## Tucannon summer steelhead cumulative DD

MNSnyder 8/29/2019

DD > 18 °C

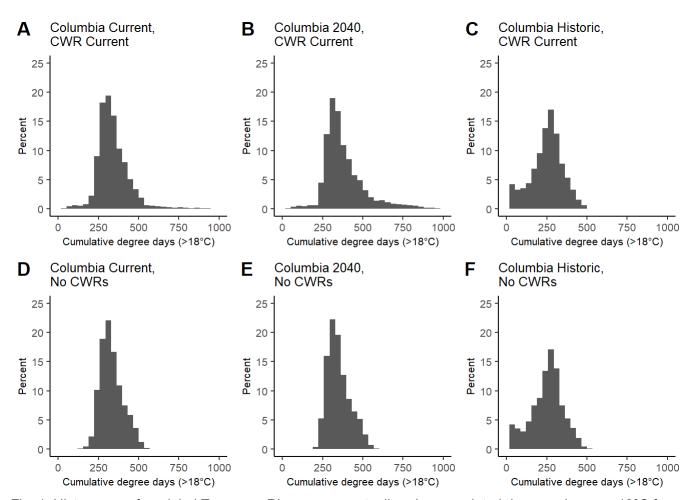


Fig. 1. Histograms of modeled Tucannon River summer steelhead accumulated degrees day over 18°C from Bonneville to the Snake River confluence in the Columbia River.

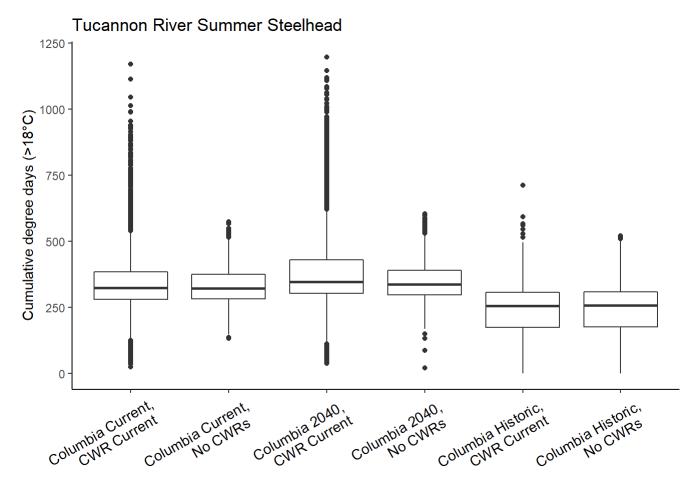


Fig. 2. Boxplots of modeled Tucannon River summer steelhead accumulated degrees day over 18°C from Bonneville to the Snake River confluence in the Columbia River.

Table 1. Cumulative degree days (>18°C) used across different HexSim thermalscapes summarized for Tucannon River Summer Steelhead.

Scenario	Minimum	25% quantile	Median	75% quantile	Maximum
Columbia 2040, CWR Current	38	303	348	431	1197
Columbia Historic, CWR Current	1	175	256	308	712
Columbia Current, CWR Current	25	281	325	385	1170
Columbia 2040, No CWRs	21	298	337	391	605
Columbia Historic, No CWRs	1	177	258	310	521
Columbia Current, No CWRs	134	282	322	375	574

## Degree Days > 20°C

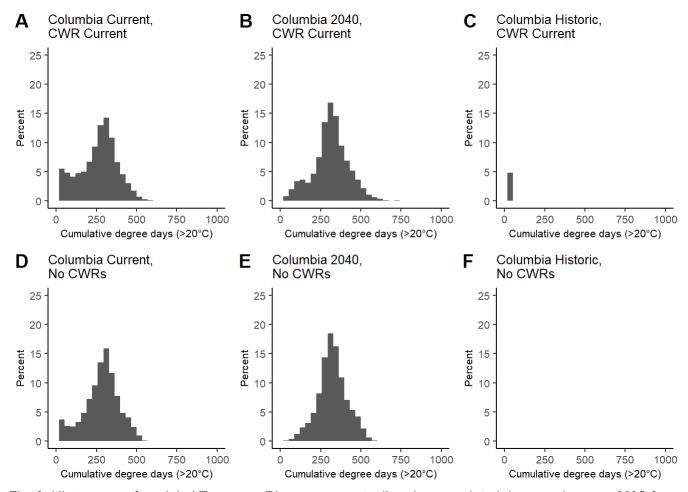


Fig. 3. Histograms of modeled Tucannon River summer steelhead accumulated degrees day over 20°C from Bonneville to the Snake River confluence in the Columbia River.

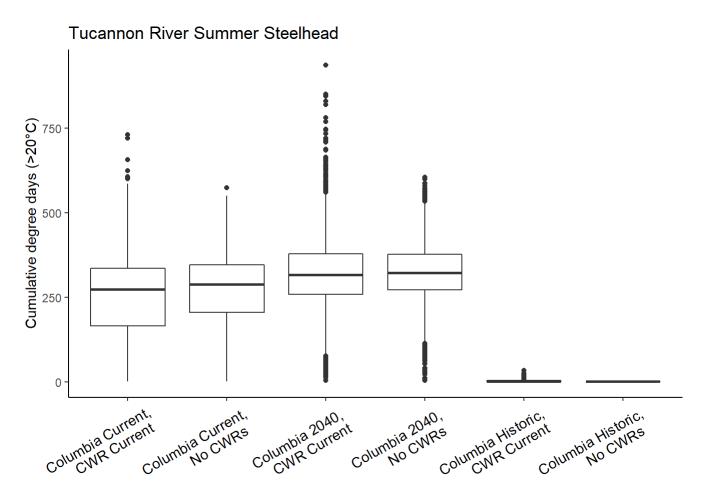


Fig. 4. Boxplots of modeled Tucannon River summer steelhead accumulated degrees day over 20°C from Bonneville to the Snake River confluence in the Columbia River.

Table 2. Cumulative degree days (>20°C) used across different HexSim thermalscapes summarized for Tucannon River Summer Steelhead.

Scenario	Minimum	25% quantile	Median	75% quantile	Maximum
Columbia 2040, CWR Current	3	258	316	379	937
Columbia Historic, CWR Current	1	1	1	3	33
Columbia Current, CWR Current	1	165	273	336	732
Columbia 2040, No CWRs	3	272	322	377	605
Columbia Historic, No CWRs	1	1	1	1	1
Columbia Current, No CWRs	1	205	288	347	574

## Degree Days > 21°C

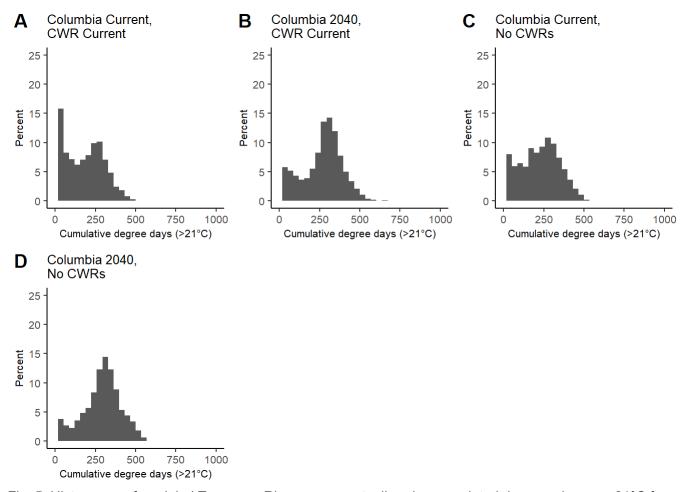


Fig. 5. Histograms of modeled Tucannon River summer steelhead accumulated degrees day over 21°C from Bonneville to the Snake River confluence in the Columbia River.

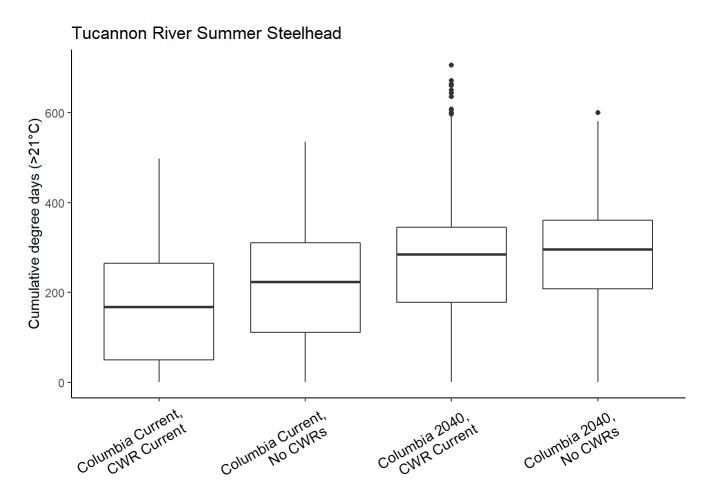


Fig. 6. Boxplots of modeled Tucannon River summer steelhead accumulated degrees day over 21°C from Bonneville to the Snake River confluence in the Columbia River.

Table 3. Cumulative degree days (>21°C) used across different HexSim thermalscapes summarized for Tucannon River Summer Steelhead.

Scenario	Minimum	25% quantile	Median	75% quantile	Maximum
Columbia 2040, CWR Current	1	177	285	345	705
Columbia Current, CWR Current	1	50	168	265	497
Columbia 2040, No CWRs	1	208	296	361	600
Columbia Current, No CWRs	1	111	223	310	535