



Mora
 National
 Fish
 Hatchery

 May 2015

2015 Gila Trout Update

Mora NFH had a successful spawning season with increased fertilization rates that yielded sufficient numbers of fish for recovery stocking. However, since swim-up, the hatchery has been experiencing above average mortality in all lineages. The biggest change in rearing this year is the unavailability of the Otohime diet which is undergoing import inspection requirements. The use of this diet greatly improved survival in the past, and although a suitable replacement diet is currently being used, it appears to be slightly less palatable to the fish.

The hatchery has also recently installed a new UV unit for the disinfection of System 3, and there have been various issues with the unit that have resulted in less than 100% treatment. The ammonia level in the system has also been above optimal levels, and staff has been flushing the bio-filter weekly to reduce it. Elevated ammonia levels are a result of limited nutrient input (low feed amounts and improved micro-screen filtering) that have not allowed complete cycling of the filter. Hatchery staff have kept the fish health unit at SNARRC apprised of any developments.

Lineage	Projected Survival (%)	Broodstock Number	Broodstock Survival (%)	Recovery Number	Recovery Survival (%)	Experimental Number	Experimental Survival (%)
Main Diamond	70	3,213	67.0	20,503	80.1	4,931	65.7
South Diamond	70	2,227	54.7	18,864	73.7	8,787	67.7
Whiskey Creek	60	946	60.4	7,353	57.6	X	X



Mora Outreach Event

Stuart Wilkins and Priscilla Jansen-Toland gave a presentation at the Mora High School on May 5. Along with describing the mission of the Fish and Wildlife Service, they presented the living stream exhibit which displayed several large Gila trout. Because it was the end of spawning season, they were able to highlight the spawning coloration differences between the male and female fish. The students greatly enjoyed the presentation.

Aquariums!

All 144 aquariums for broodstock development are up and running. Per the Broodstock Management Plan, individual crosses need to be kept separate until they can be positively identified by a permanent marker. Daily siphoning and cleaning is keeping the crew busy!



Oklahoma State University Visit

The Oklahoma State University Natural Resource Ecology and Management Summer Forestry Camp visited Mora NFH on May 15. This program gives upperclassmen and graduating seniors an opportunity to visit and perform hands-on activities at potential sites of employment.

The students were given a detailed history and current mission of the Fisheries program. They were then given a walking tour of the facility which covered all aspects of Gila trout recovery and the hatchery's water recirculation technology. After the tour, the students were eager to assist hatchery staff with various tasks around the hatchery, including reading and recording PIT tags, performing length-weight measurements, and cleaning raceways. Participants remarked, as in past years, that this visit was the most fun that they had during the program and a welcome change from lecture style tours.



Heavy Equipment Training

Rich Calumusso travelled from Seville NWR to complete heavy equipment training for the hatchery staff. Grant, Stuart, Daniel, and Lori received Forklift and Agricultural Tractor certification while Nate, Jeff and Richie had refresher courses. Also in attendance was John Fenslage, a maintenance worker from Alchesay-Williams Creek NFH who received heavy equipment certification.

Polishing Pond Re-filling

The polishing pond was re-filled and a new standpipe was installed. Most of the cattails were removed via Bobcat, while the remaining plants were removed by hand to prevent damage to the bentonite underlayment. The standpipe was re-designed to allow easier removal in the future.

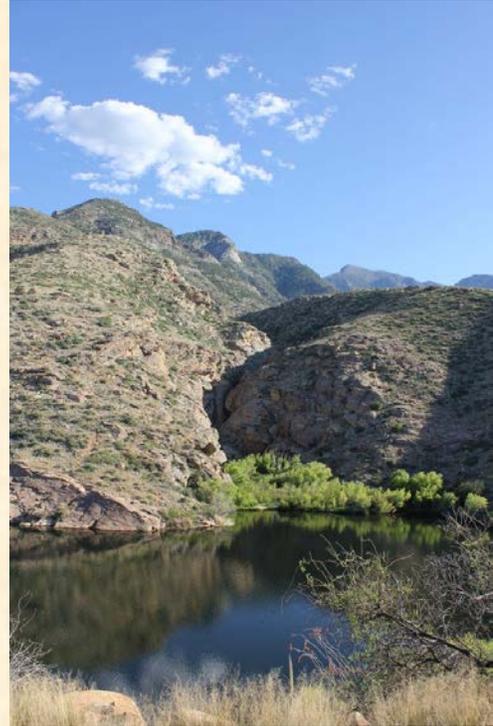


Well Rehabilitation

The pump and motor for Wells 2 and 3 were replaced along with the 4 inch piping to each well which had become corroded. Each well required 10 sections of pipe (50 feet total). Preliminary testing indicate the new wells are delivering 10% more water.

Stocking Frye Mesa Reservoir

Frye Mesa Reservoir in Safford, Arizona was stocked with approximately 476 retired broodstock individuals that weighed 1.1 to 3.0 pounds each. Additional stocking trips will be made in June to bring the total fish stocked to 1500.





Production Lineage	Brood Year	Purpose	Location	Number	Mortality	Sample (fpp)	Length (in)	Biomass (lbs)
Main Diamond	2010	Wild	Visitor Center	17	0	0.3	20.0	69
	2013	Brood	Raceway 1T	491	1	0.8	13.9	614
	2014	Brood	Raceway 6T	1,120	3	3.7	8.7	303
	2015	Brood	AQ, 30	3,213	869	713	1.52	4.5
	2015	Recovery	SR, 96, 250	20,503	2,570	580	1.63	35.4
	2015	Exper.	96	4,931	1,427	809	1.46	6.1
Total				30,275	4,869	29.3	4.4	1,032

South Diamond	2011	Brood	Raceway 4B	65	0	0.3	19.2	212
	2012	Wild	Shady Acres	146	1	2.3	10.3	64
	2012	Brood	Raceway 4T	219	1	0.6	15.8	377
	2013	Brood	Raceway 3T	404	2	0.8	13.7	505
	2013	Recovery	Raceway 3B	83	0	0.8	13.7	104
	2014	Brood	Raceway 7T	740	0	3.2	9.2	231
	2014	Recovery	Raceway 7B	1,295	0	3.2	9.2	405
	2015	Brood	AQ, 30	2,227	2,186	543	1.66	4.1
	2015	Recovery	SR, 96, 250	18,864	5,286	534	1.68	35.3
	2015	Exper.	96	8,787	4,188	714	1.53	12.3
Total				32,830	11,664	16.8	5.3	1,950

Whiskey Creek	2011	Wild	Whiskey Creek	83	3	0.4	17.0	208
	2011	Wild	Visitor Center	40	0	0.4	17.0	100
	2014	Brood	Raceway 8T	645	2	3.6	8.9	179
	2015	Brood	AQ	946	414	660	1.56	1.4
	2015	Recovery	SR, 96, 30	7,353	4,528	660	1.56	11.1
Total				9,067	4,947	18.1	5.2	500

Spruce Creek	2010	Wild	Spruce Creek	25	3	2.5	10	10
	2013	Wild	Spruce Creek	18	0	6	7.5	3
	2014	Brood	RW Circular	51	1	3.9	8.6	13.1
	2014	Wild	Spruce Creek	13	0	10	6.3	1.3
Total				107	4	3.9	8.6	27.4

Iron Creek	2011	Wild	Shady Acres	32	0	1.2	12.8	27
	Total				32	0	1.2	12.8

Total All Lineages				72,311	21,484	20.4	5.0	3537
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Archery Outreach Event

Stuart Wilkins and Priscilla Jansen-Toland filled in for Debbie Pike of the Las Vegas NWR by instructing an archery outreach event at Anton Chico School District in Anton Chico, New Mexico on May 19. The event was greatly enjoyed by all participants.



Upcoming Events

- Morgan Brizendine, Mora's 2015 DFP candidate, starts on June 1.
- Youth Conservation Corp students start on June 8.
- Additional Frye Mesa Reservoir Stocking to take place June 2.
- Willow Creek stocking on June 4.
- Hatchery staff to assist NMFWCO staff with wild sucker collection during the week of June 15.
- Hatchery staff to assist NMGF staff with assessment on Rain Creek, NM during the week of June 22.

In Brief

- Lori Casados organized a Diversity Advisory Committee event at the Regional Office for Cinco de Mayo on May 5.
- Nate, Jeff, and Lori attended several webinars during May concerning the Director's Fellows Position.

Hatchery Staff

Nate Wiese, Project Leader
Lori Casados, Admin. Assistant
Jeff Conway, Fish Biologist
Grant Langmaid, Fish Biologist
Richie Garcia, Maintenance Worker
Stuart Wilkins, Biological Technician
Daniel Gallegos, Intern
Sandy Kalb, Volunteer
Priscilla Jansen-Toland, Volunteer

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