Table 1. Natural-origin female steelhead encountered and collected after spawning by the kelt reconditioning program at the Lower Granite Dam (LGR) juvenile bypass, by spawn year. Tagged pre-spawn indicates fish that were sampled and tagged at the LGR adult ladder during their upstream migration. Total numbers indicate all female fish encountered and/or collected, including fish tagged pre-spawn.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| Tagged pre-spawn | 2798 | 2117 | 1403 | 1094 | 1448 | 2275 |
| Encountered post-spawn | | 90 | 67 | 55 | 49 | 25 | 15 |
| Collected post-spawn | | | 13 | 34 | 42 | 33 | 21 | 7 |
| Total encountered post-spawn | 875 | 468 | 333 | 390 | 151 | 93 |
| Total collected post-spawn | 223 | 261 | 255 | 269 | 90 | 44 |

Supplemental Table 1. Natural and Reconditioned Consecutive and Skip Spawners of Ocean Ages 1 or 2 when sampled at Lower Granite Dam (LGR) during their first spawning run.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Ocean Age | 1 | | 2 | | Total |
| Natural | 40 |  | 40 |  | 80 |
| Consecutive | 29 | 72.5% | 34 | 85.0% |  |
| Skip | 11 | 27.5% | 6 | 15.0% |  |
| Reconditioned | 28 |  | 14 |  | 42 |
| Consecutive | 19 | 67.9% | 5 | 35.7% |  |
| Skip | 9 | 32.1% | 9 | 64.3% |  |
| Total | 68 |  | 54 |  | 122 |
|  |  |  |  |  |  |

Supplemental Table 2. Natural and reconditioned consecutive and skip spawners assigned to each major population group (MPG). Genetic stock of origin was estimated for fish captured at Lower Granite Dam (LGR) Adult Fish Ladder during their first spawning run. Fish were then grouped into the 5 MPGs listed below. Fish that were not successfully genotyped (NG, N = 3) and assigned a genetic stock represented 2% of those analyzed.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Grand Ronde | Salmon | Clearwater | Lower Snake | Imnaha | NG | Total |
| Natural | 37 | 25 | 17 | 10 | 4 | 3 | 96 |
| Consecutive | 31 (84%) | 18 (72%) | 15 (88%) | 7 (70%) | 3 (75%) | 2 (67%) | 76 |
| Skip | 6 (19%) | 7 (28%) | 2 (12%) | 3 (30%) | 1 (25%) | 1 (33%) | 20 |
| Reconditioned | 14 | 18 | 6 | 4 | 6 |  | 48 |
| Consecutive | 7 (50%) | 12 (67%) | 1 (17%) | 2 (50%) | 3 (50%) |  | 25 |
| Skip | 7 (50%) | 6 (33%) | 5 (83%) | 2 (50%) | 3 (50%) |  | 23 |
| Total | 51 | 43 | 23 | 14 | 10 | 3 | 144 |

Supplemental Table 3. Natural and Reconditioned repeat spawners that assigned to each genetic stock.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| MPG | Genetic Stock | Natural | | Reconditioned | | Total |
| GRROND | GRROND | 37 | 73% | 14 | 27% | 51 |
| IMNAHA | IMNAHA | 4 | 40% | 6 | 60% | 10 |
| LSNAKE | LSNAKE | 10 | 71% | 4 | 29% | 14 |
| CLWR | LOCLWR | 11 | 85% | 2 | 15% | 13 |
|  | UPCLWR | 4 | 67% | 2 | 33% | 6 |
|  | SFCLWR | 2 | 50% | 2 | 50% | 4 |
| SALM | LOSALM | 3 | 75% | 1 | 25% | 4 |
|  | MFSALM | 5 | 50% | 5 | 50% | 10 |
|  | SFSALM | 2 | 50% | 2 | 50% | 4 |
|  | UPSALM | 15 | 60% | 10 | 40% | 25 |
| NG | NG | 3 | 100% |  | 0% | 3 |
|  | Total | 96 | 67% | 48 | 33% | 144 |

Supplemental Table 4. Natural-origin female steelhead reconditioned by the Kelt Reconditioning Program (KRP) released for repeat spawning (RS) and detected migrating upstream through LGR adult fish ladder PIT arrays. Data in this table is sorted by release year, not first spawn year as in Figure 6. Most fish released were reproductively ready (RR) based on laboratory hormone analysis. Fish with borderline reproductive hormone levels are released and have been included in the RR group. However, a few fish are released that are not RR or have unknown RR. These fish are not expected to migrate upstream and are thus excluded from the total when calculating % of RR detected migrating upstream.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| Released – Total | 37 | 92 | 108 | 31 | 68 | 65 |
| Reproductively Ready (RR) | 31 | 84 | 100 | 15 | 56 | 59 |
| Non-RR | 6 | 8 | 5 | 1 | 6 | 6 |
| Unknown RR | 0 | 0 | 3 | 5 | 6 | 0 |
| Detected - Total | 27 | 70 | 96 | 22 | 62 | 58 |
| Detected migrating upstream | 25 | 67 | 91 | 19 | 60 | 55 |
| % of Total | 68% | 73% | 84% | 61% | 88% | 85% |
| % of RR | 83% | 80% | 94% | 100% | 109% | 93% |
| Detected migrating downstream | 2 | 3 | 5 | 3 | 2 | 3 |
| % of Total | 5% | 3% | 5% | 10% | 3% | 5% |
| Released - Not Detected | 10 | 22 | 12 | 9 | 6 | 7 |
| % of Total | 27% | 24% | 11% | 29% | 9% | 11% |