

United States Army Corps of Engineers

John Day Dam Smolt and Juvenile Lamprey Condition Monitoring

Weekly Report, #24-10 Report Period: 6/1 – 6/7, 2024

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SECTION 1. River Flow and Sampling Results

| | Min | Max | Mean | | |
|-------------------|-------|-------|---------|-----------|-------|
| | | | Current | Last Week | 2023 |
| A. River Flow | 193.6 | 268.5 | 232.9 | 197.9 | 222.6 |
| B. Powerhouse | 115.4 | 160.1 | 138.9 | 118.1 | 52.2 |
| C. Spill (kcfs) | 77.0 | 107.5 | 92.7 | 78.4 | 169.0 |
| % of River Flow | 39.4 | 40.0 | 39.8 | 39.6 | 75.9% |
| D. Water Temp * | 58.1 | 58.6 | 58.3 | 57.5 | 63.1 |
| E. % Saturation * | 110.2 | 110.2 | 110.7 | 107.0 | 117.3 |

Note: Data is for the sample period only (0700 - 1300 hrs).

| % SAMPLE COMPOSITION | This Week | Last Week |
|----------------------|-----------|-----------|
| YEARLING CHINOOK | 7.2% | 14.4% |
| SUBYEARLING CHINOOK | 69.3% | 41.1% |
| CHINOOK FRY | 0.0% | 0.0% |
| UNCLIPPED STEELHEAD | 3.6% | 4.5% |
| CLIPPED STEELHEAD | 2.6% | 5.1% |
| COHO | 6.7% | 10.3% |
| COHO FRY | 0.0% | 0.0% |
| SOCKEYE | 10.6% | 24.6% |

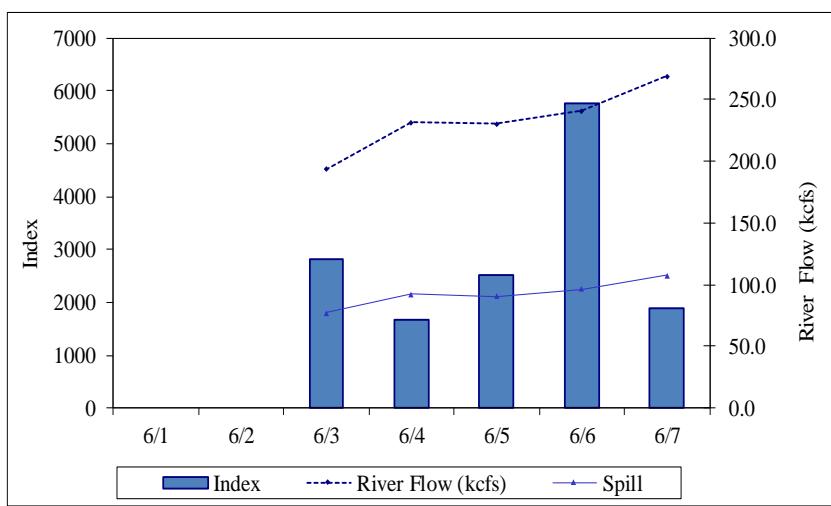
| YEARLING CHINOOK | | | | | | SUBYEARLING CHINOOK | | | | | | COHO | | | | | |
|------------------|-------------|---------|--------|--------|--------|---------------------|---------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--|
| End Date | Sample Rate | # Smpld | % Desc | % Mort | # Coll | Index | # Smpld | % Desc | % Mort | # Coll | Index | # Smpld | % Desc | % Mort | # Coll | Index | |
| 6/1 | | | | | | | | | | | | | | | | | |
| 6/2 | | | | | | | | | | | | | | | | | |
| 6/3 | 10.0% | 14 | 0.0 | 0.0 | 140 | 233 | 109 | 0.9 | 0.0 | 1,090 | 1,817 | 16 | 6.3 | 0.0 | 160 | 267 | |
| 6/4 | 15.6% | 11 | 0.0 | 0.0 | 84 | 140 | 102 | 2.9 | 0.0 | 698 | 1,164 | 15 | 6.7 | 0.0 | 55 | 92 | |
| 6/5 | 9.0% | 10 | 0.0 | 0.0 | 150 | 249 | 97 | 1.0 | 0.0 | 965 | 1,599 | 8 | 12.5 | 0.0 | 110 | 182 | |
| 6/6 | 4.0% | 8 | 0.0 | 0.0 | 200 | 334 | 99 | 4.0 | 0.0 | 2,550 | 4,262 | 7 | 0.0 | 0.0 | 150 | 251 | |
| 6/7 | 11.4% | 9 | 0.0 | 0.0 | 81 | 135 | 96 | 1.0 | 0.0 | 789 | 1,319 | 3 | 0.0 | 0.0 | 39 | 65 | |
| Weekly | | 52 | 0.0 | 0.0 | 655 | 1,092 | 503 | 2.0 | 0.0 | 6,092 | 10,162 | 49 | 6.1 | 0.0 | 514 | 857 | |
| Season to date | | 4,114 | 2.3 | 0.0 | 55,971 | 92,690 | 1,254 | 2.4 | 0.0 | 16,371 | 27,294 | 569 | 4.2 | 0.0 | 9,313 | 15,535 | |

| UNCLIPPED | | | | | | STEELHEAD | | | | | | CLIPPED | | | | | | SOCKEYE | | | | | |
|----------------|-------------|---------|--------|--------|--------|-----------|---------|--------|--------|--------|--------|---------|--------|--------|--------|--------|---------|---------|--------|--------|-------|--|--|
| End Date | Sample Rate | # Smpld | % Desc | % Mort | # Coll | Index | # Smpld | % Desc | % Mort | # Coll | Index | # Smpld | % Desc | % Mort | # Coll | Index | # Smpld | % Desc | % Mort | # Coll | Index | | |
| 6/1 | | | | | | | | | | | | | | | | | | | | | | | |
| 6/2 | | | | | | | | | | | | | | | | | | | | | | | |
| 6/3 | 10.0% | 5 | 0.0 | 0.0 | 50 | 83 | 5 | 0.0 | 0.0 | 50 | 83 | 19 | 5.3 | 0.0 | 190 | 317 | | | | | | | |
| 6/4 | 15.6% | 7 | 1.0 | 0.0 | 38 | 63 | 5 | 0.0 | 0.0 | 24 | 40 | 16 | 0.0 | 0.0 | 98 | 163 | | | | | | | |
| 6/5 | 9.0% | 3 | 0.0 | 0.0 | 45 | 75 | 3 | 0.0 | 0.0 | 30 | 50 | 16 | 0.0 | 0.0 | 225 | 373 | | | | | | | |
| 6/6 | 4.0% | 6 | 16.7 | 0.0 | 100 | 167 | 4 | 25.0 | 0.0 | 80 | 134 | 12 | 8.3 | 0.0 | 360 | 602 | | | | | | | |
| 6/7 | 11.4% | 5 | 0.0 | 0.0 | 59 | 99 | 2 | 0.0 | 0.0 | 50 | 84 | 14 | 0.0 | 0.0 | 113 | 189 | | | | | | | |
| Weekly | | 26 | 7.7 | 0.0 | 292 | 487 | 19 | 5.3 | 0.0 | 234 | 390 | 77 | 2.6 | 0.0 | 986 | 1,644 | | | | | | | |
| Season to date | | 279 | 5.4 | 0.0 | 4,163 | 6,906 | 905 | 7.3 | 0.0 | 15,903 | 26,543 | 575 | 3.7 | 0.0 | 7,124 | 11,866 | | | | | | | |

| TOTAL | | | | | | |
|----------------|-------------|---------|--------|--------|---------|---------|
| End Date | Sample Rate | # Smpld | % Desc | % Mort | # Coll | Index |
| 6/1 | | | | | | |
| 6/2 | | | | | | |
| 6/3 | 10.0% | 168 | 1.8 | 0.0 | 1,680 | 2,801 |
| 6/4 | 15.6% | 156 | 3.2 | 0.0 | 997 | 1,662 |
| 6/5 | 9.0% | 137 | 1.5 | 0.0 | 1,525 | 2,528 |
| 6/6 | 4.0% | 136 | 5.1 | 0.0 | 3,440 | 5,750 |
| 6/7 | 11.4% | 129 | 0.8 | 0.0 | 1,131 | 1,890 |
| Weekly | | 726 | 2.5 | 0.0 | 8,773 | 14,632 |
| Season to date | | 7,696 | 3.2 | 0.0 | 108,845 | 180,834 |

Notes: Condition percentages are calculated using sample numbers.

Subyearling Chinook and Coho include fry. All river flow, powerhouse, spill and index estimates are for the sample period only.



| End Date | Pacific Lamprey | | | Western Brook | | | | | |
|----------------|-----------------|--------|--------|---------------|--------|--------|------------|--------|--------|
| | Macrophthalmia | | | Ammocoetes | | | Ammocoetes | | |
| | # Smpld | % Mort | # Coll | # Smpld | % Mort | # Coll | # Smpld | % Mort | # Coll |
| 6/1 | | | | | | | | | |
| 6/2 | | | | | | | | | |
| 6/3 | 0 | 0.0 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0 |
| 6/4 | 0 | 0.0 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0 |
| 6/5 | 0 | 0.0 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0 |
| 6/6 | 0 | 0.0 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0 |
| 6/7 | 0 | 0.0 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0 |
| Weekly | 0 | 0.0 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0 |
| Season to date | 7 | 0.0 | 68 | 0 | 0.0 | 0 | 0 | 0 | 0 |

SECTION 2. Smolt and Lamprey Condition Monitoring Summary

| | Yearling | | Subyearling | | Unclipped | | Clipped | | Coho | | Sockeye | | Total All Species Combined | Percent All Species Combined | | |
|------------------|---------------|-----------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------------------------|------------------------------|------|--|
| | Chinook | | Chinook | | Steelhead | | Steelhead | | This Week | | Last Week | | | | | |
| | This Week | Last Week | This Week | Last Week | This Week | Last Week | This Week | Last Week | This Week | Last Week | This Week | Last Week | | | | |
| SAMPLE # | 52 | 160 | 503 | 460 | 26 | 50 | 19 | 57 | 49 | 115 | 77 | 275 | 726 | 100% | | |
| DESCALING | 3-19% | 5.8% | 4.4% | 1.6% | 0.7% | 3.8% | | | 1.8% | 2.0% | 1.7% | 3.9% | 4.4% | 16 | 2.2% | |
| | >20% | | 0.2% | | | | | | | | | 1.3% | 1.1% | 2 | 0.3% | |
| | Pred. Desc. | 1.9% | 1.8% | 2.2% | 7.7% | 2.0% | 5.3% | 14.0% | 6.1% | 2.6% | | 1.3% | 2.9% | 16 | 2.2% | |
| INJURY | BODY | 3.8% | 0.4% | 1.3% | | 2.0% | | 5.3% | | 0.9% | | 0.7% | 2 | 0.3% | | |
| | EYE | | | | 0.2% | | 2.0% | | | | | 0 | 0.0% | | | |
| | HEAD | | | | 0.2% | | 2.0% | | | | | 0 | 0.0% | | | |
| | OPERC. | 0.6% | | | 0.2% | | 2.0% | | | | | 4.0% | 0 | 0.0% | | |
| | FIN | 3.8% | 0.4% | 0.4% | | 4.0% | | | | 2.0% | | 2.6% | 1.8% | 5 | 0.7% | |
| | POPEYE | | | | | | | | | | | 0 | 0.0% | | | |
| OTHER CONDITIONS | PINK FIN | | | | | | | | | | | 0 | 0.0% | | | |
| | Fin Discolor. | | | | | | | | | | | 0 | 0.0% | | | |
| | FIN HEM. | 1.9% | 0.6% | 2.0% | 0.4% | | | | | | | 1.3% | 0.7% | 12 | 1.7% | |
| DISEASE | Columnaris | | | | | | | | | | | 0.4% | 0 | 0.0% | | |
| | FUNGUS | 1.3% | 0.2% | 0.2% | | 2.0% | | | | 2.0% | | 1.3% | 1.1% | 3 | 0.4% | |
| | BKD | 1.9% | 0.6% | 0.2% | | | | | | | | 2 | 0.3% | | | |
| | PARASITES | | | | 1.0% | 1.1% | 6.0% | | | | | 5 | 0.7% | | | |
| | DEFORMITY | | | | 0.2% | | | | | | | 0.4% | 1 | 0.1% | | |
| | EYE HEM. | 0.6% | | | | | | | | | | 0.7% | 0 | 0.0% | | |
| PREDATION | BIRD | 1.9% | 0.6% | | 0.7% | | 4.0% | | 12.3% | | 0.9% | 0.7% | 1 | 0.1% | | |
| | FISH | | 3.1% | 2.2% | 2.4% | | 7.7% | | 5.3% | 7.0% | 6.1% | 2.5% | 19 | 2.6% | | |
| | LAMPREY | | | | 0.2% | | | | | | | 0.7% | 1 | 0.1% | | |
| | OTHER | | | | | | | | | | | 0 | 0.0% | | | |
| | end dates | 6/7 | 5/31 | | | | | | | | | | | | | |

| MP-Macrophthalmia | End Date | SAMPLE # | INJURY | | | | | DISEASE and OTHER CONDITIONS | | | | | PREDATION | |
|-------------------|----------|----------|--------|-----|------|-----|--------|------------------------------|------------|--------|-----------|----------|-----------|------|
| | | | BODY | EYE | HEAD | FIN | POPEYE | FIN HEM | Columnaris | FUNGUS | DEFORMITY | EYE HEM. | BIRD | FISH |
| | | | | | | | | | | | | | | |
| This Week | 6/7 | 0 | 50.0% | | | | | | | | | | 50.0% | |
| | 5/31 | 2 | | | | | | | | | | | | |
| AP - Ammocoetes | | SAMPLE # | | | | | | | | | | | | |
| | 6/7 | 0 | | | | | | | | | | | | |
| | 5/31 | 0 | | | | | | | | | | | | |

SECTION 3. Incidental Summary

| | Bass-Largemouth | Bass-Smallmouth | Bluegill and Pumpkinseed | Bullhead | Carp | Catfish-Channel | Chiselmouth | Crappie species |
|----------------|-----------------|-----------------|--------------------------|---------------------|--------------------|---------------------|---------------|------------------|
| This Week | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Season to Date | 0 | 4 | 7 | 0 | 0 | 0 | 0 | 1 |
| | Dace - Longnose | Dace - Speckled | Chinook Jack | Kokanee | Lamprey Adult | Northern Pikeminnow | Peamouth | Perch Yellow |
| This Week | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| Season to Date | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 114 |
| | Redside Shiner | Sand Roller | Sculpin species | Stickleback 3 spine | Sucker species | Shad Adult | Shad Juvenile | Sturgeon White |
| This Week | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Season to Date | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 0 |
| | Trout Bull | Trout Cutthroat | Trout Rainbow | Walleye | Whitefish Mountain | Siberian Prawn | Chum Salmon | Banded Killifish |
| This Week | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 |
| Season to Date | 0 | 0 | 0 | 28 | 0 | 88 | 0 | 1 |

SECTION 4. Facility Operations

Condition Monitoring at John Day Dam is scheduled to sample Monday through Friday until 15 June. Samples will be taken from the Juvenile Bypass System between 0700 and 1300 hrs. and the Condition Exams will target approximately 100 of the predominant species of out-migrant. All river flow, powerhouse, spill, and index estimates are based on the sample period only. Debris at the separator bars was very low for the week and consisted of a few sticks, some plastic, and pieces of terrestrial vegetation.

SECTION 5. Research

No Pacific Lamprey macrourhthalmia or ammocoetes were sampled at the Smolt Facility during this report period.

SECTION 6. Pictures



Sucker species (Family *Catostomidae*), possibly a Bridgelip Sucker (*Catostomus columbianus*), approximately 160 mm fork length, sampled at the John Day Dam Smolt Facility on 4 June, 2024.



Mouth detail from the fish pictured above.



Sub-adult Pumpkinseed Sunfish (*Lepomis gibbosus*), approximately 65 mm fork length, sampled at the John Day Dam Smolt Facility on 5 June, 2024.