

Grande Ronde summer steelhead summarized fitness outcomes

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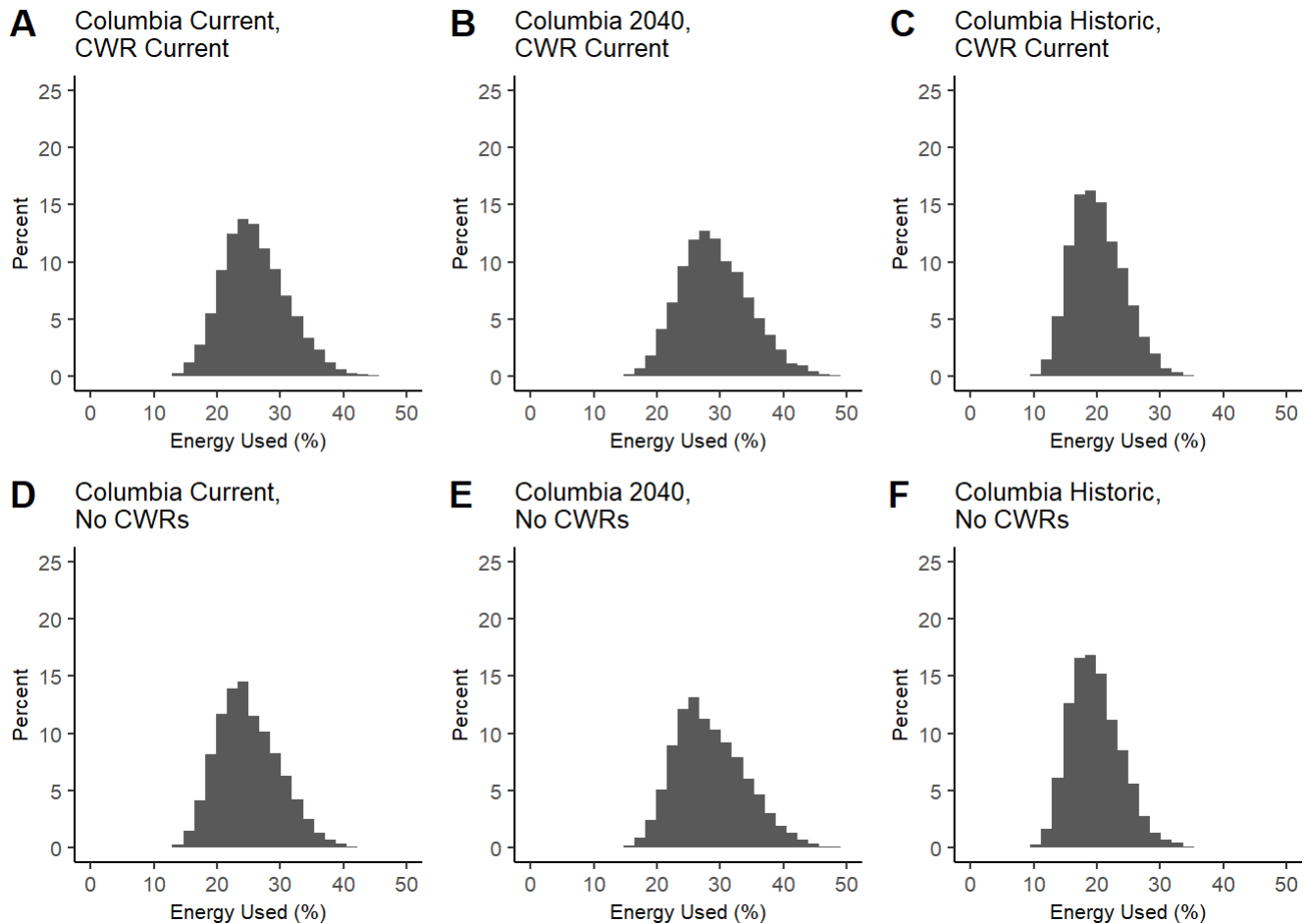


Fig. 1. Histogram of percent energy lost for modeled Grande Ronde summer steelhead migrating through different modeled thermalscapes.

Grande Ronde River Summer Steelhead

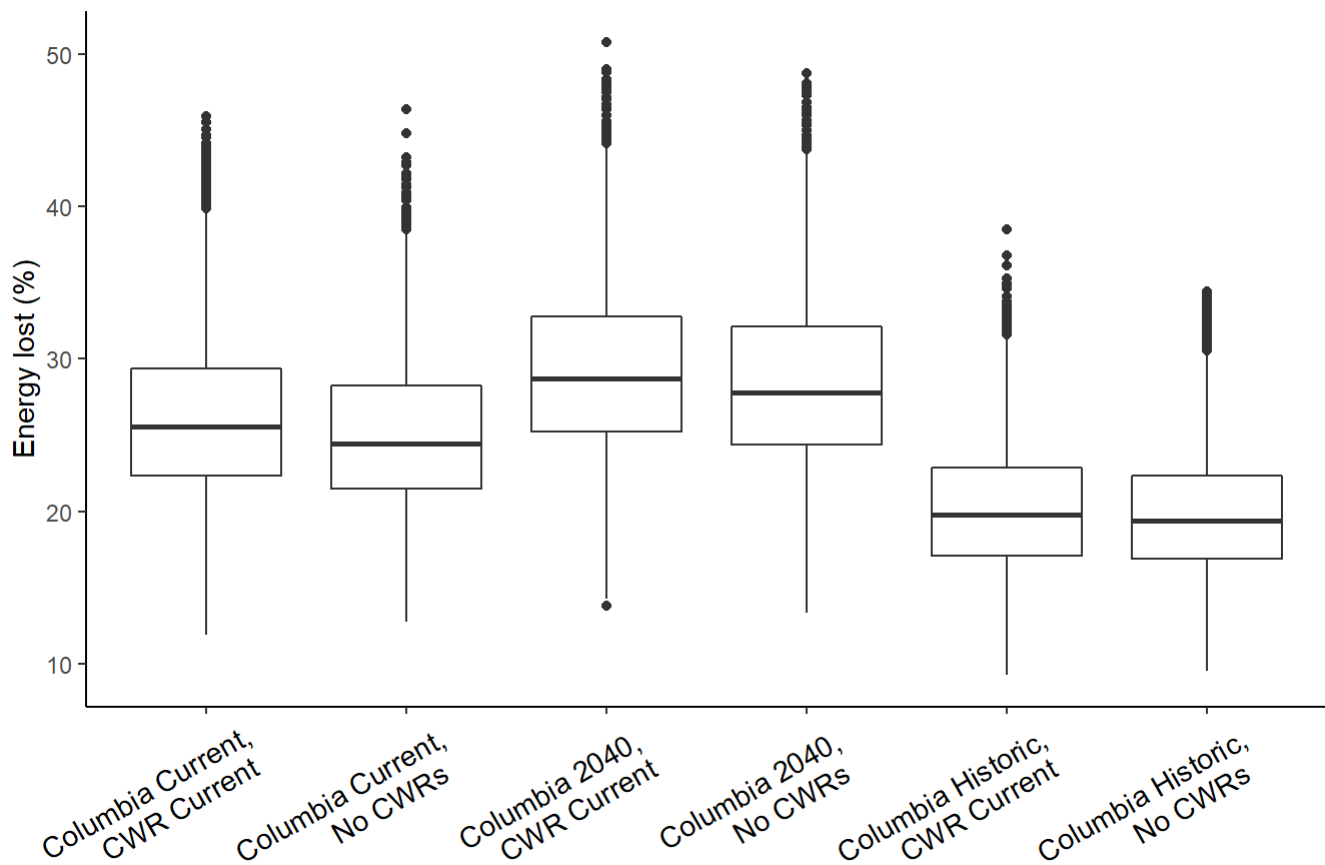


Fig. 2. Boxplot of percent energy lost for modeled Grande Ronde summer steelhead migrating through different modeled thermalscapes.

Table 1. Percent energy used across different HexSim thermalscapes summarized for Grande Ronde River Summer Steelhead.

Scenario	Minimum	25% quantile	Median	75% quantile	Maximum
Columbia 2040, CWR Current	13.8	25.2	28.7	32.8	50.8
Columbia Historic, CWR Current	9.2	17.1	19.8	22.9	38.5
Columbia Current, CWR Current	11.8	22.3	25.5	29.3	45.9
Columbia 2040, No CWRs	13.3	24.4	27.8	32.1	48.8
Columbia Historic, No CWRs	9.5	16.9	19.4	22.4	34.4
Columbia Current, No CWRs	12.8	21.5	24.4	28.3	46.4

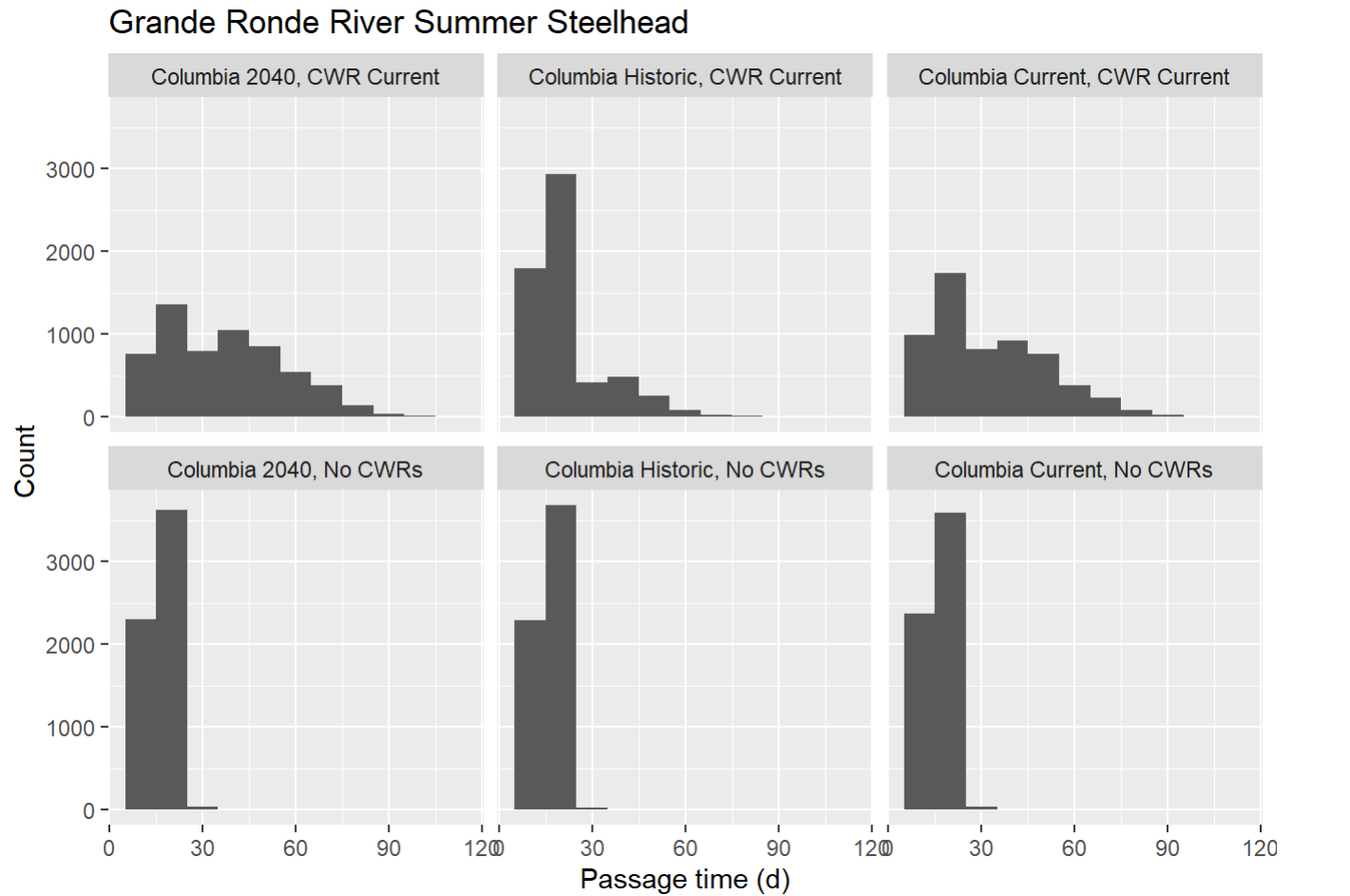
Table 3. Model output for total hours residing in cold water refuges summarized for Grande Ronde River Summer Steelhead.

Scenario	Total CWR Residence (h)
Columbia Current,CWR Current	2331586
Columbia Current, No CWRs	16

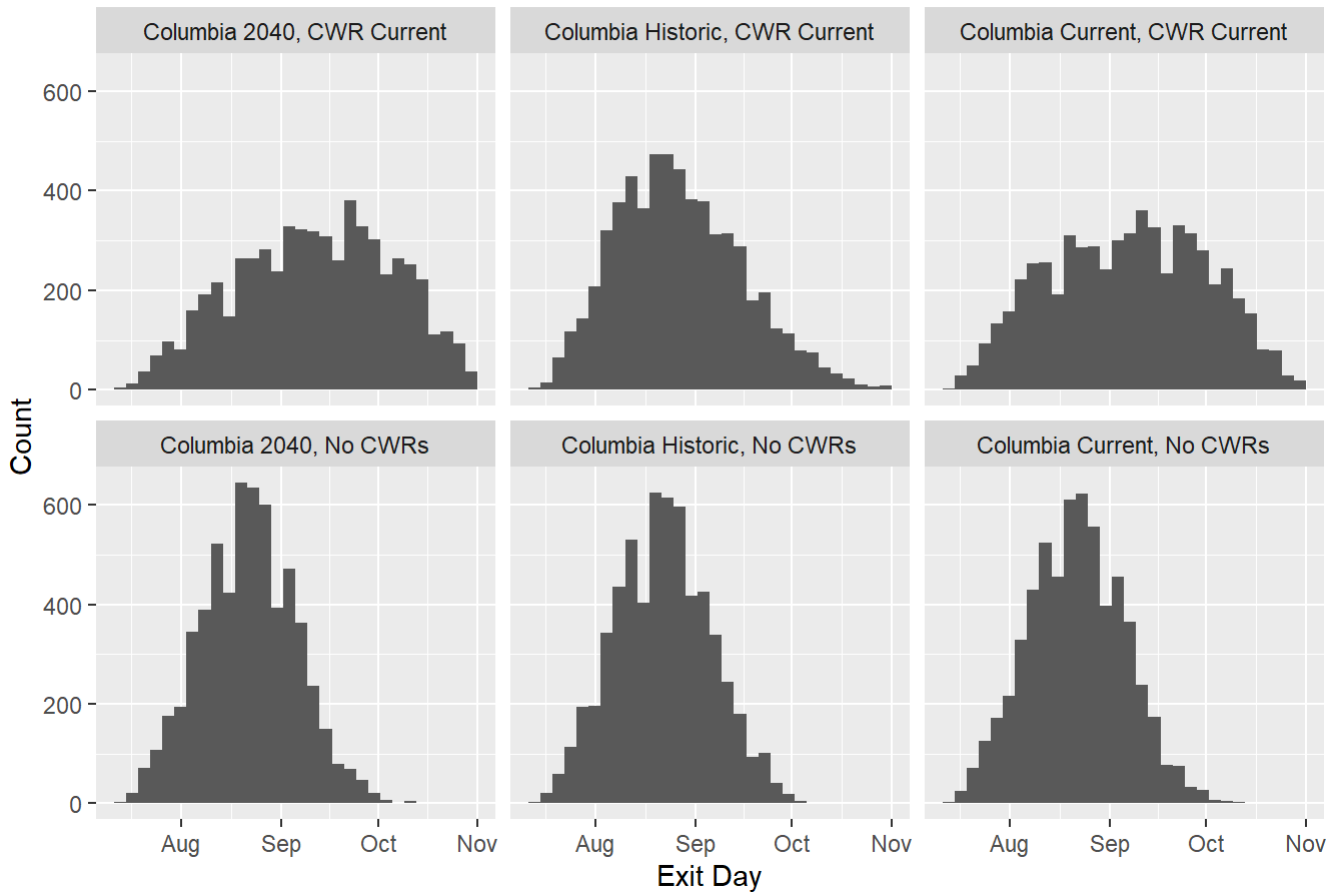
Scenario	Total CWR Residence (h)
Columbia 2040, Current	2982933
Columbia 2040, No CWRs	25
Columbia Historic, Current	744979
Columbia Historic, No CWRs	10

Table 4. Model output for percent of individuals dying from acute temperature stress summarized for Grande Ronde River Summer Steelhead.

Scenario	Total mortality
Columbia Current,CWR Current	0.05
Columbia Current, No CWRs	0.05
Columbia 2040, Current	0.95
Columbia 2040, No CWRs	1.6
Columbia Historic, Current	0
Columbia Historic, No CWRs	0



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