

Estimated Abundance of **Wild** Adult Coho spawners in the Oregon portion of the Lower Columbia Coho ESU  
 Based on GRTS Random Sampling Methods for Rivers, plus Dam and Hatchery counts for un-sampled areas above counting stations.

08/07/20

Geographic Scale ESU / Strata / Population		Spawner Abundance by Return Year																	
		2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Coast Strata:</b>																			
Youngs Bay	Klaskanine Hatchery <sup>a</sup>	47	68	21	2	11	23	19	28	20	16	9	10	57	7	16	29	9	17
	Spawning Ground Survey <sup>b</sup>	364	45	128	77	63	2	63	0	48	145	120	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	<b>Total</b>	<b>411</b>	<b>113</b>	<b>149</b>	<b>79</b>	<b>74</b>	<b>25</b>	<b>82</b>	<b>28</b>	<b>68</b>	<b>161</b>	<b>129</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>
Big Creek	Big Creek Hatchery <sup>a</sup>	46	313	111	180	225	212	229	487	269	145	188	223	606	88	198	263	49	441
	Spawning Ground Survey <sup>b</sup>	52	122	0	39	n.a.	0	131	305	10	15	221	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	<b>Total</b>	<b>98</b>	<b>435</b>	<b>111</b>	<b>219</b>	<b>225</b>	<b>212</b>	<b>360</b>	<b>792</b>	<b>279</b>	<b>160</b>	<b>409</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>
Clatskanie	Spawning Ground Survey <sup>b</sup>	167	563	398	494	421	927	995	1,195	1,686	1,546	619	611	3,246	240	464	566	25	146
Scappoose	Bonnie Falls Trap <sup>a</sup>	47	19	36	12	30	21	4	105	136	29	49	90	110	22	17	72	20	33
	Spawning Ground Survey <sup>b</sup>	453	317	719	336	689	354	290	673	1,824	268	161	889	1,477	465	1,183	315	158	351
	<b>Total</b>	<b>500</b>	<b>336</b>	<b>755</b>	<b>348</b>	<b>719</b>	<b>375</b>	<b>294</b>	<b>778</b>	<b>1,960</b>	<b>297</b>	<b>210</b>	<b>979</b>	<b>1,587</b>	<b>487</b>	<b>1,200</b>	<b>387</b>	<b>178</b>	<b>384</b>
	<b>Strata Total:</b>	<b>1,176</b>	<b>1,447</b>	<b>1,413</b>	<b>1,140</b>	<b>1,439</b>	<b>1,539</b>	<b>1,731</b>	<b>2,793</b>	<b>3,993</b>	<b>2,164</b>	<b>1,367</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>
	<b>Strata Total (minus Youngs Bay &amp; Big Creek):</b>	<b>667</b>	<b>899</b>	<b>1,153</b>	<b>842</b>	<b>1,140</b>	<b>1,302</b>	<b>1,289</b>	<b>1,973</b>	<b>3,646</b>	<b>1,843</b>	<b>829</b>	<b>1,590</b>	<b>4,833</b>	<b>727</b>	<b>1,664</b>	<b>953</b>	<b>203</b>	<b>530</b>
<b>Cascade Strata:</b>																			
Clackamas	N Fk Clackamas Dam <sup>a</sup>	880	2,105	1,774	1,222	2,505	3,199	835	5,461	1,338	1,780	1,315	2,388	8,232	1,475	1,338	7,078	2,882	3,771
	Spawning Ground Survey <sup>b</sup>	1,105	390	959	79	959	239	965	3,181	2,671	473	348	1,624	2,440	309	290	520	277	273
	<b>Total</b>	<b>1,985</b>	<b>2,495</b>	<b>2,733</b>	<b>1,301</b>	<b>3,464</b>	<b>3,438</b>	<b>1,800</b>	<b>8,642</b>	<b>4,009</b>	<b>2,253</b>	<b>1,663</b>	<b>4,012</b>	<b>10,672</b>	<b>1,784</b>	<b>1,628</b>	<b>7,598</b>	<b>3,159</b>	<b>4,044</b>
Sandy	Sandy Hatchery <sup>a</sup>	57	175	184	139	101	(80)	(57)	(169)	234	194	36	160	539	63	227	359	81	362
	Marmot Dam <sup>a</sup>	310	1,173	1,025	717	822	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	Spawning Ground Survey <sup>b</sup>	15	0	4	0	n.a.	687	1,277	1,493	667	3,300	1,129	507	5,403	380	712	2,025	456	690
	<b>Total</b>	<b>382</b>	<b>1,348</b>	<b>1,213</b>	<b>856</b>	<b>923</b>	<b>687</b>	<b>1,277</b>	<b>1,493</b>	<b>901</b>	<b>3,494</b>	<b>1,165</b>	<b>667</b>	<b>5,942</b>	<b>443</b>	<b>939</b>	<b>2,384</b>	<b>537</b>	<b>1,052</b>
	<b>Strata Total:</b>	<b>2,367</b>	<b>3,843</b>	<b>3,946</b>	<b>2,157</b>	<b>4,387</b>	<b>4,125</b>	<b>3,077</b>	<b>10,135</b>	<b>4,910</b>	<b>5,747</b>	<b>2,828</b>	<b>4,679</b>	<b>16,614</b>	<b>2,227</b>	<b>2,567</b>	<b>9,982</b>	<b>3,696</b>	<b>5,096</b>
<b>Gorge Strata:</b>																			
Lower Gorge	Spawning Ground Survey <sup>b,c</sup>	338	n.a.	n.a.	263	226	126	223	468	920	216	96	151	362	30	395	n.s.	16	184
Hood River	Powerdale Dam <sup>a</sup>	27	41	126	27	32	50	50	65	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	Spawning Ground Survey <sup>b,c</sup>	120	n.s.	n.s.	1,235	341	120	19	0	223	232	169	561	42	4	57	n.s.	107	193
	<b>Total</b>	<b>147</b>	<b>41</b>	<b>126</b>	<b>1,262</b>	<b>373</b>	<b>170</b>	<b>69</b>	<b>65</b>	<b>223</b>	<b>232</b>	<b>169</b>	<b>561</b>	<b>42</b>	<b>4</b>	<b>57</b>	<b>n.s.</b>	<b>107</b>	<b>193</b>
	<b>Strata Total:</b>	<b>485</b>	<b>41</b>	<b>126</b>	<b>1,525</b>	<b>599</b>	<b>296</b>	<b>292</b>	<b>533</b>	<b>1,143</b>	<b>448</b>	<b>265</b>	<b>712</b>	<b>404</b>	<b>34</b>	<b>452</b>	<b>N.S.</b>	<b>123</b>	<b>377</b>
<b>Lower Columbia ESU (Oregon Only)</b>																			
	<b>ESU Total</b>	<b>4,028</b>	<b>5,331</b>	<b>5,485</b>	<b>4,822</b>	<b>6,425</b>	<b>5,960</b>	<b>5,100</b>	<b>13,461</b>	<b>10,046</b>	<b>8,359</b>	<b>4,460</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>
	<b>ESU Total (minus Youngs Bay &amp; Big Creek totals)</b>	<b>3,519</b>	<b>4,783</b>	<b>5,225</b>	<b>4,524</b>	<b>6,126</b>	<b>5,723</b>	<b>4,658</b>	<b>12,641</b>	<b>9,699</b>	<b>8,038</b>	<b>3,922</b>	<b>6,981</b>	<b>21,851</b>	<b>2,988</b>	<b>4,683</b>	<b>10,935</b>	<b>4,022</b>	<b>6,003</b>

n.s. = Not sampled. n.a. = Not applicable.

a = Number of unmarked adult coho passed above otherwise impassable, listed counting station. *Note:* The 2007-2009 Sandy Hatchery count is the number released above the old Marmot Dam site. The dam was removed in Oct 2007, thus the count is included in the spawning ground survey estimate area and not added in. Starting in 2010 unmarked fish were released above the Sandy Hatchery weir. This areas is not sampled, so these fish are added into the total abundance.

b = Spawning ground estimate does not include area above listed counting stations. *Note:* Sandy estimate is below Marmot Dam only from 2002-2006, and whole basin from 2007 on.

c = Hatchery:Wild ratios based on scale data not carcass fin marks for this population.

Estimated Abundance of **Hatchery** Adult Coho spawners in the Oregon portion of the Lower Columbia Coho ESU  
 Based on GRTS Random Sampling Methods for Rivers. Counts include fish spawning naturally; no Hatchery returns.

08/07/20

Geographic Scale ESU / Strata / Population	Spawner Abundance by Return Year																		
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
<b>Coast Strata:</b>																			
Youngs Bay	2,506	714	886	242	394	14	23	302	106	315	112	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	
Big Creek	866	291	265	124	n.a.	216	66	936	122	173	112	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	
Clatskanie	48	0	0	7	46	41	0	11	48	7	77	74	151	9	27	135	53	98	
Scappoose	0	37	67	0	39	0	0	0	0	0	0	0	0	0	42	8	0	0	
<b>Total</b>	<b>3,420</b>	<b>1,042</b>	<b>1,218</b>	<b>373</b>	<b>479</b>	<b>271</b>	<b>89</b>	<b>1,249</b>	<b>276</b>	<b>495</b>	<b>301</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	
<b>Total (minus YB &amp; BC)</b>	<b>48</b>	<b>37</b>	<b>67</b>	<b>7</b>	<b>85</b>	<b>41</b>	<b>0</b>	<b>11</b>	<b>48</b>	<b>7</b>	<b>77</b>	<b>74</b>	<b>151</b>	<b>9</b>	<b>69</b>	<b>143</b>	<b>53</b>	<b>98</b>	
<b>Cascade Strata:</b>																			
Clackamas River	2,580	294	537	504	10,871	582	1,259	2,390	1,447	239	151	117	1,774	230	159	1,023	330	196	
Sandy River	515	0	127	0	n.a.	66	0	174	128	319	33	89	169	21	31	0	46	0	
<b>Total</b>	<b>3,095</b>	<b>294</b>	<b>664</b>	<b>504</b>	<b>10,871</b>	<b>648</b>	<b>1,259</b>	<b>2,564</b>	<b>1,575</b>	<b>558</b>	<b>184</b>	<b>206</b>	<b>1,943</b>	<b>251</b>	<b>190</b>	<b>1,023</b>	<b>376</b>	<b>196</b>	
<b>Gorge Strata:</b> <sup>a</sup>																			
Lower Gorge Tribs.	67	n.a.	n.a.	1,512	538	261	191	192	65	255	124	10	377	18	30	n.s.	9	8	
Hood River	223	n.s.	n.s.	1,043	342	138	28	0	1,298	511	590	1,038	132	7	106	n.s.	42	43	
<b>Total</b>	<b>290</b>	<b>n.a.</b>	<b>n.a.</b>	<b>2,555</b>	<b>880</b>	<b>399</b>	<b>219</b>	<b>192</b>	<b>1,363</b>	<b>766</b>	<b>714</b>	<b>1,048</b>	<b>509</b>	<b>25</b>	<b>136</b>	<b>n.s.</b>	<b>51</b>	<b>51</b>	
<b>Lower Columbia ESU (Oregon Only)</b>	<b>6,805</b>	<b>1,336</b>	<b>1,882</b>	<b>3,432</b>	<b>12,230</b>	<b>1,318</b>	<b>1,567</b>	<b>4,005</b>	<b>3,214</b>	<b>1,819</b>	<b>1,199</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	
<b>Total (minus YB &amp; BC)</b>	<b>3,433</b>	<b>331</b>	<b>731</b>	<b>3,066</b>	<b>11,836</b>	<b>1,088</b>	<b>1,478</b>	<b>2,767</b>	<b>2,986</b>	<b>1,331</b>	<b>975</b>	<b>1,328</b>	<b>2,603</b>	<b>285</b>	<b>395</b>	<b>1,166</b>	<b>480</b>	<b>345</b>	

n.s. = Not sampled. n.a. = Not applicable.

a = Hatchery: Wild ratios based on scale data not carcass fin marks for this stratum.