Snake River fall chinook cumulative DD

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Snake River fall chinook Columbia River temperature time series from 2017. 4 scenarios included:

- Columbia River 2017
- Columbia River 2017, no CWRs
- Columbia River 2017 plus 1
- Columbia River 2017 plus 1, no CWRs

Columbia 2017B assigns the John Day Pool temperature from the John Day forebay, which is the warmer section of the pool.

DD > 18 °C

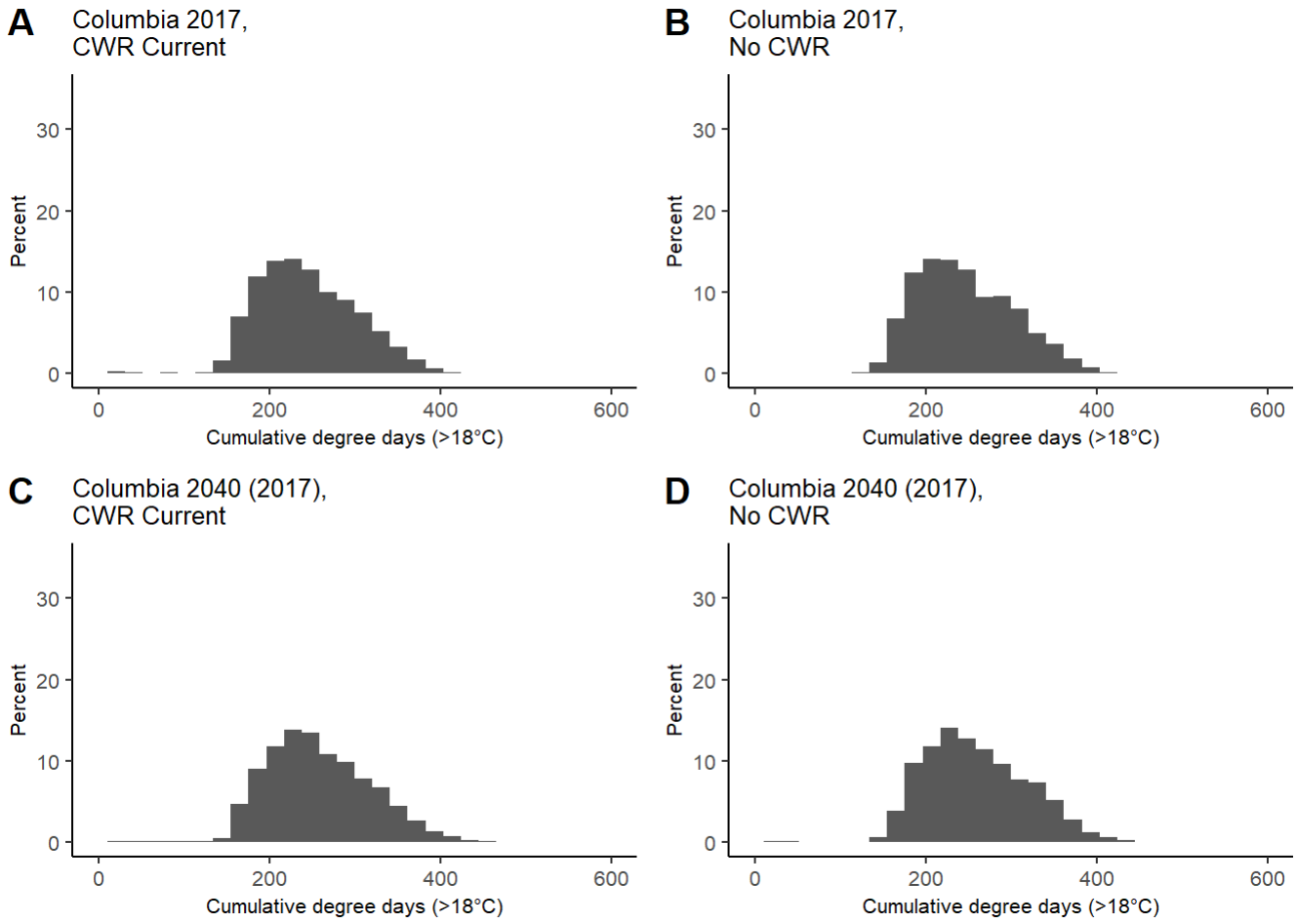

Fig. 1. Histograms of modeled Snake River fall chinook accumulated degrees day over 18°C from Bonneville to the Snake River confluence in the Columbia River.

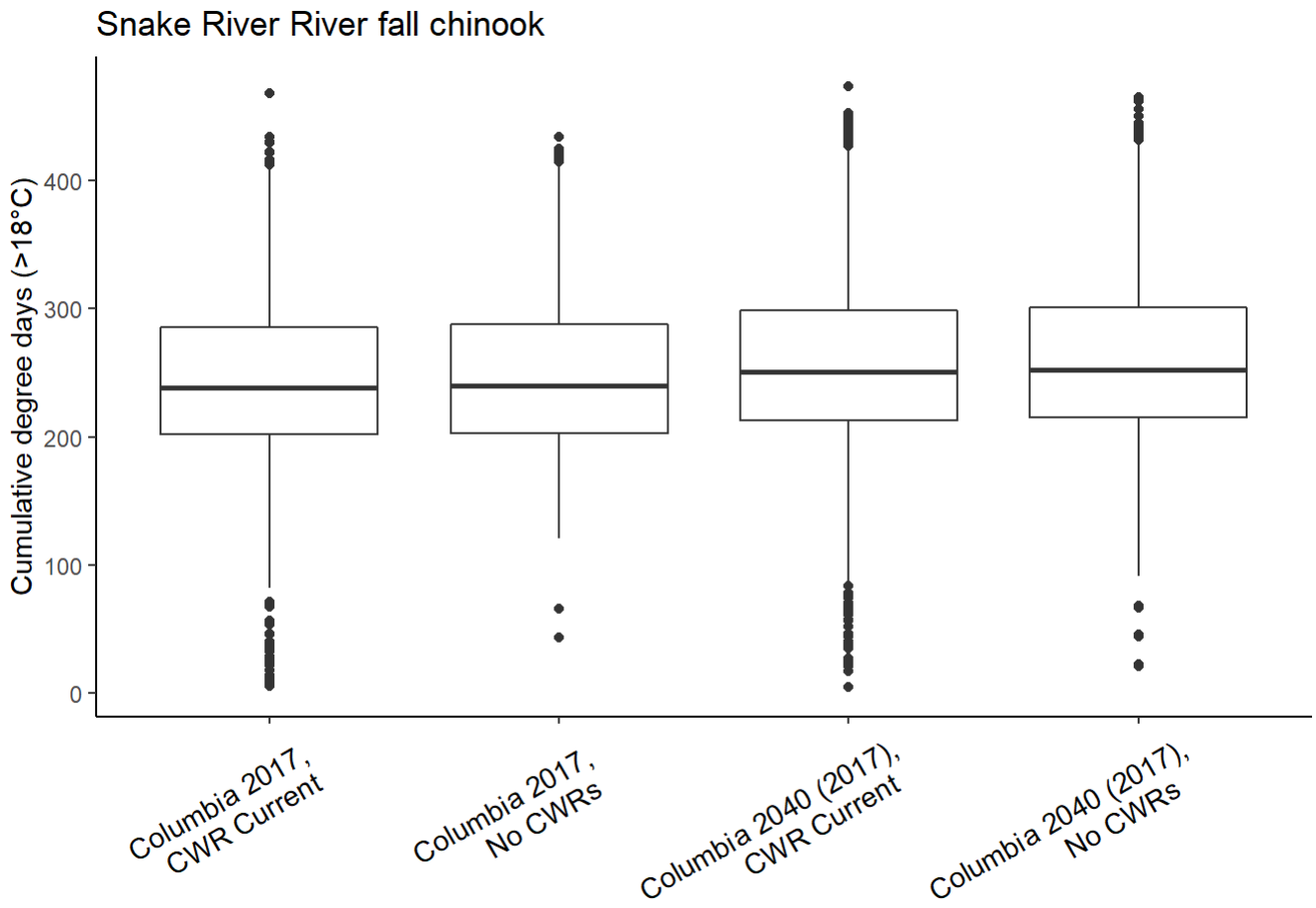

Fig. 2. Boxplots of modeled Snake River fall chinook accumulated degrees day over 18°C from Bonneville to the Snake River confluence in the Columbia River.

Table 1. Cumulative degree days (>18°C) used across different HexSim thermalscapes summarized for Snake River River fall chinook.

Scenario	Minimum	25% quantile	Median	75% quantile	Maximum
Columbia 2017, CWR Current	5	202	239	285	468
Columbia 2017, No CWR	43	203	240	288	434
Columbia 2040 (2017), CWR Current	5	213	251	299	474
Columbia 2040 (2017), No CWR	21	215	252	301	465

Degree Days > 20°C

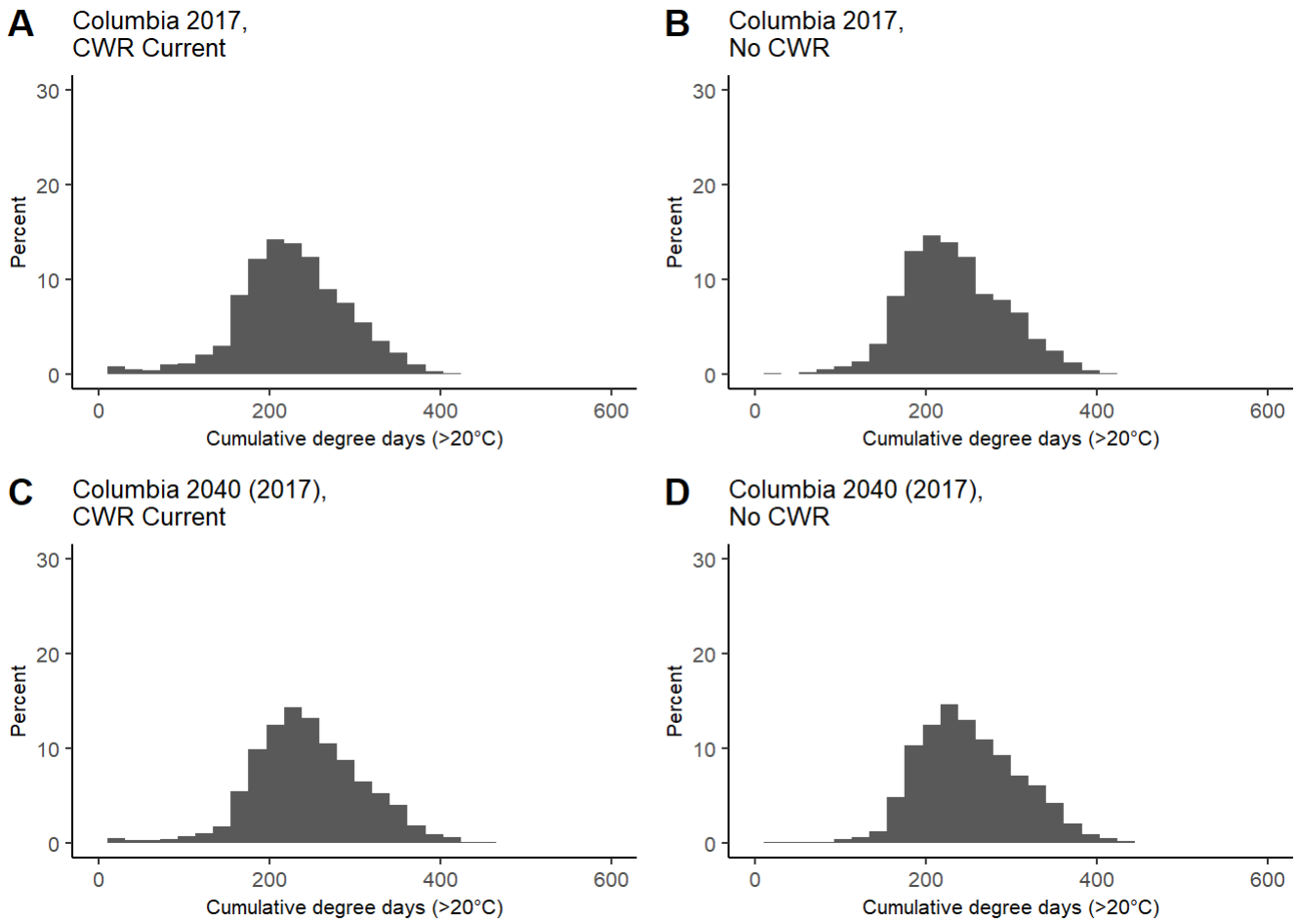

Fig. 1. Histograms of modeled Snake River fall chinook accumulated degrees day over 18°C from Bonneville to the Snake River confluence in the Columbia River.

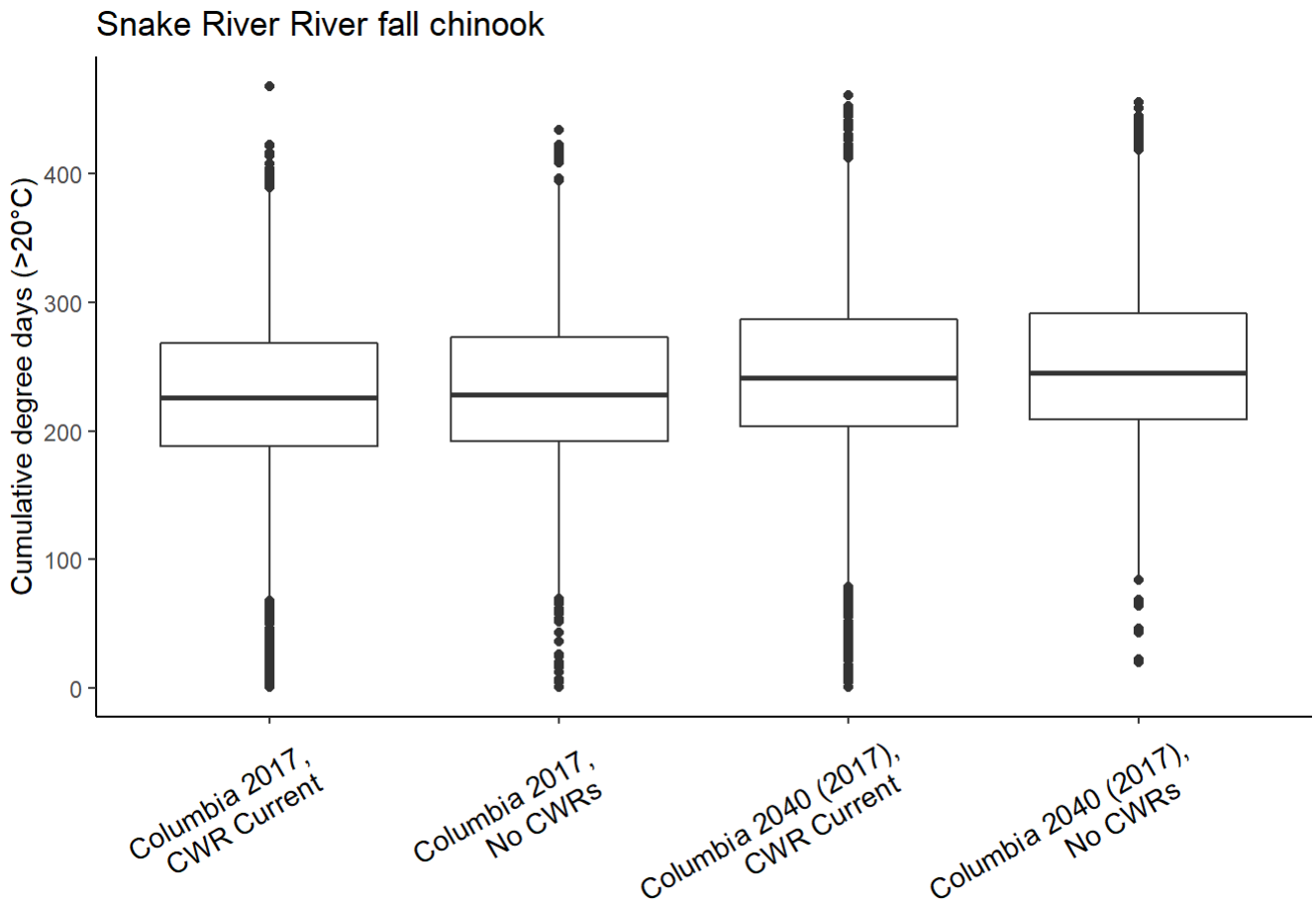

Fig. 2. Boxplots of modeled Snake River fall chinook accumulated degrees day over 18°C from Bonneville to the Snake River confluence in the Columbia River.

Table 1. Cumulative degree days (>20°C) used across different HexSim thermalscapes summarized for Snake River River fall chinook.

Scenario	Minimum	25% quantile	Median	75% quantile	Maximum
Columbia 2017, CWR Current	1	188	226	268	468
Columbia 2017, No CWR	1	192	228	273	434
Columbia 2040 (2017), CWR Current	1	204	242	287	462
Columbia 2040 (2017), No CWR	20	209	245	292	456

Degree Days > 21°C

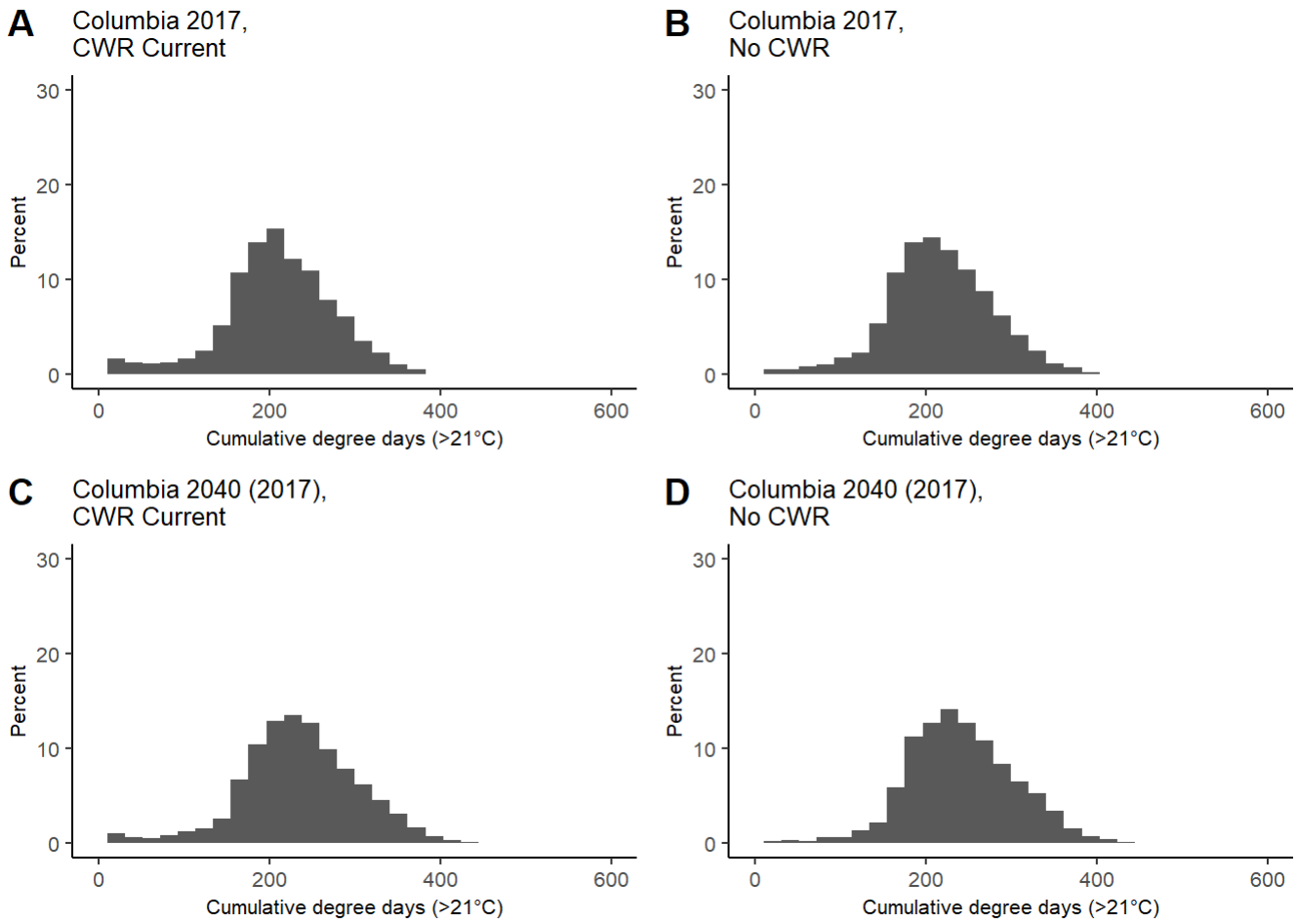

Fig. 1. Histograms of modeled Snake River fall chinook accumulated degrees day over 21°C from Bonneville to the Snake River confluence in the Columbia River.

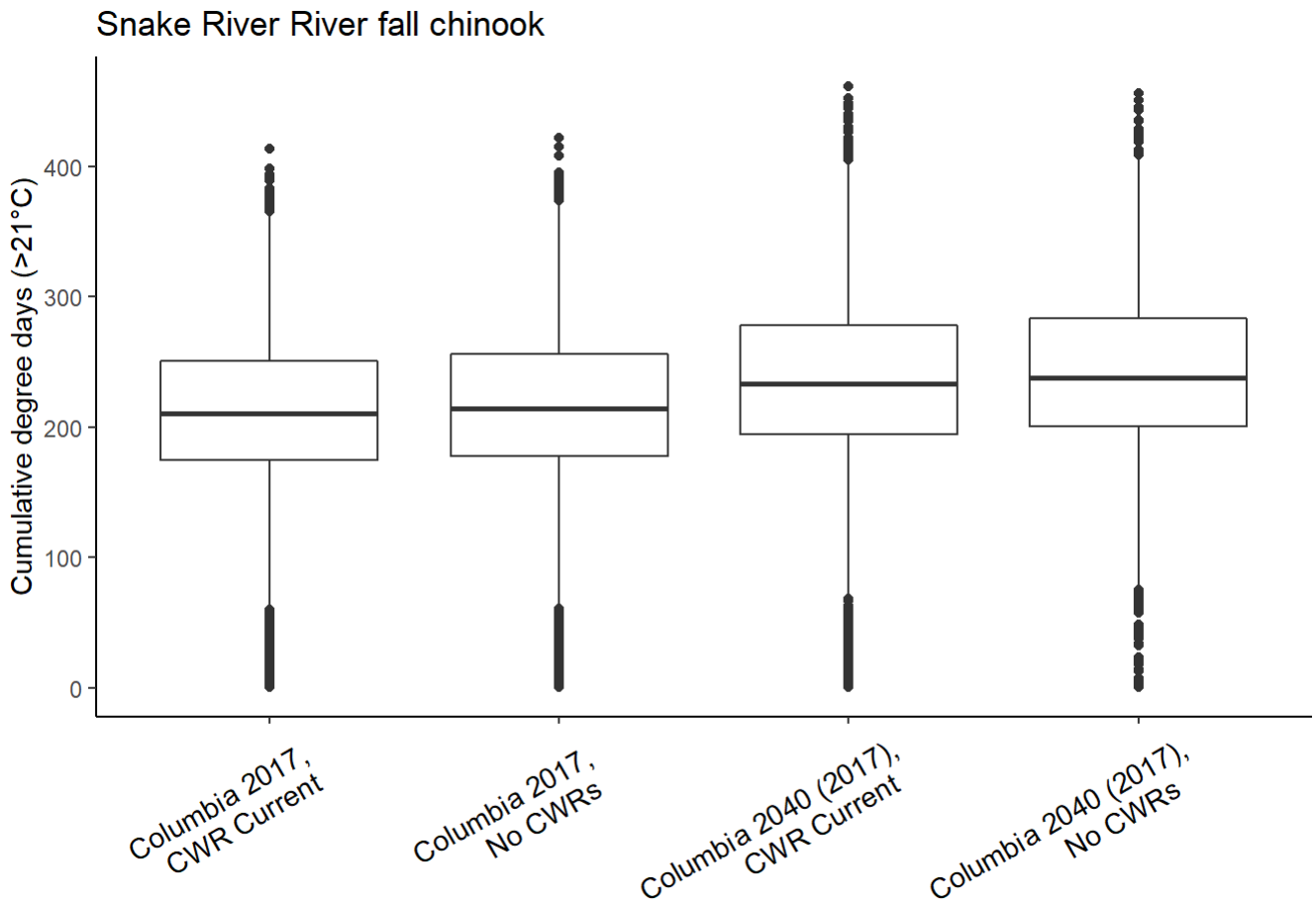

Fig. 2. Boxplots of modeled Snake River fall chinook accumulated degrees day over 21°C from Bonneville to the Snake River confluence in the Columbia River.

Table 1. Cumulative degree days (>21°C) used across different HexSim thermalscapes summarized for Snake River River fall chinook.

Scenario	Minimum	25% quantile	Median	75% quantile	Maximum
Columbia 2017, CWR Current	1	175	210	251	413
Columbia 2017, No CWR	1	178	215	256	422
Columbia 2040 (2017), CWR Current	1	195	233	279	462
Columbia 2040 (2017), No CWR	1	200	238	284	456

Degree Days > 22°C

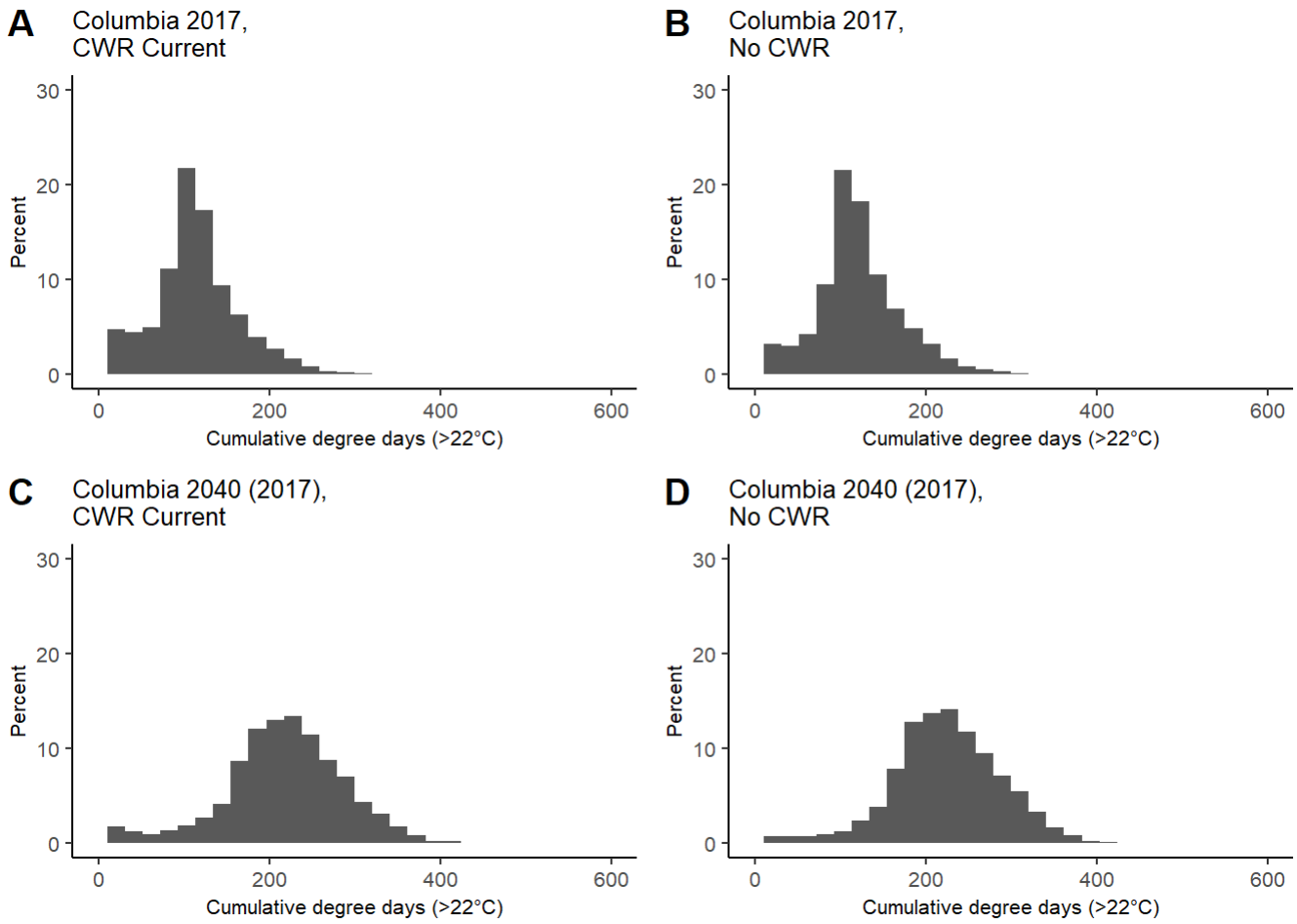

Fig. 1. Histograms of modeled Snake River fall chinook accumulated degrees day over 22°C from Bonneville to the Snake River confluence in the Columbia River.

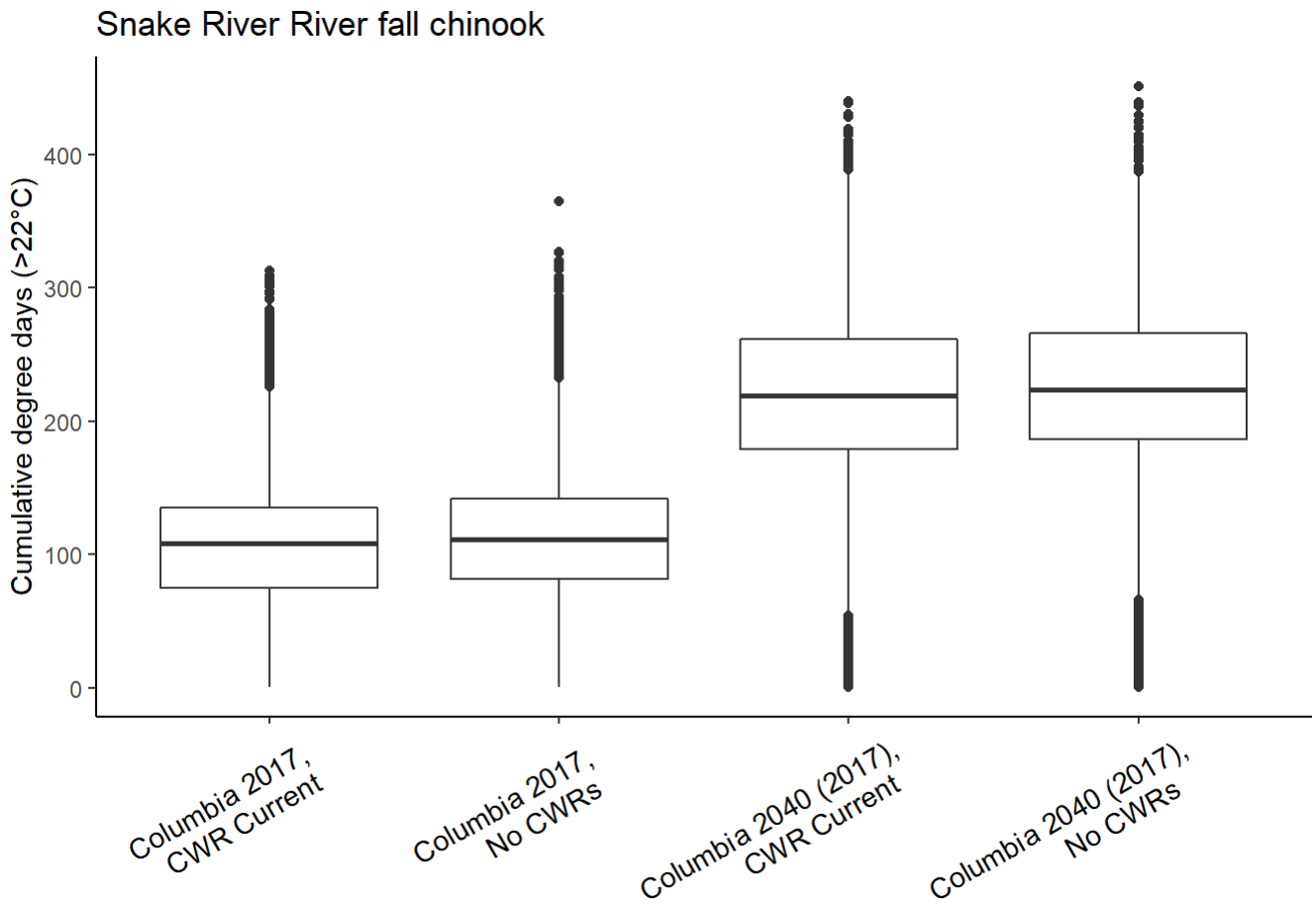

Fig. 2. Boxplots of modeled Snake River fall chinook accumulated degrees day over 22°C from Bonneville to the Snake River confluence in the Columbia River.

Table 1. Cumulative degree days (>22°C) used across different HexSim thermalscapes summarized for Snake River River fall chinook.

Scenario	Minimum	25% quantile	Median	75% quantile	Maximum
Columbia 2017, CWR Current	1	75	109	135	313
Columbia 2017, No CWR	1	82	111	142	365
Columbia 2040 (2017), CWR Current	1	179	219	262	440
Columbia 2040 (2017), No CWR	1	186	224	266	451