GEOFIELDWORK LTD

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Online NEA fieldwork skills course.

Spearmans Rank correlation coefficient test

Null hypothesis = There is no significant correlation between soil pH and the occurrence of heather species along a transect through Studland sand dunes.

Distance along transect	Soil pH	Rank	Total occurence of heather species	Rank	D	D2
0						
10						
20						
30						
40						
50						
60						
70						
80						
90						
100						
110						
120						

$$r_s = 1 - \frac{6 \sum D^2}{n(n^2 - 1)}$$

Rs =

Critical Value =

Compare the result to the critical value.

n	Significance Level		
	0.1	0.05	0.01
4	1.000	1.000	1.000
5	0.700	0.900	1.000
6	0.657	0.771	0.943
7	0.571	0.679	0.857
8	0.548	0.643	0.810
9	0.483	0.600	0.767
10	0.442	0.564	0.733
11	0.418	0.527	0.700
12	0.399	0.504	0.671
13	0.379	0.478	0.648
14	0.367	0.459	0.622

Conclusion

-1   0   +1