

Appendix 5. Detailed statistical results from the modeling of 2014 wildfire exposure.

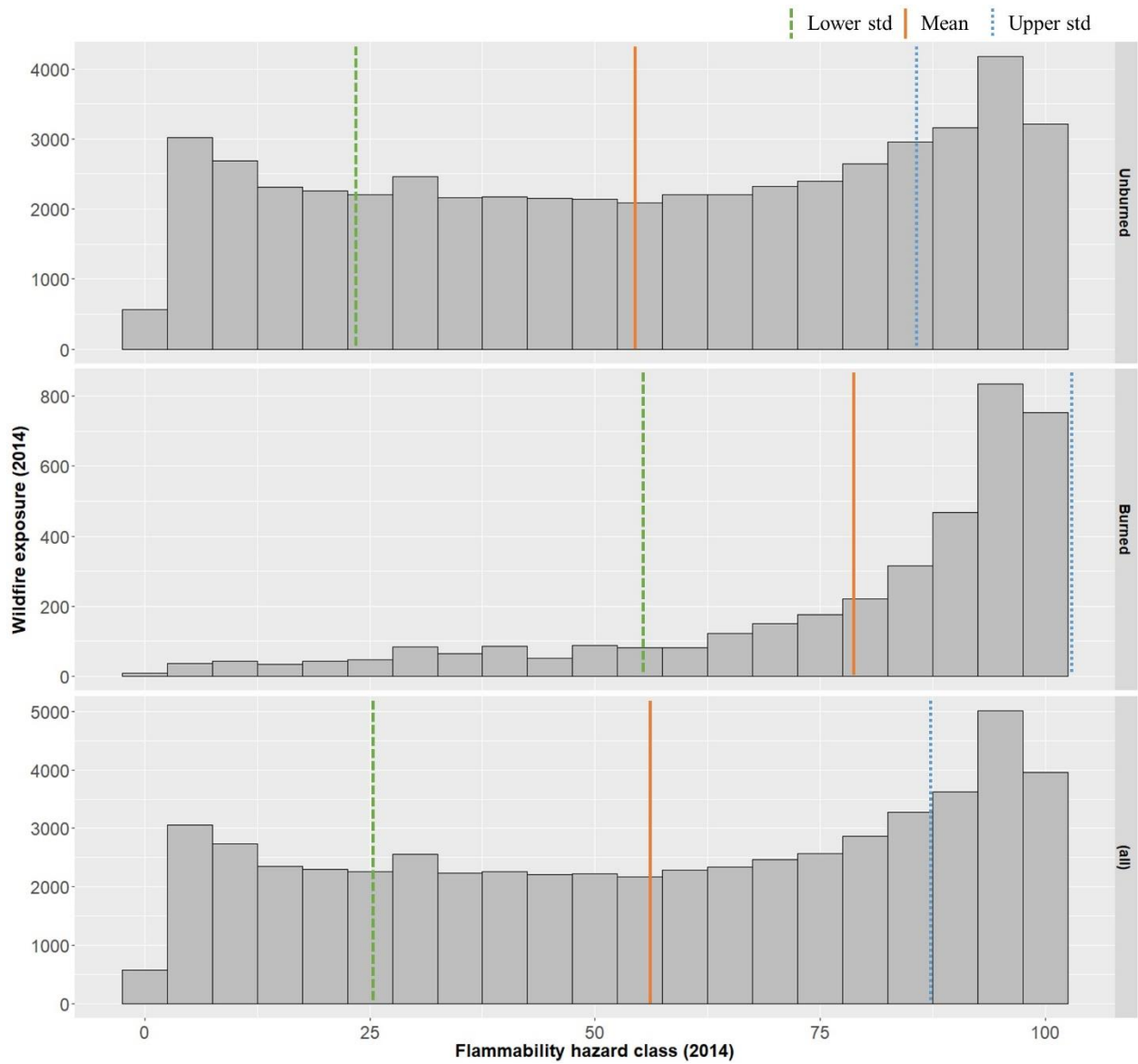


Figure 1. Histogram of the 2014 wildfire exposure for locations that were within ($n = 3,792$) and outside ($n = 51,490$) of fire scar perimeters between 2014-2014 in Alaska (AICC 2023).

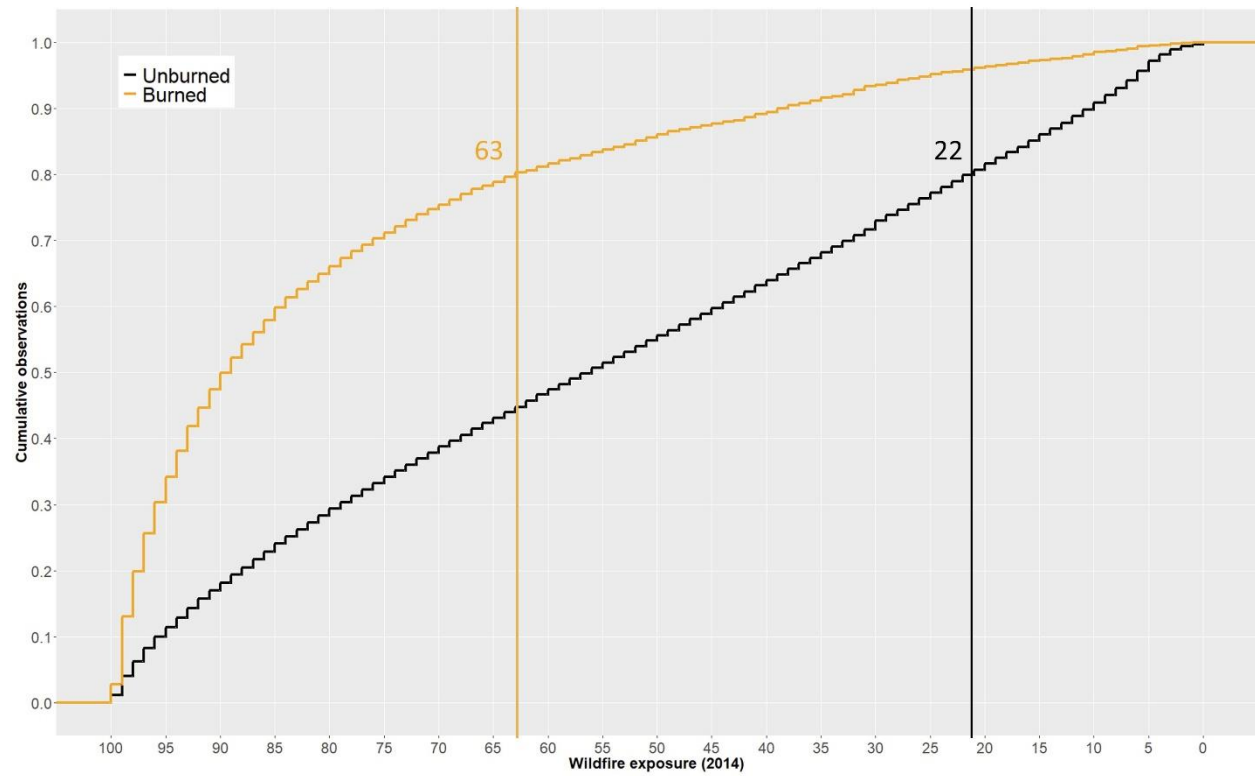


Figure 2. Cumulative distribution of the 2014 wildfire exposure for locations that were within ($n = 3,792$) and outside ($n = 51,490$) of fire scar perimeters between 2014-2014 in Alaska (AICC 2023).

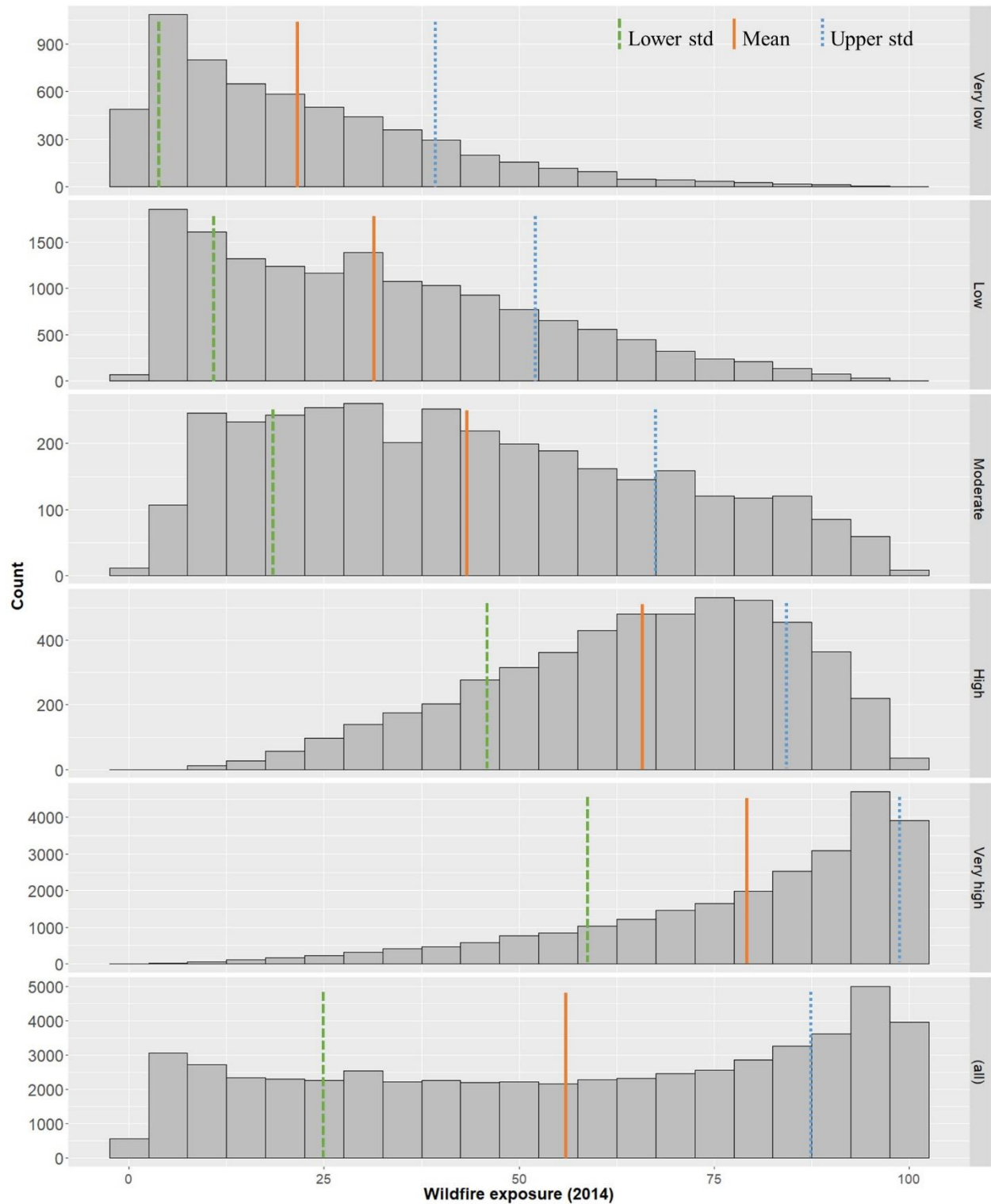


Figure 3. Histogram of the 2014 wildfire exposure for locations (n = 55,292) among flammability hazard classes with means and standard deviations.

Table 1. Pairwise comparisons of the 2014 exposure values among flammability hazard classes. Results are from the Dunn’s test in R with a Bonferroni correction.

Comparison	Z	P- value unadjusted	P-value unadjusted
High - Low	62.9	<0.001	<0.001
High - Moderate	30.2	<0.001	<0.001
Low - Moderate	-18.1	<0.001	<0.001
High - Very high	-33.3	<0.001	<0.001
Low - Very high	-148.1	<0.001	<0.001
Moderate - Very high	-64.3	<0.001	<0.001
High - Very low	69.1	<0.001	<0.001
Low - Very low	19.6	<0.001	<0.001
Moderate - Very low	30.0	<0.001	<0.001
Very high - Very low	126.4	<0.001	<0.001

Table 2. Wilcoxon rank-sum test with a Bonferroni correction to assess for differences in the 2014 wildfire exposure distribution between centroids that burned (2014-2023) and unburned centroids.

Flammability hazard class	Burned		Unburned		W	P-value
	Mean exposure	n	Mean exposure	n		
Very low	32.9	105	21.3	5,850	391,430	<0.001
Low	43.6	456	31.2	14,693	4,343,430	<0.001
Moderate	54.2	157	42.4	3,235	320,279	<0.001
High	77.5	247	64.8	4,940	859,934	<0.001
Very high	88.1	2,827	77.8	22,72	42,621,525	<0.001

References:

- AICC (2023) Alaska Wildland Fire Information. Bureau of Land Management, Alaska Fire Service. Alaska Interagency Coordination Center. <https://fire.ak.blm.gov/predsvcs/maps.php> Accessed May 2023
- Benjamini Y, Yekutieli D (2001) The control of the false discovery rate in multiple testing under dependency. Ann Stat 29(4):1165-1188 <https://doi.org/10.1214/aos/1013699998>