



Garrison Dam National Fish Hatchery Complex

Restoring America's Fisheries

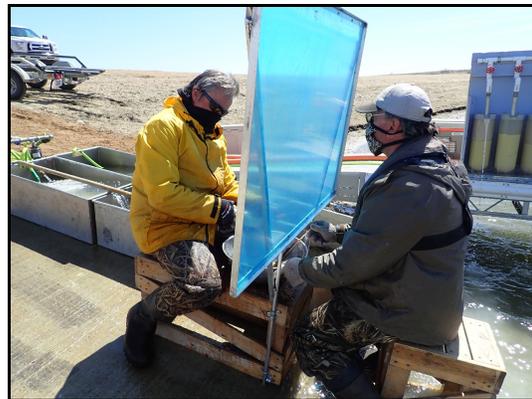
"We work with our partners and engage the public, using a science-based approach, to conserve, restore and enhance fish and other aquatic resources for the continuing benefit of the American people."
April 2020

Spawning

Northern pike spawning got off to a sketchy start with our go to location on Lake Oahe not producing the usual numbers of broodstock and having poor quality at the start. Fortunately the old standby location at Devils Lake was producing brooders and egg quality was exceptional. A total of 6,570,000 eggs were taken

to the hatchery to meet stocking requests. Walleye spawning is also underway

with an egg request of 50 million. Broodstock were taken from Lake Sakakawea too meet the goals. Adult fish were also sampled by the NDGF for pathogens to meet fish health regulations and allow for walleye stockings in neighboring states.



Walleye spawning COVID-19 style



Ben getting a lesson from Jerry on jarring walleye eggs

Fish Culture

Northern pike larvae were swum up at Garrison Dam NFH in circular tanks and troughs until they were ready to be stocked in hatchery ponds. The first shipments of larval pike, just over a million, were bagged and shipped via coolers to Baldhill Dam National Fish Hatchery.



Pike swim-up for Baldhill Dam NFH stockings

Rainbow trout catchables are being stocked in North Dakota waters on a daily basis. The North Dakota Game and Fish Department's fish distribution trucks are keeping busy moving over 56,000 eleven inch fish to dozens of locations throughout the state. The NDGF provided reimbursable funding to the hatchery to support the salmonid stocking program. Currently we have 430,000 five inch Chinook salmon smolts, 11,000 ten inch brown trout and 14,000 eleven inch Hot Creek rainbow trout that will be stocked out in May. There are an additional 18,000 four inch browns and 77,000 three inch Shasta rainbows on station to meet next year's trout requests.



Cleaning tanks



Sean loading the NDGF transport trailer with RBT

Ponds at Baldhill Dam NFH were filled and prepped for stocking of northern pike to start at the beginning of May. These fish will remain on station for 2-4 weeks depending on temperatures until they reach harvest size. North Dakota Game and Fish transports the fish from the hatchery to the designated stocking locations. Additionally all the ponds at Valley City were filled and prepped for walleye fry.

Upcoming Activities

- Stocking of brown and Hot Creek rainbows in the Garrison Dam NFH tailrace to meet Corps of Engineers mitigation stocking requests.
- Stocking of Chinook salmon in Lake Sakakawea, a Corps of Engineers mitigation stocking.
- Pallid sturgeon broodstock collections in coordination with the Bureau of Reclamation translocation activities at the Intake Diversion site.
- Monitoring water quality and operation of microbubbler.
- Stocking northern pike and walleye fry.
- Zebra mussel monitoring with ND Game and Fish.
- Continued work on Isolation Building at Valley City NFH.

Partnerships

Coordination continues with the North Dakota Game and Fish Department with our annual spring spawning goals. Hatchery staff works directly with the NDGF to meet egg collection goals and coordinate stockings. We are also working closely with the Montana Game Fish and Parks Department with the hope of collecting pallid broodstock to add genetics to the pallid recovery program. The Lamar Fish Technology Center, Missouri River FWCO, and hatchery staff develop criteria for broodstock collections to ensure appropriate stockings occur in the Upper Basin recovery area.

North Dakota Game and Fish has begun weekly sampling of ponds at Valley City NFH to monitor for zebra mussels. As of the end of April, no veligers have been found in the rearing ponds.

Employee Development

Staff continues to spend time on the flood of mandatory training as we are all painfully aware.

Public Use



Birdwatching on the trails

Trails remain open to the public and we are seeing increased use due to the suspension of schools. The Downstream Trout Pond is seeing increased fishing pressure as well. This pond was created from the hatchery effluent water through a cooperative effort of the hatchery, the Riverdale Corps of Engineers Office and the North Dakota Game and Fish Department's Save our Lakes Program. It receives annual trout stockings to support a seasonal trout fishery. Stocking

is scheduled for May 7th and the hatchery is fielding several calls from anxious young anglers.

The new visitor center aquarium is finished and waiting on the grand opening. A few lucky grandkids were among the first to check it out - they were impressed!



New visitor center aquarium

Maintenance

The Garrison Dam NFH staff has been working with a company, Molear, to investigate the use of



Molear representative checks out the installation of the nanobubbler

nanobubble technology to remediate high dissolved gas issues at the hatchery. A nanobubbler was installed in the Salmon Building and the company is working with us to provide real-time monitoring of oxygen in the raceway. Issues experienced over the past year with the brown trout prompted the research as low DO levels combined with high nitrogen readings may have been the cause of higher levels of chronic mortality experienced this past winter. While we had good luck in using vacuum degassing to reduce total dissolved gas levels in our water supply, the degassers also dropped our oxygen levels creating a dilemma. The vacuum degassers were shut off to maintain oxygen levels and as a result, nitrogen supersaturation undoubtedly created added stress and likely compromised skin tissue which resulted in increased fungus patches and chronic mortality.

The isolation facility interior was painted in April as the ongoing rehab of the building continues. The pumps for the recirculation system were set in place and plumbing for the recirculation side of the project continues. The storage loft floor and walls were also painted and shelving built to create more storage and organization.



Backup oxygen system

An oxygen backup system was installed at the Baldhill Culture Facility. This system will serve a dual-purpose; one acting as a life support system in the event of a power failure and second as way to keep fish healthy when water is shut off to perform maintenance on the filters. In effort to eliminate the possible spread of zebra mussels the filter in the building runs at 25 micron however, these screens need to be cleaned periodically. Bypassing water is no feasible because of the presence of zebra mussels in the water supply so water must be completely turned off. Having backup oxygen plumbed to the tanks ensures no fish loss during times water is shut off.

Hatchery Quarters

At Valley City NFH new windows were installed in the vacant quarters to replace the original windows that were installed when the house was built in the 1960's. Railing was installed on the composite decking on one of the quarters at Garrison Dam NFH.

Hatchery Production Summary (Intensive Culture)

Station:	Garrison Dam NFH					Period Covered:	October 1, 2019			March 31, 2020				
Species/Strain and Lot Number	<i>Fish on Hand the Last Day of the Period</i>					<i>To Date This Fiscal Year</i>							Survival from 1 st Inventory	
						Weight	Feed Expended		Fish Shipped					
	Number	Weight	Length	D.I.	F.I.	Gain	Pounds	Cost	Number	Weight	Conversion			
RBT-SSD-19-ENN	56,149	27,660	11.2	0.41	1.11	14,048	21,430	\$46,974			1.54	99.6		
RBT-SSD-20-ENN	77,906	203	1.9	0.33	1.05	197	144	\$174			0.73	99.6		
BNT-PRD-18-SAR	11,210	4,312	9.9	0.31	0.99	221	5,650	\$5,699			25.57	59.0		
BNT-PRD-19-SAR	18,493	260	3.3	0.29	1.00	261	302	\$342			1.16	97.6		
RBT-HCD-18-WY	14,322	7,125	11.2	0.34	1.23	3,168	5,500	\$3,296			1.74	91.7		
FCS-LSW-19-FR	432,621	9,051	4.11	0.35	2.01	8,902	6781	\$7,555			0.76	98.5		
Totals/Averages	610,701	48,611				26,797	39,807	\$30,013	0	0	1.49			

Hatchery Complex Personnel

<i>Employee</i>	<i>Functional Title</i>	<i>Grade</i>
<i>Robert Holm</i>	<i>Project Leader</i>	<i>GS-13</i>
<i>Jerry Tishmack</i>	<i>Fishery Biologist</i>	<i>GS-11</i>
<i>Sean Henderson</i>	<i>Fishery Biologist</i>	<i>GS-11</i>
<i>Shawn Cole</i>	<i>Fishery Biologist</i>	<i>GS-7</i>
<i>Toni Ganje</i>	<i>Administrative Support</i>	<i>GS-7</i>
<i>Ben Oldenburg</i>	<i>Fisheries Technician</i>	<i>NDGF</i>
<i>Aaron Von Eschen</i>	<i>Assistant Project Leader</i>	<i>GS-12</i>
<i>Vacant</i>	<i>Biological Technician</i>	<i>GS-5</i>
<i>Paul Drabus</i>	<i>Maintenance Worker</i>	<i>GS-7</i>

No personnel changes this month. Vacant biological technician positions at Valley City NFH and Garrison Dam NFH are being advertized at the 5/6/7 level.