

**Appendix IV.** Spearman rank correlations ( $r_s$ ) of physical parameters measured at each site where Trinity bristle snails were sampled. Correlations are below the diagonal and probabilities are above the diagonal. Variables abbreviations are: 1. ELEV = elevation (m), 2. EXPOS = exposure, 3. SLOPE = slope, 4. AIRTEM = air temperature, 5. SUBTEM = soil/substrate temperature, 6. OVSVEG = overstory vegetation, 7. DISTS = distance to nearest tree or shrub, 8. DISWOD = distance to nearest large woody debris, 9. SIZWOD = size distribution of large woody debris, 10. DEPTLL = depth of leaf litter, 11. DISRK = distance to the nearest rocky habitat, 12. SIZERK = size distribution of nearest rock, 13. DISSRM = distance to nearest stream.

Microhabitat variable	Correlation and probability												
	ELEV	EXPOS	SLOPE	AIRTEM	SUBTEM	OVSVEG	DISTS	DISWOD	SIZWOD	DEPTLL	DISRK	SIZERK	DISSRM
1. Elevation (m)	-----	0.090	0.000	0.594	0.326	0.439	0.851	0.018	0.059	0.073	0.000	0.002	0.214
2. Exposure	0.180	-----	0.399	0.081	0.584	0.005	0.021	0.000	0.000	0.006	0.046	0.738	0.322
3. Slope	-0.520	-0.090	-----	0.308	0.421	0.358	0.072	0.017	0.023	0.001	0.306	0.287	0.000
4. Air temperature (°C)	-0.080	0.190	-0.110	-----	0.000	0.848	0.071	0.063	0.289	0.104	0.000	0.376	0.000
5. Soil/substrate temperature (°C)	-0.140	0.060	0.090	0.690	-----	0.024	0.001	0.000	0.002	0.505	0.001	0.297	0.000
6. Overstory vegetation (%)	0.080	-0.300	0.100	0.020	0.240	-----	0.003	0.002	0.017	0.000	0.100	0.947	0.002
7. Distance to nearest tree/shrub (m)	-0.020	0.250	0.190	-0.190	-0.360	-0.320	-----	0.561	0.000	0.624	0.504	0.300	0.513
8. Distance to nearest large woody debris (m)	-0.250	-0.410	-0.250	-0.200	-0.400	-0.330	-0.060	-----	0.002	0.870	0.000	0.212	0.013
9. Diameter large woody debris (cm)	0.200	0.480	0.240	-0.110	-0.320	-0.250	0.530	-0.330	-----	0.945	0.114	0.540	0.343
10. Depth leaf litter (cm)	-0.190	-0.290	0.350	-0.170	-0.070	0.400	0.050	0.020	0.010	-----	0.667	0.024	0.001
11. Distance to nearest rock habitat (m)	0.570	0.210	-0.110	0.380	0.360	0.180	-0.070	-0.450	0.170	-0.050	-----	0.005	0.001
12. Size distribution of rock type (diameter cm)	-0.320	0.040	0.110	0.100	0.110	-0.010	0.110	-0.130	0.070	0.240	-0.300	-----	0.201
13. Distance to nearest stream (m)	-0.130	-0.110	0.480	0.560	0.540	0.330	-0.070	-0.260	-0.100	0.340	0.360	0.140	-----