



# Mora National Fish Hatchery

June 2015

## **Gila Trout Updates**

Brood year 2015 Gila trout fingerlings continued to do well in June. Troubleshooting of the UV unit has allowed it to remain in-service for most of the month, treating the water at 360 milli-joules per square centimeter, a dosage that eradicates all but the most hardy fungi. The UV unit combined with the continued flushing of the bio-filter has improved survival in June.

### **South Diamond**

The South Diamond lineage continues to have sufficient numbers for recovery stocking. Approximately 7,300 experimental class fish are currently being used in the conditioning trial. Excess broodstock fingerlings will be added to the recovery population in July. Some mortality this month is attributed to inventory adjustments.

### **Main Diamond**

The Main Diamond lineage continues to have sufficient numbers for recovery stocking. Approximately 2,300 experimental class fish are currently being used to verify the rearing characteristic of the 2,500 gallon tanks. Excess broodstock fingerlings will be added to the recovery population in July. Some mortality this month is attributed to inventory adjustments.

### **Whiskey Creek**

The Whiskey Creek lineage continues to have sufficient numbers for recovery stocking. Broodstock fingerlings will be culled in July to bring the total number of captive broodstock inline with hatchery planning. Excess broodstock will be added to the recovery population, although this is expected to be a small number due to the limited number of families spawned, and low survival of the fingerlings.

### **Iron Creek**

The Iron Creek lineage continues to be held in "Shady Acres", with plans later this summer for the lineage to be moved into the renovated Visitor's Center Isolation system.

### **Spruce Creek**

The Iron Creek lineage continues to be held in Spruce Creek Room with plans later this summer for modification of the existing system to better serve the needs of the multi-year recovery effort.



## Frye Mesa Reservoir

Grant Langmaid and Stuart Wilkins distributed additional retired broodstock to Frye Mesa Reservoir in Arizona on June 2. An additional 1,102 fish were released ranging in size from 7.7 to 19+ inches. The total released for May and June was 1,578.

## Summer Thunderstorms

The Hatchery had numerous thunderstorms move through the area in June with several hail events. Fortunately, no damage was reported, although the gardens of several onsite residents were severely impacted.



## Brush Chipping Continues

The staff continued to chip accumulated fuels around the facility from power line clearing activities. The Rocky Mountain Youth Corps will be here in July to help accomplish additional fuel reduction projects.



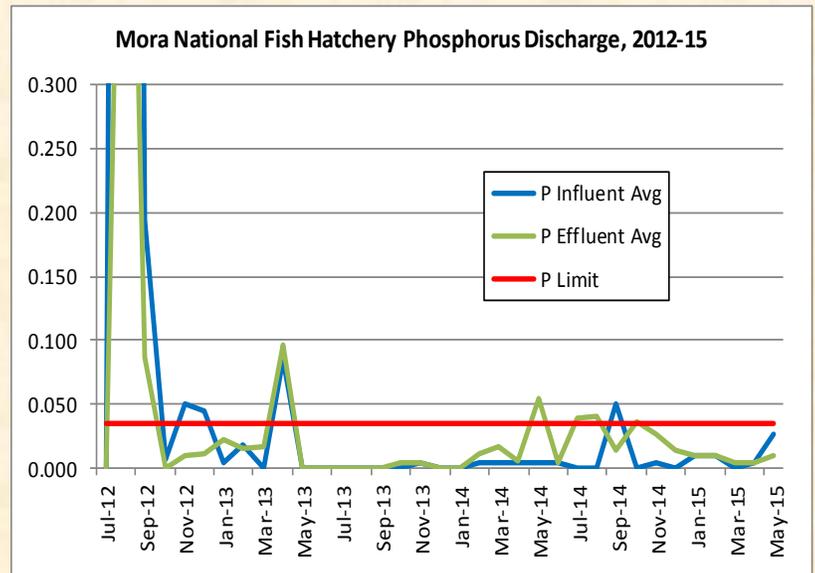


## Morgan Brizendine Starts

Morgan Brizendine was selected as Mora's Directorate Research Assistant Fellows Program (DFP) candidate for 2015. She hails from Virginia where she attended Virginia Tech, graduating in 2013. She is currently attending the University of Arizona. Morgan is extremely excited to be at the station, and cannot wait to start her project. Please welcome her to Region 2.

## EPA Administrative Order

The Mora National Fish Hatchery received an administrative order from the EPA for violation of the Clean Water Act for alleged discharged exceedances of Total Phosphorus. Hatchery staff has pinpointed these exceedances to the influent phosphorus levels which have been at times 100X greater than the discharge limit of 0.030 mg/L. Hatchery staff will continue to work with the Water Enforcement Branch of the EPA to meet compliance.



## YCC Summer Program

Mora's Youth Conservation Corp Program began on June 8. Tristen Valdez and Kimberly Padilla were selected as this year's students. They have assisted with numerous projects thus far, and they approach all projects with a smile and a positive attitude. Kimberly has enjoyed work here so much, that she is considering switching her college major to fisheries in the fall when she starts college.

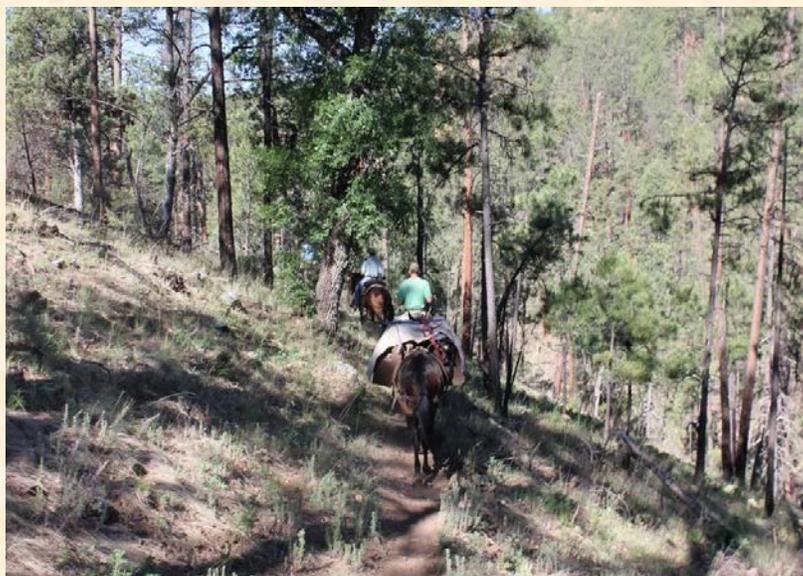


## Desert and Sonoran Suckers Arrive

The hatchery received approximately 210 mixed Desert and Sonoran suckers for use in the hatchery's poly-cultural rearing systems. Sixty of these fish will be sacrificed for fish health clearance before their removal from the new Visitor's Center quarantine system. As with all freshly transferred fish, they will be reared in naturalistic rearing units until acclimated.

## Willow Creek Stocking

Daniel Gallegos and Morgan Brizendine released 609 South Diamond Gila trout into Willow Creek, New Mexico on June 4. These fish ranged in size from 7.7 to 12.7 inches. Also released were 31 wild South Diamond Gila trout that were retired broodstock after contributing to this year's spawning. Morgan happily volunteered to help out the hatchery staff on her third day of work. Thanks Morgan!



## Gila NF Field Work

Nate Wiese assisted the New Mexico Fish and Wildlife Conservation Office and New Mexico Department of Game and Fish with population sampling and non-native removal on Sheep Corral, Little Creek, and Sapillo Creek on June 15 through the 19 in the Gila National Forest. He also assisted with the capture of Desert and Sonoran suckers for transfer back to the hatchery.



Production Lineage	Brood Year	Purpose	Location	Number	Mortality	Sample (fpp)	Length (in)	Biomass (lbs)
Main Diamond	2013	Brood	Raceway 6B	488	3	0.75	14.3	651
	2014	Brood	Raceway 6T	1,119	1	3.7	8.8	302
	2015	Brood	AQ, 30	2,508	705	400	1.9	6.3
	2015	Recovery	SR, 96, 250	18,929	1,574	400	1.9	47.3
	2015	Exper.	2500-3	2,362	2,569	415	1.8	5.7
<b>Total</b>				<b>25,406</b>	<b>4,852</b>	<b>25.1</b>	<b>4.5</b>	<b>1,012</b>

South Diamond	2012	Wild	Shady Acres	113	2	1.7	11	67
	2013	Brood	Raceway 7B	397	7	0.8	13.7	496
	2014	Brood	Raceway 7T	740	0	3.2	9.2	229
	2015	Brood	AQ, 30	2,023	204	350	1.95	5.8
	2015	Recovery	SR, 250	17,483	1,381	400	1.9	43.7
	2015	Exper.	380, SR	7,300	1,487	321	2.0	22.7
<b>Total</b>				<b>28,056</b>	<b>3,081</b>	<b>32.5</b>	<b>4.3</b>	<b>864</b>

Whiskey Creek	2011	Wild	Whiskey Creek	114	9	0.4	17.5	285
	2014	Brood	Raceway 8T	642	3	3.3	9.2	193
	2015	Brood	AQ	700	246	400	1.9	1.8
	2015	Recovery	SR, 96	6,491	862	400	1.9	16.2
<b>Total</b>				<b>7,947</b>	<b>1,120</b>	<b>16.0</b>	<b>5.4</b>	<b>496</b>

Spruce Creek	2010	Wild	Spruce Creek	25	0	2.8	9.6	9
	2013	Wild	Spruce Creek	18	0	5	7.9	3.6
	2014	Brood	RW Circular	51	0	2.4	8.6	21.4
	2014	Wild	Spruce Creek	13	0	15	5.5	0.9
<b>Total</b>				<b>107</b>	<b>0</b>	<b>4.3</b>	<b>8.4</b>	<b>35</b>

Iron Creek	2011	Wild	Shady Acres	32	0	1.3	12.5	23
	<b>Total</b>				<b>32</b>	<b>0</b>	<b>1.3</b>	<b>12.5</b>

<b>Total All Lineages</b>				<b>61,548</b>	<b>9,053</b>	<b>25.3</b>	<b>4.5</b>	<b>2,430</b>
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## Velocity Study Begins

Morgan's DFP project will examine the conditioning of Gila Trout reared at water velocities ranging from 0.5 to 4.0 body lengths per second in re-circulating aquaculture tanks. Recent work in the Pacific Northwest has shown increased swimming speeds of captive salmonids has improved conditioning and resulted in 200% gains in fingerling to adult survival rates.



## Upcoming Events

- EPA Administrative Order Meeting on July 8
- Luna Community College tour on July 9
- RMYCC to begin clearing work on July 13
- Volunteer Priscilla Jansen-Toland's last day on July 16
- Mora's Youth Conservation Corp students at Las Vegas NWR on July 16
- Bonytail Chub refugia committee site visit on July 22
- Las Vegas NWR Youth Conservation Corp student visit on July 27

## In Brief

Matt Patterson, National Conservation Training Center, visited the Hatchery and took 60 Desert and Sonoran Suckers to Dexter for Fish Health sampling

Lori Casados attended a DAC conference call on June 18.

Daniel, Kimberly, and Tristen attended the FAC Youth conference call on June 24.

A tour was given to the US Forest Service summer youth program on June 26

Pascual Maestes, Rocky Mountain Youth Corp Coordinator, visited the hatchery on June 25.

## 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  
Morgan Brizendine, DFP Candidate  
Tristen Valdez, YCC student  
Kimberly Padilla, YCC student

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