



Mora National Fish Hatchery

March 2015

Spawning Continues

South Diamond

The South Diamond broodstock spawning was completed on March 30th. The Hatchery completed 115 genetically suitable broodstock and recovery crosses, of which 53 were captive vs wild. The first seventy-five crosses were eyed by the end of March, and tentative projections put the fertilization rate at 50%, with a resultant fry estimate of 15,000.

Main Diamond

The Main Diamond broodstock spawning was winding down at the end of March. The Hatchery has completed 92 genetically appropriate broodstock and recovery crosses, of which 11 were captive vs wild. Staff estimates that an additional 10-12 crosses are remaining in the spawning population. The first thirty crosses were eyed by the end of March, and tentative projections put the fertilization rate at 50%, with a resultant fry estimate of 6,000.

Whiskey Creek

The Whiskey Creek broodstock spawning was ongoing at the end of March. Staff has spawned a total of 35 lineage females out of about 50 available fish. Hatchery staff will begin LHRHa injections in the remaining females early next month. The first four crosses were eyed by the end of March, and tentative projections put the fertilization rate at 30%, with a resultant fry estimate of 500.

Iron Creek

The Iron Creek population produced 9 crosses by the end March, which is 53% of all available females. Hatchery staff injected 3 viable females on March 30, however the remaining 5 females are sexually immature and will not spawn this spring. The first take of seven crosses were eyed by the end of the month, however only one family successfully developed. This is certainly disappointing, but unfortunately not unusual in a first time spawning population. We'll continue to monitor the remaining fish, and will hopefully have more success in the future. During spawning operations, seven fish were unaccounted and staff speculated these fish were cannibalized.

Spruce Creek

Most Spruce Creek broodstock did not develop gametes this Spring. It does not appear that the Hatchery will have a successful spawn with either the Spruce/Spruce crosses or Spruce/Whiskey hybrids that were proposed at the last Gila Team meeting. Fortunately, the Hatchery offspring from last spring, and younger fish from the Ash Creek recovery effort are doing fine, and the Hatchery should have another chance next year.



Cryopreservation Experiments

William Wayman and Jackyn Selko from Warm Springs Fish Technology Center, Georgia, completed cryopreservation experiments on March 17-20th. Seventy-two replicates of approximately 250 eggs each were completed with excess Main and South Diamond broodstock. The Hatchery staff will assess eye-up and survival rates of these experimental groups with several milt extenders.

Cryopreservation of Rare Lineages

The week prior to the arrival of the Warm Spring Technology Center researchers, the Hatchery staff injected non-viable males with LHRHa to induce milt production. The following lineages were cryopreserved and shipped back to Warm Springs for storage:

Whiskey Creek

42 males (85% of available)

Iron Creek

11 males (62% of available)

Spruce Creek

4 males (20% of available)



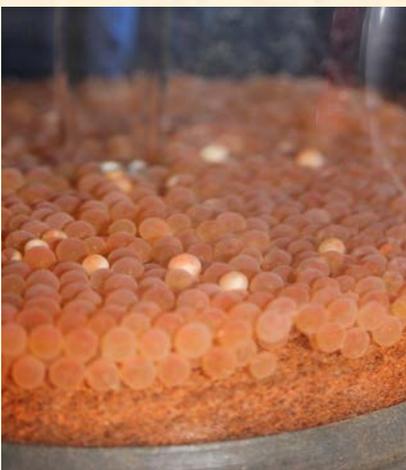


Colorado Fish and Wildlife Conservation Office Visit

Ed Stege, Leadville National Fish Hatchery, and Chris Kennedy, Colorado Fish and Wildlife Conservation Office, visited the hatchery on March 10th. Leadville is working on the endangered Greenback Cutthroat trout, a program similar to the Gila trout recovery effort. Ed and Chris helped the Hatchery staff with spawning and took a tour of the facility.

New Mexico Department of Game and Fish Visit

Jill Wick, Gila Trout Biologist with the New Mexico Department of Game and Fish, helped with spawning operations on March 18-20th. Her help was greatly appreciated, and the staff spawned almost 50,000 eggs that week!

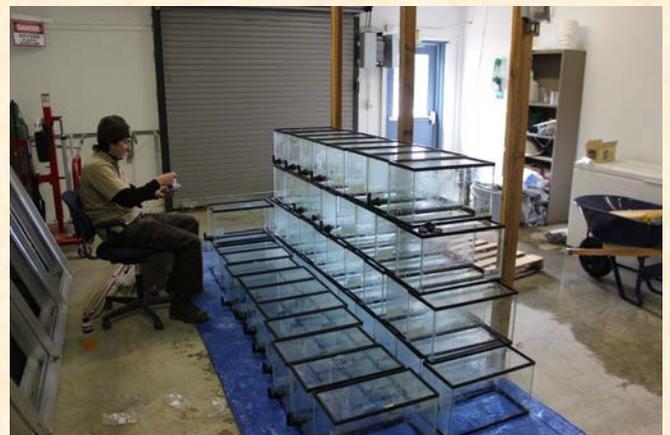


Incubation Jar Trials

The Hatchery spawned several excess Main and South Diamond broodstock to: trial incubation jars received from the Dworshak NFH; complete cryopreservation studies; and compare fecundity and eye-up rates of 2 and 4-year old broodstock.

More Aquariums!

The Hatchery purchased an additional 75 aquariums which were drilled for bulk-head fittings to install stand pipes. The new aquariums will replace cracked units and outfit the two new aquarium stands. The Hatchery now has 144, ten gallon aquariums for broodstock development purposes.





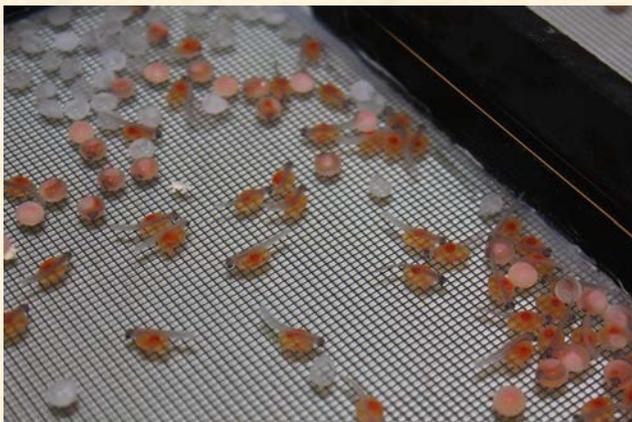
Spring Cleaning

The Hatchery moved spare tanks to the boneyard and loaded scrap steel for recycling. In addition, the old 8-ton fish truck, lawnmower, bobcat tracks, and copy machines were excessed on GSA auctions. The Hatchery still has a slip-in pick-up fuel tank, bulk oil-drum system, and lab equipment available for excess.



Polishing Pond Draining

The Hatchery staff lowered the polishing pond by 2 feet to accommodate removal of accumulated cattails around the bank. The old standpipe was cut to lower the pond and a new-standpipe will be installed with a removable section to accommodate periodic harvesting of the aquatic vegetation.



Fry Hatching

The first fry hatched on March 30th from the fish spawned on February 23rd. Hatching will be in full swing in April.

CO2 Strippers to Boneyard

The CO2 stripper conversion to vacuum de-gassers has been a great success for the Hatchery. Excess parts were moved from around the Hatchery building to the boneyard for longer-term storage.





Production Lineage	Brood Year	Purpose	Location	Number	Mortality	Sample (fpp)	Length (in)	Biomass (lbs)
Main Diamond	2010	Wild	Visitor Center	18	0	0.3	20.0	69
	2011	Brood	Raceway 2B	70	2	0.3	18.6	210
	2012	Brood	Raceway 2T	233	1	0.7	15.3	333
	2013	Brood	Raceway 1T	521	2	0.9	14.0	578
	2013	Recovery	Raceway 1B	196	1	0.9	14.1	216
	2014	Brood	Raceway 6T	1120	3	6.24	7.1	179
	Total				2158	9	1.4	12.1
South Diamond	2011	Brood	Raceway 4B	69	0	0.3	19.2	212
	2012	Wild	Shady Acres	147	1	2.3	10.3	64
	2012	Brood	Raceway 4T	226	1	0.6	15.8	377
	2013	Brood	Raceway 3T	410	2	1.0	13.7	410
	2013	Recovery	Raceway 3B	84	0	1.5	11.4	56
	2014	Brood	Raceway 7T	740	0	8.2	6.7	90
	2014	Recovery	Raceway 7B	1295	0	7	7.4	185
Total				2971	4	2.1	10.6	1394
Whiskey Creek	2011	Wild	Whiskey Creek	88	3	0.4	17.0	220
	2011	Wild	Visitor Center	40	0	0.4	17.0	100
	2014	Brood	Raceway 8T	647	2	7.5	6.9	94
	Total			775	5	1.9	11	414
Spruce Creek	2010	Wild	Spruce Creek	28	3	3	9.4	9
	2013	Wild	Spruce Creek	18	0	8	6.4	2
	2014	Brood	RW Circular	57	1	3.9	8.6	16
	2014	Wild	Spruce Creek	13	0	20	5	1
	Total			116	4	4.3	8.4	27
Iron Creek	2011	Wild	Shady Acres	32	8	1.4	12.1	23
	Total			32	8	1.4	12.1	23
Total All Lineages				6052	30	1.8	11.1	3443

Sandy Kalb arrives!

Three-season veteran, Sandy Kalb, arrived to volunteer for the summer. His arrival was marked by a late-spring snowstorm. Let's hope the snow isn't a summer omen!



In Brief

- Jeff Conway attended Project Leader Academy
- Nate Wiese met with Tim Hagaman from the New Mexico Community Business Rural Development Department
- Richie Garcia took the 2013 F250 fish truck to Santa Fe for re-call work
- Daniel Gallegos, Student Intern, worked during his Spring Break from Luna Community College
- Richie Garcia and Lori Casados met with Daniel Alcon, New Mexico State Parks, to discuss planning for an upcoming fish derby at Coyote Creek State Park

Upcoming Events

- Outdoor Classroom event on April 10th
- Highlands University Career Fair April 23rd with Las Vegas NWR
- All staff to Water Re-use course in Phoenix, AZ, April 27-30th
- Priscilla Jansen-Toland, summer volunteer, starts April 2nd

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

Contact Us

Mora NFH
PO Box 689
Highway 434 Mile Marker 2
Mora, NM 87732
575-387-6022
575-387-9030 (fax)