

# Hanford Reach Fall Chinook cumulative DD

MNSnyder

8/29/2019

DD > 18 °C

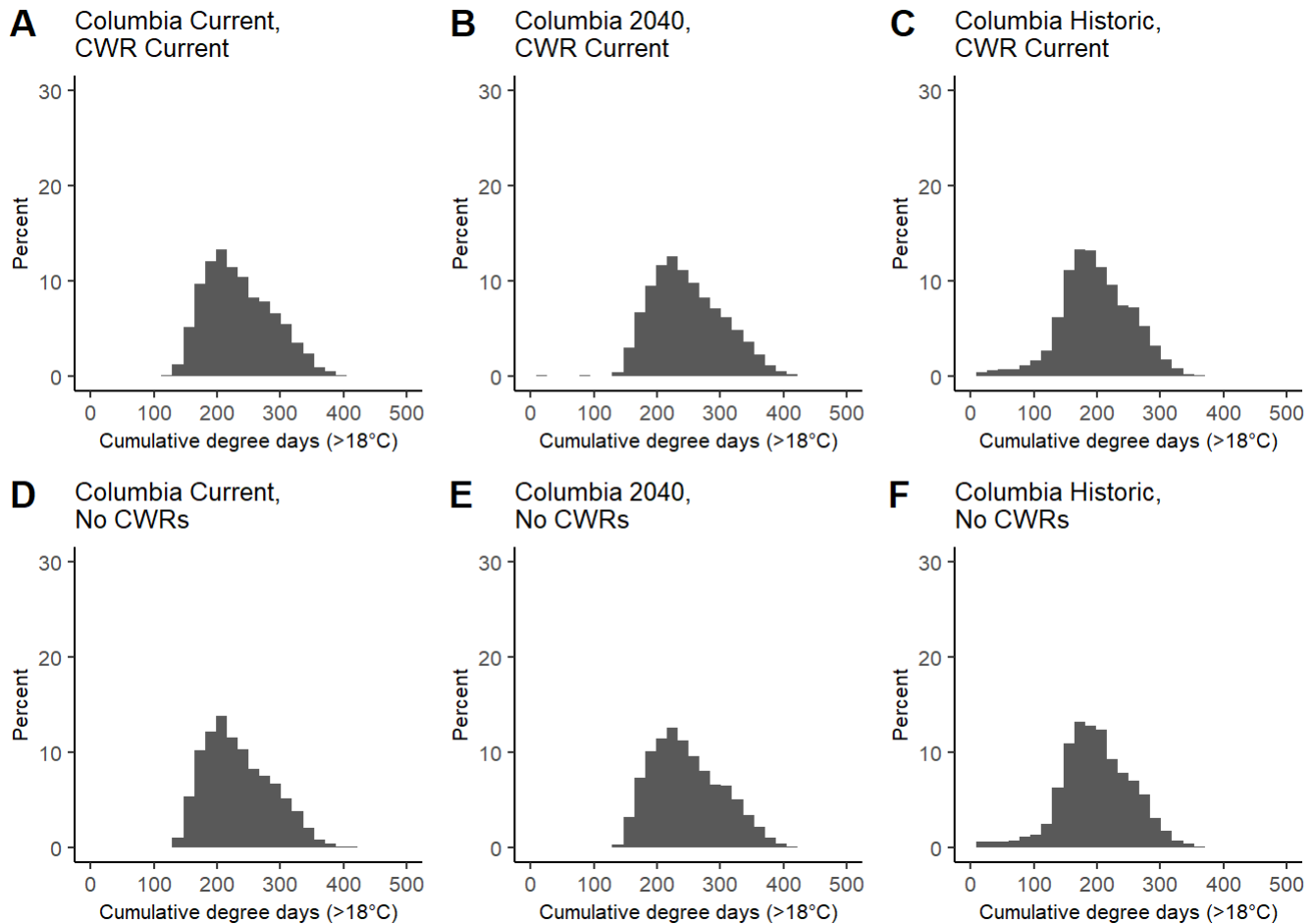


Fig. 1. Histograms of modeled Hanford Reach fall Chinook accumulated degrees day over 18°C from Bonneville to the Hanford Reach confluence in the Columbia River.

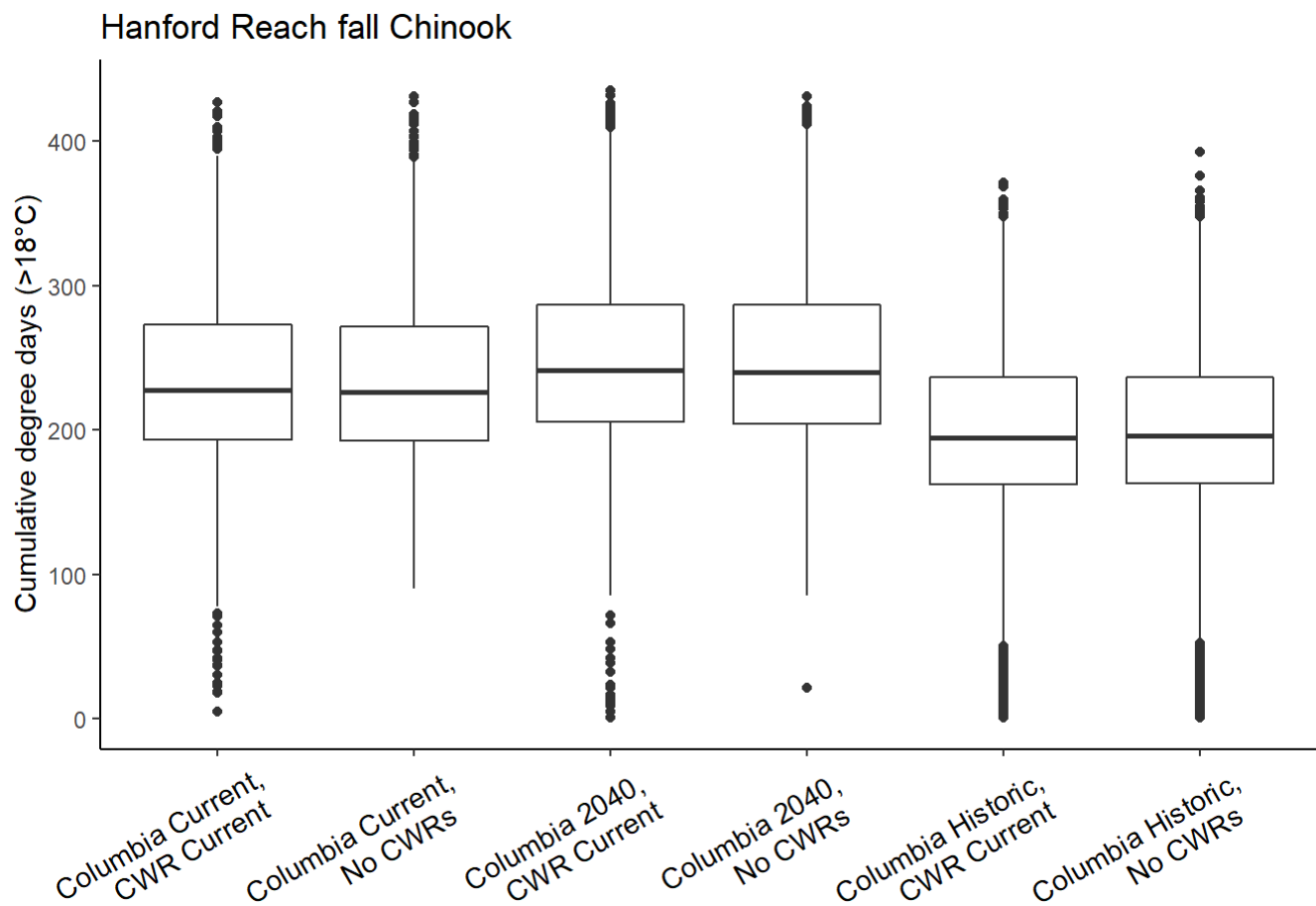


Fig. 2. Boxplots of modeled Hanford Reach fall Chinook accumulated degrees day over 18°C from Bonneville to the Hanford Reach confluence in the Columbia River.

Table 1. Cumulative degree days (>18°C) used across different HexSim thermalscapes summarized for Hanford Reach fall Chinook.

Scenario	Minimum	25% quantile	Median	75% quantile	Maximum
Columbia 2040, CWR Current	1	205	241	287	435
Columbia Historic, CWR Current	1	162	194	236	371
Columbia Current, CWR Current	5	193	227	273	427
Columbia 2040, No CWRs	21	204	240	287	431
Columbia Historic, No CWRs	1	163	196	236	393
Columbia Current, No CWRs	90	193	226	271	431

## Degree Days > 20°C

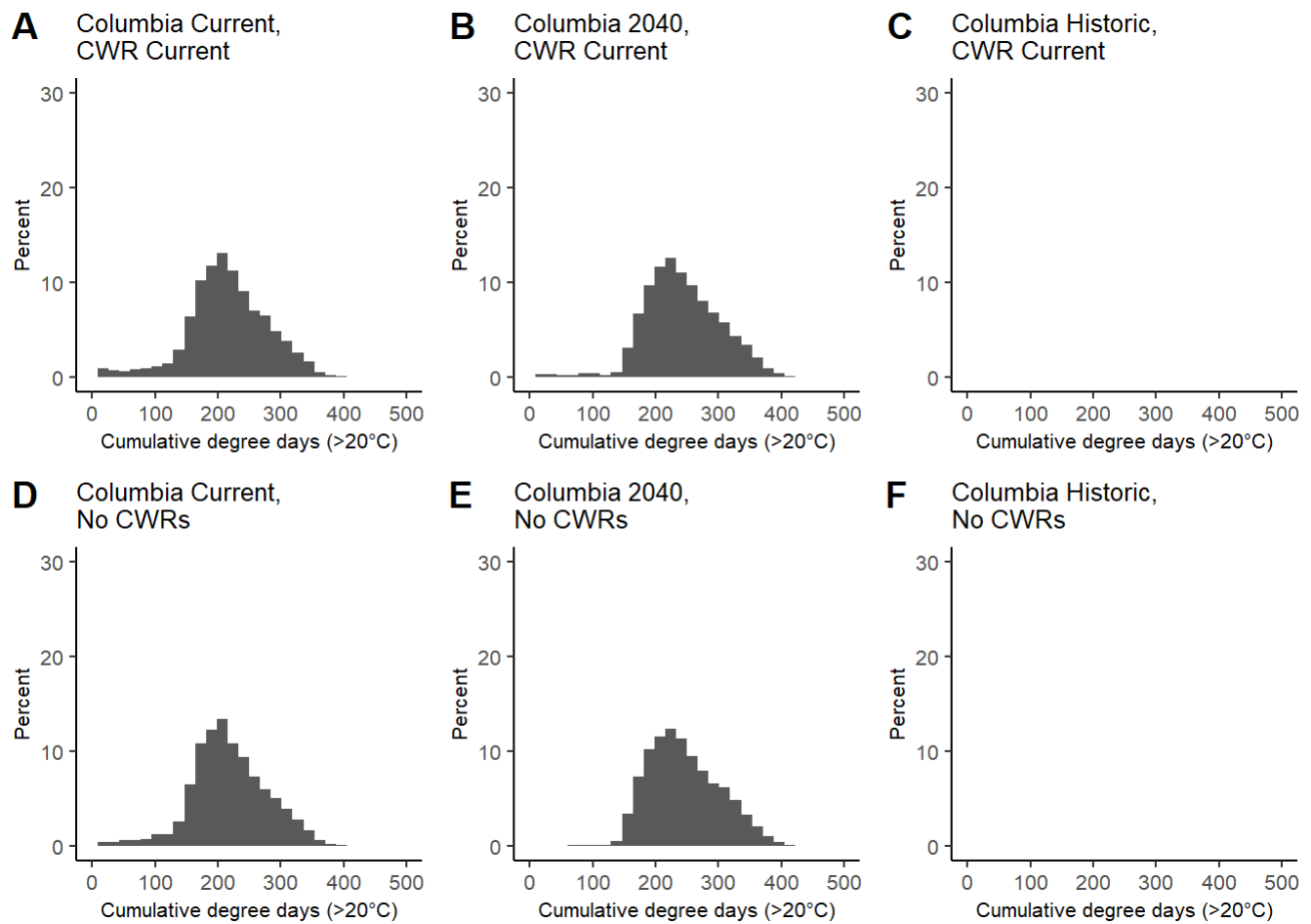


Fig. 3. Histograms of modeled Hanford Reach fall Chinook accumulated degrees day over 20°C from Bonneville to the Hanford Reach confluence in the Columbia River.

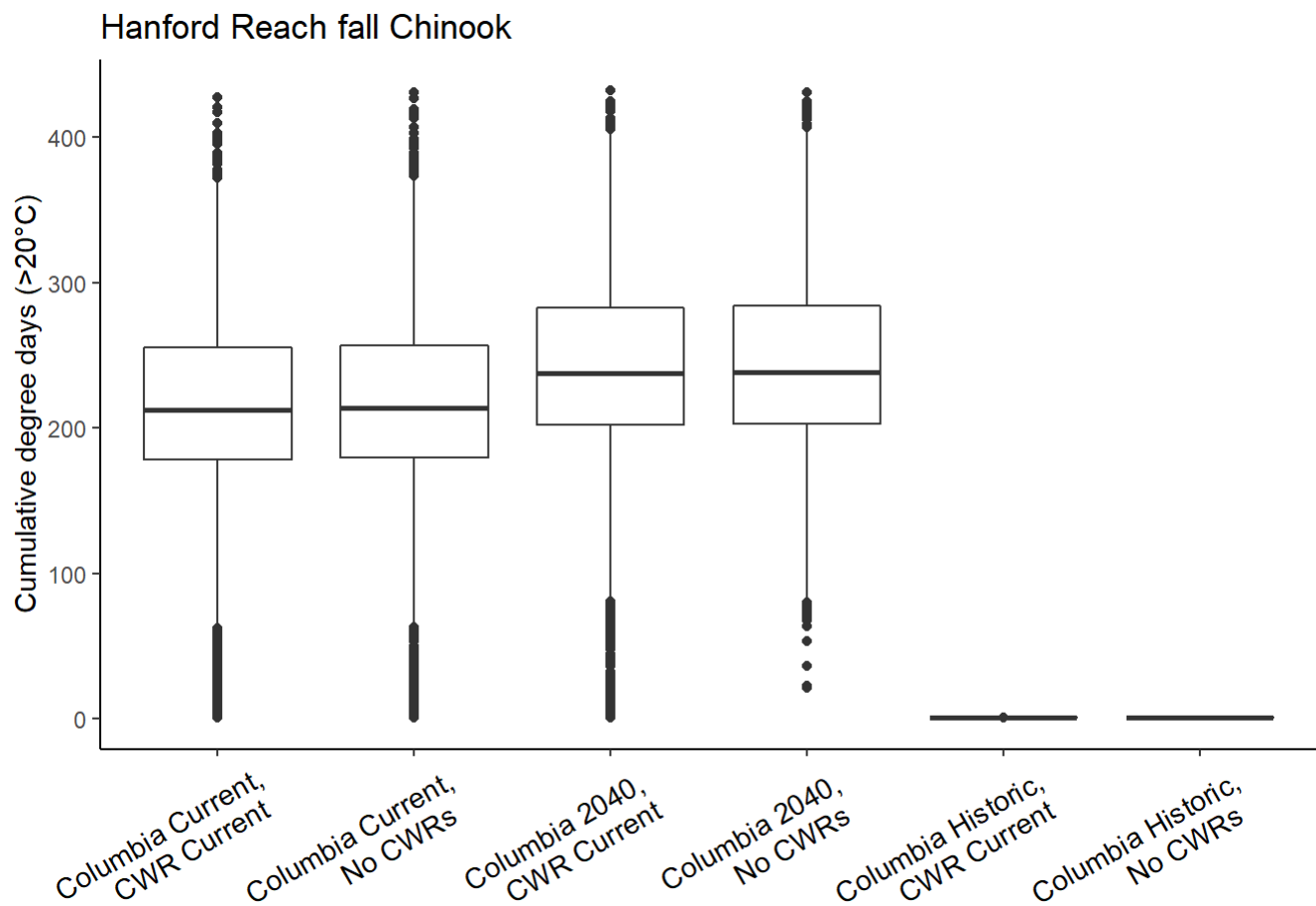


Fig. 4. Boxplots of modeled Hanford Reach fall Chinook accumulated degrees day over 20°C from Bonneville to the Hanford Reach confluence in the Columbia River.

Table 2. Cumulative degree days (>20°C) used across different HexSim thermalscapes summarized for Hanford Reach fall Chinook.

Scenario	Minimum	25% quantile	Median	75% quantile	Maximum
Columbia 2040, CWR Current	1	202	238	283	432
Columbia Historic, CWR Current	1	1	1	1	1
Columbia Current, CWR Current	1	178	212	256	427
Columbia 2040, No CWRs	21	203	238	284	431
Columbia Historic, No CWRs	1	1	1	1	1
Columbia Current, No CWRs	1	179	214	257	431

## Degree Days > 21°C

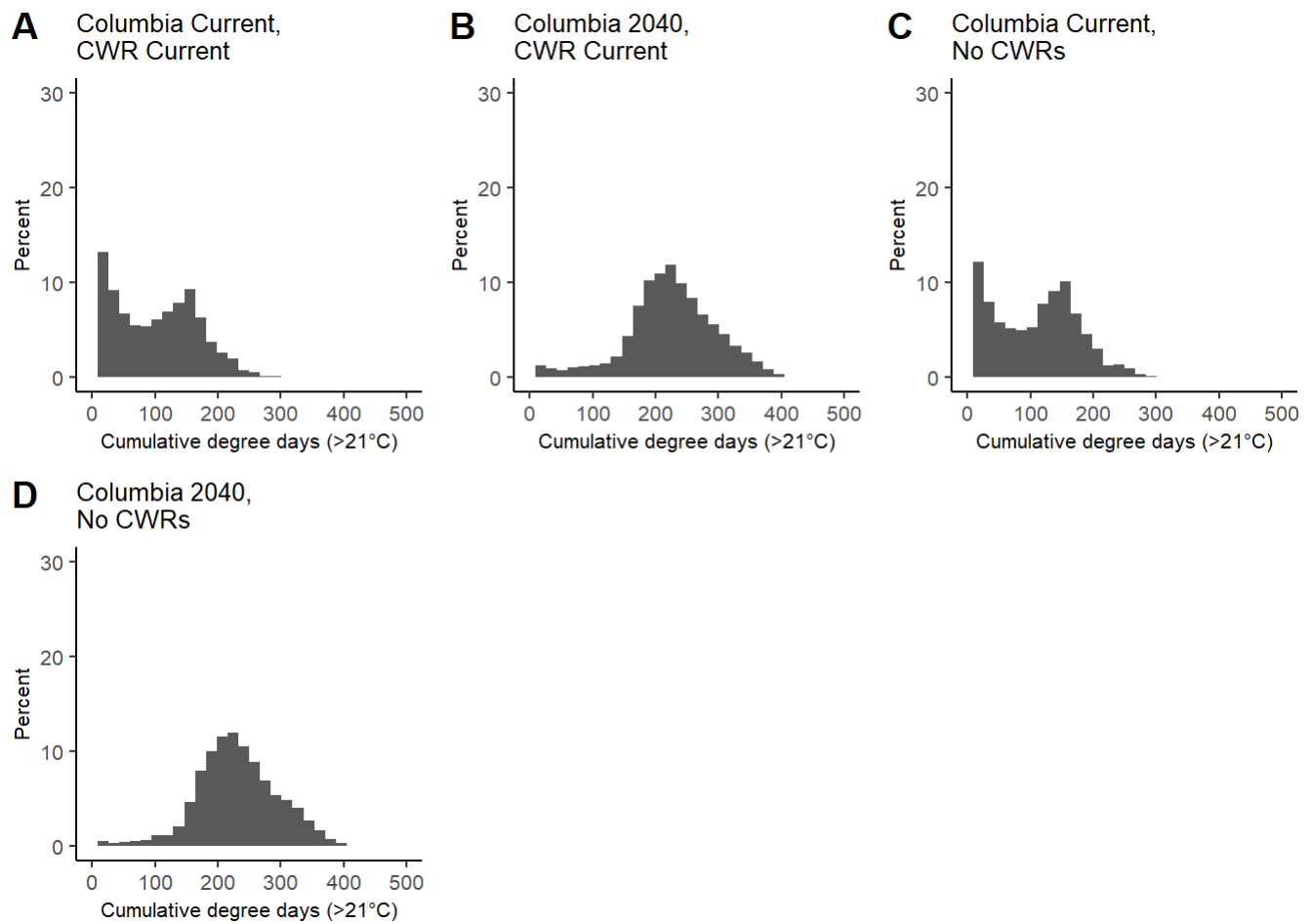


Fig. 5. Histograms of modeled Hanford Reach fall Chinook accumulated degrees day over 21°C from Bonneville to the Hanford Reach confluence in the Columbia River.

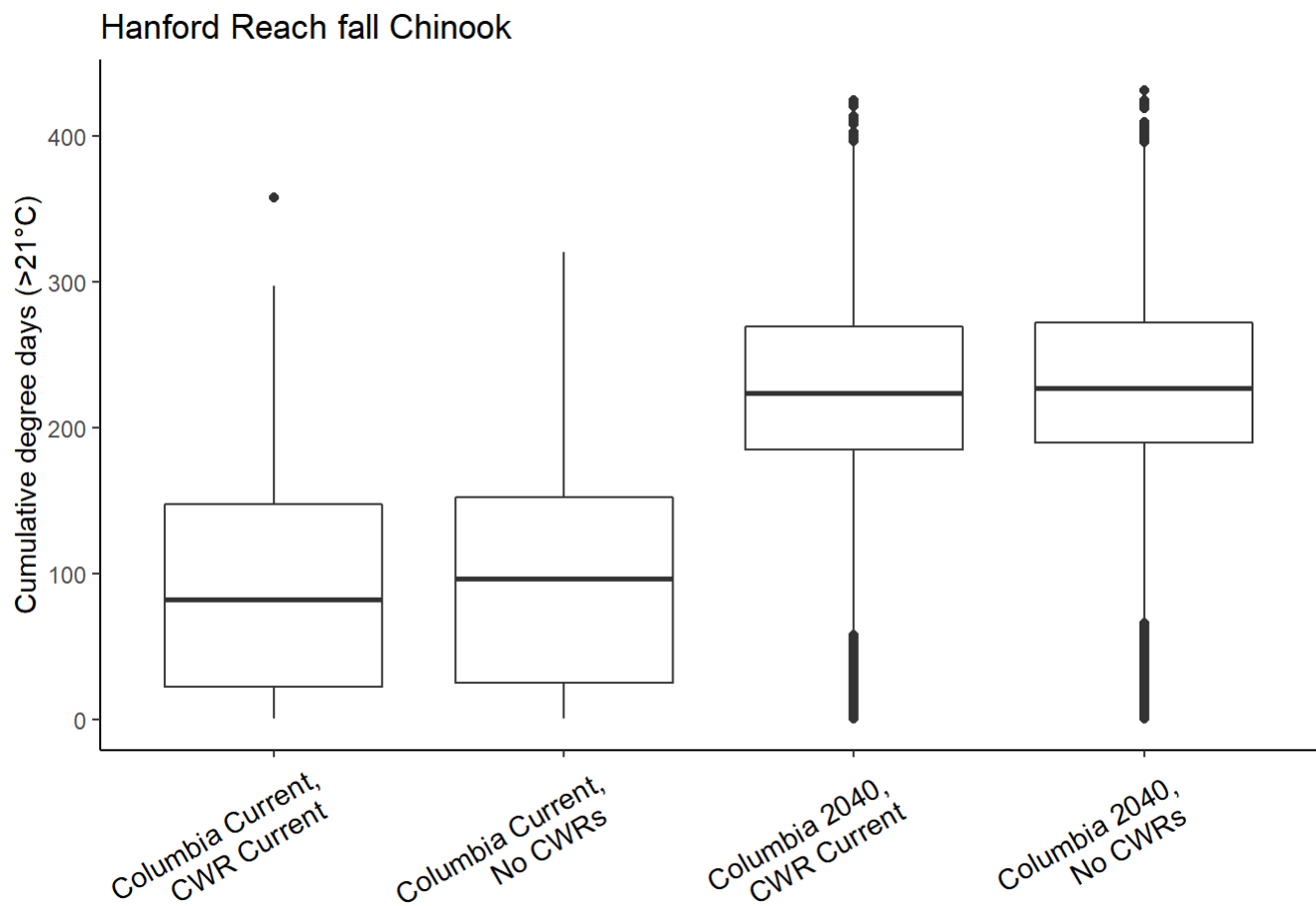


Fig. 6. Boxplots of modeled Hanford Reach fall Chinook accumulated degrees day over 21°C from Bonneville to the Hanford Reach confluence in the Columbia River.

Table 3. Cumulative degree days (>21°C) used across different HexSim thermalscapes summarized for Hanford Reach fall Chinook.

Scenario	Minimum	25% quantile	Median	75% quantile	Maximum
Columbia 2040, CWR Current	1	185	224	269	425
Columbia Current, CWR Current	1	23	83	148	358
Columbia 2040, No CWRs	1	190	227	272	431
Columbia Current, No CWRs	1	25	97	153	320