

Appendix 19 – Sand, statistical data for the shells | Nicky Milner

The data in these tables can be obtained from the project archive on the Archaeology Data Service (ADS) website, after agreeing to their terms and conditions:

ads.ahds.ac.uk/catalogue/resources.html?sfs_ba_2007 > Downloads > Data > Artefact and ecofact catalogues. From here you can download the file 'sand_shells_statistical_data.pdf'.

The written report can be found in [Section 3.12](#) or as an archive version at the ADS > Downloads > Documents > Final Reports. From here you can download the PDF files 'Milner,_shell_report_Sand.pdf'. See also 'shell_report_Sand,_Milner,_2004.pdf' in Documents > Specialist Reports.

Limpet Lengths

Descriptives – Dependent Variable: Length

Context	N	Mean	Std Deviation	Std Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
12	390	29.694	4.7354	0.2398	29.223	30.166	20.5	48.8
13	7350	28.933	4.3028	0.0502	28.834	29.031	6.9	55.4
11	4398	29.715	4.4509	0.0671	29.583	29.846	8.2	51.4
1/2	82	29.059	6.8228	0.7535	27.560	30.558	16.3	43.9
28	72	32.424	5.8592	0.6905	31.047	33.801	19.7	46.4
LS	51	34.828	8.7129	1.2201	32.378	37.279	14.2	55.6
US	50	38.594	6.4950	0.9185	36.748	40.440	19.1	50.0
Total	12393	29.318	4.5127	0.0405	29.239	29.398	6.9	55.6

Table on p1 of report

ANOVA – Dependent Variable: Length

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8388.785	6	1398.131	70.983	0.000
Within Groups	243965.0	12386	19.697		
Total	252353.8	12392			

Table on p1 of report

Multiple Comparisons – Dependent Variable: Length, Bonferroni

		95% Confidence Interval

(I) Context	(J) Context	Mean Difference (I - J)	Std Error	Sig.	Lower Bound	Upper Bound
12	13	0.762*	0.2306	0.020	0.061	1.462
	11	-0.020	0.2345	1.000	-0.733	0.692
	1/2	0.635	0.5392	1.000	-1.003	2.274
	28	-2.730*	0.5693	0.000	-4.459	-1.000
	LS	-5.134*	0.6608	0.000	-7.142	-3.126
	US	-8.900*	0.6667	0.000	-10.925	-6.874
13	12	-0.762*	0.2306	0.020	-1.462	-0.061
	11	-0.782*	0.0846	0.000	-1.039	-0.525
	1/2	-0.126	0.4928	1.000	-1.624	1.371
	28	-3.491 *	0.5256	0.000	-5.088	-1.894
	LS	-5.896*	0.6236	0.000	-7.791	-4.001
	US	-9.661 *	0.6298	0.000	-11.575	-7.748
11	12	0.020	0.2345	1.000	-0.692	0.733
	13	0.782*	0.0846	0.000	0.525	1.039
	1/2	0.656	0.4947	1.000	-0.848	2.159
	28	-2.709*	0.5273	0.000	-4.312	-1.107
	LS	-5.114*	0.6251	0.000	-7.013	-3.214
	US	-8.879*	0.6312	0.000	-10.798	-6.961
1/2	12	-0.635	0.5392	1.000	-2.274	1.003
	13	0.126	0.4928	1.000	-1.371	1.624
	11	-0.656	0.4947	1.000	-2.159	0.848
	28	-3.365*	0.7168	0.000	-5.543	-1.187
	LS	-5.769*	0.7915	0.000	-8.174	-3.364
	US	-9.535*	0.7963	0.000	-11.955	-7.115
28	12	2.730*	0.5693	0.000	1.000	4.459
	13	3.491 *	0.5256	0.000	1.894	5.088
	11	2.709*	0.5273	0.000	1.107	4.312
	1/2	3.365*	0.7168	0.000	1.187	5.543
	LS	-2.404	0.8123	0.065	-4.873	0.064
	US	-6.170*	0.8170	0.000	-8.653	-3.687
LS	12	5.134*	0.6608	0.000	3.126	7.142
	13	5.896*	0.6236	0.000	4.001	7.791
	11	5.114*	0.6251	0.000	3.214	7.013
	1/2	5.769*	0.7915	0.000	3.364	8.174
	28	2.404	0.8123	0.065	-0.064	4.873
	US	-3.766*	0.8833	0.000	-6.450	-1.082
US	12	8.900*	0.6667	0.000	6.874	10.925
	13	9.661*	0.6298	0.000	7.748	11.575
	11	8.879*	0.6312	0.000	6.961	10.798
	1/2	9.535*	0.7963	0.000	7.115	11.955
	28	6.170*	0.8170	0.000	3.687	8.653
	LS	3.766*	0.8833	0.000	1.082	6.450

* The mean difference is significant at the 0.05 level; Table on p2 of report

Dogwhelk Lengths

Descriptives – Dependent Variable: Length

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Context	N	Mean	Std Deviation	Std Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
12	249	28.3333	2.99822	0.19000	27.9591	28.7075	19.60	35.50
13	918	29.4248	2.91536	0.09622	29.2360	29.6137	16.15	38.80
11	305	29.9856	3.05125	0.17471	29.6418	30.3294	22.42	37.85
1/2	350	26.5233	3.73460	0.19962	26.1307	26.9159	4.46	40.19
28	326	27.4652	3.34490	0.18526	27.1008	27.8297	17.36	37.18
22	65	27.6046	3.27707	0.40647	26.7926	28.4166	18.31	34.38
29	58	27.2652	3.17944	0.41748	26.4292	28.1012	20.08	34.93
LS	50	27.8526	3.35626	0.47465	26.8988	28.8064	19.83	33.72
US	50	26.0508	3.20459	0.45320	25.1401	26.9615	15.28	31.59
Total	2371	28.4775	3.39509	0.06972	28.3408	28.6143	4.46	40.19

Table on p3 of report

ANOVA – Dependent Variable: Length

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3642.095	8	455.262	45.419	0.000
Within Groups	23675.999	2362	10.024		
Total	27318.094	2370			

Table on p3 of report

Multiple Comparisons – Dependent Variable: Length, Bonferroni

(I) Context	(J) Context	Mean Difference (I - J)	Std Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
12	13	-1.0915*	0.22622	0.000	-1.8156	-0.3675
	11	-1.6523*	0.27041	0.000	-2.5178	-0.7868
	1/2	1.8100*	0.26248	0.000	0.9699	2.6501
	28	0.8681*	0.28648	0.041	0.0152	1.7210
	22	0.7287	0.44098	1.000	-0.6828	2.1402
	29	1.0681	0.46160	0.747	-0.4094	2.5456
	LS	0.4807	0.49064	1.000	-1.0897	2.0511
	US	2.2825*	0.49064	0.000	0.7121	3.8529
13	012	1.0915*	0.22622	0.000	0.3675	1.8156
	11	-0.5608	0.20925	0.267	-1.2305	0.1090
	1/2	2.9015*	0.19889	0.000	2.2649	3.5361
	28	1.9596*	0.20412	0.000	1.3063	2.6130
	22	1.8202*	0.40636	0.000	0.5195	3.1209
	29	2.1597*	0.42865	0.000	0.7876	3.5317
	LS	1.5722*	0.45978	0.023	0.1006	3.0439
	US	3.3740*	0.45978	0.000	1.9024	4.8457
11	12	1.6523*	0.27041	0.000	0.7868	2.5178
	13	0.5608	0.20925	0.267	-0.1090	1.2305
	1/2	3.4823*	0.24800	0.000	2.8685	4.2561

	28	2.5204*	0.25221	0.000	1.7131	3.3277
	22	2.3610*	0.43252	0.000	0.9986	3.7654
	29	2.7204*	0.45353	0.000	1.2686	4.1721
	LS	2.1330*	0.48305	0.000	0.5869	3.6791
	US	3.9348*	0.48305	0.000	2.3687	5.4809
1/2	12	-1.8100*	0.26248	0.000	-2.6501	-0.9699
	13	-2.9015*	0.19889	0.000	-3.5381	-2.2649
	11	-3.4823*	0.24800	0.000	-4.2561	-2.8685
	28	-0.9419*	0.24369	0.004	-1.7219	-0.1619
	22	-1.0813	0.42761	0.414	-2.4500	0.2874
	29	-0.7419	0.44864	1.000	-2.1785	0.6948
	LS	-1.3293	0.47886	0.199	-2.8614	0.2028
	US	0.4725	0.47886	1.000	-1.0596	2.0046
28	12	-0.8681*	0.28648	0.041	-1.7210	-0.0152
	13	-1.9596*	0.20412	0.000	-2.6130	-1.3063
	11	-2.5204*	0.25221	0.000	-3.3277	-1.7131
	1/2	0.9419*	0.24369	0.004	0.1619	1.7219
	22	-0.1394	0.43007	1.000	-1.5159	1.2371
	29	0.2000	0.45119	1.000	-1.2441	1.6442
	LS	-0.3674	0.48086	1.000	-1.9265	1.1517
	US	1.4144	0.48086	0.119	-0.1247	2.9535
22	12	-0.7287	0.44098	1.000	-2.1402	0.6828
	13	-1.8202*	0.40636	0.000	-3.1209	-0.5195
	11	-2.3610*	0.43252	0.000	-3.7654	-0.9986
	1/2	1.0813	0.42761	0.414	-0.2874	2.4500
	28	0.1394	0.43007	1.000	-1.2371	1.5159
	29	0.3394	0.57187	1.000	-1.4910	2.1699
	LS	-0.2480	0.59555	1.000	-2.1542	1.6582
	US	1.5536	0.59555	0.329	-0.3524	3.4600
29	012	-1.0681	0.46160	0.747	-2.5456	0.4094
	13	-2.1597*	0.42865	0.000	-3.5317	-0.7876
	11	-2.7204*	0.45353	0.000	-4.1721	-1.2686
	1/2	0.7419	0.44864	1.000	-0.6948	2.1785
	28	-0.2000	0.45119	1.000	-1.6442	1.2441
	22	-0.3394	0.57187	1.000	-2.1699	1.4910
	LS	-0.5874	0.61098	1.000	-2.5430	1.3682
	US	1.2144	0.61098	1.000	-0.7412	3.1700
LS	12	-0.4807	0.49064	1.000	-2.0511	1.0897
	13	-1.5722*	0.45978	0.023	-3.0439	-0.1006
	11	-2.1330*	0.48305	0.000	-3.6791	-0.5869
	1/2	1.3293	0.47886	0.199	-0.2028	2.8614
	28	0.3674	0.48086	1.000	-1.1517	1.9265
	22	0.2480	0.59555	1.000	-1.6582	2.1542
	29	0.5874	0.61098	1.000	-1.3682	2.5430
	US	1.8018	0.63320	0.161	-0.2249	3.8285
US	12	-2.2825*	0.49064	0.000	-3.8529	-0.7121
	13	-3.3740*	0.45978	0.000	-4.6457	-1.9024
	11	-3.9348*	0.48305	0.000	-5.4809	-2.3687
	1/2	-0.4725	0.47886	1.000	-2.0048	1.0596
	28	-1.4144	0.48086	0.119	-2.9535	0.1247

22	-1.5536	0.59555	0.329	-3.4800	0.3524
29	-1.2144	0.61098	1.000	-3.1700	0.7412
LS	-1.8018	0.63320	0.161	-3.8285	0.2249

* The mean difference is significant at the 0.05 level; Table on p4 of report

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