

Date (dd/mm/yy)	Time UTC (hh:mm)	Station Number	Fix Number	GPS Fix	X	Y	Intertidal Zonation & Conspicuous Fauna	Photo I.D. (Up To)
17/05/2023	17:06		1190450342	5	571664	6378479	(T9) FROM tall sand dune with Marram grass TO cobbley layer (~1-1.5m width)	35
17/05/2023	17:09		1190650341	6	571666	6378478	FROM cobbley layer/strandline, algae & anthropogenic debris, no lichen Nothing growing on cobbles	38
17/05/2023	17:12		1191850334	7	571678	6378471	Sandfly burrows, fine sand, algae debris	44
17/05/2023	17:12		1194750324	8	571707	6378461	Coarser sand with shell fragments, algae debris, no sandflies	47
17/05/2023	17:18		119615323	9	571722	6378460	Coarse sand with worm casts to cobbles	51
17/05/2023	17:26		1199350313	10	571753	6378451	Cobbles with matrix of coarse sand, shell debris, filamentous green algae on rocks, rare barnacles on higher border	65
17/05/2023	17:29		1203050299	11	571791	6378438	Increase density of rocky coverage, small amount of matrix (sand), increased coverage of filamentous green algae (no/ 1 worm cast)	74
17/05/2023	17:32		1205050299	12	571811	6378429	Pocket of coarse sand (possibly ephemeral), some worm casts, some cobbles with green algae	78
17/05/2023	17:33		1206950285	13	571829	6378424	Same as 11 - some worm casts, boulders TO low water, few ephemeral green algae, anemone (<i>Actinia equina</i>)	85
17/05/2023	17:42	15	1205250282	14	571813	6378421	Shellfish, Isopods, worms, Munsell: 10YR 5/6	89
17/05/2023	18:10		1203450200	15	571796	6378338	Kelp zone just visible at low tide (18:08) - <i>Laminaria digitata</i> - upper limit of red & brown algae before kelp, rock pools, pebbles, cobbles with coarse sand matrix - first rare attached kelp (<i>Alaria esculenta</i>), fucus spiralis present ('impoverished brown algae mix')	122
17/05/2023	18:24		1199650166	16	571758	6378304	Upper limit of red algae + kelp mix (back to green)	
17/05/2023	18:25		1197450175	17	571736	6378313	Start of bedrock outcrop, cobbles with coarse sand matrix, Northern limit of starting sandy beach with some sporadic boulders	132

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17/05/2023	18:35	14	1193550031	18	571700	6378168	Two sandeels spotted on top of sand, sample taken on top on sandbank where second sandeel was found, further sandbank with seagulls - possible indication of sandeels	140, 144
17/05/2023	19:03		1195148393	19	571740	6376530	Start of cobbley/bouldery area, algae & kelp debris	149
17/05/2023	19:09		1196648362	20	571756	6376499	Upper limit of boulder & coarse sand matrix mix, barren with a lot of kelp debris - sporadic serpulids & worm casts (very rare)	155
17/05/2023	19:18		1197248354	21	571761	6376491	Upper limit of barren boulders & lower limit of boulders with green algae, anemones, rock pools	163
17/05/2023	19:25		1198048341	22	571769	6376479	Boulders & cobbles with coarse sand matrix, green algae, barnacles but not dominant, upper limit	173
17/05/2023	19:34		1198848330	23	571778	6376467	Upper limit <i>Fucus spiralis</i> -distinct band across + <i>Fucus vesiculosus</i> , lower limit of barnacles and limpet (<i>Patella</i> sp.) domination, small amount of sand but mainly rocks of all sizes (pebbles, cobbles, boulders)	194
18/05/2023	16:14	12	1192850326	24	571688	6378463	(PSA, MF, Spare) Upper littoral below strandline, area of bare sand with some shell fragments - No conspicuous fauna	208
18/05/2023	16:22		1181550172	25	571577	6378308	Start of T8 - FROM sand dunes with marram grass TO dry sand (supralittoral), sandfly burrows, dry algal debris	212
18/05/2023	16:25		1182550168	26	571587	6378303	High water mark, a lot of wet algal debris	215
18/05/2023	16:26		1182850166	27	571591	6378302	Dune of sand on beach surrounded by more saturated sand/tidal channel	220
18/05/2023	16:28		1184850159	28	571610	6378295	Start of more boulders, mid littoral, running wet sand, shell debris, some coarser sand with some black spots, some fucus attached, rare barnacles	228
18/05/2023	16:31		1186450152	29	571627	6378288	Start of denser boulders/cobbles over matrix of coarse sand, shell debris, algae (red), kelp debris, some green algae	232
18/05/2023	16:55	10	1172549873	30	571492	6378007	FEATURE Freshwater input on beach, very saturated	239

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18/05/2023	17:03		1169249860	31	571459	6377993	(Start of T7) FROM sand dunes to sandy beach, some sandflies, some algal & anthropogenic debris	247
18/05/2023	17:06		1170749855	32	571475	6377989	High water mark, algal debris, strandline, kelp debris, rare gravel	250
18/05/2023	17:09		1172449849	33	571491	6377983	End of strandline, end of debris, plain sand	254
18/05/2023	17:12		1176949843	34	571537	6377978	FROM plain sand to sub-sea sand dune, separated by area of rippled sand (similar to 27)	258
18/05/2023	18:17	9	1176749825	35	571535	6377959	Rippled wet sand just before sandbank	
18/05/2023	18:33		1182649812	36	571593	6377948	FROM sandbank to low water spring tide with coarse sand	
18/05/2023	18:45		119575105	37	571721	6378242	(Recommencing T8 from low water line) Coarse sand, rare boulders with algae (fuzzy - possibly <i>Himantalia elongata</i>)	269
18/05/2023	18:48		1192250121	38	571685	6378258	Boulders with dominate green algae (lettuce like & hairy one), rare small barnacles	272
18/05/2023	18:53		1189350142	39	571657	6378278	Lower limit of fucus on top of boulders (occasional/not common), <i>F. vesiculosus</i> , <i>F. spiralis</i> , Periwinkle, barnacle, red algae	
18/05/2023	19:19	11	188850144	40	571651	6378280	In fucus/boulders area, isopods, fragmented shells	
18/05/2023	20:01	13	1197150322	41	571731	6378459	PSA, MF, Spare, worm casts (worms in MF sample)	291
19/05/2023	16:34		1163449345	42	571409	6377478	T5 (CL), FROM sand dunes with marram grass TO sandy beach, sandfly burrows	
19/05/2023	16:52	5	1163949346	43	571414	6377479	7.5YR 7/4, isopods, supralittoral sand (dry on surface)	295
19/05/2023	16:58		1164349343	44	571418	6377476	High water mark to more shelly, coarse sand, algal debris	299
19/05/2023	17:00		1166549346	45	571440	6377479	End of mini dune above to more flat, rippled sand mix with flat	302
19/05/2023	17:17	6	1165349347	46	571427	6377480	Upper littoral, strandline	318
19/05/2023	17:46	7	1169249335	47	571467	6377468	Mid beach	
19/05/2023	17:52		1170449335	48	571479	6377469	End of rippled wet sand, start sandbank, barren coarse sand	321

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19/05/2023	18:02		1164849613	49	571419	6377746	T6, limit marram grass sand dune TO supralittoral sandy beach with sandflies and rare plant debris	326
19/05/2023	18:05		1166149611	50	571432	6377744	High water/strandline, coarser sand with shell fragments, no sandflies, algal debris	330
19/05/2023	18:07		1167049611	51	571441	6377744	End of strandline, beginning of less coarse sand, finer shell debris, occasional algal debris (to rare), wet sand	334
19/05/2023	18:10		1171549604	52	571486	6377738	Start of wet rippled sand, barren, areas of high algae debris but generally barren	339
19/05/2023	18:13		1175049597	53	571521	6377732	Start of sandbank, completely barren, possibly coarser sand?	343
19/05/2023	18:16		1179049587	54	571561	6377721	Low water point, similar sandbank	
19/05/2023	18:44	8	1174849338	55	571523	6377472	Lower eulittoral, coarse sand	377
19/05/2023	19:05		1176149337	56	571536	6377472	Low water - same sandbank	""
19/05/2023	19:09		1176149218	57	571538	6377353	T4 (starting from LW) Low water line - same sandbank	""
19/05/2023	19:11		1170949220	58	571485	6377354	FROM sandbank to wet area of rippled sand, barren, coarse sand	352
19/05/2023	19:16		1169249219	59	571469	6377353	FROM wet rippled sand to gentle slope beach, coarse sand, barren, rare algae debris	359
19/05/2023	19:25	4	1165549219	60	571432	6377352	FEATURE Freshwater input on beach, upper eulittoral	366
19/05/2023	19:31		1164449224	61	571421	6377357	High water mark, strandline, some sandfly burrows, coarse sand with shell debris	
19/05/2023	19:41		1162149224	62	571398	6377356	Possible freshwater entryway to beach (at time of survey dried up), slopes to start of dune	374
19/05/2023	19:42		1161749225	63	571394	6377358	TO marram grass dune from beach	378
20/05/2023	07:19		1187348332	64	571663	6376468	T1, Mini dune TO supralittoral sandy beach with sandfly and isopod burrows, much less debris than seen in this area before	391
20/05/2023	07:21		1189048336	65	571680	6376472	High water mark/strandline, some burrows, some algal debris	397

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20/05/2023	07:24		1189648338	66	571685	6376474	End of strandline, start of sandy beach, shell fragments as part of strandline	402
20/05/2023	07:26		1190648343	67	571695	6376480	FEATURE end of slope with wet, rippled sand	406
20/05/2023	07:27		1191048346	68	571700	6376482	Finish of wet rippled sand TO smooth sandbank feature, rare debris	410
20/05/2023	07:31		1196148346	69	571751	6376484	End of sandy beach, start of area of boulders with coarse sand matrix, barren	414
20/05/2023	07:34		1196648344	70	571756	6376481	Beginning of green filamentous algae, small barnacles, some sand matrix, anemones	419
20/05/2023	07:37		1197848338	71	571768	6376476	F. serratus, rock pools, anemones, some barnacles, F. spiralis	424
20/05/2023	07:42		1198948338	72	571778	6376473	Both fucus + barnacles & limpets habitat on higher boulders (matrix of fucus habitat), anemones, F. vesiculosus, red algae, <i>Corallina officinalis</i> in rock pools, <i>Littorina littorea</i>	432
20/05/2023	07:51		1201648336	73	571806	6376474	Area of 3 previously described habitats (barnacles, fucus and green algae, rock pools, no more sand matrix (now gravel)	439
20/05/2023	07:56		1202848338	74	571818	6376477	First attached kelp	
20/05/2023	07:58		1203548347	75	571824	6376486	Low tide, 2 types of kelp (<i>Laminaria</i> & <i>Alaria</i> sp), no gravel (possibly bedrock), anemones and red algae	
20/05/2023	08:18	2	1194248416	76	571731	6376553	Low water, sandy beach, barren	463
20/05/2023	08:29	1	1188548403	77	571673	6376540	Lower high beach on flat area, coarse and wet sand, some isopods in sample	473
20/05/2023	08:49		1184348649	78	571628	6376785	Low tide, coarse wet sand	477
20/05/2023	08:52		1177548623	79	571560	6376758	FEATURE mid beach, rippled sand seen before supposed to be here, not wet, less shell debris	479
20/05/2023	08:53		1177148621	80	571557	6376756	Lower strandline, debris (shell, algae), isopod and/or sandfly burrows	482
20/05/2023	08:58		1176748620	81	571552	6376754	High water to sandy beach, some algae and shell debris	484

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20/05/2023	09:00		1175348615	82	571538	6376749	Sandy beach TO dune (mini), less sandfly on sandy beach (more in marram grass)	490
20/05/2023	09:06		1177448852	83	571556	6376987	Low water/tide, coarse sand	493
20/05/2023	09:08	3	1173048850	84	571512	6376984	Mid beach	500
20/05/2023	09:20						Positive interaction with member of the public - brief explanation of what we are doing (environmental sampling)	
20/05/2023	09:32		1171048848	85	571492	6376982	Lower beach, starting gentle slope, large kelp debris & areas of wet sand	504
20/05/2023	09:34		1170348847	86	571485	6376980	Lower limit of strandline, coarser sand with shell debris & black sand	507
20/05/2023	09:37		1169648846	87	571478	6376980	Upper limit of strandline TO sandy beach, lots of debris, burrows	512
20/05/2023	09:39		1168948845	88	571471	6376978	FROM beach to sand dune	518