

Glaciated Landscapes - 2

Statistical Tables: Mann-Whitney U-test

Reject your null hypothesis if your test statistic is **below** the critical (tables) value

| Sample 1 | α | Sample 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|----------|----------|----------|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|
| 3 | 10% | | 0 | 0 | 1 | 2 | 2 | 3 | 4 | 4 | 5 | 5 | 6 | 7 | 7 | 8 | 9 | 9 | 10 | 11 |
| | 5% | | - | - | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 |
| 4 | 10% | | - | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 14 | 15 | 16 | 17 | 18 |
| | 5% | | - | 0 | 1 | 2 | 3 | 4 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 11 | 12 | 13 | 13 |
| 5 | 10% | | - | - | 4 | 5 | 6 | 8 | 9 | 11 | 12 | 13 | 15 | 16 | 18 | 19 | 20 | 22 | 23 | 25 |
| | 5% | | - | - | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 11 | 12 | 13 | 14 | 15 | 17 | 18 | 19 | 20 |
| 6 | 10% | | - | - | - | 7 | 8 | 10 | 12 | 14 | 16 | 17 | 19 | 21 | 23 | 25 | 26 | 28 | 30 | 32 |
| | 5% | | - | - | - | 5 | 6 | 8 | 10 | 11 | 13 | 14 | 16 | 17 | 19 | 21 | 22 | 24 | 25 | 27 |
| 7 | 10% | | - | - | - | - | 11 | 13 | 15 | 17 | 19 | 21 | 24 | 26 | 28 | 30 | 33 | 35 | 37 | 39 |
| | 5% | | - | - | - | - | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 |
| 8 | 10% | | - | - | - | - | - | 15 | 18 | 20 | 23 | 26 | 28 | 31 | 33 | 36 | 39 | 41 | 44 | 47 |
| | 5% | | - | - | - | - | - | 13 | 15 | 17 | 19 | 22 | 24 | 26 | 29 | 31 | 34 | 36 | 38 | 41 |
| 9 | 10% | | - | - | - | - | - | - | 21 | 24 | 27 | 30 | 33 | 36 | 39 | 42 | 45 | 48 | 51 | 54 |
| | 5% | | - | - | - | - | - | - | 17 | 20 | 23 | 26 | 28 | 31 | 34 | 37 | 39 | 42 | 45 | 48 |
| 10 | 10% | | - | - | - | - | - | - | - | 27 | 31 | 34 | 37 | 41 | 44 | 48 | 51 | 55 | 58 | 62 |
| | 5% | | - | - | - | - | - | - | - | 23 | 26 | 29 | 33 | 36 | 39 | 42 | 45 | 48 | 52 | 55 |
| 11 | 10% | | - | - | - | - | - | - | - | - | 34 | 38 | 42 | 46 | 50 | 54 | 57 | 61 | 65 | 69 |
| | 5% | | - | - | - | - | - | - | - | - | 30 | 33 | 37 | 40 | 44 | 47 | 51 | 55 | 58 | 62 |
| 12 | 10% | | - | - | - | - | - | - | - | - | - | 42 | 47 | 51 | 55 | 60 | 64 | 68 | 72 | 77 |
| | 5% | | - | - | - | - | - | - | - | - | - | 37 | 41 | 45 | 49 | 53 | 57 | 61 | 65 | 69 |
| 13 | 10% | | - | - | - | - | - | - | - | - | - | - | 51 | 56 | 61 | 65 | 70 | 75 | 80 | 84 |
| | 5% | | - | - | - | - | - | - | - | - | - | - | 45 | 50 | 54 | 59 | 63 | 67 | 72 | 76 |
| 14 | 10% | | - | - | - | - | - | - | - | - | - | - | - | 61 | 66 | 71 | 77 | 82 | 87 | 92 |
| | 5% | | - | - | - | - | - | - | - | - | - | - | - | 55 | 59 | 64 | 67 | 74 | 78 | 83 |
| 15 | 10% | | - | - | - | - | - | - | - | - | - | - | - | - | 72 | 77 | 83 | 88 | 94 | 100 |
| | 5% | | - | - | - | - | - | - | - | - | - | - | - | - | 64 | 70 | 75 | 80 | 85 | 90 |
| 16 | 10% | | - | - | - | - | - | - | - | - | - | - | - | - | - | 83 | 89 | 95 | 101 | 107 |
| | 5% | | - | - | - | - | - | - | - | - | - | - | - | - | - | 75 | 81 | 86 | 92 | 98 |
| 17 | 10% | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 96 | 102 | 109 | 115 |
| | 5% | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 87 | 93 | 99 | 105 |
| 18 | 10% | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 109 | 116 | 123 |
| | 5% | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 99 | 106 | 112 |
| 19 | 10% | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 123 | 130 |
| | 5% | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 113 | 119 |
| 20 | 10% | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 138 |
| | 5% | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 127 |



Glaciated Landscapes - 2

Statistical Tables: Chi-Squared

*Reject your null hypothesis if your test statistic is **above** the critical (tables) value*

| df | 0.1 | 0.05 | 0.025 | 0.01 | 0.005 |
|----|--------|--------|--------|--------|--------|
| 1 | 2.706 | 3.841 | 5.024 | 6.635 | 7.879 |
| 2 | 4.605 | 5.991 | 7.378 | 9.210 | 10.597 |
| 3 | 6.251 | 7.815 | 9.348 | 11.345 | 12.838 |
| 4 | 7.779 | 9.488 | 11.143 | 13.277 | 14.860 |
| 5 | 9.236 | 11.070 | 12.832 | 15.086 | 16.750 |
| 6 | 10.645 | 12.592 | 14.449 | 16.812 | 18.548 |
| 7 | 12.017 | 14.067 | 16.013 | 18.475 | 20.278 |
| 8 | 13.362 | 15.507 | 17.535 | 20.090 | 21.955 |
| 9 | 14.684 | 16.919 | 19.023 | 21.666 | 23.589 |
| 10 | 15.987 | 18.307 | 20.483 | 23.209 | 25.188 |
| 11 | 17.275 | 19.675 | 21.920 | 24.725 | 26.757 |
| 12 | 18.549 | 21.026 | 23.337 | 26.217 | 28.300 |
| 13 | 19.812 | 22.362 | 24.736 | 27.688 | 29.819 |
| 14 | 21.064 | 23.685 | 26.119 | 29.141 | 31.319 |
| 15 | 22.307 | 24.996 | 27.488 | 30.578 | 32.801 |
| 16 | 23.542 | 26.296 | 28.845 | 32.000 | 34.267 |
| 17 | 24.769 | 27.587 | 30.191 | 33.409 | 35.718 |
| 18 | 25.989 | 28.869 | 31.526 | 34.805 | 37.156 |
| 19 | 27.204 | 30.144 | 32.852 | 36.191 | 38.582 |
| 20 | 28.412 | 31.410 | 34.170 | 37.566 | 39.997 |
| 21 | 29.615 | 32.671 | 35.479 | 38.932 | 41.401 |
| 22 | 30.813 | 33.924 | 36.781 | 40.289 | 42.796 |
| 23 | 32.007 | 35.172 | 38.076 | 41.638 | 44.181 |
| 24 | 33.196 | 36.415 | 39.364 | 42.980 | 45.558 |
| 25 | 34.382 | 37.652 | 40.646 | 44.314 | 46.928 |
| 26 | 35.563 | 38.885 | 41.923 | 45.642 | 48.290 |
| 27 | 36.741 | 40.113 | 43.194 | 46.963 | 49.645 |
| 28 | 37.916 | 41.337 | 44.461 | 48.278 | 50.993 |
| 29 | 39.087 | 42.557 | 45.722 | 49.588 | 52.336 |
| 30 | 40.256 | 43.773 | 46.979 | 50.892 | 53.672 |

