

# 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	$\alpha$	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



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## 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



# Spearman's Rank Correlation Coefficient

Accept the  $H_0$  if your value is smaller than the one in the table

n (number of pairs)	Probability that your result occurred by chance				
	0.1	0.05	0.025	0.01	0.005
4	1.0000	1.0000	1.0000	1.0000	1.0000
5	0.7000	0.9000	0.9000	1.0000	1.0000
6	0.6571	0.7714	0.8286	0.9429	0.9429
7	0.5714	0.6786	0.7857	0.8571	0.8929
8	0.5476	0.6429	0.7381	0.8095	0.8571
9	0.4833	0.6000	0.6833	0.7667	0.8167
10	0.4424	0.5636	0.6485	0.7333	0.7818
11	0.4182	0.5273	0.6091	0.7000	0.7545
12	0.3986	0.5035	0.5874	0.6713	0.7273
13	0.3791	0.4780	0.5604	0.6484	0.6978
14	0.3670	0.4593	0.5385	0.6220	0.6747
15	0.3500	0.4429	0.5179	0.6000	0.6536
16	0.3382	0.4265	0.5029	0.5824	0.6324
17	0.3271	0.4124	0.4821	0.5577	0.6055
18	0.3170	0.4000	0.4683	0.5425	0.5897
19	0.3077	0.3887	0.4555	0.5285	0.5751
20	0.2992	0.3783	0.4438	0.5155	0.5614
21	0.2914	0.3687	0.4329	0.5034	0.5487

