

United States Army Corps of Engineers

John Day Dam Smolt and Juvenile Lamprey Condition Monitoring

Weekly Report, #24-9 Report Period: 5/25 – 5/31, 2024

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SECTION 1. River Flow and Sampling Results

| | | | Mean | | |
|-------------------|-------|-------|---------|-----------|-------|
| | Min | Max | Current | Last Week | 2023 |
| A. River Flow | 168.1 | 231.8 | 197.9 | 224.6 | 263.8 |
| B. Powerhouse | 100.5 | 138.5 | 118.1 | 133.9 | 57.0 |
| C. Spill (kcfs) | 66.0 | 92.0 | 78.4 | 89.3 | 205.5 |
| % of River Flow | 39.3 | 39.9 | 39.6 | 39.8 | 77.9% |
| D. Water Temp * | 57.3 | 57.7 | 57.5 | 57.9 | 60.1 |
| E. % Saturation * | 106.2 | 107.2 | 107.0 | 107.6 | 115.4 |

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

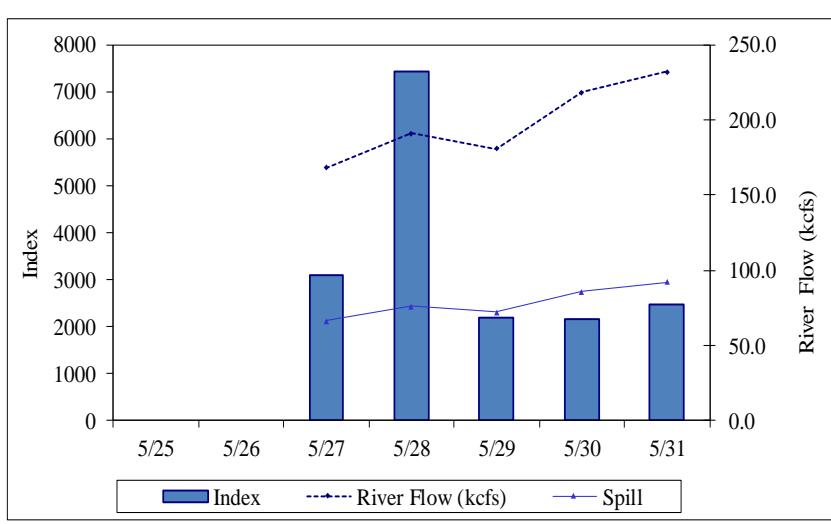
| % SAMPLE COMPOSITION | This Week | Last Week |
|----------------------|-----------|-----------|
| YEARLING CHINOOK | 14.4% | 38.4% |
| SUBYEARLING CHINOOK | 41.1% | 21.7% |
| CHINOOK FRY | 0.0% | 0.0% |
| UNCLIPPED STEELHEAD | 4.5% | 5.0% |
| CLIPPED STEELHEAD | 5.1% | 10.8% |
| COHO | 10.3% | 7.0% |
| COHO FRY | 0.0% | 0.0% |
| SOCKEYE | 24.6% | 17.2% |

| YEARLING CHINOOK | | | | | | SUBYEARLING CHINOOK | | | | | | COHO | | | | | |
|------------------|-------------|---------|--------|--------|--------|---------------------|---------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--|
| End Date | Sample Rate | # Smpld | % Desc | % Mort | # Coll | Index | # Smpld | % Desc | % Mort | # Coll | Index | # Smpld | % Desc | % Mort | # Coll | Index | |
| 5/25 | | | | | | | | | | | | | | | | | |
| 5/26 | | | | | | | | | | | | | | | | | |
| 5/27 | 14.3% | 57 | 1.8 | 0.0 | 435 | 721 | 61 | 3.3 | 0.0 | 430 | 712 | 51 | 3.9 | 0.0 | 355 | 588 | |
| 5/28 | 6.7% | 35 | 0.0 | 2.9 | 430 | 718 | 108 | 0.9 | 0.0 | 1,440 | 2,403 | 30 | 0.0 | 0.0 | 500 | 835 | |
| 5/29 | 17.8% | 27 | 3.7 | 0.0 | 184 | 308 | 97 | 3.1 | 0.0 | 552 | 924 | 22 | 4.5 | 0.0 | 135 | 226 | |
| 5/30 | 13.1% | 29 | 0.0 | 0.0 | 220 | 364 | 92 | 1.1 | 0.0 | 775 | 1,284 | 4 | 0.0 | 0.0 | 50 | 83 | |
| 5/31 | 10.0% | 13 | 7.7 | 0.0 | 130 | 216 | 102 | 2.9 | 0.0 | 1,020 | 1,698 | 8 | 0.0 | 0.0 | 80 | 133 | |
| Weekly | | 161 | 1.9 | 0.6 | 1,399 | 2,327 | 460 | 2.2 | 0.0 | 4,217 | 7,020 | 115 | 2.6 | 0.0 | 1,120 | 1,864 | |
| Season to date | | 4,062 | 2.3 | 0.0 | 55,316 | 91,598 | 751 | 2.7 | 0.0 | 10,279 | 17,132 | 520 | 4.0 | 0.0 | 8,799 | 14,678 | |

| 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 | |
| 5/25 | | | | | | | | | | | | | | | | | | | | | | |
| 5/26 | | | | | | | | | | | | | | | | | | | | | | |
| 5/27 | 14.3% | 15 | 0.0 | 0.0 | 100 | 166 | 19 | 15.8 | 0.0 | 145 | 240 | 66 | 6.1 | 0.0 | 410 | 679 | | | | | | |
| 5/28 | 6.7% | 9 | 0.0 | 0.0 | 130 | 217 | 13 | 15.4 | 0.0 | 220 | 367 | 103 | 1.9 | 0.0 | 1,730 | 2,887 | | | | | | |
| 5/29 | 17.8% | 15 | 1.0 | 0.0 | 81 | 136 | 15 | 6.7 | 0.0 | 105 | 176 | 58 | 5.2 | 0.0 | 259 | 433 | | | | | | |
| 5/30 | 13.1% | 6 | 0.0 | 0.0 | 30 | 50 | 5 | 0.0 | 0.0 | 25 | 41 | 33 | 6.1 | 0.0 | 195 | 323 | | | | | | |
| 5/31 | 10.0% | 5 | 0.0 | 0.0 | 50 | 83 | 5 | 40.0 | 0.0 | 50 | 83 | 15 | 0.0 | 0.0 | 150 | 250 | | | | | | |
| Weekly | | 50 | 2.0 | 0.0 | 391 | 651 | 57 | 14.0 | 0.0 | 545 | 908 | 275 | 4.0 | 0.0 | 2,744 | 4,573 | | | | | | |
| Season to date | | 253 | 5.1 | 0.0 | 3,871 | 6,419 | 886 | 7.3 | 0.0 | 15,669 | 26,153 | 498 | 3.8 | 0.0 | 6,138 | 10,223 | | | | | | |

| TOTAL | | | | | | |
|----------------|-------------|---------|--------|--------|---------|---------|
| End Date | Sample Rate | # Smpld | % Desc | % Mort | # Coll | Index |
| 5/25 | | | | | | |
| 5/26 | | | | | | |
| 5/27 | 14.3% | 269 | 4.5 | 0.0 | 1,875 | 3,106 |
| 5/28 | 6.7% | 298 | 1.7 | 0.3 | 4,450 | 7,427 |
| 5/29 | 17.8% | 234 | 4.3 | 0.0 | 1,316 | 2,202 |
| 5/30 | 13.1% | 169 | 1.8 | 0.0 | 1,295 | 2,145 |
| 5/31 | 10.0% | 148 | 4.1 | 0.0 | 1,480 | 2,463 |
| Weekly | | 1,118 | 3.2 | 0.1 | 10,416 | 17,343 |
| Season to date | | 6,970 | 3.3 | 0.0 | 100,072 | 166,203 |

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 | Macrophthalmia | | | Ammocoetes | | | Western Brook Ammocoetes | | |
|----------------|----------------|--------|--------|------------|--------|--------|--------------------------|--------|--------|
| | # Smpld | % Mort | # Coll | # Smpld | % Mort | # Coll | # Smpld | % Mort | # Coll |
| 5/25 | | | | | | | | | |
| 5/26 | | | | | | | | | |
| 5/27 | 0 | 0.0 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0 |
| 5/28 | 1 | 0.0 | 20 | 0 | 0.0 | 0 | 0 | 0 | 0 |
| 5/29 | 0 | 0.0 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0 |
| 5/30 | 0 | 0.0 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0 |
| 5/31 | 1 | 0.0 | 10 | 0 | 0.0 | 0 | 0 | 0 | 0 |
| Weekly | 2 | 0.0 | 30 | 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 Chinook | | Subyearling Chinook | | Unclipped Steelhead | | Clipped Steelhead | | Coho | | Sockeye | |
|------------------|------------------|-----------|---------------------|-----------|---------------------|-----------|-------------------|-----------|-----------|-----------|-----------|----------------|
| | 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 # | 160 | 456 | 460 | 258 | 50 | 60 | 57 | 128 | 115 | 83 | 275 | 204 |
| DESCALING | 3-19% | 4.4% | 2.0% | 0.7% | 1.6% | | 3.3% | 1.8% | 3.1% | 1.7% | 1.2% | 4.4% 5.4% |
| | >20% | | | | 0.4% | | | | | | | 1.1% 2.0% |
| | Pred. Desc. | 1.9% | 2.0% | 2.2% | 3.5% | 2.0% | 5.0% | 14.0% | 8.6% | 2.6% | 8.4% | 2.9% 2.0% |
| INJURY | BODY | 3.8% | 1.1% | 1.3% | | 2.0% | | 5.3% | | 0.9% | | 0.7% |
| | EYE | | 0.4% | | | | | | | | | |
| | HEAD | | 0.2% | 0.2% | | 2.0% | | | | | 1.2% | |
| | OPERC. | | 0.2% | 0.2% | | 2.0% | | | 0.8% | | 1.2% | 4.0% 1.5% |
| | FIN | 3.8% | 1.1% | 0.4% | | 4.0% | 1.7% | | 0.8% | | | 1.8% 3.4% |
| | POPEYE | | 0.4% | | | | | | | | | |
| OTHER CONDITIONS | PINK FIN | | | | | | | | | | | |
| | Fin Discolor. | | | | | | | | | | | |
| | FIN HEM. | 0.6% | 0.2% | 0.4% | 1.6% | | | | | | | 0.7% 0.5% |
| DISEASE | Columnaris | | | | | | | | | | | |
| | FUNGUS | 1.3% | 0.9% | 0.2% | 0.8% | 2.0% | 5.0% | | | | | 0.4% 1.1% 0.5% |
| | BKD | 0.6% | 0.7% | | | | | | | | | |
| | PARASITES | | | 1.1% | 1.6% | 6.0% | 3.3% | | | | | |
| | DEFORMITY | | 0.7% | | | | | | | | | 0.4% |
| | EYE HEM. | 0.6% | 1.1% | | | | | | | | | 0.7% 0.5% |
| PREDATION | BIRD | 0.6% | 0.4% | 0.7% | 0.8% | 4.0% | 3.3% | 12.3% | 7.0% | 0.9% | 2.4% | 0.7% |
| | FISH | 3.1% | 1.8% | 2.4% | 3.1% | | 3.3% | 7.0% | 2.3% | 1.7% | 7.2% | 2.5% 2.5% |
| | LAMPREY | | | | | | | | | | | 0.7% |
| | OTHER | | | | | | | | 0.8% | | | |

SECTION 3. Incidental Summary

| | Bass-Largemouth | Bass-Smallmouth | Bluegill and Pumpkinseed | Bullhead | Carp | Catfish-Channel | Chiselmouth | Crappie species |
|----------------|-----------------|-----------------|--------------------------|---------------------|--------------------|---------------------|---------------|------------------|
| This Week | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Season to Date | 0 | 4 | 6 | 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 | 19 |
| Season to Date | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 106 |
| | Redside Shiner | Sand Roller | Sculpin species | Stickleback 3 spine | Sucker species | Shad Adult | Shad Juvenile | Sturgeon White |
| This Week | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Season to Date | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | Trout Bull | Trout Cutthroat | Trout Rainbow | Walleye | Whitefish Mountain | Siberian Prawn | Chum Salmon | Banded Killifish |
| This Week | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 |
| Season to Date | 0 | 0 | 0 | 26 | 0 | 86 | 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

One genetic fin clip sample was collected from a Pacific Lamprey *macrourhthalmia* for the Columbia River Inter-Tribal Fish Commission during this report period.

SECTION 6. Pictures



Unclipped Sockeye smolt (*Oncorhynchus nerka*), approximately 105 mm fork length, showing fungal growth on the lower jaw and head, and some descaling, sampled at the John Day Dam Smolt Facility on 31 May, 2024.



Unclipped Subyearling Fall Chinook smolt (*Oncorhynchus tshawytscha*), approximately 105 mm fork length, showing a severe body injury and descaling from attempted avian predation, sampled at the John Day Dam Smolt Facility on 31 May, 2024.