Ennis National Fish Hatchery

JULY 2020 MONTHLY REPORT

Spawning Activities

Erwin x Arlee (EED) spawning began on July 15th. Age 2 – 3 females are being spawned with age 2 males. Three spawns occurred in July and a total of 493 females were spawned.

15 July 2020 Spawning

Triploid (3N) eggs were produced on 22 July 2020. Triploid eggs were produced from 48 fish.

Construction Projects

Aluminum egg incubator stand construction was completed in July. The aluminum stands were fixed to the ground with bolts and incubators were placed back in their positions to accommodate spawning activities.

14 July 2020

Construction continued on the water degassing column project throughout July.

Summary of Fish on Station - Raceways

Strain	Lot Number	Number of Fish	FPP	Raceway Weight (Pounds)	Total Length (Inches)	July Mortality
Arlee	RBT-ARD-17-ENN	682	*0.40*	*1,705*	*18.4*	5
Arlee	RBT-ARD-18-ENN	1,499	0.39	3,844	18.6	4
Arlee	RBT-ARD-19-ENN	2,252	6.13	367	7.4	0
Erwin X Arlee	RBT-EED-17-ENN	282	*0.25*	*1,128*	*21.5*	40
Erwin X Arlee	RBT-EED-18-ENN	2,781	*0.50*	*5,462*	*17.1*	87
Erwin X Arlee	RBT-EED-19-ENN	2,480	1.38	1,797	12.2	3
Eagle Lake	RBT-ELD-18-ENN	852	*0.50*	*1,704*	*17.1*	25
Eagle Lake	RBT-ELD-19-ENN	3,093	0.61	5,070	16.0	4
Fish Lake	RBT-FLD-18-ENN	365	0.41	890	18.2	2
Fish Lake	RBT-FLD-19-ENN	2,821	0.75	3,761	14.9	3
McConaughy	RBT-MCD-17-ENN	223	*0.40*	*558*	*18.4*	7
McConaughy	RBT-MCD-18-ENN	269	0.52	517	16.9	5
McConaughy	RBT-MCD-19-ENN	728	0.78	933	14.7	2
Shasta	RBT-SSD-18-ENN	524	*0.30*	*1,747*	*20.3*	9
Shasta	RBT-SSD-19-ENN	982	0.37	2,654	18.9	1

1. Italic denotes estimate

Summary of Fish on Station – Early Rearing Units

Strain	Lot Number	Number of Fish	FPP	Tank Weight (Pounds)	Total Length (Inches)	July Mortality
Eagle Lake #1	RBT-ELD-20-ENN	754	10.29	73	6.2	3
Eagle Lake #2	RBT-ELD-20-ENN	891	10.63	84	6.2	17
Eagle Lake #3	RBT-ELD-20-ENN	722	10.04	72	6.3	0
Eagle Lake #4	RBT-ELD-20-ENN	842	11.19	75	6.1	2
Eagle Lake (Production)	RBT-ELD-20-ENN	9,962	28.0	356	4.5	24
Fish Lake #1	RBT-FLD-20-ENN	713	25.50	28	4.6	2
Fish Lake #2	RBT-FLD-20-ENN	829	31.76	26	4.3	0
Fish Lake #3	RBT-FLD-20-ENN	620	31.65	20	4.3	0
Fish Lake #4	RBT-FLD-20-ENN	760	36.25	21	4.1	1
Harrison L. Wild	RBT-HLW-20-ENN	13,748	407.14	34	1.8	164
McConaughy #1	RBT-MCD-20-ENN	555	14.57	38	5.6	0
McConaughy #2	RBT-MCD-20-ENN	478	19.57	24	5.0	0
McConaughy #3	RBT-MCD-20-ENN	529	17.42	30	5.2	2
McConaughy #4	RBT-MCD-20-ENN	282	15.98	18	5.4	1
McConaughy (Production)	RBT-MCD-20-ENN	31,597	48.20	655	3.7	23
Shasta #1	RBT-SSD-20-ENN	845	15.66	54	5.4	1
Shasta #2	RBT-SSD-20-ENN	822	15.41	53	5.4	0
Shasta #3	RBT-SSD-20-ENN	797	15.23	52	5.5	3
Shasta #4	RBT-SSD-20-ENN	812	15.90	51	5.4	1

Summary of Fish Stocking

Date	Lot Number	Location	# of Fish
7/15/20	RBT-ELD-20-ENN	Ruby Reservoir	9,962

Education and Outreach

Trout Unlimited – Westslope Chapter, will be sending a professional photographer to document Kristen's field work and research. SITKA® will also be documenting Kristen's field work. SITKA® will be featuring Kristen on their Instagram account.

Employee Development

Kristen Cook continues to work towards her master's degree. She was recently accepted into the *Inner Mountain Leadership Program*. This program is a competitive leadership program for Montana State University graduate students. This program will last 9 months and Kristen will be conducting it on her personal time.

Innovation

Ron Hopper joined a USFWS team consisting of members from FWCO's, FHC's, FTC's, and NFH's. The team is working towards development of a proposal to reduce or eliminate using formalin to treat fish eggs.

Ron Hopper met with staff from the Bozeman Fish Health Center and a representative from Moleaer Aeration Technologies (leaders of nanobubble technology in aquaculture) to discuss a potential future research project at Ennis aimed at increasing fish health and decreasing gas supersaturation in water.

Ron Hopper worked with staff and engineers from Vertical Wetland Effluent System aimed towards redesigning electrical and mechanical components of the Ennis NFH effluent treatment system. The project goal is increased dependability of the system and user ease.

Upcoming Activities

- Ennis NFH employees will continue to abide by COVID-19 safety protocol.
- Construction will continue on the water degassing column project.
- Jared Knott will attend CDSO training when it becomes available.
- Joe Helseth will attend wastewater training when it becomes available to perform water quality collection / testing at Ennis NFH.

Current Hatchery Staff

- Ron Hopper – Acting Project Leader
- Joe Helseth – Fish Biologist
- Kristen Cook – Fish and Wildlife Biologist
- Jared Knott – Biological Science Technician
- Jim McFall – Biological Science Technician
- Steve Nelson - Mainteance Worker

Contact Information

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