

## 12. Energy use, CWR use, and survivorship results for Snake River Fall Chinook Salmon under year 2017 temperatures for the Columbia River

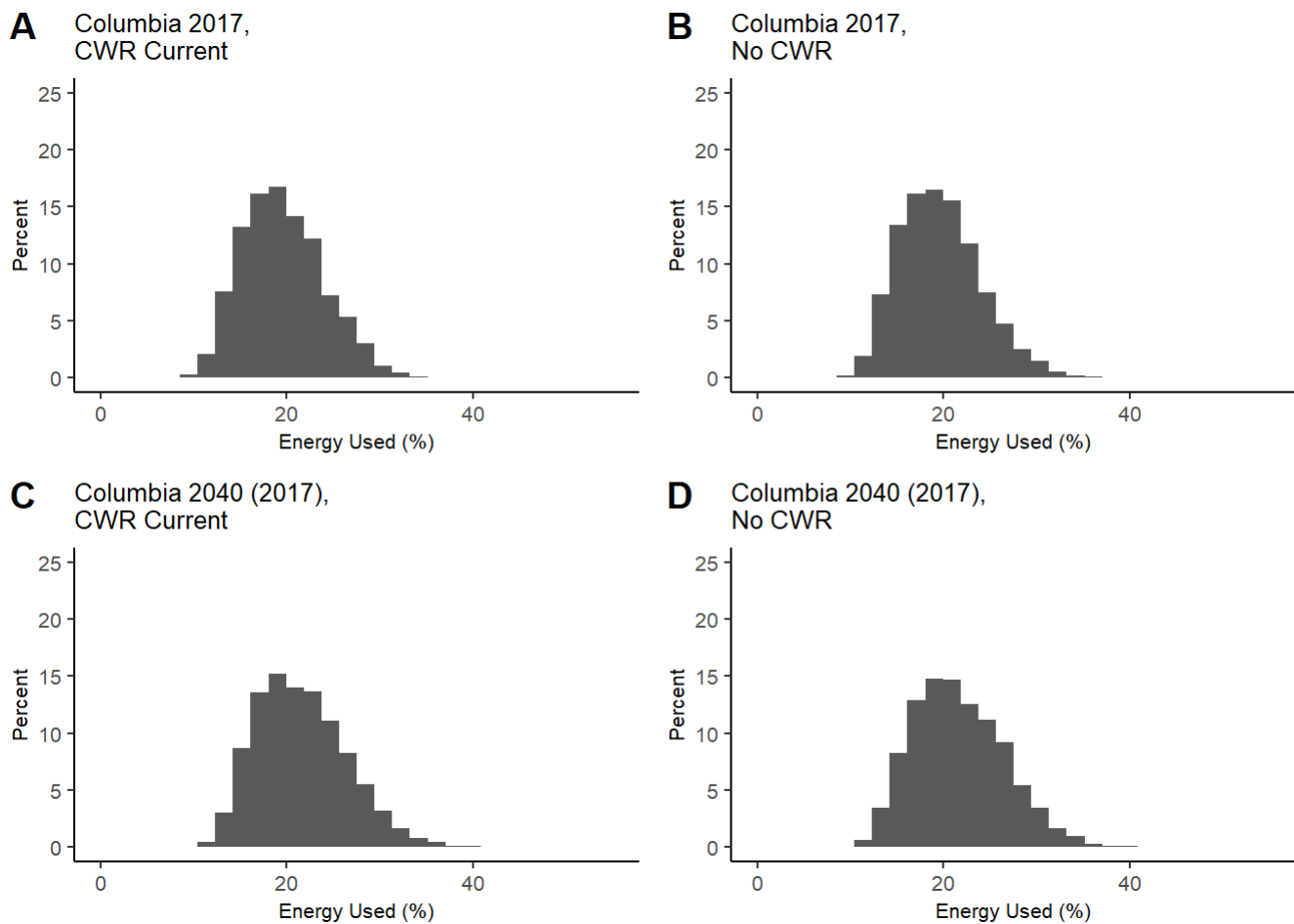


Fig. 12.1 Histogram of percent energy lost for modeled Snake River fall Chinook migrating through four different modeled thermalscapes.

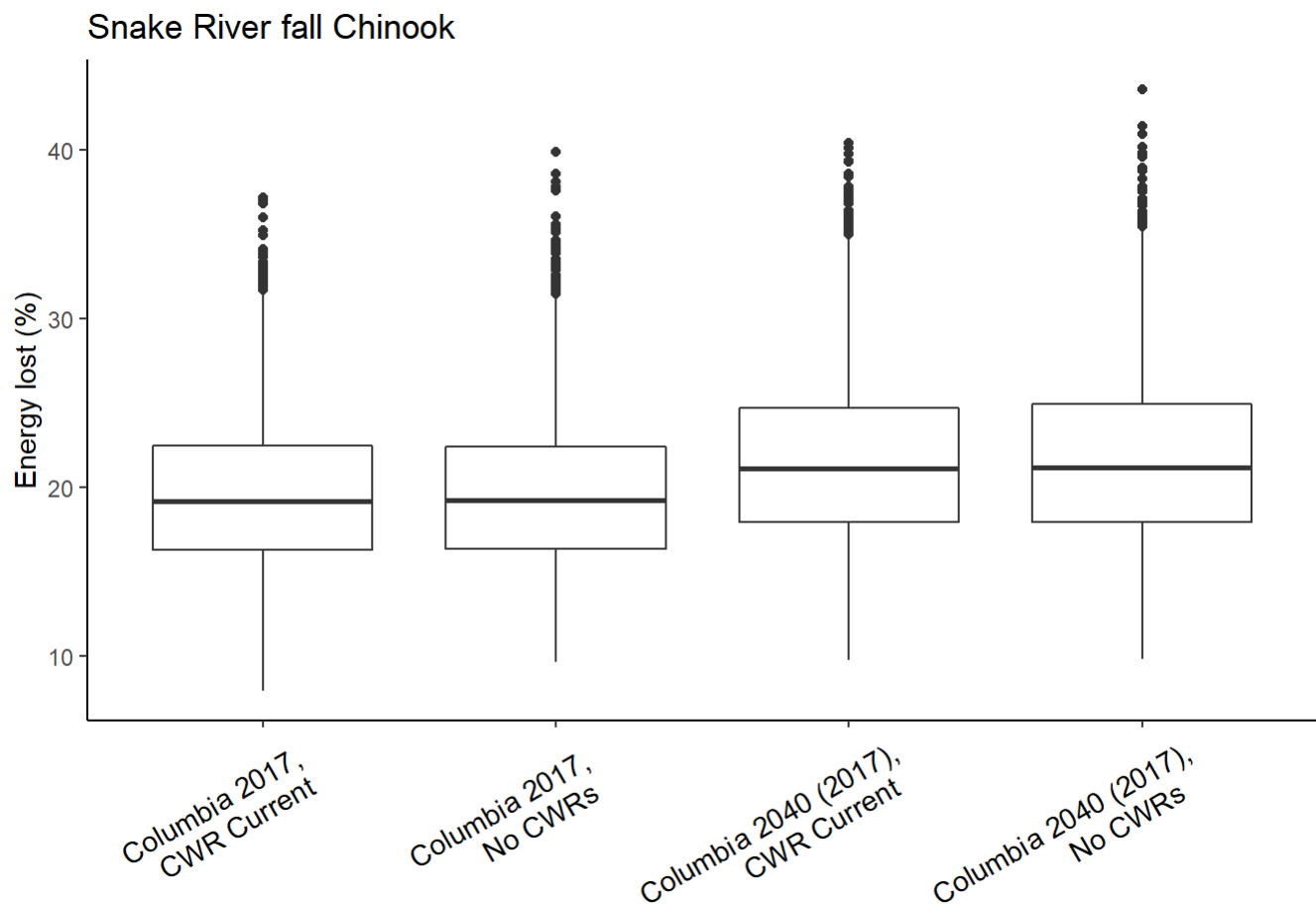


Fig. 12.2 Boxplot of percent energy lost for modeled Snake River fall Chinook migrating through four different modeled thermalscapes.

Table 12.1 Percent energy used across different HexSim thermalscapes summarized for Snake River fall Chinook.

Scenario	Minimum	25% quantile	Median	75% quantile	Maximum
Columbia 2017, CWR Current	8.0	16.3	19.2	22.5	37.2
Columbia 2017, No CWR	9.7	16.4	19.2	22.4	39.9
Columbia 2017, CWR Current	9.8	17.9	21.1	24.8	40.4
Columbia 2017, No CWR	9.9	18.0	21.2	25.0	43.6

Table 12.2 Model output for hours residing in cold water refuges summarized for Snake River fall Chinook.

Scenario	CWR Residence (h/individual)
Columbia 2017,CWR Current	11
Columbia 2017, No CWRs	0
Columbia 2040 (2017), Current	14
Columbia 2040 (2017), No CWRs	0

Table 12.3 Model output for percent of individuals dying from acute temperature stress summarized for Snake

River fall Chinook.

Scenario	Total mortality
Columbia 2017,CWR Current	0.13
Columbia 2017, No CWRs	0.08
Columbia 2040 (2017), Current	0.70
Columbia 2040 (2017), No CWRs	0.68