An example report

The subtitle

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The Publisher

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Citation

EE Holmes, 2022. Quarto Report Template. Northwest Fisheries Science Center.

1 Columbia River Chum

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1.1 General location

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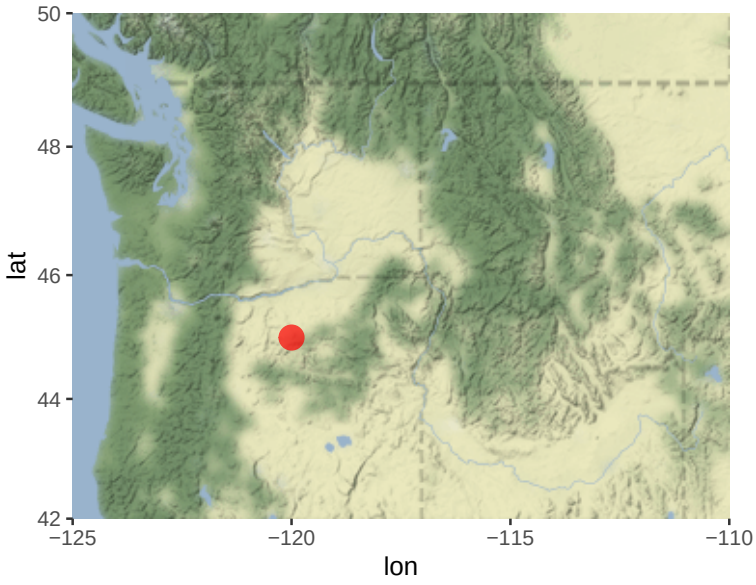

Figure 1.1: Columbia River Chum. Map of the general location of the ESU.

1.2 Recent trends

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1.3 Population raw data

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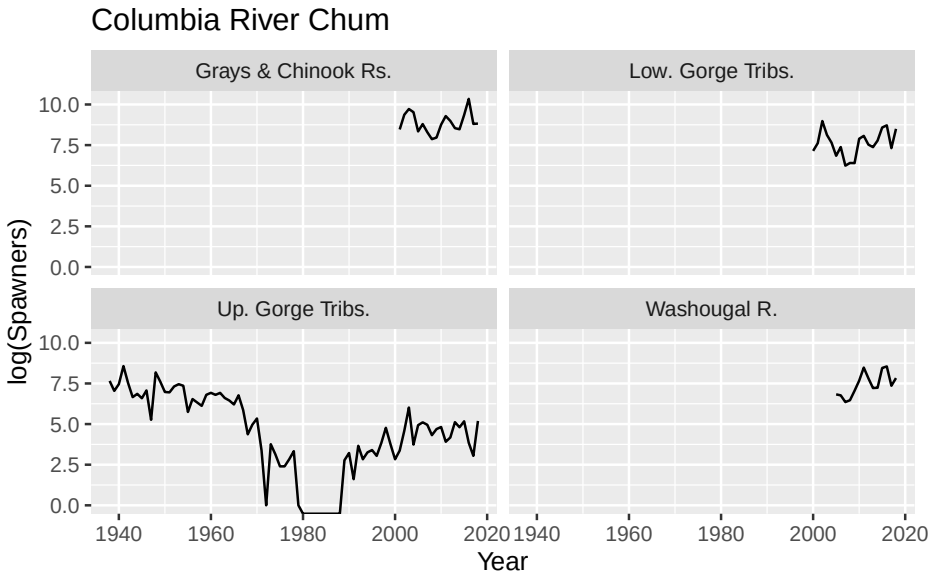

Figure 1.2: Columbia River Chum. Log spawner count trends.

1.3.1 Grays & Chinook Rs.

Table 1.1: Spawners and fracwild from Grays & Chinook Rs. (NMFS_-POPID 115) for 2010 to 2018.

Year	Spawners	Fracwild
2010	6380	0.953
2011	10809	0.930
2012	8010	0.972
2013	5134	0.941
2014	4792	0.890
2015	11580	0.938
2016	31138	0.977
2017	6662	0.933
2018	6811	0.928

Note:
kable
** data file: CRchum.csv mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

1.3.2 Washougal R.

Table 1.2: Spawners and fracwild from Washougal R. (NMFS_POPID 124) for 2010 to 2018.

Year	Spawners	Fracwild
2010	2148	-99.000
2011	4801	-99.000
2012	2498	-99.000
2013	1364	-99.000
2014	1387	-99.000
2015	4694	-99.000
2016	5155	0.982
2017	1570	1.000
2018	2518	0.987

Note:
kable
** data file: CRchum.csv mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

1.3.3 Low. Gorge Tribs.

Table 1.3: Spawners and fracwild from Low. Gorge Tribs. (NMFS_-POPID 118) for 2010 to 2018.

Year	Spawners	Fracwild
2010	2674	1.000
2011	3190	1.000
2012	1864	1.000
2013	1595	1.000
2014	2387	0.981
2015	5345	1.000
2016	6103	1.000
2017	1499	1.000
2018	4918	0.987

Note:
kable
** data file: CRchum.csv mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

1.3.4 Up. Gorge Tribs.

Table 1.4: Spawners and fracwild from Up. Gorge Tribs. (NMFS_POPID 123) for 2010 to 2018.

Year	Spawners	Fracwild
2010	124	-99
2011	50	-99
2012	65	-99
2013	167	-99
2014	122	-99
2015	176	-99
2016	47	-99
2017	21	-99
2018	180	-99

Note:
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** data file: CRchum.csv mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

2 Upper Columbia Chinook

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2.1 General location

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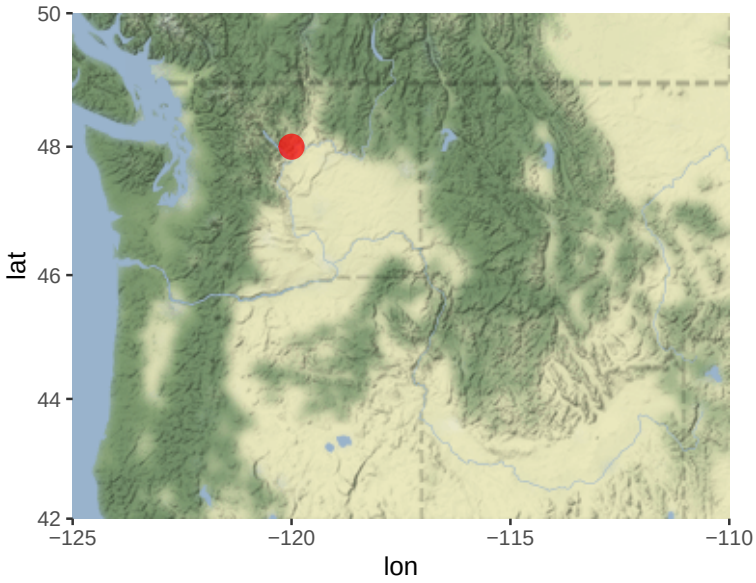

Figure 2.1: Upper Columbia Chinook. Map of the general location of the ESU.

2.2 Recent trends

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2.3 Population raw data

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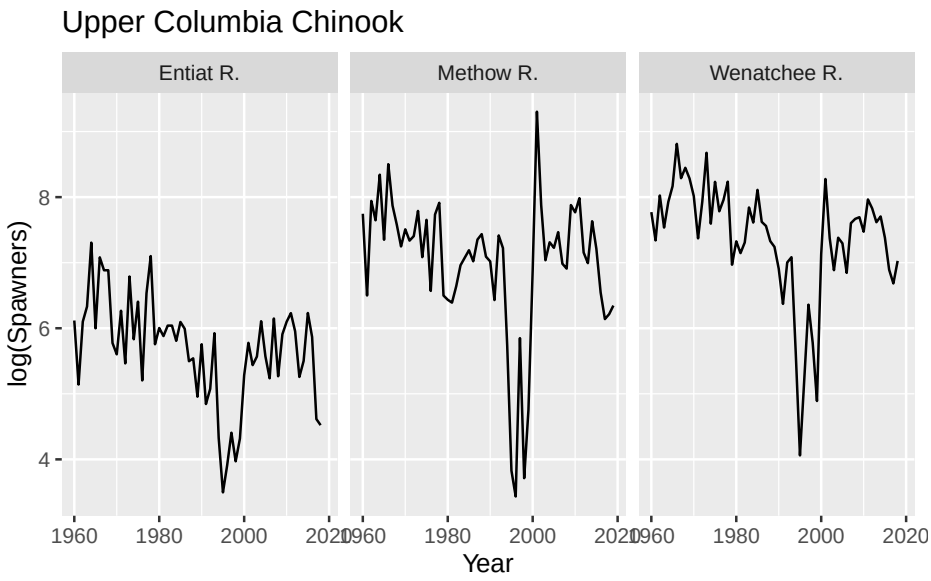

Figure 2.2: Upper Columbia Chinook. Log spawner count trends.

2.3.1 Wenatchee R.

Table 2.1: Spawners and fracwild from Wenatchee R. (NMFS_POPID 102) for 2010 to 2018.

Year	Spawners	Fracwild
2010	1759	0.31
2011	2876	0.40
2012	2511	0.37
2013	2033	0.34
2014	2219	0.57
2015	1605	0.41
2016	985	0.64
2017	799	0.43
2018	1127	0.24

Note:
kable
** data file: ICUCchinook.csv
mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

2.3.2 Entiat R.

Table 2.2: Spawners and fracwild from Entiat R. (NMFS_POPID 100) for 2010 to 2018.

Year	Spawners	Fracwild
2010	445	0.75
2011	508	0.75
2012	385	0.66
2013	192	0.79
2014	245	0.92
2015	509	0.82
2016	353	0.84
2017	101	0.62
2018	92	0.50

Note:
kable
** data file: ICUCchinook.csv
mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

2.3.3 Methow R.

Table 2.3: Spawners and fracwild from Methow R. (NMFS_POPID 101) for 2010 to 2019.

Year	Spawners	Fracwild
2010	2364	0.25
2011	2935	0.33
2012	1280	0.20
2013	1089	0.22
2014	2063	0.25
2015	1353	0.29
2016	697	0.46
2017	464	0.38
2018	500	0.53
2019	570	0.20

Note:
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** data file: ICUCchinook.csv
mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

3 Lower Columbia Chinook

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3.1 General location

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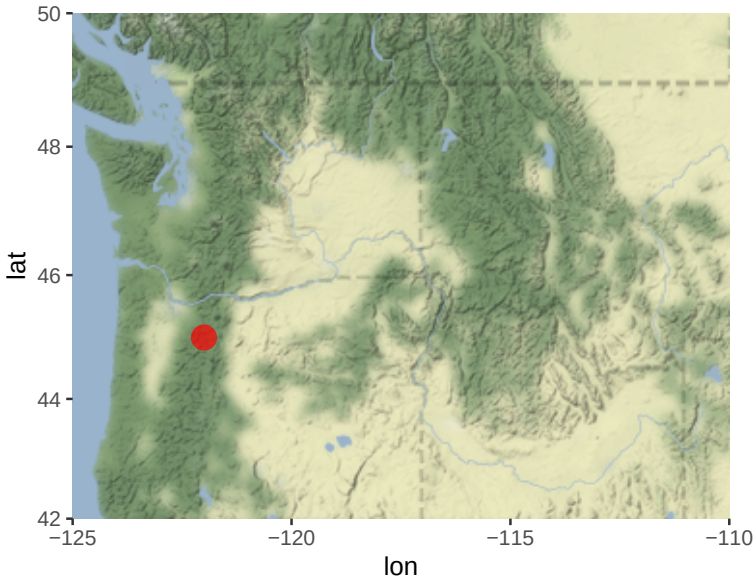

Figure 3.1: Lower Columbia Chinook. Map of the general location of the ESU.

3.2 Recent trends

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3.3 Population raw data

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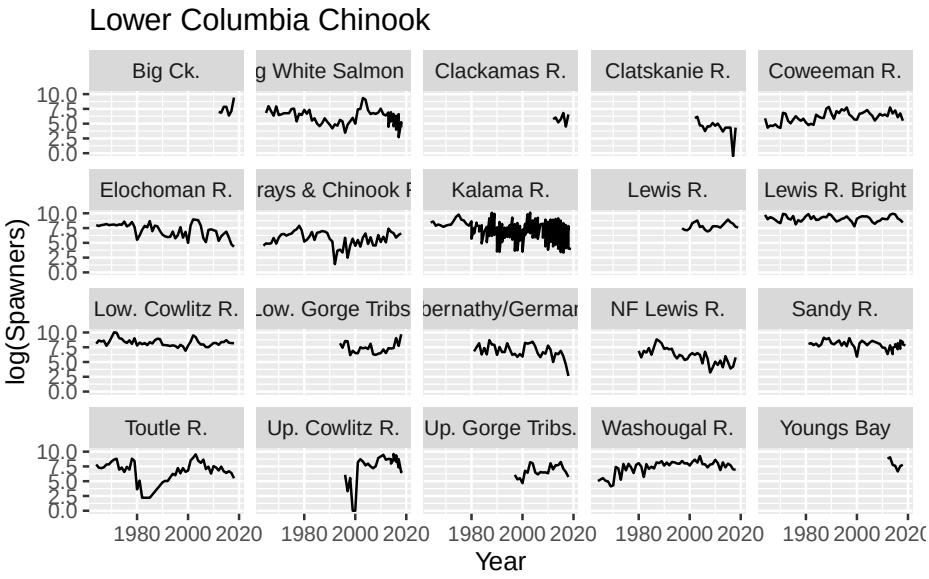

Figure 3.2: Lower Columbia Chinook. Log spawner count trends.

3.3.1 Grays & Chinook R.

Table 3.1: Spawners and fracwild from Grays & Chinook R. (NMFS_-POPID 8) for 2010 to 2018.

Year	Spawners	Fracwild
2010	170	0.486
2011	416	0.149
2012	160	0.219
2013	1644	0.055
2014	969	0.191
2015	762	0.289
2016	356	0.226
2017	565	0.523
2018	734	0.702

Note:
kable
** data file: LCchinook.csv
mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

3.3.2 Youngs Bay

Table 3.2: Spawners and fracwild from Youngs Bay (NMFS_POPID 33) for 2012 to 2018.

Year	Spawners	Fracwild
2012	6686	0.025
2013	8485	0.048
2014	2345	0.051
2015	2026	0.189
2016	768	0.243
2017	1927	0.097
2018	2383	0.014

Note:
kable
** data file: LCchinook.csv
mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

3.3.3 Big Ck.

Table 3.3: Spawners and fracwild from Big Ck. (NMFS_POPID 1) for 2012 to 2018.

Year	Spawners	Fracwild
2012	1096	0.050
2013	946	0.000
2014	2583	0.016
2015	2586	0.000
2016	582	0.077
2017	1279	0.000
2018	12301	0.009

Note:
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** data file: LCchinook.csv
mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

3.3.4 Elochoman R.

Table 3.4: Spawners and fracwild from Elochoman R. (NMFS_POPID 7) for 2010 to 2018.

Year	Spawners	Fracwild
2010	1260	0.108
2011	1083	0.058
2012	206	0.301
2013	448	0.178
2014	680	0.220
2015	989	0.237
2016	368	0.249
2017	114	0.677
2018	77	0.643

Note:
kable
** data file: LCchinook.csv
mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

3.3.5 Clatskanie R.

Table 3.5: Spawners and fracwild from Clatskanie R. (NMFS_POPID 5) for 2010 to 2018.

Year	Spawners	Fracwild
2010	103	0.12
2011	152	0.08
2012	80	0.10
2013	39	0.08
2014	76	0.09
2015	76	0.09
2016	76	0.06
2017	0	-99.00
2018	76	0.01

Note:
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** data file: LCchinook.csv
mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

3.3.6 Mill/Abernathy/Germany Ck.

Table 3.6: Spawners and fracwild from Mill/Abernathy/Germany Ck. (NMFS_POPID 17) for 2010 to 2018.

Year	Spawners	Fracwild
2010	2410	0.065
2011	1192	0.079
2012	147	0.143
2013	657	0.194
2014	554	0.062
2015	989	0.081
2016	397	0.219
2017	95	0.174
2018	14	0.394

Note:
kable
** data file: LCchinook.csv
mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

3.3.7 Low. Cowlitz R.

Table 3.7: Spawners and fracwild from Low. Cowlitz R. (NMFS_POPID 15) for 2010 to 2018.

Year	Spawners	Fracwild
2010	3734	0.683
2011	3685	0.745
2012	2725	0.570
2013	4320	0.805
2014	4347	0.672
2015	5981	0.700
2016	3885	0.741
2017	3630	0.806
2018	3553	0.845

Note:
kable
** data file: LCchinook.csv
mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

3.3.8 Coweeman R.

Table 3.8: Spawners and fracwild from Coweeman R. (NMFS_POPID 6) for 2010 to 2018.

Year	Spawners	Fracwild
2010	584	0.707
2011	707	0.881
2012	526	0.882
2013	2322	0.675
2014	830	0.957
2015	1391	0.977
2016	439	0.936
2017	841	0.857
2018	244	0.884

Note:
kable
** data file: LCchinook.csv
mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

3.3.9 Toutle R.

Table 3.9: Spawners and fracwild from Toutle R. (NMFS_POPID 25) for 2010 to 2018.

Year	Spawners	Fracwild
2010	1917	0.119
2011	1498	0.132
2012	907	0.259
2013	1754	0.521
2014	783	0.514
2015	598	0.632
2016	803	0.461
2017	594	0.529
2018	244	0.571

Note:
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** data file: LCchinook.csv
mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

3.3.10 Up. Cowlitz R.

Table 3.10: Spawners and fracwild from Up. Cowlitz R. (NMFS_POPID 27) for 2010 to 2018.

Year	Spawners	Fracwild
2010	9808	0.215
2011	12914	0.330
2012	5564	0.350
2013	6488	0.505
2014	6231	0.363
2015	5647	0.598
2016	3959	0.774
2017	1520	0.983
2018	674	0.923
2014	2915	0.078
2015	14981	0.012
2016	11946	0.017
2017	6260	0.024
2018	779	0.198

Note:
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** data file: LCchinook.csv
mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

3.3.11 Kalama R.

Table 3.11: Spawners and fracwild from Kalama R. (NMFS_POPID 11) for 2010 to 2019.

Year	Spawners	Fracwild
2010	5315	0.112
2011	7591	0.056
2012	7477	0.039
2013	8487	0.096
2014	9451	0.081
2015	6423	0.451
2016	4226	0.602
2017	3041	0.570
2018	2548	0.647
2010	46	1.000
2011	172	1.000
2012	81	1.000
2013	107	1.000
2014	55	1.000
2015	31	1.000
2016	28	1.000
2017	60	1.000
2018	57	1.000
2019	52	1.000

Note:
kable
** data file: LCchinook.csv
mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

3.3.12 Lewis R.

Table 3.12: Spawners and fracwild from Lewis R. (NMFS_POPID 14) for 2010 to 2019.

Year	Spawners	Fracwild
2010	2490	0.640
2011	2364	0.707
2012	1950	0.677
2015	7653	0.453
2016	4854	0.456
2017	3781	0.527
2018	2243	0.633
2019	2020	0.735

Note:
kable
** data file: LCchinook.csv
mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

3.3.13 Sandy R.

Table 3.13: Spawners and fracwild from Sandy R. (NMFS_POPID 20) for 2010 to 2019.

Year	Spawners	Fracwild
2010	1713	-99.000
2011	1635	-99.000
2012	570	-99.000
2013	2489	-99.000
2014	565	-99.000
2015	2006	-99.000
2016	1281	-99.000
2017	1403	-99.000
2018	4347	-99.000
2019	2449	-99.000
2013	2413	0.907
2014	1658	0.871
2015	3023	0.885
2016	3615	0.952
2017	5706	0.915
2018	2900	0.913

Note:
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** data file: LCchinook.csv
mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

3.3.14 Clackamas R.

Table 3.14: Spawners and fracwild from Clackamas R. (NMFS_POPID 4) for 2012 to 2018.

Year	Spawners	Fracwild
2012	321	0.187
2013	422	0.924
2014	183	0.694
2015	308	0.623
2016	910	0.781
2017	90	0.378
2018	709	0.949

Note:
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** data file: LCchinook.csv
mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

3.3.15 Washougal R.

Table 3.15: Spawners and fracwild from Washougal R. (NMFS_POPID 30) for 2010 to 2018.

Year	Spawners	Fracwild
2010	5530	0.107
2011	3224	0.146
2012	965	0.262
2013	3612	0.331
2014	1529	0.653
2015	2925	0.456
2016	2198	0.400
2017	1112	0.592
2018	1019	0.886

Note:
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** data file: LCchinook.csv
mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

3.3.16 Lewis R. Bright

Table 3.16: Spawners and fracwild from Lewis R. Bright (NMFS_POPID 13) for 2010 to 2018.

Year	Spawners	Fracwild
2010	9294	1
2011	8205	1
2012	8143	1
2013	17022	1
2014	20489	1
2015	18635	1
2016	9311	1
2017	7149	1
2018	4671	1

Note:
kable
** data file: LCchinook.csv
mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

3.3.17 NF Lewis R.

Table 3.17: Spawners and fracwild from NF Lewis R. (NMFS_POPID 18) for 2010 to 2018.

Year	Spawners	Fracwild
2010	157	-99
2011	90	-99
2012	190	-99
2013	60	-99
2014	403	-99
2015	147	-99
2016	49	-99
2017	68	-99
2018	326	-99

Note:
kable
** data file: LCchinook.csv
mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

3.3.18 Low. Gorge Tribs.

Table 3.18: Spawners and fracwild from Low. Gorge Tribs. (NMFS_-POPID 16) for 2010 to 2018.

Year	Spawners	Fracwild
2010	670	0.954
2011	1246	0.948
2012	671	0.941
2013	1554	0.782
2014	1451	0.820
2015	1569	0.921
2016	8514	0.968
2017	2268	0.971
2018	16221	0.988

Note:
kable
** data file: LCchinook.csv
mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

3.3.19 Up. Gorge Tribs.

Table 3.19: Spawners and fracwild from Up. Gorge Tribs. (NMFS_-POPID 29) for 2010 to 2018.

Year	Spawners	Fracwild
2010	565	0.781
2011	3084	0.369
2012	1090	0.309
2013	2239	0.272
2014	2191	0.246
2015	3826	0.320
2016	1231	0.442
2017	697	0.826
2018	303	0.716

Note:
kable
** data file: LCchinook.csv
mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

3.3.20 Big White Salmon R.

Table 3.20: Spawners and fracwild from Big White Salmon R. (NMFS_-POPID 31) for 2010 to 2018.

Year	Spawners	Fracwild
2010	1887	0.725
2011	723	0.885
2012	593	0.936
2013	984	0.658
2014	1034	0.775
2015	773	0.485
2016	565	0.680
2017	747	0.538
2018	194	0.568
2013	88	0.170
2014	217	0.097
2015	94	0.160
2016	54	0.111
2017	15	0.333
2018	82	0.110

Note:
kable
** data file: LCchinook.csv
mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

4 Interior Columbia Snake River Chinook steelhead

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4.1 General location

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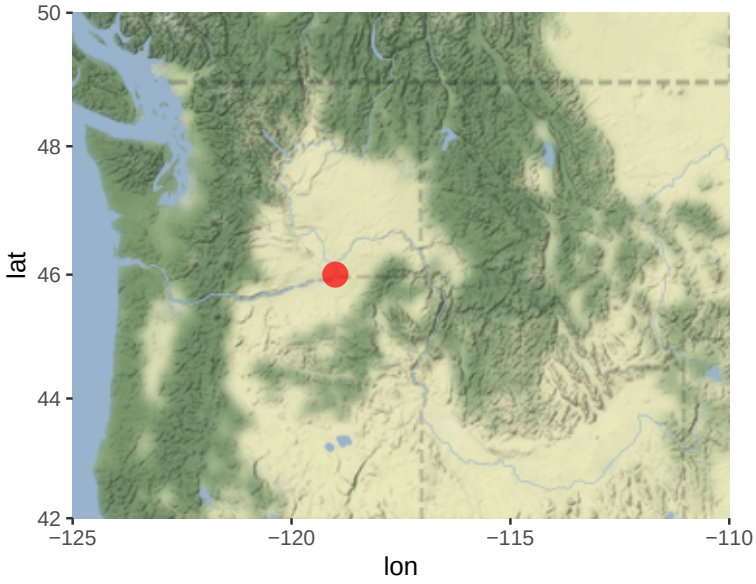

Figure 4.1: Interior Columbia Snake River Chinook steelhead. Map of the general location of the ESU.

4.2 Recent trends

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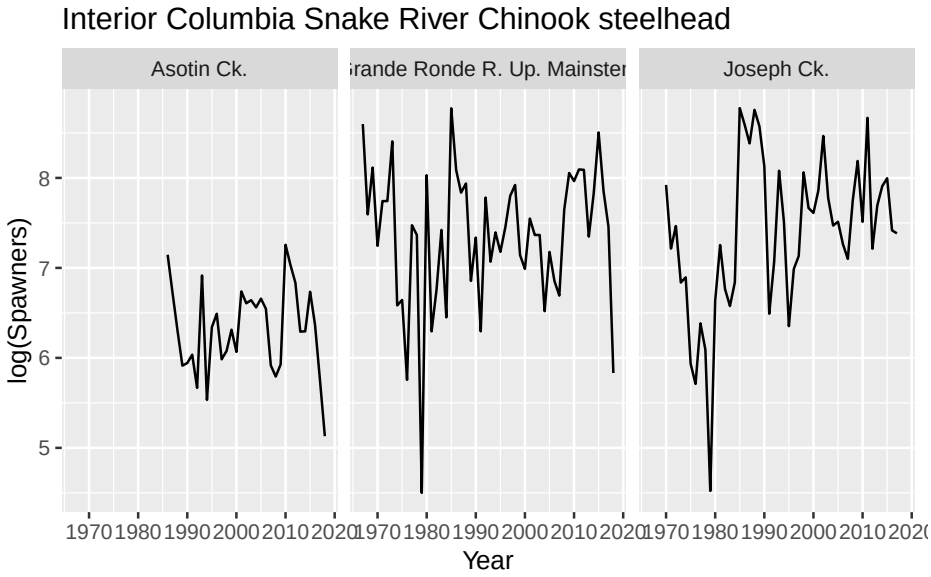

Figure 4.2: Interior Columbia Snake River Chinook steelhead. Log spawner count trends.

4.3 Population raw data

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4.3.1 Asotin Ck.

Table 4.1: Spawners and fracwild from Asotin Ck. (NMFS_POPID 300) for 2010 to 2018.

Year	Spawners	Fracwild
2010	1418	1.00
2011	1132	1.00
2012	930	0.98
2013	540	1.00
2014	542	0.98
2015	841	1.00
2016	583	1.00
2017	316	0.99
2018	169	0.99

Note:
kable
** data file: ICSRsthd.csv
mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

4.3.2 Joseph Ck.

Table 4.2: Spawners and fracwild from Joseph Ck. (NMFS_POPID 310) for 2010 to 2017.

Year	Spawners	Fracwild
2010	1831	1.00
2011	5810	0.97
2012	1357	0.96
2013	2197	0.98
2014	2720	0.97
2015	2969	0.98
2016	1663	0.96
2017	1610	0.97

Note:
kable
** data file: ICSRsthd.csv
mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

4.3.3 Grande Ronde R. Up. Mainstem

Table 4.3: Spawners and fracwild from Grande Ronde R. Up. Mainstem (NMFS_POPID 306) for 2010 to 2018.

Year	Spawners	Fracwild
2010	2876	0.95
2011	3275	1.00
2012	3260	1.00
2013	1553	0.99
2014	2512	1.00
2015	4939	0.99
2016	2572	0.99
2017	1733	0.98
2018	341	1.00

Note:
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** data file: ICSRsthd.csv
mod date: Wed Aug 10 17:57:25 2022 -0600
* These spawner counts are from river redd surveys.

5 Conclusion

We want to reference the Interior Columbia Upper Columbia Entiat population Table 2.2. It is in Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nam commodo sit amet nibh non molestie. Maecenas hendrerit nisl velit, a condimentum enim lobortis sit amet. Ut vitae nunc sed mauris condimentum fermentum. Mauris pellentesque nec neque id elementum. Suspendisse a quam aliquam, facilisis urna venenatis, malesuada diam. Pellentesque in fringilla orci. Cras sed purus urna. Ut pharetra enim ut ligula egestas mattis. I need to reference the work of Hardy (1978).

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