are reset as they become available. This requires several staff and takes time, but it is necessary to keep a closer size range on the trout.

The A and C-lines were emptied, cleaned, and sterilized. The A-line and the odd side of the C-line were also reset with sorted fish. Some of the 2025 production stock from the nursery were inventoried and moved into the even side of the C-line at this time as well. Also, inventory of the 2025 production stock in the nursery was completed. Tanks were reset at this time with sorted

fish. Approximately 21,816, 3.5-inch surplus trout were given to Hackettstown Hatchery for forage during this period.

All fish in the nursery are being fed by automatic feeder twice every hour for about 10 hours a day. The feeders are being filled daily with 2.5mm feed. All tanks are still being cleaned by all shifts and flows were adjusted and outside screens are being cleaned twice daily. Outside 2025 production trout are being fed 3.0 mm by the feed truck now four times a day. Hatchery flows were adjusted during this period and dissolved oxygen levels are being monitored.

Coordinated daily load assignments of Spring Stocking Trout runs to various water bodies onto selected distribution trucks. Hatchery Staff stocked all the Pequest River runs pre-season and in-season. Also, stocked Fishing Education Pond 3/18/24 with surplus.

Pequest Maintenance

Staff responded to alarms after a few power fluctuations during storms and high winds. The starter on Well #5 diesel motor backup was sent out to be re-built after failure during a test. Staff have also been making repairs on stocking equipment and tankers as needed as well as daily oxygen checks. A new priming pump was also installed on the nursery boilers.

The installation of the new domestic UV system was completed by Porta Soft of Morris County. We are in the process of evaluating the running data before they are tested and brought on-line. Received purchase order for Strober Roofing to replace part of the Maintenance Garage roof.

Also, received a quote and purchase order for new garage doors on the lighthouse as several components are now outdated and broken.

We are still waiting on a vendor to complete asbestos abatement on a couple of pipes so Core Mechanical can finish the recommended Trane upgrades on chiller system.

Miscellaneous Activities

Had Rack and Fin Radio Interview with Tom P. on 3/21/24 about Spring Trout Stocking. Also, worked on setting up a few other press/ photo events for Spring Stocking.

4/3/24, had meeting and site visit to go over a few upcoming CBT projects at Pequest Trout Hatchery. Currently in the preliminary stages and will have a follow-up on 4/16/24 for additional information.

Hackettstown State Fish Hatchery (Craig Lemon)

<u>Species</u>	<u># Fish</u>	<u>Avg.”</u>
Landlocked Salmon	3,200	7.1”
Muskellunge	3,750	10.6”
Largemouth Bass	2,000	7.1”
Largemouth Bass	2,000	5.3”
Hybrid Striped Bass	1,500	5.1”
Mosquitofish	50,000	1.0”

Stocking Totals (March 16 – April 15)

<u>Date</u>	<u>Species</u>	<u>Location</u>	<u>#Fish</u>	<u>Pounds</u>	<u>Length</u>
3/26	Np	Connecticut F&W	71,000	3.13	fry
3/27	Np	Rhode Island F&W	62,566	3.04	fry
3/21	Tm	PA Fish & Boat	101,803	4	eggs
4/9	Tm	PA Fish & Boat	13,811	3	1.0”
4/15	Wa	Delaware River	187,000	1	fry
4/9	Gamb.	Warren Co. Mosq. Co.	8,072	10	2.0”
4/10	Gamb.	Camden Co. Mosq. Co.	8,072	10	2.0

Intensive Culture

Landlocked Salmon

Currently culturing 3,200 fish approximately 7.1” in three 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. All fish were clipped, and they were inventoried into three 2,000-gallon rectangular tanks.

Muskellunge

Currently culturing 3,750 10.6” fingerlings in two 2,000-gallon rectangular tanks. They are being fed live forage fish. Stocking is planned in mid-April.

Hybrid Striped Bass

Currently culturing 1,500 5.1” fingerlings in one 1,000-gallon rectangular tank in 52°F spring water. They are not growing nearly as fast as they did last year. These fish got a later start than did last year.

Mosquitofish

Staff took weight counts on the Gambusia and set up two tanks of 8,000 fish for Camden and Warren Counties. The remainder of the fish were moved outside to Pond 64 for the rest of the year. Camden and Warren both came and picked up their fish. The first load of Fathead Minnows from Arkansas should be here on 4/16.

Largemouth Bass

Staff moved all the intensively held over bass outside to make room for Northern Pike. The NJ fish were hand sorted and the smaller ones were reset in Pond 30 and the larger ones were reset in the Silver Dollar Pond.

Northern Pike

Pike are doing great this year. Connecticut and Rhode Island both were here to pick up surplus fry. Currently culturing about 100,000 two-inch fingerlings. Staff are sampling and doing inventories a couple of days a week. Doing preventative Hydrogen Peroxide treatments two days a week. Assessing feed size and making changes weekly. Will look to stock surplus in the very near future. Experimented with a new diet 0.8 and 1.0 mm and are very happy so far. Pathologist Groff examined 20 fish from six different lots for deformities/abnormalities and said the fingerlings looked good. Plans are to look at them again in two weeks.

Tiger Muskellunge

PA Fish & Boat staff from the Pleasant Mount Fish Hatchery picked up Lot 2 of Tiger eggs on 3/21. Lot 1 fish are doing very well and have been split into three 350-gallon tanks. PA picked up half of Lot 1 fish on 4/9.

Intensive Production Work

We are currently pumping 750 gpm of 52°F spring water and 170-gpm of 68°F recirculated water. Pumping Services Inc. installed a flip-flop switch in our alarm system to correct an issue we had during our last alarm.

Extensive Culture

Largemouth Bass/Smallmouth Bass

The adult Largemouth and Smallmouth broodstock and fingerling ponds are being filled. Plans are to drain and harvest Pond 50 soon to set up broodfish for spawning.

Channel Catfish

All broodstock catfish are in pond 90. Pond 74 has 600 two-and-a-half-year-olds. Fish are being fed 3 to 5 times per week and are visibly feeding on the surface.

Hybrid Striped Bass

The Hybrid two-year olds are feeding well in Pond 77 now that water temperatures have risen to 60°F. Staff moved this year's holdover fingerlings to Pond 30. They are going to be cultured with Largemouth Bass fingerlings as we do not have pond space to keep them separate.

Fathead Minnows

500 pounds of minnows were purchased from Keo Fish Farms in Arkansas. Staff split them between Ponds 85 and 5-Acre for spawning. They are being fed daily.

Hatchery Pond Work

More than half of the extensive ponds have been filled with the rest of them being boarded up for filling.

Walleye Broodstock Collection (Swartswood Lake)

Hatchery staff set one PA style trap net and one South Dakota style trap net in Swartswood Lake on March 25th to capture Walleye broodfish. The nets fished for 7 days capturing 254 Walleyes. The catch was made up of 197 males and 57 females. 35 females were spawned producing

four million eggs. Eleven different species were captured and returned to the lake, including Yellow Perch (62), Bluegill (118), and Black Crappie (88). Lake water temperatures ranged from 40-47°F.

Muskellunge Broodstock Collection (Greenwood Lake)

Hatchery staff set two PA style trap nets and one South Dakota style trap net in Greenwood Lake on April 8th to capture Muskellunge broodfish. The nets fished for 4 days capturing 6 Muskies. The catch was made up of 4 males and 2 females. Both females were large already spent. Sixteen different species were captured and returned to the lake, including Walleye (47), Yellow Perch (141), Bluegill (563), Black Crappie (343), and White Perch (364). Lake water temperatures ranged from 52-55°F.

Information & Education

Provided information and photos for four GoFishFriday's posts 147-150. 2,029 likes, 52 comments, and 57 shares. Answered as many questions as possible on these posts.

Meetings/Trainings

Listened in on an NJStart training on TEAMS. Responded with numerous questions following the training to learn more procurement information.

Purchasing and Budget

Working on purchases for the 2024 season. Working with Sarah to get as many vendors as possible to prepare their DPA paperwork for upcoming purchases. Earlier issues getting PO's, and PV's back from Purchasing/Procurement in Trenton seems to be improving. Working on purchases for chemicals and Alfalfa Meal.

CBT Projects

Had an initial meeting with Construction Management Specialist to address removal of existing Intensive Recirculation System boilers and installation of new ones. Met with them again to show and discuss issues with crumbling concrete structures connecting Ponds 56 & 57.