

Oregon Department of Fish and Wildlife

Lookingglass Hatchery Monthly Progress Report

Reporting Month: February 2010
Author(s): Roger Elmore and Diane Deal

Fish Culture:

February weather continued to be relatively mild allowing for increased feeding to BY08 with month end sample counts reflecting an increase in fish size. Fisheries research along with CTUIR and NPT conducted pre-release sampling checking for CWT retention, ad-clips, lengths and weights the week of February 8th.

More BY 09 fry were ponded into Canadian troughs and started on feed. EWOS brand feed is being fed to the BY 09 cohort and so far the feeding response has been very good. The remaining fry in incubation will be ponded in early March. An additional two Canadian troughs purchased in December were plumbed in for additional early rearing space. There are now 30 Canadian troughs.

Additional screens were put into place at the hatchery intake to keep out spring runoff debris. Sill boards installed over winter to increase the depth of the pool in front of the intake were removed.

Maintenance:

Ladco Electric attempted to repair outdoor lighting around the hatchery, but there are still problems with the light sensors. Ladco Electric removed unnecessary wiring from the Program Logic Controller in the TW2 well building at the intake. Steps were built to replace rung style ladder steps at key entry and exit points to the adult holding ponds and raceways. Running boards were added to the Ford truck. The storage van was cleaned and organized.

NPDES Waste Discharge Permit Monitoring

Domestic DEQ water samples were not collected in February. NPDES water samples were taken for the quarter in February. There were no non-compliance issues.

Miscellaneous:

Roger attended the regional quarterly meeting, UMMEOC meeting, and traveled to Boise for training on BPA's PISCES program management software program. Roger submitted furlough leaves for the upcoming quarter to Human Resources and began working on the annual State Fire Marshall hazardous material report. The most recent 5 years' of Lookingglass and Imnaha Chinook trapping records were sent to Lower Snake for entry into the Hatchery Management Database System. John Hill of Enterprise Electric analyzed the existing domestic well electrical supply providing input to McMillen Co. Stoffel Brothers Drilling and Pendleton Grain Growers worked on starting the TW-3 well pump and to collect a water sample to test for coliform, arsenic, nitrates,

and E. coli. Due to the mild weather, de-winterization began around the facility. Wallowa County Road Department checked the Imnaha acclimation facility road and reported that there is no snow that needs removed this year. Ed Staub Propane was contacted and an appointment made to perform maintenance on the cabin's propane heaters. Bill Barnes performed quarterly housing inspections.

Personnel:

Michael Herr, Fish and Wildlife Technician, accepted a position in Washington State and will be leaving LGH on March 15th. While Mike was at Lookingglass for just over one year, Mike's contribution to the hatchery, ODFW, and fisheries resources was significant and he will be missed. Thank you for a job well done.

Bill Barnes and Diane Deal attended liberation truck training by Jack Woods, lib truck coordinator and Tim Burns, driver. Diane drove the liberation truck February 22nd through 24th delivering Steelhead smolts to Wallowa Fish Hatchery.

Safety:

The monthly safety meeting was held February 23rd. Discussion centered on safe operation of the fish pump since LGH will be loading fish to send to acclimation sites throughout March. The quarterly safety inspection was performed with some fire extinguishers requiring attention. All fisheries technicians received First Aid/CPR/AED training.

Fish Production and Distribution:

Fish in Raceways

| Pond # | Species | Stock | Number of Fish | lbs of fish | F/lb | grams/Fish |
|--------|---------|-------------|----------------|-------------|------|------------|
| 1 | CHS | CQ 201-08 | 71,795 | 3,435 | 20.9 | 21.7 |
| 2A | CHS | CQ 201-08 | 38,819 | 1,894 | 20.5 | 22.1 |
| 2B | CHS | CQ 201-F-08 | 24,400 | 1,162 | 21.0 | 21.6 |
| C-19 | CHS | CQ 201-F-08 | 9,912 | 312 | 31.8 | 14.3 |
| 3 | CHS | LG 81-08 | 73,218 | 3,254 | 22.5 | 20.2 |
| 4 | CHS | LG 81-08 | 79,607 | 3,602 | 22.1 | 20.5 |
| AHP | CHS | LG 81-08 | 110,877 | 7,153 | 15.5 | 29.3 |
| 5 | CHS | GQ 80-08 | 42,015 | 1,827 | 23.0 | 19.7 |
| 6 | CHS | GQ 80-F-08 | 64,757 | 3,026 | 21.4 | 21.2 |
| 7 | CHS | GQ 80-F-08 | 64,978 | 2,371 | 27.4 | 16.6 |
| 8 | CHS | GQ 80-F-08 | 61,010 | 2,089 | 29.2 | 15.5 |
| 9 | CHS | LQ 200-08 | 61,692 | 2,603 | 23.7 | 19.1 |
| 10 | CHS | LQ 200-F-08 | 61,539 | 2,190 | 28.1 | 16.1 |
| 11 | CHS | LQ 200-08 | 61,387 | 2,612 | 23.5 | 19.3 |
| 12 | CHS | LQ 200-08 | 60,679 | 2,361 | 25.7 | 17.6 |
| 13 | CHS | IM 29-08 | 66,539 | 3,246 | 20.5 | 22.1 |

| | | | | | | |
|----------------|-----|----------|-----------|--------|------|------|
| 14 | CHS | IM 29-08 | 66,594 | 3,112 | 21.4 | 21.2 |
| 15 | CHS | IM 29-08 | 65,755 | 2,834 | 23.2 | 19.6 |
| 16 | CHS | IM 29-08 | 66,906 | 3,186 | 21.0 | 21.6 |
| 17 | CHS | IM 29-08 | 66,561 | 2,919 | 22.8 | 19.9 |
| 18 | CHS | IM 29-08 | 60,418 | 2,662 | 22.7 | 20.0 |
| Totals/Average | | | 1,279,458 | 57,851 | 23.2 | 20.0 |

| Stock | # of Fish | Production Goal | % of Goal | Meeting Goal |
|-------------|-----------|-----------------|-----------|--------------|
| CQ 201-08 | 110,614 | 130,000 | 103.9 | YES |
| CQ 201-F-08 | 24,400 | | | |
| LG 81-08 | 255,885 | 250,000 | 102.3 | YES |
| GQ 80-08 | 42,015 | 250,000 | 93.1 | NO |
| GQ 80-F-08 | 190,745 | | | |
| LQ 200-08 | 183,758 | 187,500 | 98.0 | NO |
| LQ 200-F-08 | 61,539 | 62,500 | 98.4 | NO |
| IM 29-08 | 392,733 | 360,000 | 109.0 | YES |

| Stock | Spawned Females | EGG TAKE | EGGS RECEIVED | EGGS TRANS. | EGGS SHIPPED | EGG and Fry LOSS | EGGS RELS | FRY ON HAND |
|-------------|-----------------|----------|---------------|-------------|--------------|------------------|-----------|-------------|
| CQ 201-09 | 43 | 165,263 | 0 | 0 | 0 | 11,781 | 0 | 153,482 |
| CQ 201-F-09 | 0 | 0 | 104,319 | 0 | 0 | 6,513 | 1,915 | 95,891 |
| LG 81-09 | 26 | 101,637 | 0 | 0 | 0 | 3,281 | 0 | 98,356 |
| GQ 80-09 | 61 | 261,136 | 0 | 330 | 0 | 60,250 | 0 | 200,876 |
| GQ 80-F-09 | 0 | 0 | 202,129 | 0 | 143,349 | 661 | 0 | 58,119 |
| LQ 200-09 | 57 | 262,883 | 0 | 0 | 0 | 80,090 | 0 | 182,793 |
| LQ 200-F-09 | 0 | 0 | 113,681 | 0 | 0 | 3,590 | 0 | 110,091 |

| | | | | | | | | |
|----------|-----|---------|---|---|---|--------|---|---------|
| IM 29-09 | 109 | 513,432 | 0 | 0 | 0 | 75,095 | 0 | 438,337 |
|----------|-----|---------|---|---|---|--------|---|---------|

Fish Health

Fish pathology performed monthly sampling on February 17, 22, and 24th. BY 09 fish were sampled the 22nd and BY 08 fish on the 17th, 22, and 24th. Pre-release sampling was combined with monthly fish health sampling. Fish in all raceways and circular pond 19 were given a three day formalin treatment.

LSRCP Fish Health Examinations

A. Lookingglass Hatchery

BY2008 ChS – see summary table below. Virus testing results are pending for January examinations conducted on 1/25/10; so far there is no evidence of virus on day nine of cell culture testing. BKD ELISA results are complete through the end of January; we found a total of three BKD mortalities during January from the following raceways: R3, R6 & R9. Various levels of *Epistylis* and *Apiosoma* were detected in skin scrapings; moderate to heavy levels of *Epistylis* were detected in moribund fish examined from R11 & R15. *Ichthyobodo* (*Costia*) was detected on the gills of one moribund fish from R1 and on skin scrapings of fish from R1, R9 & R10. Some fish continued to display excessive mucus anterior to the dorsal fin. Samples were collected on 1/12/10 for epitheliotropic disease virus (EEDV) testing by PCR. John Kaufman (Corvallis Fish Health Services) reported that all samples submitted for EEDV testing were negative.

| Stock | Raceway | BKD Segregation | Cumulative % Mortality ^a | Proportion (%) ELISA OD \geq 1.000 |
|---|-------------|-----------------|-------------------------------------|--------------------------------------|
| Catherine Creek Conventional (201W08) | R1 | Low | 3.31 | 0/31 (0) |
| Catherine Creek Conventional (201W08) | R2A | Low | 3.03 | 0/29 (0) |
| Catherine Creek Captive F ₁ (201F08) | R2B | Low | 2.13 | 0/38 (0) |
| Catherine Creek Captive F ₁ (201F08) | Circular 19 | Low | 3.08 | 0/15 (0) |
| Lookingglass Creek (81.08) | R3 | Low | 2.14 | 1/20 (5%) |
| Lookingglass Creek (81.08) | R4 | Low | 2.16 | 0/25 (0) |
| Lookingglass Creek (81.08) | AHP | Low | 0.58 | 0/13 (0) |
| Grande Ronde Conventional (80W08) | R5 | Low | 0.88 | 0/39 (0) |
| Grande Ronde Captive F ₁ (80F08) | R6 | Low | 1.30 | 1/19 (5.3%) |
| Grande Ronde Captive F ₁ (80F08) | R7 | Low | 2.10 | 1/18 (5.5%) |
| Grande Ronde Captive F ₁ (80F08) | R8 | Low | 1.70 | 0/23 (0) |
| Lostine River Conventional (200W08) | R9 | Low | 0.71 | 1/17 (5.9%) |
| Lostine River Captive F ₁ (200F08) | R10 | Low | 1.79 | 0/52 (0) |
| Lostine River Conventional (200W08) | R11 | Low | 1.07 | 0/18 (0) |
| Lostine River Conventional (200W08) | R12 | Low | 1.04 | 0/21 (0) |
| Imnaha River Conventional (2908) | R13 | Low | 1.52 | 0/10 (0) |
| Imnaha River Conventional (2908) | R14 | Low | 0.89 | 1/10 (10%) |
| Imnaha River Conventional (2908) | R15 | Low | 1.35 | 0/12 (0) |
| Imnaha River Conventional (2908) | R16 | Low | 0.73 | 0/9 (0) |
| Imnaha River Conventional (2908) | R17 | Low | 0.95 | 0/11 (0) |
| Imnaha River Conventional (2908) | R18 | Low | 0.41 | 0/7 (0) |

^a based on the latest mortality information from Lookingglass and any adjustments for excel formula errors.

January Fish Health summary for BY2008 spring Chinook juveniles on hand at Lookingglass Hatchery

| Stock # | Stock Name | Culture Results | Comments |
|---------|------------------------------|--|--|
| 201W08 | Catherine Creek Conventional | 2/10 aeromonad pseudomonad (APS) bacteria & 2/10 had mixed bacterial growth at low level | 3/10 mort/moribund fish had tail fungus & 1/10 had gill fungus |

| | | | |
|--------|--|--|---|
| 201F08 | Catherine Creek Captive Brood progeny | 6/10 APS & 4/10 internal fungus at low levels | 1/10 mortalities had tail fungus and 1/10 had body fungus |
| 80W08 | Grande Ronde River Conventional | 6/10 APS & 2/10 internal fungus at low levels | 1/10 mortalities had tail fungus, 1/10 had head/gill fungus and another had dorsal fungus |
| 80F08 | Grande Ronde River Captive Brood progeny | 4/10 APS & 7/10 internal fungus (four at moderate level and three at low level) | 1/10 mortalities had gross signs of BKD , 1/10 severe tail erosion & 1/10 gill fungus |
| 8108 | Lookingglass Creek | 1/10 APS | 1/10 mortalities had gross signs of BKD, 1/10 tail rot and fungus & 2/10 had external fungus on body or fin |
| 200W08 | Lostine River Conventional | No significant levels of systemic bacteria | 1/10 mort/moribund fish had gross signs of BKD |
| 200F08 | Lostine River Captive Brood progeny | 1/10 APS | 1/10 mortalities had tail fungus, 1/10 gill fungus and 1/10 had fungus on the mouth |
| 2908 | Imnaha River | 4/10 APS | 1/10 mort/moribund fish had a fungus patch on one side |

BY2009 ChS – No problems reported or detected in Lookingglass Creek, Lostine River Grande Ronde and Imnaha conventional stocks that were examined on January 12. We found there was a 98.5% reduction in total bacterial counts in post UV treated Lookingglass Creek water with a theoretical UV dose of ~240,000 mw and a flow of ~525 GPM.

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 |
| Tracy Wyllie | N. E. Region LaGrande |
| Bill Knox | N. E. Region, Enterprise |
| Joe Feldhaus | 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
Mike Gribble
Marla Chaney
Guy Chilton
Muhammad Latif
Roger Elmore
Diane Deal

Nez Perce, Enterprise
Irrigon Hatchery
Bonneville Hatchery
ODFW, Salem HQ
ODFW, Salem HQ
Lookingglass Hatchery
Lookingglass Hatchery