

# **Oregon Department of Fish and Wildlife**

## **Lookingglass Hatchery Monthly Progress Report**

**Reporting Month:**                   **October 2008**  
**Author(s) :**                         **Roger Elmore**

### **Fish Culture:**

Lookingglass Hatchery staff finished shocking and machine picking BY 2008 Spring Chinook eggs. Hand picking of blank and dead eggs is continuing. After machine counting, egg numbers by stock are as follows: Upper Grande Ronde-42,458, Catherine Creek-117,605, Lookingglass-265,244, Imnaha-424,552, and Lostine-247,274. The total of all conventional eggs is 1,097,133. There were two Imnaha stock females' eggs culled due to high ELISA values. Twenty eggs from each female spawned were weighed individually as part of a research project. Laurie Hewitt from CTUIR assisted with egg weighing and picking. At the end of October the first group of captive brood eggs arrived. The captive brood eggs are of Lostine stock origin and after counting at Lookingglass, there are 5,808 eggs in incubation. The first egg take lots have hatched.

PIT tagging of BY 2007 pre-smolts began on October 6 and ended on October 16. The PIT tagging operation ran very smoothly. By stock, the following number of fish received PIT tags: Catherine Creek conventionals-20,960, Catherine Creek captives-995, Lookingglass-499, Upper Grande Ronde conventionals-990, Upper Grande Ronde captives-495, Lostine conventionals-5,967, Lostine captives-1,995, Imnaha-20,971. Formalin treatments were administered to control fungus growth in the incubating eggs in the hatch house and in the raceways after PIT tagging.

Sample counts of brood year 2007 pre-smolts averaged 29 fish per pound. Use of the automatic fish feeders was discontinued due to colder weather conditions.

### **Maintenance:**

Lookingglass hatchery staff began winterization preparations in October. Snow poles were set out and objects that could interfere with snow plowing tagged. Water faucets were protected from freezing, fire hydrants and fire suppression equipment checked, vehicles and snowblowers were made ready for winter use, and heaters readied for use. Jump boards on the Canadian troughs were modified and tires on the forklift were replaced.

### **NPDES Waste Discharge Permit Monitoring**

The chemical usage log was updated with chemicals used during PIT tagging operations. Quarterly Discharge Monitoring Reports were sent to DEQ.

### **Miscellaneous:**

Roger attended the Northeast Region Quarterly meeting and training put on by Administrative Services covering procurement and grants. Bids for materials to

construct new headscreens were submitted to LSRCP for purchase. The adult fish bypass channel at Imnaha was cleared of debris and boulders placed to prevent unauthorized vehicle passage. Lookingglass Hatchery was informed that Lower Snake would no longer partially fund the U.S. Geological Services' water flow and temperature gauging station located on Lookingglass Creek. Alpine Chimney Service performed maintenance work on residential wood stoves and chimneys. An extra snowmobile was transferred to the Burns Paiute Tribe and a 2004 Dodge Hemi pickup truck was transferred to Hagerman Federal Hatchery. A snow plow blade that was not being used went to auction and was purchased by a company in Alaska. Snouts containing Coded Wire Tags were picked up by fisheries research for evaluation.

**Personnel:**

Interviews were held in late October for the open fisheries technician position. Michael Herr was selected from a field of 4 candidates. Michael will begin work on December 1.

**Safety:**

The monthly safety meeting was held October 21 reminding the crew about precautions to take with the upcoming winter season. Operation of walk behind snow blowers, larger snow removal equipment, and proper clothing and footwear to wear was covered. A review of ODFW Worker's Compensation Facts was discussed.

**Fish Distributions:**

Fish on Hand in Raceways:

Pond #	Species	Stock	Number of Fish	lbs of fish	F/lb	grams/Fish
1	CHS	CQ 201-07	46,921	1,573	29.8	15.2
2	CHS	CQ 201-07	46,453	1,532	30.3	15.0
3	CHS	CQ 201-07	45,818	1,460	31.4	14.5
4	CHS	CQ 201-F-07	72,256	2,426	29.8	15.2
5	CHS	CQ 201-F-07	28,384	1,038	27.4	16.6
6	CHS	LG 81-07	50,187	1,715	29.3	15.5
7	CHS	GQ 80-07	49,793	1,789	27.8	16.3
8	CHS	GQ 80-F-07	52,553	2,067	25.4	17.8
9	CHS	GQ 80-07	44,762	1,684	26.6	17.1

10	CHS	LQ 200-07	62,214	2,084	29.9	15.2
11	CHS	LQ 200-07	62,324	2,061	30.2	15.0
12	CHS	LQ 200-07	61,862	2,009	30.8	14.7
13	CHS	LQ 200-F-07	62,114	1,891	32.9	13.8
14	CHS	IM 29-07	58,958	2,065	28.6	15.9
15	CHS	IM 29-07	59,001	2,283	25.8	17.6
16	CHS	IM 29-07	58,984	2,129	27.7	16.4
17	CHS	IM 29-07	55,119	2,018	27.3	16.6
18	CHS	IM 29-07	62,475	2,270	27.5	16.5
Totals/Average			980,178	34,092	28.8	15.8

<b>Stock</b>	<b># of Fish</b>	<b>Production Goal</b>	<b>% of Goal</b>	<b>Meeting Goal</b>
CQ 201-07	139,192	130,000	107.07	<b>YES</b>
CQ 201-F-07*	100,640			
LG 81-07**	50,187	250,000	60.33	<b>NO</b>
GQ 80-07	94,555	250,000	37.82	<b>NO</b>
GQ 80-F-07	52,553			
LQ 200-07	186,400	187,500	99.41	<b>YES</b>
LQ 200-F-07	62,114	62,500	99.38	<b>YES</b>
IM 29-07	294,537	360,000	81.82	<b>NO</b>

\* Surplus to Lookingglass \*\* includes surplus from Catherine Creek Captives

## Egg Data 2008

Stock	Females Spawmed	Eyed eggs on hand
CQ 201-08	32	117,189
CQ 201-F-08	From Oxbow	0
LG 81-08	76	263,804
GQ 80-08	12	42,355
GQ 80-F-08	From Oxbow	0
LQ 200-08	56	246,576
LQ 200-F-08	From Oxbow	5,808
IM 29-08	104	421,518
	280	1,097,250*

\*-Includes dead eggs removed by hand picking.

## Fish Health

Below is the fish health summary for BY2007 juveniles and health results for returning broodstock covering the period from August through September.

### II. LSRCP Fish Health Examinations

#### A. Lookingglass Hatchery

**BY2007 ChS** – See summary below for August. Hatchery staff reported that juvenile mortality has been very low. No virus has been detected in juveniles thus far this year. BKD testing results are pending for August/September. A 28-day aquamycin medicated feeding for all stocks was completed on August 18<sup>th</sup>.

August & September Fish Health summary for BY2007 spring Chinook juveniles on hand at Lookingglass Hatchery.

Stock #	Stock Name	Culture Results	Comments
201W07	Catherine Creek Conventional	10/20 (50%) had aeromonad-pseudomonad (APS) bacteria	
201F07	Catherine Creek Captive Brood progeny	3/20 (15%) had APS bacteria and 1/20 had a moderate level of internal fungus	2/20 had tail fungus
80W07	Grande Ronde River Conventional	3/19 (15.8%) had APS bacteria and 1/19 (5.3%) had a heavy level of <i>Yersinia ruckeri</i> (enteric redmouth)	2/19 had tail fungus
80F07	Grande Ronde River Captive Brood progeny	4/11 (36.4%) had APS bacteria	
8107	Lookingglass Creek	3/13 (23.1%) low levels of APS bacteria	
200W07	Lostine River Conventional	9/20 (45%) APS bacteria 1/20 (5%) internal fungus	6/20 mortalities were smaller scoliosis fish
200F07	Lostine River Captive Brood progeny	6/15 (40%) had APS bacteria	2/15 mortalities had slight scoliosis
2907	Imnaha River	1/20 (5%) internal fungus 1/20 (5%) APS bacteria	2/20 had tail erosion and 1/20 had a kidney adhesion

**Adult Spawner Examinations, Imnaha, Lostine River, Lookingglass Creek, Catherine Creek and**

**Grande Ronde** – See summary table by stock below. Infectious hematopoietic necrosis virus (IHNV)

was detected in all five stocks with the highest prevalence in the Lookingglass Creek stock.

Stock	Number of females	Findings			Comment
		BKD ELISA	Cell Culture Virus Results- IHNV	# with notable (medium-large) egg masses	
IM	104	#9 = 0.213 OD units #100 = 0.209 OD units all others ≤ 0.143	31/104 (29.8%) females and 3/60 (5%) males positive for IHNV	71	Recommend culling eggs from females #9 & #100
LR	56	All ≤ 0.131 OD units	27/56 (48.2%) females and 5/41 (12.2%) males positive for IHNV	3	
LG-CK	76	All ≤ 0.181 OD units	48/76 (63.1%) females and 3/18 (16.7%) males positive for IHNV	0	
CC	32	All ≤ 0.165 OD units	13/32 (40.6%) females positive for IHNV	0	
GR	12	All ≤ 0.097 OD units	1/12 (8.3%) females positive for IHNV	0	

**Adult Spring Chinook Mortality Examinations** – See table below for mortalities examined in Aug/Sept.

Stock	Number Examined	Findings			Comment
		BKD ELISA	Systemic Bacteria <sup>a</sup>	External Fungus	
IM	31	All ≤ 0.094 OD units	10/30 (33.3%) of fish cultured for systemic bacteria had APS	8/31 (25.8%) had patches of external fungus and four had gill fungus, six had low levels of copepods on the gills	-Includes one oral tumor fish that was killed on 8/11/08 and another tumor fish 8/30/08. -Two probable erythromycin toxicity -includes some recycled males
LR	14	All ≤ 0.087 OD units	13/14 (92.9%) APS	13/14 (92.9%) had some external fungus including seven with gill fungus	-Includes several recycled males -9 had low-moderate levels of copepods on the gills
LG-CK	8	All ≤ 0.090 OD units	7/7 (100%) APS and 1/7 (14.3%) had moderate levels of mixed bacterial growth	7/8 had some external fungus with one having gill fungus	-five were males that had previously spawned -two had low levels of copepods on the gills
CC	0				-No broodstock mortality in 2008
GR	1	0.053 OD units	1/1 (100%) APS	None	

<sup>a</sup> APS = aeromonad-pseudomonad bacteria.

**Distribution:**

Joe Krakker	Lower Snake, Boise
Chris Starr	Lower Snake, Boise
Scott Marshall	Lower Snake, Boise
Tammy Froscher	Lower Snake, Boise
Sam Onjukka	Pathology, LaGrande
Mary Hoverson	N. E. Region, LaGrande
Scott Patterson	N. E. Region, LaGrande
Kim Sines	N. E. Region, LaGrande
Brad Smith	N. E. Region, Enterprise
Bill Knox	N. E. Region, Enterprise
Fred Monzyk	Research, La Grande
Rich Carmichael	Research, LaGrande
Pat Keniry	Research, LaGrande
Tim Hoffnagle	Research, LaGrande
Deb Eddy	Research, LaGrande
Steve Boe	C.T.U.I.R., LaGrande
Mike McLean	C.T.U.I.R., LaGrande
Carrie Crump	C.T.U.I.R., LaGrande
Laurie Hewitt	C.T.U.I.R., LaGrande
Gary James	C.T.U.I.R., Pendleton
Brian Zimmerman	C.T.U.I.R., Pendleton
Becky Johnson	Nez Perce, Enterprise
Jim Harbeck	Nez Perce, Enterprise
Rick Zollman	Nez Perce, Enterprise
Peter Cleary	Nez Perce, Enterprise
Rusty Eschler	Nez Perce, Enterprise
Mary Edwards	Nez Perce, Enterprise
Cameron Albee	Nez Perce, Enterprise
Mike Gribble	Irrigon Hatchery
Marla Chaney	Bonneville Hatchery
Greg Davis	Bonneville Hatchery
Duane Banks	Oxbow Hatchery
Guy Chilton	ODFW, Salem HQ
Muhammad Latif	ODFW, Salem HQ
Todd Hanna	Mt. Hood CC
Roger Elmore	Lookingglass Hatchery
Diane Deal	Lookingglass Hatchery