



BUREAU OF FRESHWATER FISHERIES MONTHLY REPORT



February 16, 2022 – March 15, 2024

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

Christopher Smith, Principal Fisheries Biologist
Ross Shramko, Principal Fisheries Biologist

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Nicholas Healy, Crew Supervisor, WMAO
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Travis Nitko, Wildlife Worker

Steve Jeffries, Repairer

Seasonals: Gerald Bender, Lynsey Bell, Abby Bronicio, Chris Cohen, Thomas Goetschkes, Kaitlin Kolakowski, Sarah Kyryczenko, Karl Lightner, Erin McLean, Matt Moury, Nick Moury, Brooke Wakefoose, and Cheryl Weeks

FISHERIES MANAGEMENT

2024 Spring Trout Stocking – Preparation for spring trout stocking continues. The Spring 2024 Trout Stocking Allocations, Bonus Broodstock waterbodies, and plan for the season has been devised and was presented in the new business session of the March Fish & Game Council meeting. Other ongoing duties that are quite time consuming include coordination of opening day angler counts (volunteer heavy), evaluation of runs to increase efficiency, review of public information. (Shramko and staff)

Newton Lake (Camden) Fish Kill – Newton Lake is an impoundment of Newton Creek located in Collingswood. A fish kill report came through law enforcement email communications on 3/5/24. An on-site visit was conducted on 3/7/24. The kill consisted of approximately 20-30 Bluegill and 6 adult Gizzard Shad in the vicinity of Bettewood Avenue. Most appeared several days old, lacked any color and were quite decayed. Two Bluegill fresh enough for testing and were collected and frozen. Given the small number of fish found this would be considered a very minor kill. Water chemistry was normal and would readily support aquatic life. No foreign odors or chemical slicks were observed. Similar fish kills have been reported at this location in the past. This kill is most likely a bacteria (aeromonas or pseudomonas) related kill as a result of the rapid change in water temperatures over the last week. (Boehm/Smith)

Pemberton Lake (Burlington) WMA Fish Kill - A fish kill was reported at Pemberton Lake WMA on 3/4/24 and investigated by the regional CPO. The CPO reported that he observed approximately 10 adult Gizzard Shad between 9-12", over 50 small Gizzard Shad 3-4", and over 100 Bluegill between 2-5". There was no odor or discoloration in the water. He indicated that the complainant noticed the fish kill the previous week but called in the complaint on 3/4/24. Dr. Joe Groff was notified about the fish kill via email on 3/4/24. A follow up investigation was completed on 3/5/24 to collect fish for testing. There were no fresh fish observed and the kill did not appear to be ongoing at the time. We will continue to monitor the lake over the next couple weeks as temperatures fluctuate to see if additional fish are affected. (Smith)

Assunpink Lake (Monmouth) Bass Assessment - An electrofishing survey was completed at Assunpink Lake WMA on 3/13/24 to determine the status of the Largemouth Bass population. The recent above average temperature brought water temperatures into the mid-50°F which is perfect for pre-spawn electrofishing sampling. The one-hour daytime survey resulted in the collection of 59 bass with the largest measuring 526 mm and weighing 2.486 kg. The population was unbalanced based on the sampled population with a PSD of 89 and PSD-P of 76. This is not of concern and good to see as this size range was previously underrepresented in prior surveys over the last couple of years. We will continue to monitor the population. (Smith, F-48-R)

Pompton Lake (Passaic) Northern Pike Trap Netting - From March 4-8, BFF staff set 16 trap nets in various locations throughout Pompton Lake to assess the Northern Pike fishery present. A total of 26 Northern Pike were captured throughout the duration of the survey, ranging in size from 640mm – 1015mm (25" – 40") and 1.47kg – 8.88kg (3.25lb – 19.6lb). This survey occurred concurrently with Hackettstown Hatchery's Northern Pike broodstock collection efforts, and therefore 11 Northern Pike (8 male, 3 female) were brought to the hatchery to be spawned for this year's Northern Pike stock. Following a trap netting survey in 2017, the stocking rate of

Northern Pike was adjusted from 10 fish/acre to an increased 15 fish/acre as the fishery was noted to be lower in abundance with the forage base present being able to support additional stocking. It appears that the increased stocking rate slightly improved the abundance of Northern Pike (CPUE 1.3/net in 2016 vs 1.6/net in 2024). The size structure of the Northern Pike population also appears to have increased notably, with 10 fish captured being over 760mm (30”), 6 over 890mm (35”), and one individual being over 1,015mm (40”). (Rozema, F-48-R)

Federal Aid Annual Report – Completed the draft Annual Report and submitted it to the Chief for review. (Smith)

INVASIVE SPECIES MANAGEMENT (State Funding)

New Jersey Invasive Species Strike Team (FOHVOS) - Participated in the annual meeting of the Invasive Species Strike Team on 3/15/24. Provided updates to the status of the State’s invasive fish species. (Smith)

INFORMATION AND EDUCATION

Virtual Trout Meeting - Our annual public meeting was held on Thursday, March 7th from 7-8:30pm. There were 135 participants. The agenda included AC Barno delivered a Fish & Wildlife Update, Ed Conley (Pequest Superintendent) gave a production update, Ross Shramko (Principal Biologist) gave a Trout Stocking Plan and Allocation update, Shawn Crouse (Fisheries Chief) gave a presentation on the upcoming Fish Code and preliminary trout angler survey results. There were technical difficulties (29% responded to a live poll indicating audio and/or video was not working for them. The meeting was recorded and will be made available on our website. (staff, F-48-R)

TECHNICAL ASSISTANCE

Northeast Regional Taxonomic Team – Began reviewing data for the 2023 Regional Species of Greatest Conservation Need (RSGCN) list. (Collenburg)

NJ Dam and Freshwater Mussels Workgroup Meeting – On February 16th attended a meeting with multiple stakeholders to review and discuss available data for post-dam and pre-dam removal. Relevant fisheries data from the Bureau of Freshwater Fisheries data will be considered for sharing with the group to facilitate decision making. (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 were cut down so that the Wilderness Camp Sites can be accessed by campers. The trees are currently being utilized to make pyramid shaped “crib” structures that forage fish can use for habitat. RVTA and F&W constructed a total of 17 cribs on the weekend of March 9th and 10 and placed in clusters of 3-4 at a depth of around 12-15 feet of water. More cribs will be constructed on March 16th and 17th by RVTA. (Collenburg)

East Jersey Trout Unlimited Meeting- Met with East Jersey Trout Unlimited's Conservation Committee on 3/14/24 to discuss various projects occurring. Float stocking on the Ramapo River, upcoming plans for dredging work on the Saddle River, construction and potential dam removal projects on Bear Swamp Brook, and temperature logger installations were the main topics of discussion. (Rozema)

Federal Aid Annual Report – Compiled 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)

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 (5 months old)	3.9"	0.023	1.30
Spring 2024 RBT (17 months old)	10.7"	0.019	1.74
Fall 2024 RBT (17 months old)	11.7"	0.022	1.73

Flow Rates – February 2024

2.52 inches of precipitation fell during the month of February.

Production Well Pumping Rate Average for January was 6,233 gpm with an average 8.96 million gallons per day pumped during the month.

The potable well pumped 5,978 gallons for the month of February.

Fish Culture Activities

Inventory on 2025 production stock was completed at this time. Some fish were moved out of the nursery and spread into B-line in order to spread out the rest of the fish in the nursery. All fish are now currently on 2.0 mm feed inside. Also, 21,000 surplus 3.5-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 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 had meetings for the upcoming 2024 Spring Stocking Season and are continuing to prepare equipment stocking trucks and paperwork for Pre-season stocking that begins on March 18, 2024.

Rainbow Trout were tagged for the Hook a Winner program (pictured to the left).

Pequest Maintenance

Staff responded to 2 Alarms the evening of 2/28/24 after a power fluctuations during high winds during a rainstorm.

The last three well meters were calibrated by PSI on 2/20/24 and we are awaiting a full report on all 7 well.

A defective transformer caused a power failure to a portion of the Pequest State Trout Hatchery Waste Treatment Plant on 2/28/24. Emergency repairs were completed by TGM Electrical.

Staff installed a stocking distribution tank on Lands Management flatbed for stocking, repaired a couple of raceway lights, feed truck cable, and a flow meter pipe. A couple of staff also assisted Information and Education setup for the Deer Classic on 3/1/24.

Staff also removed the old domestic UV water system wiring system and ran some new communication lines in preparation of installation of the new units. The installation is set to begin on 3/13/24 by Porta Soft of Morris County and will take approximately 4 days to complete.

We are still 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. Also, still waiting on the purchase order for Strober Roofing to replace part of the Maintenance Garage roof.

Miscellaneous Activities

Received passing reports for facility inspections from 1/31/24 of the Waste Treatment Plant and Well houses.

On 2/29/24, interviewed with Tom Pagliaroli about the upcoming 2024 Spring Trout Season for his article.

Submitted Federal Interim Performance Report for 2023 calendar year.

Completed updated Drought Conservation Plan.

Hackettstown State Fish Hatchery (Craig Lemon)

<u>Species</u>	<u># Fish</u>	<u>Avg.”</u>
Landlocked Salmon	3,200	6.8”
Muskellunge	3,750	10.4”
Largemouth Bass	2,000	6.9”
Largemouth Bass	2,000	5.1”
Hybrid Striped Bass	1,500	4.9”
Mosquitofish	50,000	1.0”

Stocking Totals (February 16 – March 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. All fish were clipped, and they were inventoried into three 2,000-gallon rectangular tanks.

Muskellunge

Currently culturing 3,750 10.4”-inch fingerlings in two 2,000-gallon rectangular tanks. They are being fed live forage fish. Plans to stock these fish mid-April.

Hybrid Striped Bass

Currently culturing 1,500 4.9” 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 last year.

Mosquitofish

Currently culturing approximately 50,000 Gambusia in three 1,000-gallon tanks. Camden County Mosquito staff picked up their tanks after our staff made repairs and upgrades. Hatchery staff brought all Mosquito tanks out of storage and prepped them for the season.

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 to feed 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 stocking program.

Northern Pike

Hatched all the 2024 pike jars into seven 350-gallon circular tanks. Fry are currently on mats and have not swam up. Water flows and temperatures are being changed daily.

Tiger Muskellunge

There are three jars of eggs in the egg battery and should be hatching toward the end of March.

Intensive Production Work

We are currently pumping 750 gpm of 52°F spring water. Staff started up the 68°F system to find a handful of issues. The 68°F fixed speed pump would not run. TGM came the following day and worked on some wiring to get it going. The Biofilter required some attention to get it rotating. One of the boilers needed a visit from Miller & Chitty. The system is pumping 130 gpm and currently running at 61°F.

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 full. Started filling ponds 85, 5-Acre, 4-Acre, 15, and 16. Replaced four air bubbler discs in the old Education Pond. Dredged ponds 13, 18, 83, 84, 85, 5-Acre, and 4-Acre before spring filling. Hoping these improvements make harvesting go much smoother this year.

Northern Pike Broodstock Collection (Budd Lake)

Hatchery staff set three South Dakota style trapnets in Budd Lake on March 3rd to capture Northern Pike broodfish. The nets fished for 4 days capturing 41 pike. The catch was made up of 10 males and 31 females. The largest pike was a female weighing 12.24 pounds and measuring 37 inches. Twelve female pike were spawned producing 561,741 eggs. Yellow Perch (612), Bluegill (35), Black Crappie (82), and White Perch (220) were also captured and returned to the lake. Sixteen different species were captured in all. Lake water temperatures ranged from 45-46°F.

Tiger Muskellunge Egg Take

Having taken enough Northern Pike eggs, staff made the decision to use the last few ripe Northern Pike females to make Tiger Muskies. The crew seined pond 45 on 3/7 and brought 5 female and 12 male Muskellunge into the Intensive Rearing Building. Three jars of Tiger Muskie eggs were made between 3/8-3/11 using Budd Lake female Northern Pike and Hatchery Pond 45 male Muskellunge.

Information & Education

Provided information and photos for five GoFishFriday's posts 144-148.

1,919 likes, 87 comments, and 78 shares. Answered as many questions as possible on these posts. Participated as a panelist at the Virtual trout Meeting on 3/7. I & E staff hosted an R3 Fishing Instruction Course in the Education Building on 3/10.

Meetings/Trainings

Listened in on a DPA paperwork TEAMS training. Responded with numerous questions following the training to learn more procurement information.

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.

Ken Lockwood Gorge Trip

Doug and Chris trailered our Kubota to the gorge to scout out the condition of the road in and out prior to Preseason Trout Stocking. They made the trip from top to bottom and took many photos. At days end we reported our findings to Chief Crouse.