

Vaki Riverwatcher 03/1/2010 - 11/28/2011

| | | M | A | M | J | J | A | S | O | N | D | J | F | subtotal | total YTD | M | A | M | J | J | A | S | O | N | D | J | F | subtotal | total YTD |
|-----------------------|---|-----|-----|-----|------|-----|-----|-----|------|-----|-----|-----|-----|----------|-----------|-----|------|------|------|-----|-----|------|------|-----|---|---|---|----------|-----------|
| O.tshawytscha | N | 6 | 8 | 53 | 856 | 77 | 93 | 208 | 951 | 143 | 97 | 18 | 16 | 2526 | 3590 | 0 | 0 | 0 | 7 | 17 | 259 | 929 | 2190 | 501 | | | | 3903 | 5564 |
| | S | 2 | 0 | 0 | 34 | 117 | 8 | 143 | 725 | 29 | 3 | 2 | 1 | 1064 | | 0 | 0 | 0 | 9 | 8 | 311 | 368 | 886 | 79 | | | | 1661 | |
| Ad-clip | N | 7 | 1 | 150 | 1383 | 58 | 49 | 180 | 142 | 43 | 43 | 5 | 4 | 2065 | 2496 | 4 | 0 | 0 | 5 | 20 | 97 | 276 | 529 | 152 | | | | 1083 | 1598 |
| | S | 0 | 0 | 0 | 86 | 109 | 0 | 99 | 132 | 3 | 2 | 0 | 0 | 431 | | 0 | 0 | 0 | 2 | 3 | 121 | 119 | 249 | 21 | | | | 515 | |
| Ad-undet. | N | 0 | 0 | 3 | 53 | 11 | 4 | 13 | 29 | 0 | -11 | 5 | 1 | 108 | 155 | 0 | 0 | 0 | 0 | 0 | 10 | 15 | 36 | 7 | | | | 68 | 98 |
| | S | 0 | 0 | 0 | 8 | 6 | 0 | 12 | 19 | 0 | 2 | 0 | 0 | 47 | | 0 | 0 | 0 | 0 | 0 | 19 | 4 | 8 | -1 | | | | 30 | |
| Total | N | 13 | 9 | 206 | 2292 | 146 | 146 | 401 | 1122 | 186 | 129 | 28 | 21 | 4699 | 6241 | 4 | 0 | 0 | 12 | 37 | 366 | 1220 | 2755 | 660 | | | | 5054 | 7260 |
| | S | 2 | 0 | 0 | 128 | 232 | 8 | 254 | 876 | 32 | 7 | 2 | 1 | 1542 | | 0 | 0 | 0 | 11 | 11 | 451 | 491 | 1143 | 99 | | | | 2206 | |
| O.mykiss | N | 22 | 15 | 7 | 7 | 15 | 6 | 10 | 26 | 2 | 10 | 70 | 54 | 244 | 315 | 28 | 230 | 45 | 13 | 21 | 4 | 19 | 27 | 1 | | | | 388 | 1088 |
| | S | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 13 | 4 | 24 | 18 | 9 | 71 | | 38 | 527 | 40 | 36 | 12 | 7 | 13 | 24 | 3 | | | | 700 | |
| Ad-clip | N | 4 | 40 | 4 | 2 | 2 | 2 | 10 | 17 | 17 | 36 | 31 | 81 | 246 | 383 | 82 | 129 | 93 | 63 | 66 | 64 | 77 | 95 | 9 | | | | 678 | 997 |
| | S | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 12 | 0 | 22 | 36 | 66 | 137 | | 7 | 239 | 16 | 14 | 2 | 3 | 3 | 27 | 8 | | | | 319 | |
| Ad-undet. | N | 1 | 1 | 1 | 3 | 2 | 0 | 3 | 6 | 3 | 135 | 80 | 44 | 279 | 390 | 66 | 6 | 0 | 10 | 3 | 5 | 7 | 4 | 1 | | | | 102 | 192 |
| | S | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 3 | 102 | -24 | 22 | 111 | | 75 | 7 | 3 | 3 | 1 | 0 | 0 | 0 | 1 | | | | 90 | |
| Unk. salmonid | N | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 2 | 29 | 2 | 0 | 0 | 32 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 6 | 0 | | | | 9 | 12 |
| | S | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 8 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | | | | 3 | |
| S. pikeminnow | N | 26 | 116 | 85 | 43 | 10 | 15 | 11 | 1 | 0 | 0 | 2 | 6 | 315 | 348 | 30 | 125 | 86 | 126 | 11 | 29 | 15 | 6 | 2 | | | | 430 | 667 |
| | S | 0 | 6 | 4 | 16 | 4 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 33 | | 4 | 73 | 81 | 60 | 11 | 7 | 0 | 1 | 0 | | | | 237 | |
| S. sucker | N | 187 | 212 | 48 | 45 | 43 | 16 | 29 | 14 | 1 | 0 | 8 | 83 | 686 | 1092 | 340 | 508 | 201 | 27 | 42 | 114 | 71 | 55 | 1 | | | | 1359 | 2800 |
| | S | 131 | 202 | 15 | 16 | 6 | 0 | 9 | 9 | 0 | 3 | 4 | 11 | 406 | | 258 | 30 | 781 | 220 | 107 | 44 | 0 | 1 | 0 | | | | 1441 | |
| Hardhead | N | 0 | 7 | 18 | 10 | 2 | 3 | 0 | 1 | 0 | 0 | 1 | 1 | 43 | 43 | 0 | 3 | 8 | 7 | 4 | 5 | 3 | 1 | 0 | | | | 31 | 54 |
| | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 1 | 1 | 7 | 10 | 4 | 0 | 0 | 0 | 0 | | | | 23 | |
| A. Shad | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 69 | 29 | -2 | 0 | 0 | 0 | | | | 96 | 104 |
| | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 5 | 3 | 0 | 0 | 0 | 0 | | | | 8 | |
| O.gorbuscha | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 0 | | | | 3 | 3 |
| | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | |
| L. mouth bass | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | | | | 9 | 9 |
| | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | |
| Striped bass | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 1 |
| | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | | | | 1 | |
| Lamprey | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 1 |
| | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | | | | 1 | |
| Unident. (TL<35cm) | N | -20 | -14 | -3 | -7 | 3 | -2 | 5 | -3 | 8 | -67 | 72 | -2 | -30 | 459 | 31 | -345 | -322 | -159 | -6 | 0 | -4 | -3 | -7 | | | | -815 | -657 |
| | S | 55 | 57 | 0 | 6 | 0 | 0 | 21 | 14 | 9 | 17 | 65 | 245 | 489 | | 184 | -15 | -3 | 3 | -6 | -4 | -1 | 1 | -1 | | | | 158 | |
| Unident. (TL≥35cm) | N | 0 | 0 | 0 | 4 | 0 | 0 | -1 | 1 | 0 | 0 | 0 | 0 | 4 | 6 | -1 | -2 | 0 | 0 | 0 | 1 | 1 | 2 | -2 | | | | -1 | 0 |
| | S | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | 1 | |
| Mean % Op. | N | 100 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 95 | 98 | 100 | 100 | 87 | 100 | 100 | 100 | 100 | 100 | | | | 98 | 99 |
| | S | 100 | 83 | 100 | 100 | 100 | 13 | 99 | 100 | 100 | 91 | 91 | 99 | 90 | | 97 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | | | | 100 | |

Biological Sampling (Narrows Pool to DPD)

| Survey Week | Fresh Carcasses Observed | Ad-clips Observed | Female Carcasses Observed | Unspawned Females Observed |
|----------------|--------------------------|-------------------|---------------------------|----------------------------|
| 9/19/2011 | 0 | 0 | 0 | 0 |
| 9/26/2011 | 4 | 2 | 4 | 3 |
| 10/3/2011 | 45 | 18 | 25 | 2 |
| 10/10/2011 | 125 | 38 | 63 | 2 |
| 10/17/2011 | 73 | 17 | 26 | 1 |
| 10/24/2011 | 64 | 15 | 26 | 0 |
| 10/31/2011 | 33 | 3 | 17 | 0 |
| 11/7/2011 | 31 | 2 | 20 | 0 |
| 11/14/2011 | 23 | 1 | 13 | 0 |
| 11/21/2011 | 22 | 2 | 17 | 0 |
| 11/28/2011 | 2 | 0 | 2 | 0 |
| Totals: | 422 | 98 | 213 | 8 |

Modified CJS Mark-Recapture (DPD to Simpson Lane Bridge)

| Survey Week | Marked Carcass Total | Marked Carcass Recoveries | Dead on Capture | Female Carcass Total | Unspawned Total |
|----------------|----------------------|---------------------------|-----------------|----------------------|-----------------|
| 9/19/2011 | 1 | 0 | 0 | 1 | 0 |
| 9/26/2011 | 3 | 0 | 1 | 0 | 0 |
| 10/3/2011 | 5 | 0 | 2 | 4 | 2 |
| 10/10/2011 | 30 | 2 | 3 | 7 | 1 |
| 10/17/2011 | 84 | 4 | 15 | 16 | 0 |
| 10/24/2011 | 92 | 21 | 14 | 20 | 1 |
| 10/31/2011 | 69 | 35 | 19 | 22 | 0 |
| 11/7/2011 | 57 | 34 | 30 | 14 | 0 |
| 11/14/2011 | 77 | 32 | 15 | 41 | 1 |
| 11/21/2011 | 69 | 46 | 29 | 31 | 0 |
| 11/28/2011 | 23 | 30 | 11 | 14 | 0 |
| Totals: | 510 | 204 | 139 | 170 | 5 |

Redd Survey

| Survey Week | Englebright Reach* | Timbuctoo Reach | Parks Bar Reach | Dry Creek Reach | DPD Reach | Hallwood Reach | Marysville Reach |
|-------------|--------------------|-----------------|-----------------|-----------------|-----------|----------------|------------------|
| 9/12/2011 | 0 | | | | | | |
| 9/19/2011 | 0 | 7 | 1 | 0 | 2 | 0 | 0 |
| 9/26/2011 | 8 | | | | | | |
| 10/3/2011 | 13 | | | | | | |
| 10/10/2011 | 18 | | | | | | |
| 10/17/2011 | 7 | 79 | 44 | 10 | 24 | 6 | 0 |
| 10/24/2011 | 14 | | | | | | |
| 10/31/2011 | 16 | | | | | | |
| 11/7/2011 | 3 | | | | | | |
| 11/14/2011 | 3 | 56 | 32 | 17 | 22 | 22 | 3 |
| 11/21/2011 | 2 | | | | | | |
| 11/28/2011 | 3 | | | | | | |

*USACE EDR redd survey methods specify a weekly sampling frequency. All other reaches surveyed every third week of Sep, Oct, Nov and Dec.