

**Appendix II.** Basic statistics and Anderson-Darling (A) normality tests for continuously distributed physical and ecological parameters measured at each site where Trinity bristle snails were sampled. Trees > 15.2 cm DBH and shrubs ≤ 15.2 cm DBH; n = 88 for all variables except elevation (n = 54); DBH = diameter breast height.

Microhabitat variable	$\bar{x}$	Min	Max	SD	S <sup>2</sup>	A	p-value	AIC	
								Lognormal	Gamma
<b>Physical parameters</b>									
1. Elevation (m)	782.0	310.0	1,378.0	331.5	109,905.7	15.2	< 0.001***	1307.9	1202.3
2. Exposure (degrees)	102.6	1.0	315.0	124.9	15,411.7	10.4	< 0.001***	1101.3	921.3
3. Slope (degrees)	54.0	20.0	65.0	13.1	172.0	6.7	< 0.001***	705.7	722.8
4. Air temperature (°C)	11.3	4.4	13.9	1.8	3.1	10.7	< 0.001***	352.4	371.8
5. Soil/substrate temperature (°C)	10.0	4.4	11.7	2.0	4.1	15.0	< 0.001***	376.0	398.9
<b>Ecological parameters</b>									
6. Overstory vegetation (%)	81.5	50.0	98.0	11.1	123.1	3.1	< 0.000***	676.2	683.2
7. Distance to nearest tree or shrub (m)	6.0	0.9	14.6	3.5	12.0	1.8	< 0.000***	471.7	457.1
8. Distance to nearest large woody debris (m)	3.3	0.1	16.8	3.2	10.3	5.7	< 0.001***	458.6	387.2
9. Diameter large woody debris (cm)	64.3	12.7	137.2	35.6	1,258.1	1.5	< 0.000***	880.9	875.2
10. Depth leaf litter (cm)	8.1	2.5	10.2	1.7	3.0	8.1	< 0.001***	352.4	362.5
11. Distance to nearest rock habitat (m)	9.5	0.3	45.7	14.5	208.4	14.0	< 0.001***	722.6	545.6
12. Size distribution of rock type (diameter cm)	25.2	7.6	61.0	13.8	1.9	9.0	< 0.001***	-114.5	-141.7
13. Distance to nearest stream (m)	15.4	1.0	47.5	16.8	279.6	7.1	< 0.001***	748.5	645.8