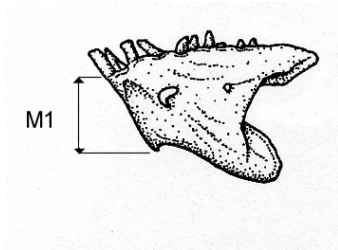
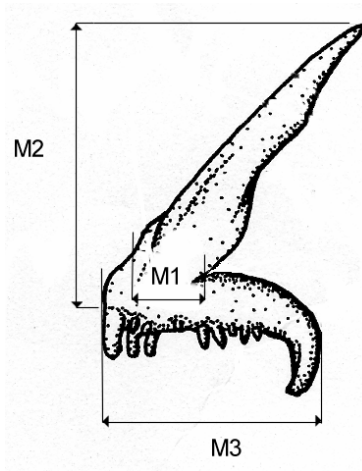


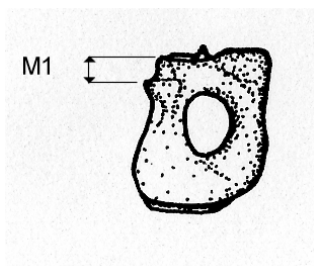
appendix i. Labrid dentary, premaxilla and scapula measurements, the left lateral view is shown. Drawings by Sven Schroeder based on *Labrus bergylta*. All other measurements used for labrids follow those defined in the York protocol.



dentary measurement



premaxilla measurements



scapula measurement

appendix ii. Mammal QC1 element measurements

element	taxon	context	bone id	measurements				
astragalus	red deer	topsoil	SFS4-2000	Bd	DI	GLI	GLm	
				35.44	25.91	54.05	50.65	
calcaneum	red deer	topsoil	SFS4-3120	C+D	GL			
				37.82	109.9			
humerus	red deer	organic rich	SFS4-1800	BT				
				48.3				
metapodials	red deer	main shell midden	SFS4-12	Bd				
				36.39				
				main shell midden	SFS4-1928			
						45.85		
				main shell midden	SFS4-1965			
						46.88		
organic rich	SFS4-329	40.84						
organic rich	SFS4-5967	39.85						
mandibular molar1	<i>Bos</i> sp.	organic rich	SFS4-2251	LM	BM			
				28.78	11.94			
mandibular molar3	wild boar	main shell midden	SFS4-2521	P6	P7			
				16.5	16.26			

phalanx 1**GL****LI**

red deer

main shell midden

SFS4-1820

24

25.23

main shell midden

SFS4-5854

26.9

main shell midden

SFS4-5855

27.2

radius**Bp****Bd**

red deer

topsoil

SFS4-1998

53.92

main shell midden

SFS4-7

55.76

wild boar

main shell midden

SFS4-1835

39.42

scapula**GLP**

large mammal

main shell midden

SFS4-5852

63.12

tibia**Bd**

red deer

main shell midden

SFS4-1917

36.32

navicular- cuboid**GB***Bos* sp.

sandy soil

SFS4-2537

49.35

 measurements P6 and P7 taken on the wild boar mandibular molar3 follow Dobney *et al* 1999

appendix iii. Bird QC1 element measurements

element	taxon	context	bone id	measurements			
				GL	Bp	Did	L
carpometacarpus	guillemot	main shell midden	SFS4-3911			6.75	
	guillemot	main shell midden	SFS4-3912			6.97	
	guillemot	main shell midden	SFS4-4174			6.46	
	guillemot	topsoil	SFS4-4638		10.35		
	guillemot	main shell midden	SFS4-4988	40.56	10.68		
	guillemot	main shell midden	SFS4-3909		9.95	6.32	
	guillemot	main shell midden	SFS4-3910		11.85		
	guillemot	main shell midden	SFS4-3935		10.23		
	guillemot	main shell midden	SFS4-4175		9.39		
	razorbill or guillemot	topsoil	SFS4-3959		9.31		
	razorbill or guillemot	main shell midden	SFS4-4002			5.65	
	razorbill or guillemot	main shell midden	SFS4-4068		8.79		
	razorbill or guillemot	main shell midden	SFS4-4069			6.53	
	razorbill or guillemot	main shell midden	SFS4-4070			6.08	
	razorbill or guillemot	main shell midden	SFS4-4098		9.75		
	razorbill or guillemot	main shell midden	SFS4-4141		9.32		
	razorbill or guillemot	main shell midden	SFS4-4204	40.52	10.64	6.2	40.06
	razorbill or guillemot	main shell midden	SFS4-4205		9.51		
	razorbill or guillemot	main shell midden	SFS4-4206			6.6	
	razorbill or guillemot	main shell midden	SFS4-4207		10.15		
	razorbill or guillemot	main shell midden	SFS4-4209			6.72	
	razorbill or guillemot	main shell midden	SFS4-4416			6.23	
	razorbill or guillemot	organic rich	SFS4-4521		10.82		
	razorbill or guillemot	organic rich	SFS4-4522			6.8	
	razorbill or guillemot	main shell midden	SFS4-4543		9.7		
	razorbill or guillemot	main shell midden	SFS4-4545			6.1	

razorbill or guillemot	main shell midden	SFS4-4556	9.61	
razorbill or guillemot	main shell midden	SFS4-4629		6.47
razorbill or guillemot	topsoil	SFS4-4640		7.13
razorbill or guillemot	topsoil	SFS4-4642		6.52
razorbill or guillemot	topsoil	SFS4-4675	9.94	
razorbill or guillemot	topsoil	SFS4-4698		7.25
razorbill or guillemot	main shell midden	SFS4-4742	9.99	6.49
razorbill or guillemot	main shell midden	SFS4-4761		6.91
razorbill or guillemot	main shell midden	SFS4-4788	10.97	
razorbill or guillemot	main shell midden	SFS4-4811		7.04
razorbill or guillemot	main shell midden	SFS4-4880	10.91	
razorbill or guillemot	topsoil	SFS4-4897		6.69
razorbill or guillemot	topsoil	SFS4-4899		7.16
razorbill or guillemot	topsoil	SFS4-4900	10.69	
razorbill or guillemot	topsoil	SFS4-4901		6.74
razorbill or guillemot	main shell midden	SFS4-4915		6.23
razorbill or guillemot	main shell midden	SFS4-4918		7.07
razorbill or guillemot	main shell midden	SFS4-5068	10.73	
razorbill or guillemot	main shell midden	SFS4-5069	9.46	
razorbill or guillemot	main shell midden	SFS4-5071	10.2	
razorbill or guillemot	main shell midden	SFS4-5132		6.68
razorbill or guillemot	organic rich	SFS4-5141		6.66
razorbill or guillemot	topsoil	SFS4-5238	10.31	
razorbill or guillemot	topsoil	SFS4-5249		6.25
razorbill or guillemot	shell midden	SFS4-5310	10.29	
razorbill or guillemot	sandy soil	SFS4-5547	10.29	
razorbill or guillemot	main shell midden	SFS4-5744	9.41	
razorbill or guillemot	main shell midden	SFS4-5747	10.09	
great auk	topsoil	SFS4-5291	13.66	
auk family	topsoil	SFS4-3955	8.56	

		main shell midden	SFS4-4603			7.39	
		main shell midden	SFS4-5101			7.27	
coracoid				GL	BF	Bb	Lm
	razorbill	main shell midden	SFS4-3853	36.69	12.8		35.95
	razorbill or guillemot	main shell midden	SFS4-4003	38.26			
		main shell midden	SFS4-4823	35.56			35.29
humerus				GL	SC	Bp	Bd
	guillemot	topsoil	SFS4-3951	11.75			
	guillemot	topsoil	SFS4-3952	11.41			
	guillemot	topsoil	SFS4-3969	11.38			
	guillemot	main shell midden	SFS4-4085	10.43			
	guillemot	main shell midden	SFS4-4190	83.19	7.25	18.26	
	guillemot	main shell midden	SFS4-4193	11.24			
	guillemot	main shell midden	SFS4-4408	11.14			
	guillemot	main shell midden	SFS4-4409	9.78			
	guillemot	main shell midden	SFS4-4483	11.49			
	guillemot	main shell midden	SFS4-4554	81.66	6.91	16.85	8.17
	guillemot	main shell midden	SFS4-4612	8.88			
	guillemot	main shell midden	SFS4-4614	9.26			
	guillemot	topsoil	SFS4-4634	11.4			
	guillemot	topsoil	SFS4-4635	11.36			
	guillemot	main shell midden	SFS4-4658	11.25			
	guillemot	main shell midden	SFS4-4752	10.04			
	guillemot	main shell midden	SFS4-4753	10.27			
	guillemot	main shell midden	SFS4-4786	9.02			
	guillemot	main shell midden	SFS4-4821	10.2			
	guillemot	main shell midden	SFS4-4835	9.21			
	guillemot	main shell midden	SFS4-4906	10.38			

guillemot	main shell midden	SFS4-5054	77.54	7	16.99	10.76
guillemot	main shell midden	SFS4-5157	82.12	16.87	8.7	
guillemot	topsoil	SFS4-5185	10.21			
guillemot	topsoil	SFS4-5186	10.09			
guillemot	main shell midden	SFS4-5214	9.25			
guillemot	main shell midden	SFS4-5223	81.63	17.68	9.13	
guillemot	topsoil	SFS4-5231	9.76			
guillemot	organic rich	SFS4-5276	9.77			
guillemot	main shell midden	SFS4-5305	17.5	10.14		
guillemot	main shell midden	SFS4-5754	10.52			
guillemot	topsoil	SFS4-5760	10.08			
guillemot	main shell midden	SFS4-5763	10.4			
guillemot	main shell midden	SFS4-3981	16.61			
guillemot	main shell midden	SFS4-3985	11.47			
guillemot	main shell midden	SFS4-3985	11.48			
guillemot	main shell midden	SFS4-4192	17.8			
razorbill	main shell midden	SFS4-4042	67.85	6.44	16.34	
razorbill	main shell midden	SFS4-4609	8.21			
razorbill	main shell midden	SFS4-4657	9.63			
razorbill	topsoil	SFS4-4699	70.28	6.65	16.7	9.04
razorbill	main shell midden	SFS4-4751	9.51			
razorbill	main shell midden	SFS4-4907	9.07			
razorbill	main shell midden	SFS4-5061	9.56			
razorbill	main shell midden	SFS4-5062	9.16			
razorbill	main shell midden	SFS4-5755	8.78			
razorbill or guillemot	topsoil	SFS4-3882	15.63			
razorbill or guillemot	main shell midden	SFS4-3888	17.01			
razorbill or guillemot	main shell midden	SFS4-3889	16.38			
razorbill or guillemot	main shell midden	SFS4-3891	10.26			
razorbill or guillemot	main shell midden	SFS4-3980	17.87			

razorbill or guillemot	main shell midden	SFS4-3982	11.22	
razorbill or guillemot	main shell midden	SFS4-4140	17.22	
razorbill or guillemot	main shell midden	SFS4-4191	16.99	
razorbill or guillemot	topsoil	SFS4-4257	16.57	
razorbill or guillemot	topsoil	SFS4-4261	11.37	
razorbill or guillemot	organic rich	SFS4-4377	9.66	
razorbill or guillemot	main shell midden	SFS4-4555	17.34	
razorbill or guillemot	main shell midden	SFS4-4608	17.99	
razorbill or guillemot	main shell midden	SFS4-4613	15.19	
razorbill or guillemot	topsoil	SFS4-4633	17.05	
razorbill or guillemot	main shell midden	SFS4-4656	17.65	
razorbill or guillemot	main shell midden	SFS4-4719	17.16	
razorbill or guillemot	main shell midden	SFS4-4721	17.44	
razorbill or guillemot	main shell midden	SFS4-4724	7.93	
razorbill or guillemot	main shell midden	SFS4-4837	16.39	
razorbill or guillemot	main shell midden	SFS4-4881	8.75	
razorbill or guillemot	main shell midden	SFS4-4941	17.85	
razorbill or guillemot	main shell midden	SFS4-4942	8.45	
razorbill or guillemot	topsoil	SFS4-4984	10.48	
razorbill or guillemot	main shell midden	SFS4-4987	17.68	
razorbill or guillemot	main shell midden	SFS4-4996	9.41	
razorbill or guillemot	main shell midden	SFS4-5053	10.04	
razorbill or guillemot	main shell midden	SFS4-5055	16.83	
razorbill or guillemot	main shell midden	SFS4-5056	16.81	
razorbill or guillemot	main shell midden	SFS4-5057	16.67	
razorbill or guillemot	main shell midden	SFS4-5110	18.57	
razorbill or guillemot	main shell midden	SFS4-5195	58.57	8.13
razorbill or guillemot	main shell midden	SFS4-5212	15	
razorbill or guillemot	main shell midden	SFS4-5601	9.89	
razorbill or guillemot	organic rich	SFS4-5615	16.73	

great auk	main shell midden	SFS4-4138	9.21
great auk	main shell midden	SFS4-4620	11.49
great auk	main shell midden	SFS4-5334	11.96
auk family	main shell midden	SFS4-3983	12.15
auk family	main shell midden	SFS4-4043	6.53
auk family	organic rich	SFS4-4510	8.17
auk family	topsoil	SFS4-4637	10.48
thrush and chat family	main shell midden	SFS4-5655	6.86

scapula

			GLP	SLC	Dic	GL
guillemot	main shell midden	SFS4-3997		11.52		
razorbill or guillemot	main shell midden	SFS4-3860		11.04		
razorbill or guillemot	main shell midden	SFS4-3860				
razorbill or guillemot	main shell midden	SFS4-3914		10.42		
razorbill or guillemot	main shell midden	SFS4-3915		10.62		
razorbill or guillemot	main shell midden	SFS4-3998		10.7		
razorbill or guillemot	main shell midden	SFS4-3999		9.84		
razorbill or guillemot	main shell midden	SFS4-4060		10.53		
razorbill or guillemot	main shell midden	SFS4-4061		11.22		
razorbill or guillemot	main shell midden	SFS4-4061		11.19		
razorbill or guillemot	main shell midden	SFS4-4143		11.12		
razorbill or guillemot	main shell midden	SFS4-4185		11.12		
razorbill or guillemot	main shell midden	SFS4-4211		11.29		
razorbill or guillemot	topsoil	SFS4-4236		9.92		
razorbill or guillemot	topsoil	SFS4-4237		10.91		
razorbill or guillemot	topsoil	SFS4-4262		10.94		
razorbill or guillemot	organic rich	SFS4-4381		10.75		
razorbill or guillemot	organic rich	SFS4-4382		9.76		
razorbill or guillemot	organic rich	SFS4-4401		9.93		
razorbill or guillemot	organic rich	SFS4-4523		11.34		

razorbill or guillemot	main shell midden	SFS4-4606	9.62
razorbill or guillemot	main shell midden	SFS4-4627	10.61
razorbill or guillemot	main shell midden	SFS4-4663	11.23
razorbill or guillemot	main shell midden	SFS4-4664	11.26
razorbill or guillemot	main shell midden	SFS4-4665	11.24
razorbill or guillemot	main shell midden	SFS4-4666	11.09
razorbill or guillemot	organic rich	SFS4-4706	10.6
razorbill or guillemot	main shell midden	SFS4-4738	10.86
razorbill or guillemot	main shell midden	SFS4-4759	11.76
razorbill or guillemot	main shell midden	SFS4-4798	10.73
razorbill or guillemot	organic rich	SFS4-4874	10.82
razorbill or guillemot	main shell midden	SFS4-4910	8.9
razorbill or guillemot	main shell midden	SFS4-4911	10.35
razorbill or guillemot	main shell midden	SFS4-4952	10.78
razorbill or guillemot	topsoil	SFS4-4991	11.46
razorbill or guillemot	main shell midden	SFS4-5017	10.18
razorbill or guillemot	main shell midden	SFS4-5046	10.82
razorbill or guillemot	main shell midden	SFS4-5064	10.33
razorbill or guillemot	main shell midden	SFS4-5065	10.93
razorbill or guillemot	main shell midden	SFS4-5087	10.84
razorbill or guillemot	topsoil	SFS4-5118	9.55
razorbill or guillemot	topsoil	SFS4-5119	10.02
razorbill or guillemot	topsoil	SFS4-5120	9.26
razorbill or guillemot	organic rich	SFS4-5142	10.42
razorbill or guillemot	topsoil	SFS4-5209	9.5
razorbill or guillemot	topsoil	SFS4-5327	10.78
razorbill or guillemot	main shell midden	SFS4-5364	11.23
razorbill or guillemot	main shell midden	SFS4-5365	10.55
razorbill or guillemot	sandy soil	SFS4-5374	10.1
razorbill or guillemot	topsoil	SFS4-5391	11.25

razorbill or guillemot	topsoil	SFS4-5428	11.63
razorbill or guillemot	main shell midden	SFS4-5442	10.54
razorbill or guillemot	sandy soil	SFS4-5489	11.04
razorbill or guillemot	main shell midden	SFS4-5539	11.43
razorbill or guillemot	sandy soil	SFS4-5561	10.33
razorbill or guillemot	main shell midden	SFS4-5742	10.8
razorbill or guillemot	main shell midden	SFS4-5743	11.6
razorbill or guillemot	main shell midden	SFS4-5796	10.7
razorbill or guillemot	main shell midden	SFS4-5797	10.87
razorbill or guillemot	topsoil	SFS4-5808	10.71
great auk	main shell midden	SFS4-4667	16.73
auk family	topsoil	SFS4-5252	11.06
auk family	shell midden	SFS4-5542	10.17

tarsometatarsus

GL SC Bp Bd

guillemot	main shell midden	SFS4-4197	36.28	3.51	8	7.5
razorbill or guillemot	main shell midden	SFS4-4345			8.11	

tibiotarsus

GL Bd Dip Dd

razorbill or guillemot	topsoil	SFS4-3884				5.49
razorbill or guillemot	main shell midden	SFS4-4024		6.93		
razorbill or guillemot	main shell midden	SFS4-4101			7.06	
razorbill or guillemot	main shell midden	SFS4-4202		7.17		
razorbill or guillemot	main shell midden	SFS4-4203		7.25		
razorbill or guillemot	topsoil	SFS4-4264		6.35		
razorbill or guillemot	topsoil	SFS4-4287		6.08		
razorbill or guillemot	main shell midden	SFS4-4347		7.25		
razorbill or guillemot	main shell midden	SFS4-4430		7.44		
razorbill or guillemot	main shell midden	SFS4-4432		7.07		

razorbill or guillemot	main shell midden	SFS4-4449	7.71	
razorbill or guillemot	main shell midden	SFS4-4494	6.71	6.84
razorbill or guillemot	main shell midden	SFS4-4564		7.48
razorbill or guillemot	main shell midden	SFS4-4736	7.4	
razorbill or guillemot	main shell midden	SFS4-4807	6.82	
razorbill or guillemot	topsoil	SFS4-4848	6.82	
razorbill or guillemot	main shell midden	SFS4-4950	7.15	
razorbill or guillemot	main shell midden	SFS4-4951	6.79	
razorbill or guillemot	topsoil	SFS4-5027	6.88	
razorbill or guillemot	topsoil	SFS4-5257	7.04	
razorbill or guillemot	topsoil	SFS4-5362	7.22	
razorbill or guillemot	sandy soil	SFS4-5375	6.96	
razorbill or guillemot	main shell midden	SFS4-5437	6.94	
razorbill or guillemot	shell midden	SFS4-5469	5.99	
razorbill or guillemot	sandy soil	SFS4-5521	7.78	
razorbill or guillemot	main shell midden	SFS4-5571	6.99	
razorbill or guillemot	main shell midden	SFS4-5741		7.31
razorbill or guillemot	topsoil	SFS4-5804		7.15
razorbill or guillemot	main shell midden	SFS4-5818		7.56
auk family	topsoil	SFS4-3956	6.75	
auk family	shell midden	SFS4-5312	6.24	
auk family	main shell midden	SFS4-5739		6.06

appendix iv. Fish QC1 and QC4 element measurements

element	taxon	context	bone id	M1	M2	M3
articular	ballan wrasse	topsoil	SFS4-6800	3.16		
articular	ballan wrasse	main shell midden	SFS4-7100	2.41		
basioccipital	saithe	main shell midden	SFS4-1049	3.05	3.31	
basioccipital	saithe	main shell midden	SFS4-737	3.03	3.51	
basioccipital	saithe	main shell midden	SFS4-7313	2.82	3.46	
basioccipital	saithe	main shell midden	SFS4-791	2.57	4.01	
basioccipital	saithe	sandy soil	SFS4-7633	3.02	4.23	
basioccipital	saithe	topsoil	SFS4-6846	3.62	4.07	
basioccipital	saithe	topsoil	SFS4-7189	2.99	3.76	
basioccipital	saithe	topsoil	SFS4-7540	2.84	3.8	
basioccipital	pollack	main shell midden	SFS4-880	3.04	3.19	
basioccipital	pollack	main shell midden	SFS4-1781		6.32	
basioccipital	cod	main shell midden	SFS4-7113		10.63	
basioccipital	cod, saithe or pollack	main shell midden	SFS4-7127	11.75		
basioccipital	cod family	main shell midden	SFS4-1656	2.64	3.48	
basioccipital	cod family	main shell midden	SFS4-12371	2.79	3.28	
basioccipital	cod family	main shell midden	SFS4-6886	3.68	4.82	
basioccipital	cod family	sandy soil	SFS4-12014	1.55	2.01	
basioccipital	ballan wrasse	main shell midden	SFS4-7740	4.73	5.57	
basioccipital	wrasse family	main shell midden	SFS4-2669	3.09	3.78	
basioccipital	wrasse family	main shell midden	SFS4-2581	4.76	5.26	
basioccipital	wrasse family	main shell midden	SFS4-2822	5.04	5.21	
basioccipital	wrasse family	main shell midden	SFS4-1748	2.76	3.04	
basioccipital	wrasse family	main shell midden	SFS4-1719	3.08	3.14	
basioccipital	wrasse family	main shell midden	SFS4-2995	2.47	2.72	
basioccipital	wrasse family	main shell midden	SFS4-2568	3.18	3.21	
basioccipital	wrasse family	main shell midden	SFS4-6881	5.18	5.23	
basioccipital	wrasse family	main shell midden	SFS4-7125	4.92	5.37	
basioccipital	wrasse family	main shell midden	SFS4-7126	4.78	4.77	
basioccipital	wrasse family	sandy soil	SFS4-7634	3.68	3.83	
basioccipital	wrasse family	shell midden	SFS4-7673	3.84	3.88	
basioccipital	wrasse family	shell midden	SFS4-7609	3.82	4.49	
basioccipital	wrasse family	topsoil	SFS4-6745	3.15	3.8	
basioccipital	wrasse family	topsoil	SFS4-6746	3.57	3.77	
basioccipital	wrasse family	topsoil	SFS4-6824	3.24	3.04	
basioccipital	wrasse family	topsoil	SFS4-6685	3.03	3.44	
basioccipital	wrasse family	topsoil	SFS4-13106	2.96	3.45	
dentary	saithe	main shell midden	SFS4-1043	1.82	2.49	
dentary	saithe	main shell midden	SFS4-1044	1.64	2.32	
dentary	saithe	main shell midden	SFS4-12176		2.55	
dentary	saithe	main shell midden	SFS4-7316	2.86	2.48	
dentary	saithe	main shell midden	SFS4-7418	2.88		
dentary	saithe	main shell midden	SFS4-7023	4.52	4.69	

dentary	saithe	main shell midden	SFS4-7112	4.09	
dentary	saithe	topsoil	SFS4-6157	3.61	3.48
dentary	saithe	topsoil	SFS4-13012		2.46
dentary	pollack	main shell midden	SFS4-6093	4.84	4.92
dentary	pollack	main shell midden	SFS4-12253	5.46	
dentary	pollack	main shell midden	SFS4-2844	6.51	
dentary	pollack	main shell midden	SFS4-6179		5.84
dentary	saithe or pollack	main shell midden	SFS4-1045		2.21
dentary	saithe or pollack	main shell midden	SFS4-604	1.72	2.36
dentary	saithe or pollack	main shell midden	SFS4-1597	2.35	
dentary	saithe or pollack	topsoil	SFS4-15707	5.83	
dentary	cod	main shell midden	SFS4-709		1.71
dentary	cod	main shell midden	SFS4-819	1.49	2.03
dentary	cod	main shell midden	SFS4-2915	1.86	
dentary	cod, saithe or pollack	main shell midden	SFS4-708	1.92	2.5
dentary	cod, saithe or pollack	topsoil	SFS4-2792	3.98	
dentary	cod family	main shell midden	SFS4-2684		2.3
dentary	cod family	main shell midden	SFS4-7024	2.6	
dentary	cod family	topsoil	SFS4-6848	2.86	
dentary	ballan wrasse	main shell midden	SFS4-1246	5.26	
dentary	wrasse family	main shell midden	SFS4-2888	6.88	
dentary	wrasse family	main shell midden	SFS4-1076	2.77	4.13
dentary	wrasse family	topsoil	SFS4-2790	5.86	
dentary	wrasse family	topsoil	SFS4-2755	3.86	
otolith	saithe or pollack	main shell midden	SFS4-15377	5.84	2.29
otolith	saithe or pollack	main shell midden	SFS4-15361		3.51
otolith	saithe or pollack	main shell midden	SFS4-14128	10.71	3.91
otolith	saithe or pollack	main shell midden	SFS4-14129	10.45	3.72
otolith	saithe or pollack	main shell midden	SFS4-14130		3.45
otolith	saithe or pollack	main shell midden	SFS4-14131	9.95	3.74
otolith	saithe or pollack	main shell midden	SFS4-14133		3.27
otolith	saithe or pollack	main shell midden	SFS4-14135		3.44
otolith	saithe or pollack	main shell midden	SFS4-14143	9.34	3.51
otolith	saithe or pollack	main shell midden	SFS4-14144		3.76
otolith	saithe or pollack	main shell midden	SFS4-14146		3.34
otolith	saithe or pollack	main shell midden	SFS4-14147		3.16
otolith	saithe or pollack	main shell midden	SFS4-14153	6.12	2.37
otolith	saithe or pollack	main shell midden	SFS4-15238		3.46
otolith	saithe or pollack	main shell midden	SFS4-15239	8.8	3.41
otolith	saithe or pollack	main shell midden	SFS4-15240		3.94
otolith	saithe or pollack	main shell midden	SFS4-15241		3.39
otolith	saithe or pollack	main shell midden	SFS4-15243		2.56
otolith	saithe or pollack	main shell midden	SFS4-15245		3.36
otolith	saithe or pollack	main shell midden	SFS4-15248	6.47	2.56
otolith	saithe or pollack	main shell midden	SFS4-15249	6.95	2.67
otolith	saithe or pollack	main shell midden	SFS4-16193		2.9
otolith	saithe or pollack	main shell midden	SFS4-16194		2.62
otolith	saithe or pollack	main shell midden	SFS4-14709		3.12

otolith	saithe or pollack	main shell midden	SFS4-14710	17.11	7.14
otolith	saithe or pollack	main shell midden	SFS4-14711		6.54
otolith	saithe or pollack	main shell midden	SFS4-14712		3.85
otolith	saithe or pollack	main shell midden	SFS4-14717	12.05	4.32
otolith	saithe or pollack	main shell midden	SFS4-14718	10.7	3.64
otolith	saithe or pollack	main shell midden	SFS4-14721	9.46	3.35
otolith	saithe or pollack	main shell midden	SFS4-14724		3.34
otolith	saithe or pollack	main shell midden	SFS4-14725	5.81	2.32
otolith	saithe or pollack	main shell midden	SFS4-14726		3.53
otolith	saithe or pollack	main shell midden	SFS4-14732		4.37
otolith	saithe or pollack	main shell midden	SFS4-14733		3.51
otolith	saithe or pollack	main shell midden	SFS4-14734		4.09
otolith	saithe or pollack	main shell midden	SFS4-14735	9.42	4.09
otolith	saithe or pollack	main shell midden	SFS4-14736		4.11
otolith	saithe or pollack	main shell midden	SFS4-14737	10.72	3.99
otolith	saithe or pollack	main shell midden	SFS4-14738		3.88
otolith	saithe or pollack	main shell midden	SFS4-14739	8.99	3.2
otolith	saithe or pollack	main shell midden	SFS4-14740		2.55
otolith	saithe or pollack	main shell midden	SFS4-14741		2.63
otolith	saithe or pollack	main shell midden	SFS4-14742		3.92
otolith	saithe or pollack	main shell midden	SFS4-14743		3.75
otolith	saithe or pollack	main shell midden	SFS4-14744		3.25
otolith	saithe or pollack	main shell midden	SFS4-14746		2.91
otolith	saithe or pollack	main shell midden	SFS4-14747		3.23
otolith	saithe or pollack	main shell midden	SFS4-14752		2.17
otolith	saithe or pollack	main shell midden	SFS4-14753		3.81
otolith	saithe or pollack	main shell midden	SFS4-14754		3.33
otolith	saithe or pollack	main shell midden	SFS4-14755		2.62
otolith	saithe or pollack	main shell midden	SFS4-14756		2.53
otolith	saithe or pollack	main shell midden	SFS4-14757		2.37
otolith	saithe or pollack	main shell midden	SFS4-14758		3.28
otolith	saithe or pollack	main shell midden	SFS4-14761	7.97	2.87
otolith	saithe or pollack	main shell midden	SFS4-14762	6.92	2.6
otolith	saithe or pollack	main shell midden	SFS4-14765		2.66
otolith	saithe or pollack	main shell midden	SFS4-14766		2.58
otolith	saithe or pollack	main shell midden	SFS4-14767		2.27
otolith	saithe or pollack	main shell midden	SFS4-14769		3.82
otolith	saithe or pollack	main shell midden	SFS4-14771	6.99	2.48
otolith	saithe or pollack	main shell midden	SFS4-14773		2.65
otolith	saithe or pollack	main shell midden	SFS4-14774		2.3
otolith	saithe or pollack	main shell midden	SFS4-14783		2.82
otolith	saithe or pollack	main shell midden	SFS4-14785		2.67
otolith	saithe or pollack	main shell midden	SFS4-14786	6.41	2.48
otolith	saithe or pollack	main shell midden	SFS4-14792		2.95
otolith	saithe or pollack	main shell midden	SFS4-14794		2.97
otolith	saithe or pollack	main shell midden	SFS4-14795		2.66
otolith	saithe or pollack	main shell midden	SFS4-14799		3.34
otolith	saithe or pollack	main shell midden	SFS4-14802		2.46

otolith	saithe or pollack	main shell midden	SFS4-14804		2.41
otolith	saithe or pollack	main shell midden	SFS4-13880		2.34
otolith	saithe or pollack	main shell midden	SFS4-13881	5.81	2.35
otolith	saithe or pollack	main shell midden	SFS4-13882	3.17	
otolith	saithe or pollack	main shell midden	SFS4-13885		3.16
otolith	saithe or pollack	main shell midden	SFS4-13886		3.35
otolith	saithe or pollack	main shell midden	SFS4-13887		2.53
otolith	saithe or pollack	main shell midden	SFS4-13892		2.43
otolith	saithe or pollack	main shell midden	SFS4-13897	2.49	
otolith	saithe or pollack	main shell midden	SFS4-13900		2.32
otolith	saithe or pollack	main shell midden	SFS4-15269		2.49
otolith	saithe or pollack	main shell midden	SFS4-15270	9.46	3.64
otolith	saithe or pollack	main shell midden	SFS4-15271	9.29	3.33
otolith	saithe or pollack	main shell midden	SFS4-15273		3.57
otolith	saithe or pollack	main shell midden	SFS4-15274	6.14	2.55
otolith	saithe or pollack	main shell midden	SFS4-15275		2.35
otolith	saithe or pollack	main shell midden	SFS4-15215		2.44
otolith	saithe or pollack	main shell midden	SFS4-15216		3.58
otolith	saithe or pollack	main shell midden	SFS4-15218		3.62
otolith	saithe or pollack	main shell midden	SFS4-15220		3.24
otolith	saithe or pollack	main shell midden	SFS4-15221		3.39
otolith	saithe or pollack	main shell midden	SFS4-15223	6.53	2.78
otolith	saithe or pollack	main shell midden	SFS4-15227		3.31
otolith	saithe or pollack	main shell midden	SFS4-15230		2.94
otolith	saithe or pollack	main shell midden	SFS4-15231		2.28
otolith	saithe or pollack	main shell midden	SFS4-15264		2.78
otolith	saithe or pollack	main shell midden	SFS4-15265		3.56
otolith	saithe or pollack	main shell midden	SFS4-15266		3.56
otolith	saithe or pollack	main shell midden	SFS4-15276		3.91
otolith	saithe or pollack	main shell midden	SFS4-15279	5.97	2.38
otolith	saithe or pollack	main shell midden	SFS4-15280	5.55	2.28
otolith	saithe or pollack	main shell midden	SFS4-15198		3.57
otolith	saithe or pollack	main shell midden	SFS4-15206	10.19	3.74
otolith	saithe or pollack	main shell midden	SFS4-15207	6.3	2.45
otolith	saithe or pollack	main shell midden	SFS4-15208		3.36
otolith	saithe or pollack	main shell midden	SFS4-15209		3.68
otolith	saithe or pollack	main shell midden	SFS4-15200		5.7
otolith	saithe or pollack	main shell midden	SFS4-11585	13.63	5.2
otolith	saithe or pollack	main shell midden	SFS4-11586		6.31
otolith	saithe or pollack	main shell midden	SFS4-11587	10.21	3.77
otolith	saithe or pollack	main shell midden	SFS4-11588		3.58
otolith	saithe or pollack	main shell midden	SFS4-11589		3.84
otolith	saithe or pollack	main shell midden	SFS4-11590		4.12
otolith	saithe or pollack	main shell midden	SFS4-11591		3.89
otolith	saithe or pollack	main shell midden	SFS4-11593		3.81
otolith	saithe or pollack	main shell midden	SFS4-11594		3.61
otolith	saithe or pollack	main shell midden	SFS4-11595		3.49
otolith	saithe or pollack	main shell midden	SFS4-11596		4.02

otolith	saithe or pollack	main shell midden	SFS4-11597		3.45
otolith	saithe or pollack	main shell midden	SFS4-11598		3.8
otolith	saithe or pollack	main shell midden	SFS4-11599	8.99	3.45
otolith	saithe or pollack	main shell midden	SFS4-11600		4.19
otolith	saithe or pollack	main shell midden	SFS4-11601		3.99
otolith	saithe or pollack	main shell midden	SFS4-11602		3.22
otolith	saithe or pollack	main shell midden	SFS4-11603		3.46
otolith	saithe or pollack	main shell midden	SFS4-11604		4.08
otolith	saithe or pollack	main shell midden	SFS4-11605	7.26	3.05
otolith	saithe or pollack	main shell midden	SFS4-11606	8.51	3.44
otolith	saithe or pollack	main shell midden	SFS4-11607		3.37
otolith	saithe or pollack	main shell midden	SFS4-11608		3.29
otolith	saithe or pollack	main shell midden	SFS4-11609		3.61
otolith	saithe or pollack	main shell midden	SFS4-11610		3.39
otolith	saithe or pollack	main shell midden	SFS4-11611		3.99
otolith	saithe or pollack	main shell midden	SFS4-11612	9.25	3.64
otolith	saithe or pollack	main shell midden	SFS4-11614		3.28
otolith	saithe or pollack	main shell midden	SFS4-11615		2.46
otolith	saithe or pollack	main shell midden	SFS4-11616		3.2
otolith	saithe or pollack	main shell midden	SFS4-11617		4.7
otolith	saithe or pollack	main shell midden	SFS4-15482	12.99	5.02
otolith	saithe or pollack	main shell midden	SFS4-15483		4.19
otolith	saithe or pollack	main shell midden	SFS4-15484		4.92
otolith	saithe or pollack	main shell midden	SFS4-15485		4.07
otolith	saithe or pollack	main shell midden	SFS4-15487		4.12
otolith	saithe or pollack	main shell midden	SFS4-15491		5.12
otolith	saithe or pollack	main shell midden	SFS4-15492		2.91
otolith	saithe or pollack	main shell midden	SFS4-15493		3.44
otolith	saithe or pollack	main shell midden	SFS4-15494		2.6
otolith	saithe or pollack	main shell midden	SFS4-15495		3.7
otolith	saithe or pollack	main shell midden	SFS4-15496		3.27
otolith	saithe or pollack	main shell midden	SFS4-15498		2.88
otolith	saithe or pollack	main shell midden	SFS4-15499		2.79
otolith	saithe or pollack	main shell midden	SFS4-15502	8.98	3.34
otolith	saithe or pollack	main shell midden	SFS4-15504		2.11
otolith	saithe or pollack	main shell midden	SFS4-15505		3.1
otolith	saithe or pollack	main shell midden	SFS4-15506		3.68
otolith	saithe or pollack	main shell midden	SFS4-15507		2.97
otolith	saithe or pollack	main shell midden	SFS4-15514		3.74
otolith	saithe or pollack	main shell midden	SFS4-15515		2.44
otolith	saithe or pollack	main shell midden	SFS4-15517		2.48
otolith	saithe or pollack	main shell midden	SFS4-15518		3.82
otolith	saithe or pollack	main shell midden	SFS4-15532		5.18
otolith	saithe or pollack	main shell midden	SFS4-15537	11.09	3.99
otolith	saithe or pollack	main shell midden	SFS4-15538		3.36
otolith	saithe or pollack	main shell midden	SFS4-15539		3.58
otolith	saithe or pollack	main shell midden	SFS4-15541		2.53
otolith	saithe or pollack	main shell midden	SFS4-15545		3.56

otolith	saithe or pollack	main shell midden	SFS4-15549		2.87
otolith	saithe or pollack	main shell midden	SFS4-15604		3.94
otolith	saithe or pollack	main shell midden	SFS4-15608		3.98
otolith	saithe or pollack	main shell midden	SFS4-15610		2.74
otolith	saithe or pollack	main shell midden	SFS4-15611		2.3
otolith	saithe or pollack	main shell midden	SFS4-15616		2.49
otolith	saithe or pollack	main shell midden	SFS4-15621	6.11	2.44
otolith	saithe or pollack	main shell midden	SFS4-15622		3.9
otolith	saithe or pollack	main shell midden	SFS4-15555		2.19
otolith	saithe or pollack	main shell midden	SFS4-15559		3.95
otolith	saithe or pollack	main shell midden	SFS4-15564	6.49	2.54
otolith	saithe or pollack	main shell midden	SFS4-15566	7.04	2.76
otolith	saithe or pollack	main shell midden	SFS4-15568	7.05	2.82
otolith	saithe or pollack	main shell midden	SFS4-15572	6.6	2.54
otolith	saithe or pollack	main shell midden	SFS4-15577		2.53
otolith	saithe or pollack	main shell midden	SFS4-15580		2.66
otolith	saithe or pollack	main shell midden	SFS4-14529		4.63
otolith	saithe or pollack	main shell midden	SFS4-14531	5.63	2.16
otolith	saithe or pollack	main shell midden	SFS4-14537	6.2	2.48
otolith	saithe or pollack	main shell midden	SFS4-14555		4.7
otolith	saithe or pollack	main shell midden	SFS4-14556	6.57	2.47
otolith	saithe or pollack	main shell midden	SFS4-14557		2.41
otolith	saithe or pollack	main shell midden	SFS4-14558		2.63
otolith	saithe or pollack	main shell midden	SFS4-14560		3.99
otolith	saithe or pollack	main shell midden	SFS4-14561		2.77
otolith	saithe or pollack	main shell midden	SFS4-14562		2.04
otolith	saithe or pollack	main shell midden	SFS4-14564		3.66
otolith	saithe or pollack	main shell midden	SFS4-14565	8.22	2.96
otolith	saithe or pollack	main shell midden	SFS4-14566		2.36
otolith	saithe or pollack	main shell midden	SFS4-14568		2.51
otolith	saithe or pollack	main shell midden	SFS4-14571	8.18	2.98
otolith	saithe or pollack	main shell midden	SFS4-14542		2.7
otolith	saithe or pollack	main shell midden	SFS4-14550		2.39
otolith	saithe or pollack	main shell midden	SFS4-14160		3.86
otolith	saithe or pollack	main shell midden	SFS4-14161		3.62
otolith	saithe or pollack	main shell midden	SFS4-14162		3.71
otolith	saithe or pollack	main shell midden	SFS4-14159		3.76
otolith	saithe or pollack	main shell midden	SFS4-15371	5.62	2.14
otolith	saithe or pollack	main shell midden	SFS4-15379	15.86	5.94
otolith	saithe or pollack	main shell midden	SFS4-15380	15.73	5.68
otolith	saithe or pollack	main shell midden	SFS4-15385		3.74
otolith	saithe or pollack	main shell midden	SFS4-14121	13.55	5.3
otolith	saithe or pollack	main shell midden	SFS4-14122	6.11	2.34
otolith	saithe or pollack	main shell midden	SFS4-14123		2.25
otolith	saithe or pollack	main shell midden	SFS4-14100	16.41	6.75
otolith	saithe or pollack	main shell midden	SFS4-14101	10.19	4.28
otolith	saithe or pollack	main shell midden	SFS4-14102		3.8
otolith	saithe or pollack	main shell midden	SFS4-14103	6.44	2.44

otolith	saithe or pollack	main shell midden	SFS4-14104	6.6	2.88
otolith	saithe or pollack	main shell midden	SFS4-14105		3.89
otolith	saithe or pollack	main shell midden	SFS4-14108		3.57
otolith	saithe or pollack	main shell midden	SFS4-14109		3.6
otolith	saithe or pollack	main shell midden	SFS4-14110		2.29
otolith	saithe or pollack	main shell midden	SFS4-14080		3.82
otolith	saithe or pollack	main shell midden	SFS4-14081	9.39	3.71
otolith	saithe or pollack	main shell midden	SFS4-14082		3.47
otolith	saithe or pollack	main shell midden	SFS4-14084		2.6
otolith	saithe or pollack	main shell midden	SFS4-14086		2.29
otolith	saithe or pollack	main shell midden	SFS4-14088		3.92
otolith	saithe or pollack	main shell midden	SFS4-14089		3.57
otolith	saithe or pollack	main shell midden	SFS4-14090	6.09	2.47
otolith	saithe or pollack	main shell midden	SFS4-14091		2.27
otolith	saithe or pollack	main shell midden	SFS4-14067		6.03
otolith	saithe or pollack	main shell midden	SFS4-14068		3.46
otolith	saithe or pollack	main shell midden	SFS4-14069		3.52
otolith	saithe or pollack	main shell midden	SFS4-14070	9.33	3.47
otolith	saithe or pollack	main shell midden	SFS4-14008	10.16	3.66
otolith	saithe or pollack	main shell midden	SFS4-14009		3.47
otolith	saithe or pollack	main shell midden	SFS4-14011	9.52	3.93
otolith	saithe or pollack	main shell midden	SFS4-14012	8.64	3.44
otolith	saithe or pollack	main shell midden	SFS4-14013		2.39
otolith	saithe or pollack	main shell midden	SFS4-14014		3.3
otolith	saithe or pollack	main shell midden	SFS4-14006	7.2	2.67
otolith	saithe or pollack	main shell midden	SFS4-14007		3.36
otolith	saithe or pollack	main shell midden	SFS4-15419	7.36	2.7
otolith	saithe or pollack	main shell midden	SFS4-13981	12.35	4.97
otolith	saithe or pollack	main shell midden	SFS4-13984	6.61	2.69
otolith	saithe or pollack	main shell midden	SFS4-13985	6.47	2.38
otolith	saithe or pollack	main shell midden	SFS4-13986		3.11
otolith	saithe or pollack	main shell midden	SFS4-13987	5.43	2.06
otolith	saithe or pollack	main shell midden	SFS4-13988		2.17
otolith	saithe or pollack	main shell midden	SFS4-13992		2.75
otolith	saithe or pollack	main shell midden	SFS4-13993		3.39
otolith	saithe or pollack	main shell midden	SFS4-15376	6.05	2.21
otolith	saithe or pollack	main shell midden	SFS4-15214		2.54
otolith	saithe or pollack	main shell midden	SFS4-15365	10.13	3.84
otolith	saithe or pollack	main shell midden	SFS4-15367	5.64	2.21
otolith	saithe or pollack	main shell midden	SFS4-15352		6.93
otolith	saithe or pollack	main shell midden	SFS4-15353		5.28
otolith	saithe or pollack	main shell midden	SFS4-15358		2.67
otolith	saithe or pollack	main shell midden	SFS4-15312		3.37
otolith	saithe or pollack	main shell midden	SFS4-15314	6.43	2.56
otolith	saithe or pollack	main shell midden	SFS4-15317		3.65
otolith	saithe or pollack	main shell midden	SFS4-15319		2.29
otolith	saithe or pollack	main shell midden	SFS4-15324		6.51
otolith	saithe or pollack	main shell midden	SFS4-15325		3.98

otolith	saithe or pollack	main shell midden	SFS4-15328		4.13
otolith	saithe or pollack	main shell midden	SFS4-15331		2.69
otolith	saithe or pollack	main shell midden	SFS4-15335		3.81
otolith	saithe or pollack	main shell midden	SFS4-15339		3.66
otolith	saithe or pollack	main shell midden	SFS4-15346	5.84	2.26
otolith	saithe or pollack	main shell midden	SFS4-15347		2.51
otolith	saithe or pollack	main shell midden	SFS4-14946		2.81
otolith	saithe or pollack	main shell midden	SFS4-14952		3.63
otolith	saithe or pollack	main shell midden	SFS4-14954		2.28
otolith	saithe or pollack	main shell midden	SFS4-14931	16.22	6.15
otolith	saithe or pollack	main shell midden	SFS4-14934		2.4
otolith	saithe or pollack	main shell midden	SFS4-15210	9.88	3.76
otolith	saithe or pollack	main shell midden	SFS4-14989		3.76
otolith	saithe or pollack	main shell midden	SFS4-14990		3.78
otolith	saithe or pollack	main shell midden	SFS4-14991		3.65
otolith	saithe or pollack	main shell midden	SFS4-14992		3.57
otolith	saithe or pollack	main shell midden	SFS4-14993		3.59
otolith	saithe or pollack	main shell midden	SFS4-14994	11.46	4.71
otolith	saithe or pollack	main shell midden	SFS4-14996		3.72
otolith	saithe or pollack	main shell midden	SFS4-14998	8.74	3.34
otolith	saithe or pollack	main shell midden	SFS4-14999		2
otolith	saithe or pollack	main shell midden	SFS4-15003	11.05	4.07
otolith	saithe or pollack	main shell midden	SFS4-15004		3.24
otolith	saithe or pollack	main shell midden	SFS4-15006		3.54
otolith	saithe or pollack	main shell midden	SFS4-15009	5.69	2.34
otolith	saithe or pollack	main shell midden	SFS4-15298		2.28
otolith	saithe or pollack	main shell midden	SFS4-15025		2.28
otolith	saithe or pollack	main shell midden	SFS4-15028		3.63
otolith	saithe or pollack	main shell midden	SFS4-15050		7.61
otolith	saithe or pollack	main shell midden	SFS4-15051		5.73
otolith	saithe or pollack	main shell midden	SFS4-15052		5.85
otolith	saithe or pollack	main shell midden	SFS4-15054		3.47
otolith	saithe or pollack	main shell midden	SFS4-15055		3.51
otolith	saithe or pollack	main shell midden	SFS4-15056		4.47
otolith	saithe or pollack	main shell midden	SFS4-15058		3.48
otolith	saithe or pollack	main shell midden	SFS4-15059		3.76
otolith	saithe or pollack	main shell midden	SFS4-15060		3.6
otolith	saithe or pollack	main shell midden	SFS4-15061		2.53
otolith	saithe or pollack	main shell midden	SFS4-15063		3.77
otolith	saithe or pollack	main shell midden	SFS4-15066		2.38
otolith	saithe or pollack	main shell midden	SFS4-15067		2.5
otolith	saithe or pollack	main shell midden	SFS4-15068		3.2
otolith	saithe or pollack	main shell midden	SFS4-15071		2.4
otolith	saithe or pollack	main shell midden	SFS4-15072	5.88	2.21
otolith	saithe or pollack	main shell midden	SFS4-15373	5.82	2.27
otolith	saithe or pollack	organic rich layer	SFS4-14674		3.05
otolith	saithe or pollack	organic rich layer	SFS4-14667		2.66
otolith	saithe or pollack	organic rich layer	SFS4-14668		2.23

otolith	saithe or pollack	sandy soil	SFS4-12120		3.39
otolith	saithe or pollack	sandy soil	SFS4-12114		3.54
otolith	saithe or pollack	shell midden	SFS4-14612		2.43
otolith	saithe or pollack	shell midden	SFS4-14615		3.52
otolith	saithe or pollack	shell midden	SFS4-14623		3.6
otolith	saithe or pollack	shell midden	SFS4-14708		4.92
otolith	saithe or pollack	shell midden	SFS4-14698		3.38
otolith	saithe or pollack	shell midden	SFS4-14703		3
otolith	saithe or pollack	shell midden	SFS4-15093	7.12	2.85
otolith	saithe or pollack	topsoil	SFS4-6793		3.7
otolith	saithe or pollack	topsoil	SFS4-15034	9.83	3.81
otolith	saithe or pollack	topsoil	SFS4-15036		3.81
otolith	saithe or pollack	topsoil	SFS4-15037		2.49
otolith	saithe or pollack	topsoil	SFS4-15038		2.27
otolith	saithe or pollack	topsoil	SFS4-15042		3.57
otolith	saithe or pollack	topsoil	SFS4-15043		2.44
otolith	saithe or pollack	topsoil	SFS4-15048		3.52
otolith	saithe or pollack	topsoil	SFS4-14628		3.19
otolith	saithe or pollack	topsoil	SFS4-14631		2.7
otolith	saithe or pollack	topsoil	SFS4-14632		2.61
otolith	saithe or pollack	topsoil	SFS4-14658		3.78
otolith	saithe or pollack	topsoil	SFS4-14661		3.61
otolith	saithe or pollack	topsoil	SFS4-14646		4.02
otolith	saithe or pollack	topsoil	SFS4-14648		2.73
otolith	saithe or pollack	topsoil	SFS4-14639		3.53
otolith	saithe or pollack	topsoil	SFS4-15096		3.89
otolith	saithe or pollack	topsoil	SFS4-15097		3.02
otolith	saithe or pollack	topsoil	SFS4-15102		2.39
otolith	saithe or pollack	topsoil	SFS4-15118		3.39
otolith	saithe or pollack	topsoil	SFS4-15109		3.19
otolith	saithe or pollack	topsoil	SFS4-15110		2.4
otolith	saithe or pollack	topsoil	SFS4-15114		3.26
otolith	saithe or pollack	topsoil	SFS4-14838		3.52
otolith	saithe or pollack	topsoil	SFS4-14840		2.71
otolith	saithe or pollack	topsoil	SFS4-14841		3.58
otolith	saithe or pollack	topsoil	SFS4-14842		2.34
otolith	saithe or pollack	topsoil	SFS4-14845		2.39
otolith	saithe or pollack	topsoil	SFS4-14846		2.68
otolith	saithe or pollack	topsoil	SFS4-14847	6.29	2.37
otolith	saithe or pollack	topsoil	SFS4-14848		2.65
otolith	saithe or pollack	topsoil	SFS4-14849		2.7
otolith	saithe or pollack	topsoil	SFS4-14851		3.5
otolith	saithe or pollack	topsoil	SFS4-14853		3.98
otolith	saithe or pollack	topsoil	SFS4-14857		2.46
otolith	saithe or pollack	topsoil	SFS4-14858		3.52
otolith	saithe or pollack	topsoil	SFS4-14862		2.62
otolith	saithe or pollack	topsoil	SFS4-14864		2.26
otolith	saithe or pollack	topsoil	SFS4-16046		3.82

otolith	saithe or pollack	topsoil	SFS4-16047		2.41
otolith	saithe or pollack	topsoil	SFS4-14499	10.56	4.1
otolith	saithe or pollack	topsoil	SFS4-14504		3.82
otolith	saithe or pollack	topsoil	SFS4-14505		2.53
otolith	saithe or pollack	topsoil	SFS4-14508		3.39
otolith	saithe or pollack	topsoil	SFS4-14509		2.66
otolith	saithe or pollack	topsoil	SFS4-14512		2.41
otolith	saithe or pollack	topsoil	SFS4-15146		3.59
otolith	saithe or pollack	topsoil	SFS4-15150	6.5	2.65
otolith	saithe or pollack	topsoil	SFS4-15152		3.41
otolith	saithe or pollack	topsoil	SFS4-15386		3.75
otolith	saithe or pollack	topsoil	SFS4-13925		3.8
otolith	saithe or pollack	topsoil	SFS4-13926		3.86
otolith	saithe or pollack	topsoil	SFS4-13929	9.23	3.34
otolith	saithe or pollack	topsoil	SFS4-13933		3.18
otolith	saithe or pollack	topsoil	SFS4-13934	9.28	3.71
otolith	saithe or pollack	topsoil	SFS4-13935		3.56
otolith	saithe or pollack	topsoil	SFS4-13936		4.02
otolith	saithe or pollack	topsoil	SFS4-13937		3.48
otolith	saithe or pollack	topsoil	SFS4-13938	5.95	2.44
otolith	saithe or pollack	topsoil	SFS4-13939		2.47
otolith	saithe or pollack	topsoil	SFS4-14020		4.94
otolith	saithe or pollack	topsoil	SFS4-14021		3.62
otolith	saithe or pollack	topsoil	SFS4-14022		3.87
otolith	saithe or pollack	topsoil	SFS4-14023		4.07
otolith	saithe or pollack	topsoil	SFS4-14025		3.84
otolith	saithe or pollack	topsoil	SFS4-14028		3.4
otolith	saithe or pollack	topsoil	SFS4-14029		3.92
otolith	saithe or pollack	topsoil	SFS4-14031		3.42
otolith	saithe or pollack	topsoil	SFS4-14032		4.09
otolith	saithe or pollack	topsoil	SFS4-14036		2.63
otolith	saithe or pollack	topsoil	SFS4-14037		3.33
otolith	saithe or pollack	topsoil	SFS4-14038		3.53
otolith	saithe or pollack	topsoil	SFS4-14041		3.66
otolith	saithe or pollack	topsoil	SFS4-14042		2.57
otolith	saithe or pollack	topsoil	SFS4-14044		3.64
otolith	saithe or pollack	topsoil	SFS4-14045		3.35
otolith	saithe or pollack	topsoil	SFS4-14046		3.59
otolith	saithe or pollack	topsoil	SFS4-14048		2.49
otolith	saithe or pollack	topsoil	SFS4-14049		2.31
otolith	saithe or pollack	topsoil	SFS4-15158		2.9
otolith	saithe or pollack	topsoil	SFS4-15166		3.52
otolith	saithe or pollack	topsoil	SFS4-15170		3.61
otolith	saithe or pollack	topsoil	SFS4-15171		2.43
otolith	saithe or pollack	topsoil	SFS4-15186	6.25	2.38
otolith	saithe or pollack	topsoil	SFS4-15188		3.01
otolith	saithe or pollack	topsoil	SFS4-15189		2.54
otolith	saithe or pollack	topsoil	SFS4-15190		3.53

otolith	saithe or pollack	topsoil	SFS4-15191	10.32	3.69
otolith	saithe or pollack	topsoil	SFS4-15468		3.27
otolith	saithe or pollack	topsoil	SFS4-15469		3.59
otolith	saithe or pollack	topsoil	SFS4-15471		3.98
otolith	saithe or pollack	topsoil	SFS4-15475		3.37
otolith	saithe or pollack	topsoil	SFS4-15476		2.4
otolith	saithe or pollack	topsoil	SFS4-15477		2.27
otolith	saithe or pollack	topsoil	SFS4-15449		3.22
otolith	saithe or pollack	topsoil	SFS4-15450		3.82
otolith	saithe or pollack	topsoil	SFS4-15451		3.38
otolith	saithe or pollack	topsoil	SFS4-15453		2.97
otolith	saithe or pollack	topsoil	SFS4-15460	6	2.34
otolith	saithe or pollack	topsoil	SFS4-15461		2.46
otolith	saithe or pollack	topsoil	SFS4-13921		3.83
otolith	saithe or pollack	topsoil	SFS4-14681	6.12	2.33
otolith	saithe or pollack	topsoil	SFS4-14683		3.44
otolith	saithe or pollack	topsoil	SFS4-14685	6.1	2.35
otolith	saithe or pollack	topsoil	SFS4-14690		3.49
otolith	saithe or pollack	topsoil	SFS4-14603		3.83
otolith	saithe or pollack	topsoil	SFS4-14593		2.29
otolith	saithe or pollack	topsoil	SFS4-14594		3.19
otolith	saithe or pollack	topsoil	SFS4-14595		3.7
otolith	saithe or pollack	topsoil	SFS4-14596		2.99
otolith	saithe or pollack	topsoil	SFS4-14598		2.21
otolith	saithe or pollack	topsoil	SFS4-14577		4.09
otolith	saithe or pollack	topsoil	SFS4-14578		2.79
otolith	saithe or pollack	topsoil	SFS4-14581		2.16
otolith	saithe or pollack	topsoil	SFS4-14587		3.4
otolith	saithe or pollack	topsoil	SFS4-14589		3.32
otolith	saithe or pollack	topsoil	SFS4-15390		2.44
otolith	saithe or pollack	topsoil	SFS4-15391		2.55
otolith	saithe or pollack	topsoil	SFS4-15395		2.3
otolith	saithe or pollack	topsoil	SFS4-15300		5.16
otolith	saithe or pollack	topsoil	SFS4-15301		3.3
otolith	saithe or pollack	topsoil	SFS4-15473	6.26	2.44
otolith	saithe or pollack	topsoil	SFS4-15304		3.44
otolith	saithe or pollack	topsoil	SFS4-13948	16.6	6.54
otolith	saithe or pollack	topsoil	SFS4-13950		5.12
otolith	saithe or pollack	topsoil	SFS4-13951	10.28	3.68
otolith	saithe or pollack	topsoil	SFS4-13952		4.24
otolith	saithe or pollack	topsoil	SFS4-13955	10.72	4.4
otolith	saithe or pollack	topsoil	SFS4-13956	10.67	3.77
otolith	saithe or pollack	topsoil	SFS4-13957	7.57	2.96
otolith	saithe or pollack	topsoil	SFS4-13958		3.67
otolith	saithe or pollack	topsoil	SFS4-13963		3.06
otolith	saithe or pollack	topsoil	SFS4-13964		2.36
otolith	saithe or pollack	topsoil	SFS4-13965		2.78
otolith	saithe or pollack	topsoil	SFS4-13966		2.3

otolith	saithe or pollack	topsoil	SFS4-13968		3.62
otolith	saithe or pollack	topsoil	SFS4-14981		2.46
otolith	saithe or pollack	topsoil	SFS4-14982	5.82	2.25
otolith	saithe or pollack	topsoil	SFS4-14983		3.4
otolith	saithe or pollack	topsoil	SFS4-14960		3.62
otolith	saithe or pollack	topsoil	SFS4-14961		2.91
otolith	saithe or pollack	topsoil	SFS4-14962	5.87	2.48
otolith	saithe or pollack	topsoil	SFS4-14971		3.45
otolith	saithe or pollack	topsoil	SFS4-14972		3.76
otolith	saithe or pollack	topsoil	SFS4-14975		2.4
otolith	saithe or pollack	topsoil	SFS4-14957	9.27	3.43
otolith	saithe or pollack	topsoil	SFS4-15639		4.8
otolith	saithe or pollack	topsoil	SFS4-15643		3.46
otolith	saithe or pollack	topsoil	SFS4-15646		2.25
otolith	saithe or pollack	topsoil	SFS4-15593		2.77
otolith	saithe or pollack	topsoil	SFS4-15594		3.57
otolith	saithe or pollack	topsoil	SFS4-15596	5.77	2.12
otolith	saithe or pollack	topsoil	SFS4-15597		2.37
otolith	saithe or pollack	topsoil	SFS4-15599		2.34
otolith	saithe or pollack	topsoil	SFS4-15659		3.62
otolith	saithe or pollack	topsoil	SFS4-15661		3.56
otolith	saithe or pollack	topsoil	SFS4-15662		2.69
otolith	saithe or pollack	topsoil	SFS4-15649		4.59
otolith	saithe or pollack	topsoil	SFS4-15650		3.53
otolith	saithe or pollack	topsoil	SFS4-14065		3.19
otolith	saithe or pollack	topsoil	SFS4-15396		5.65
otolith	saithe or pollack	topsoil	SFS4-15403		2.97
otolith	saithe or pollack	topsoil	SFS4-15406	9.33	3.41
otolith	saithe or pollack	topsoil	SFS4-15407		3.47
otolith	saithe or pollack	topsoil	SFS4-15409		3.65
otolith	saithe or pollack	topsoil	SFS4-15410	5.84	2.17
otolith	saithe or pollack	topsoil	SFS4-15413		2.44
otolith	saithe or pollack	topsoil	SFS4-14875		2.82
otolith	saithe or pollack	topsoil	SFS4-14917		4.72
otolith	saithe or pollack	topsoil	SFS4-14919		3.33
otolith	saithe or pollack	topsoil	SFS4-14920		2.63
otolith	saithe or pollack	topsoil	SFS4-14921		2.5
otolith	saithe or pollack	topsoil	SFS4-14883		3.93
otolith	saithe or pollack	topsoil	SFS4-14885		4.17
otolith	saithe or pollack	topsoil	SFS4-14886		2.95
otolith	saithe or pollack	topsoil	SFS4-14887		2.48
otolith	saithe or pollack	topsoil	SFS4-14888		2.41
otolith	saithe or pollack	topsoil	SFS4-14889		3.44
otolith	saithe or pollack	topsoil	SFS4-14890	6.29	2.61
otolith	saithe or pollack	topsoil	SFS4-14891	5.72	2.27
otolith	saithe or pollack	topsoil	SFS4-14892		2.61
otolith	saithe or pollack	topsoil	SFS4-14894		2.79
otolith	saithe or pollack	topsoil	SFS4-14897		3.92

otolith	saithe or pollack	topsoil	SFS4-14901		3.14
otolith	saithe or pollack	topsoil	SFS4-14903		2.86
otolith	saithe or pollack	topsoil	SFS4-14905		2.36
otolith	saithe or pollack	topsoil	SFS4-15677		3.37
otolith	saithe or pollack	topsoil	SFS4-15678		2.6
otolith	saithe or pollack	topsoil	SFS4-15679		3.59
otolith	saithe or pollack	topsoil	SFS4-15682		2.72
otolith	saithe or pollack	topsoil	SFS4-15637		2.57
otolith	saithe or pollack	topsoil	SFS4-15638		2.41
otolith	saithe or pollack	topsoil	SFS4-15667		3.36
otolith	saithe or pollack	topsoil	SFS4-15668		2.48
otolith	saithe or pollack	topsoil	SFS4-15670		2.66
otolith	saithe or pollack	topsoil	SFS4-15671		2.27
otolith	saithe or pollack	topsoil	SFS4-15674		3.3
otolith	saithe or pollack	topsoil	SFS4-15675		2.49
otolith	saithe or pollack	topsoil	SFS4-15631		2.47
otolith	saithe or pollack	topsoil	SFS4-15420		3.52
otolith	saithe or pollack	topsoil	SFS4-15421	9.54	3.81
otolith	saithe or pollack	topsoil	SFS4-15425	6.2	2.35
otolith	saithe or pollack	topsoil	SFS4-15427		3.86
otolith	saithe or pollack	topsoil	SFS4-15428		2.64
otolith	saithe or pollack	topsoil	SFS4-15430		3.3
otolith	saithe or pollack	topsoil	SFS4-15431		2.77
otolith	saithe or pollack	topsoil	SFS4-15432		3.5
otolith	saithe or pollack	topsoil	SFS4-15435		2.37
otolith	saithe or pollack	topsoil	SFS4-15436		1.98
otolith	saithe or pollack	unprov	SFS4-15127		3.76
otolith	saithe or pollack	unprov	SFS4-15129		2.62
otolith	saithe or pollack	unprov	SFS4-15130		2
otolith	saithe or pollack	unprov	SFS4-15131		3.51
otolith	saithe or pollack	unprov	SFS4-15138		2.65
otolith	saithe or pollack	unprov	SFS4-15140		3.41
otolith	saithe or pollack	unprov	SFS4-15141		3.51
otolith	saithe or pollack	unprov	SFS4-15143		2.28
otolith	cod	main shell midden	SFS4-15263		5.17
otolith	cod	main shell midden	SFS4-15529		4.8
otolith	cod	main shell midden	SFS4-15533	10.82	5.12
otolith	cod	main shell midden	SFS4-15381		4.17
otolith	cod	main shell midden	SFS4-15378	9.89	4.3
otolith	cod	main shell midden	SFS4-15323		5.16
otolith	cod	shell midden	SFS4-14611		4.76
otolith	cod	topsoil	SFS4-13924	10.2	4.53
otolith	cod	topsoil	SFS4-14024	11.96	5.19
otolith	cod, saithe or pollack	main shell midden	SFS4-15282		3.59
otolith	cod, saithe or pollack	main shell midden	SFS4-15360	11.28	4.82
otolith	cod, saithe or pollack	main shell midden	SFS4-14015		2.47
otolith	cod, saithe or pollack	main shell midden	SFS4-15374		3.6
otolith	cod, saithe or pollack	main shell midden	SFS4-15332		4.3
otolith	cod, saithe or pollack	topsoil	SFS4-15116		2.35

otolith	cod, saithe or pollack	topsoil	SFS4-14033	5.86	2.3	
otolith	cod, saithe or pollack	topsoil	SFS4-15168		4	
otolith	cod, saithe or pollack	topsoil	SFS4-14679		4.69	
otolith	cod, saithe or pollack	topsoil	SFS4-15388		3.52	
otolith	cod, saithe or pollack	topsoil	SFS4-15401		3.39	
otolith	cod, saithe or pollack	topsoil	SFS4-15402		3.98	
otolith	cod, saithe or pollack	topsoil	SFS4-15408		3.48	
otolith	cod, saithe or pollack	topsoil	SFS4-14914		2.34	
otolith	cod, saithe or pollack	topsoil	SFS4-15433	7.62	3.18	
otolith	haddock	main shell midden	SFS4-14158		3.69	
otolith	poor cod	main shell midden	SFS4-14809	8.34	4.38	
otolith	poor cod	main shell midden	SFS4-14810	8.24	4.15	
otolith	poor cod	main shell midden	SFS4-11584		4.37	
otolith	cod family	main shell midden	SFS4-13902		3.06	
otolith	cod family	main shell midden	SFS4-15284		3.56	
otolith	cod family	main shell midden	SFS4-15285	9.68	3.56	
otolith	cod family	main shell midden	SFS4-15286		3.38	
otolith	cod family	main shell midden	SFS4-15287		3.42	
otolith	cod family	main shell midden	SFS4-15288	6.16	2.34	
otolith	cod family	main shell midden	SFS4-15289		2.12	
otolith	cod family	main shell midden	SFS4-15290		2.24	
otolith	cod family	main shell midden	SFS4-14163		2.57	
otolith	cod family	main shell midden	SFS4-15350		2.43	
otolith	cod family	organic rich layer	SFS4-14673		2.08	
premaxilla	saithe	main shell midden	SFS4-1030	3.53	3.76	2.61
premaxilla	saithe	main shell midden	SFS4-1031	2.41	3.02	2.12
premaxilla	saithe	main shell midden	SFS4-1032	4.05		
premaxilla	saithe	main shell midden	SFS4-1035	4.39		
premaxilla	saithe	main shell midden	SFS4-1036	3.5	4.43	3.49
premaxilla	saithe	main shell midden	SFS4-1037	3.19	4.05	3.04
premaxilla	saithe	main shell midden	SFS4-1039	3.79	4.41	3.57
premaxilla	saithe	main shell midden	SFS4-7203	7.43		
premaxilla	saithe	main shell midden	SFS4-16189	2.93		
premaxilla	saithe	main shell midden	SFS4-593	2.39		3.25
premaxilla	saithe	main shell midden	SFS4-891	2.72	4.13	2.72
premaxilla	saithe	main shell midden	SFS4-12184	4.05		
premaxilla	saithe	main shell midden	SFS4-7306	2.6		
premaxilla	saithe	main shell midden	SFS4-6143	3.41		
premaxilla	saithe	main shell midden	SFS4-13373	2.62		
premaxilla	saithe	main shell midden	SFS4-1673	3.43		
premaxilla	saithe	main shell midden	SFS4-7416		4.43	3.16
premaxilla	saithe	main shell midden	SFS4-7417	2.02	2.87	2.12
premaxilla	saithe	main shell midden	SFS4-6885	3.77		
premaxilla	saithe	main shell midden	SFS4-6910	3.42		
premaxilla	saithe	main shell midden	SFS4-6911	3.08		
premaxilla	saithe	main shell midden	SFS4-7052	3.16		
premaxilla	saithe	sandy soil	SFS4-7631	2.41	3.83	2.29
premaxilla	saithe	topsoil	SFS4-6738	2.45		

premaxilla	saithe	topsoil	SFS4-6739	2.42		
premaxilla	saithe	topsoil	SFS4-6740	2.58		
premaxilla	saithe	topsoil	SFS4-6132	5.25		
premaxilla	saithe	topsoil	SFS4-7155	2.91		
premaxilla	saithe	topsoil	SFS4-7482	2.78		
premaxilla	saithe	topsoil	SFS4-6156	4.13		
premaxilla	saithe	topsoil	SFS4-13295	2.98		
premaxilla	saithe	topsoil	SFS4-13220	3.24	4.37	3.59
premaxilla	saithe	topsoil	SFS4-13130	3.05		
premaxilla	pollack	main shell midden	SFS4-1038	2.78		
premaxilla	pollack	main shell midden	SFS4-1040	3.79		
premaxilla	pollack	main shell midden	SFS4-15750	5.13		
premaxilla	pollack	main shell midden	SFS4-888	3.5		
premaxilla	pollack	main shell midden	SFS4-889	3.4	4.02	2.71
premaxilla	pollack	main shell midden	SFS4-890	2.45	1.58	2.58
premaxilla	pollack	main shell midden	SFS4-2631	2.55		
premaxilla	pollack	main shell midden	SFS4-2924	3.66	4.47	3.39
premaxilla	saithe or pollack	main shell midden	SFS4-592	3.3	4.4	3.62
premaxilla	saithe or pollack	main shell midden	SFS4-595	1.82	4.35	3.95
premaxilla	saithe or pollack	main shell midden	SFS4-598	2.04		
premaxilla	saithe or pollack	main shell midden	SFS4-12234	2.92		
premaxilla	saithe or pollack	main shell midden	SFS4-12350	2.81		
premaxilla	saithe or pollack	main shell midden	SFS4-2690	2.36	3.6	2.36
premaxilla	saithe or pollack	main shell midden	SFS4-1220	3.24	3.6	2.89
premaxilla	saithe or pollack	main shell midden	SFS4-12961	3.3		
premaxilla	saithe or pollack	organic rich layer	SFS4-2393	3.35	4.34	3.47
premaxilla	saithe or pollack	topsoil	SFS4-16093	3.7		
premaxilla	saithe or pollack	topsoil	SFS4-16073	3.05		
premaxilla	saithe or pollack	topsoil	SFS4-7709	3.09		
premaxilla	saithe or pollack	topsoil	SFS4-13242	2.9		
premaxilla	saithe or pollack	topsoil	SFS4-12911	3.27		
premaxilla	cod	main shell midden	SFS4-1029	3.01	2.34	3.45
premaxilla	cod	main shell midden	SFS4-887	3.71	3.15	3.69
premaxilla	cod	main shell midden	SFS4-766	4.55		4.96
premaxilla	cod	main shell midden	SFS4-2912	4.2	4.91	4.01
premaxilla	cod	sandy soil	SFS4-7783	4.41		
premaxilla	cod, saithe or pollack	main shell midden	SFS4-596	1.78		
premaxilla	cod, saithe or pollack	main shell midden	SFS4-886	4.42		4.18
premaxilla	cod, saithe or pollack	main shell midden	SFS4-7305	3.68		
premaxilla	cod, saithe or pollack	main shell midden	SFS4-1607	3.05	3.48	2.94
premaxilla	cod, saithe or pollack	main shell midden	SFS4-2847	2.9		
premaxilla	cod, saithe or pollack	main shell midden	SFS4-15704	3.7		
premaxilla	cod, saithe or pollack	sandy soil	SFS4-7782	2.75		
premaxilla	cod, saithe or pollack	sandy soil	SFS4-7632	2.93		
premaxilla	whiting	main shell midden	SFS4-1761	2.42	3.7	2.39
premaxilla	cod family	main shell midden	SFS4-600	0.93		
premaxilla	cod family	main shell midden	SFS4-706	3.51		3.33
premaxilla	cod family	main shell midden	SFS4-770	4.18		
premaxilla	cod family	main shell midden	SFS4-2880	4.23		

premaxilla	corkwing	main shell midden	SFS4-591	2.65		
premaxilla	ballan wrasse	main shell midden	SFS4-15833	3.88		
premaxilla	ballan wrasse	main shell midden	SFS4-901	7.23		
premaxilla	ballan wrasse	main shell midden	SFS4-1619	3.58		
premaxilla	ballan wrasse	sandy soil	SFS4-6310	6.09	28.46	
premaxilla	wrasse family	main shell midden	SFS4-1272	2.2	8.42	6.07
premaxilla	wrasse family	main shell midden	SFS4-986	3.07		
premaxilla	wrasse family	main shell midden	SFS4-1581	3.22		
premaxilla	wrasse family	main shell midden	SFS4-1582	3.53	17.38	11.37
premaxilla	wrasse family	main shell midden	SFS4-6045	2.42	9.62	
premaxilla	wrasse family	main shell midden	SFS4-1741	4.15		
premaxilla	wrasse family	main shell midden	SFS4-1118	3.72		
premaxilla	wrasse family	main shell midden	SFS4-1082	5.07		
premaxilla	wrasse family	main shell midden	SFS4-1542	3.09		
premaxilla	wrasse family	main shell midden	SFS4-1301	12.47		
premaxilla	wrasse family	topsoil	SFS4-16212	2.34		
quadrate	saithe	main shell midden	SFS4-7206	4.09		
quadrate	saithe	main shell midden	SFS4-12177	3.29		
quadrate	saithe	main shell midden	SFS4-7312	3.96		
quadrate	saithe	main shell midden	SFS4-6148	3.25		
quadrate	saithe	main shell midden	SFS4-15783	4.26		
quadrate	saithe	main shell midden	SFS4-7368	3.84		
quadrate	saithe	main shell midden	SFS4-6909	2.29		
quadrate	saithe	main shell midden	SFS4-7069	2.09		
quadrate	saithe	topsoil	SFS4-6697	3.57		
quadrate	saithe	topsoil	SFS4-7193	6.13		
quadrate	saithe	topsoil	SFS4-7134	3.75		
quadrate	saithe	topsoil	SFS4-6129	3.07		
quadrate	saithe	topsoil	SFS4-6130	3.61		
quadrate	saithe	topsoil	SFS4-6155	4.09		
quadrate	saithe	topsoil	SFS4-6167	2.92		
quadrate	saithe	topsoil	SFS4-6578	2.51		
quadrate	pollack	main shell midden	SFS4-2767	3.2		
quadrate	cod	main shell midden	SFS4-7201	10.05		
quadrate	cod	main shell midden	SFS4-12415	3.67		
quadrate	cod	main shell midden	SFS4-7311	2.76		
quadrate	cod	topsoil	SFS4-16034	5.28		
quadrate	cod	topsoil	SFS4-13716	3.23		
quadrate	cod, saithe or pollack	main shell midden	SFS4-16344	2.69		
quadrate	cod, saithe or pollack	topsoil	SFS4-7763	2.9		
quadrate	cod family	main shell midden	SFS4-6141	2.6		
quadrate	cod family	main shell midden	SFS4-6149	3.99		
quadrate	cod family	topsoil	SFS4-6826	2.22		
quadrate	corkwing	main shell midden	SFS4-1369	2.04		
quadrate	corkwing	main shell midden	SFS4-1720	2.42		
quadrate	ballan wrasse	main shell midden	SFS4-12230	4.62		
quadrate	ballan wrasse	main shell midden	SFS4-12231	4.96		
quadrate	ballan wrasse	main shell midden	SFS4-6200	6.77		
quadrate	ballan wrasse	main shell midden	SFS4-16200	4.87		

quadrate	ballan wrasse	main shell midden	SFS4-2804	6.2
quadrate	ballan wrasse	main shell midden	SFS4-12734	3.96
quadrate	ballan wrasse	main shell midden	SFS4-12319	5.99
quadrate	ballan wrasse	main shell midden	SFS4-6673	3.32
quadrate	ballan wrasse	main shell midden	SFS4-1063	4.83
quadrate	ballan wrasse	main shell midden	SFS4-12967	3.7
quadrate	ballan wrasse	main shell midden	SFS4-7097	5.81
quadrate	ballan wrasse	organic rich layer	SFS4-2219	4.7
quadrate	ballan wrasse	shell midden	SFS4-6236	4.42
quadrate	ballan wrasse	topsoil	SFS4-6719	3.85
quadrate	ballan wrasse	topsoil	SFS4-6720	3.67
quadrate	ballan or cuckoo wrasse	main shell midden	SFS4-12315	2.11
quadrate	wrasse family	main shell midden	SFS4-1278	4.65
quadrate	wrasse family	main shell midden	SFS4-605	3.71
quadrate	wrasse family	main shell midden	SFS4-11989	2.3
quadrate	wrasse family	main shell midden	SFS4-2854	4.22
quadrate	wrasse family	main shell midden	SFS4-12203	2.59
quadrate	wrasse family	main shell midden	SFS4-6201	2.26
quadrate	wrasse family	main shell midden	SFS4-7252	2.2
quadrate	wrasse family	main shell midden	SFS4-7666	2.31
quadrate	wrasse family	main shell midden	SFS4-11880	3.31
quadrate	wrasse family	main shell midden	SFS4-11899	2.65
quadrate	wrasse family	main shell midden	SFS4-1606	2.05
quadrate	wrasse family	main shell midden	SFS4-1287	4.18
quadrate	wrasse family	main shell midden	SFS4-1245	4.11
quadrate	wrasse family	main shell midden	SFS4-1117	3.59
quadrate	wrasse family	main shell midden	SFS4-1143	3.08
quadrate	wrasse family	main shell midden	SFS4-1505	2.88
quadrate	wrasse family	main shell midden	SFS4-12312	3.03
quadrate	wrasse family	main shell midden	SFS4-12314	2.52
quadrate	wrasse family	main shell midden	SFS4-1348	3.15
quadrate	wrasse family	main shell midden	SFS4-2873	3.66
quadrate	wrasse family	organic rich layer	SFS4-2244	3.53
quadrate	wrasse family	organic rich layer	SFS4-2158	2.88
quadrate	wrasse family	sandy soil	SFS4-6249	3.08
quadrate	wrasse family	sandy soil	SFS4-6291	1.63
quadrate	wrasse family	shell midden	SFS4-7594	3.5
quadrate	wrasse family	topsoil	SFS4-6700	4.75
quadrate	wrasse family	topsoil	SFS4-12960	2.37
quadrate	wrasse family	topsoil	SFS4-6230	2.47
quadrate	wrasse family	topsoil	SFS4-6205	3.06
scapula	ballan wrasse	main shell midden	SFS4-12322	2.61
scapula	ballan or cuckoo wrasse	main shell midden	SFS4-12245	2.17
scapula	ballan or cuckoo wrasse	main shell midden	SFS4-12196	2.04
scapula	ballan or cuckoo wrasse	main shell midden	SFS4-12342	2.36
scapula	wrasse family	main shell midden	SFS4-13378	1.58
scapula	wrasse family	main shell midden	SFS4-12356	2.06
scapula	wrasse family	main shell midden	SFS4-7396	1.53

scapula	wrasse family	main shell midden	SFS4-6182	1.74
scapula	wrasse family	sandy soil	SFS4-7819	2.05
scapula	wrasse family	sandy soil	SFS4-6277	1.92
scapula	wrasse family	topsoil	SFS4-7712	1.54

appendix v. Latin names for taxa mentioned in the text

Common name	Latin name
Mammal	
whale sp.	unidentified whale
dog or wolf	<i>Canis</i> sp.
fox	<i>Vulpes vulpes</i>
dog family	Canidae
badger	<i>Meles meles</i>
otter	<i>Lutra lutra</i>
seal sp.	unidentified seal
wild boar	<i>Sus scrofa</i>
red deer	<i>Cervus elaphus</i>
roe deer	<i>Capreolus capreolus</i>
deer family	Cervidae
<i>Bos</i> sp.	
sheep	<i>Ovis aries</i>
sheep or goat	Caprine
large mammal	
medium mammal 1	
medium mammal 2	
unidentified mammal	
Small mammal and amphibian	
common shrew	<i>Sorex araneus</i>
pygmy shrew	<i>Sorex minuses</i>
shrew sp.	<i>Sorex</i> sp.
bank vole	<i>Clethrionomys glareolus</i>
field vole	<i>Microtus agrestis</i>
vole sp.	unidentified vole
wood mouse	<i>Apodemus sylvaticus</i>
yellow-necked mouse	<i>Apodemus flavicollis</i>
mouse sp.	<i>Murinae</i>
vole or mouse	unidentified vole or mouse
small mammal	
common frog	<i>Rana temporaria</i>
Bird	
cormorant or shag	<i>Phalacrocorax carbo/aristotelis</i>
razorbill	<i>Alca torda</i>
guillemot	<i>Uria aalge</i>
razorbill or guillemot	<i>Alca torda/Uria aalge</i>
little auk	<i>Alle alle</i>
puffin?	<i>Fratercula arctica?</i>
great auk	<i>Pinguinus impennis</i>
auk family	Alcidae
thrush and chat family	Turdidae
unidentified bird	
Fish	
tope shark	<i>Galeorhinus galeus</i>
dogfish families	Scyliorhinidae/Squalidae
ray family	Rajidae
elasmobranch	elasmobranch
herring	<i>Clupea harengus</i>
eel	<i>Anguilla anguilla</i>
conger eel	<i>Conger conger</i>
salmon family	Salmonidae
rockling sp.	<i>Ciliata/Gaidropsarus</i>
saithe	<i>Pollchius virens</i>
pollack	<i>Pollachius pollachius</i>
saithe or pollack	<i>Pollachius</i>
cod	<i>Gadus morhua</i>
cod, saithe or pollack	<i>Gadus/Pollachius</i>
haddock	<i>Melanogrammus aeglefinus</i>
whiting	<i>Merlangius merlangus</i>
poor cod	<i>Trisopterus minutus</i>
Norway pout, bib or poor cod	<i>Trisopterus</i>
cod family	Gadidae
gurnard family	Triglidae

sea scorpion family	Cottidae
Atlantic horse mackerel	<i>Trachurus trachurus</i>
sea bream family	Sparidae
sea bream family?	Sparidae?
corkwing wrasse	<i>Symphodus (Crenilabrus) melops</i>
goldsinny	<i>Ctenolabrus rupestris</i>
corkwing wrasse or goldsinny	<i>Symphodus (Crenilabrus) melops/ Ctenolabrus rupestris</i>
ballan wrasse	<i>Labrus bergylta</i>
cuckoo wrasse	<i>Labrus bimaculatus</i>
ballan wrasse or cuckoo wrasse	<i>Labrus bergylta/ Labrus bimaculatus</i>
wrasse family	Labridae
eelpout	Zoarcidae
butterfish	<i>Pholis gunnellus</i>
sandeel family	Ammodytidae
Atlantic mackerel	<i>Scomber scombus</i>
perch order	Perciformes
plaice	<i>Pleuronectes platessa</i>
plaice family	Pleuronectidae
flatfish order	Heterosomata (Pleuronectiformes)
unidentified fish	

appendix vi. Estimated total length of saithe, pollack and *Pollachius* based on otolith measurement 2 from the main shell midden

otolith M2	logged measurement	total length estimate
6.31	2.82	663.81
3.77	2.48	300.31
3.58	2.44	277.32
3.89	2.50	315.15
3.61	2.45	280.91
3.8	2.48	304.00
3.45	2.42	261.96
4.19	2.55	353.35
3.46	2.42	263.13
3.05	2.34	216.68
3.2	2.37	233.31
4.7	2.63	421.73
2.34	2.16	144.08
2.35	2.16	145.03
3.16	2.36	228.83
3.35	2.40	250.36
2.53	2.21	162.48
2.43	2.18	152.70
2.32	2.15	142.18
4.97	2.66	459.61
2.69	2.25	178.57
2.38	2.17	147.89
3.11	2.35	223.28
2.06	2.07	118.40
2.17	2.11	128.28
2.75	2.27	184.74
3.39	2.41	254.98
2.67	2.25	176.53
3.36	2.40	251.51
3.66	2.46	286.92
3.47	2.42	264.31
3.93	2.51	320.16
3.44	2.42	260.80
2.39	2.17	148.84
3.3	2.39	244.63
6.03	2.79	619.00
3.46	2.42	263.13
3.52	2.43	270.19
3.47	2.42	264.31
3.82	2.49	306.46
3.71	2.47	292.98
3.47	2.42	264.31
2.6	2.23	169.46
2.29	2.14	139.36
3.92	2.50	318.90
3.57	2.44	276.13
2.47	2.19	156.59

2.27	2.14	137.49
6.75	2.87	736.42
4.28	2.56	365.11
3.8	2.48	304.00
2.44	2.19	153.67
2.88	2.30	198.36
3.89	2.50	315.15
3.57	2.44	276.13
3.6	2.45	279.71
2.29	2.14	139.36
5.3	2.71	507.44
2.34	2.16	144.08
2.25	2.13	135.63
3.91	2.50	317.65
3.72	2.47	294.20
3.45	2.42	261.96
3.74	2.47	296.63
3.27	2.38	241.21
3.44	2.42	260.80
3.51	2.43	269.01
3.76	2.48	299.08
3.34	2.40	249.21
3.16	2.36	228.83
2.37	2.17	146.93
3.76	2.48	299.08
3.86	2.49	311.42
3.62	2.45	282.11
3.71	2.47	292.98
4.63	2.61	412.09
2.16	2.11	127.37
2.48	2.20	157.56
2.7	2.25	179.60
2.39	2.17	148.84
4.7	2.63	421.73
2.47	2.19	156.59
2.41	2.18	150.77
2.63	2.24	172.48
3.99	2.52	327.72
2.77	2.27	186.82
2.04	2.07	116.64
3.66	2.46	286.92
2.96	2.32	206.91
2.36	2.16	145.98
2.51	2.21	160.51
2.98	2.32	209.07
3.12	2.35	224.39
7.14	2.90	802.96
6.54	2.85	701.44
3.85	2.49	310.18
4.32	2.57	370.38
3.64	2.45	284.51

3.35	2.40	250.36
3.34	2.40	249.21
2.32	2.15	142.18
3.53	2.43	271.38
4.37	2.58	377.00
3.51	2.43	269.01
4.09	2.53	340.45
4.09	2.53	340.45
4.11	2.54	343.02
3.99	2.52	327.72
3.88	2.50	313.91
3.2	2.37	233.31
2.55	2.22	164.46
2.63	2.24	172.48
3.92	2.50	318.90
3.75	2.47	297.86
3.25	2.38	238.95
2.91	2.30	201.56
3.23	2.37	236.69
2.17	2.11	128.28
3.81	2.48	305.23
3.33	2.39	248.06
2.62	2.23	171.47
2.53	2.21	162.48
2.37	2.17	146.93
3.28	2.38	242.35
2.87	2.30	197.31
2.6	2.23	169.46
2.66	2.24	175.52
2.58	2.22	167.45
2.27	2.14	137.49
3.82	2.49	306.46
2.48	2.20	157.56
2.65	2.24	174.50
2.3	2.15	140.30
2.82	2.28	192.04
2.67	2.25	176.53
2.48	2.20	157.56
2.95	2.31	205.84
2.97	2.32	207.99
2.66	2.24	175.52
3.34	2.40	249.21
2.46	2.19	155.61
2.41	2.18	150.77
6.15	2.80	638.07
2.4	2.18	149.80
2.81	2.28	190.99
3.63	2.45	283.31
2.28	2.14	138.43
3.76	2.48	299.08
3.78	2.48	301.53

3.65	2.46	285.71
3.57	2.44	276.13
3.59	2.44	278.51
4.71	2.63	423.11
3.72	2.47	294.20
3.34	2.40	249.21
2	2.05	113.13
4.07	2.53	337.89
3.24	2.38	237.82
3.54	2.44	272.56
2.34	2.16	144.08
2.28	2.14	138.43
3.63	2.45	283.31
7.61	2.95	885.79
5.73	2.76	572.21
5.85	2.77	590.77
3.47	2.42	264.31
3.51	2.43	269.01
4.47	2.59	390.37
3.48	2.42	265.48
3.76	2.48	299.08
3.6	2.45	279.71
2.53	2.21	162.48
3.77	2.48	300.31
2.38	2.17	147.89
2.5	2.20	159.52
3.2	2.37	233.31
2.4	2.18	149.80
2.21	2.12	131.94
3.57	2.44	276.13
5.7	2.75	567.61
3.74	2.47	296.63
2.45	2.19	154.64
3.36	2.40	251.51
3.68	2.46	289.34
3.76	2.48	299.08
2.54	2.21	163.47
2.44	2.19	153.67
3.58	2.44	277.32
3.62	2.45	282.11
3.24	2.38	237.82
3.39	2.41	254.98
2.78	2.27	187.86
3.31	2.39	245.77
2.94	2.31	204.76
2.28	2.14	138.43
3.46	2.42	263.13
3.41	2.41	257.30
3.94	2.51	321.41
3.39	2.41	254.98
2.56	2.22	165.46

3.36	2.40	251.51
2.56	2.22	165.46
2.67	2.25	176.53
2.78	2.27	187.86
3.56	2.44	274.94
3.56	2.44	274.94
2.49	2.20	158.54
3.64	2.45	284.51
3.33	2.39	248.06
3.57	2.44	276.13
2.55	2.22	164.46
2.35	2.16	145.03
3.91	2.50	317.65
2.38	2.17	147.89
2.28	2.14	138.43
2.28	2.14	138.43
3.37	2.40	252.67
2.56	2.22	165.46
3.65	2.46	285.71
2.29	2.14	139.36
6.51	2.84	696.49
3.98	2.51	326.45
4.13	2.54	345.59
2.69	2.25	178.57
3.81	2.48	305.23
3.66	2.46	286.92
2.26	2.14	136.56
2.51	2.21	160.51
6.93	2.88	766.88
5.28	2.70	504.49
2.67	2.25	176.53
3.51	2.43	269.01
3.84	2.49	308.94
2.21	2.12	131.94
2.14	2.10	125.56
2.27	2.14	137.49
2.21	2.12	131.94
2.29	2.14	139.36
5.94	2.78	604.83
5.68	2.75	564.54
3.74	2.47	296.63
2.7	2.25	179.60
5.02	2.67	466.75
4.19	2.55	353.35
4.92	2.66	452.51
4.07	2.53	337.89
4.12	2.54	344.30
5.12	2.68	481.14
2.91	2.30	201.56
3.44	2.42	260.80
2.6	2.23	169.46

3.7	2.47	291.76
3.27	2.38	241.21
2.88	2.30	198.36
2.79	2.28	188.90
3.34	2.40	249.21
2.11	2.09	122.86
3.1	2.35	222.18
3.68	2.46	289.34
2.97	2.32	207.99
3.74	2.47	296.63
2.44	2.19	153.67
2.48	2.20	157.56
3.82	2.49	306.46
5.18	2.69	489.86
3.99	2.52	327.72
3.36	2.40	251.51
3.58	2.44	277.32
2.53	2.21	162.48
3.56	2.44	274.94
2.87	2.30	197.31
2.19	2.11	130.10
3.95	2.51	322.67
2.54	2.21	163.47
2.76	2.27	185.78
2.82	2.28	192.04
2.54	2.21	163.47
2.53	2.21	162.48
2.66	2.24	175.52
3.94	2.51	321.41
3.98	2.51	326.45
2.74	2.26	183.71
2.3	2.15	140.30
2.49	2.20	158.54
2.44	2.19	153.67
3.9	2.50	316.40
5.2	2.69	492.77
3.84	2.49	308.94
3.81	2.48	305.23
4.08	2.53	339.17
3.44	2.42	260.80
3.7	2.47	291.76
4.12	2.54	344.30
3.49	2.43	266.66
4.02	2.52	331.52
3.45	2.42	261.96
3.99	2.52	327.72
3.22	2.37	235.56
3.37	2.40	252.67
3.29	2.39	243.49
3.61	2.45	280.91
3.39	2.41	254.98

3.99	2.52	327.72
3.64	2.45	284.51
3.28	2.38	242.35
2.46	2.19	155.61
