

Table S2. Records of all *Pelagothuria* encountered on the Mountains in the Deep Expedition.

*WC = Water Column; SF = Seafloor

Dive #	Real-time annotation	Date	Time (UTC)	Latitude	Longitude	Habitat*	Depth (m)	Temp (°C)	Salinity	Oxygen (mg L ⁻¹)
3	No	5/2/2017	8:00:04	-4.58447	-162.39864	WC	956	4.46	34.5456	2.9082
3	Yes	5/3/2017	3:24:30	-4.58109	-162.39475	WC	1196	3.69	34.5677	3.2283
4	No	5/4/2017	19:55:00	-1.51222	-159.45736	WC	734	5.89	34.5470	2.3514
4	No	5/4/2017	19:56:00	-1.51218	-159.45732	WC	765	5.68	34.5457	2.2199
4	Yes	5/4/2017	20:07:00	-1.51178	-159.45745	WC	1096	4.20	34.5573	2.7155
4	Yes	5/4/2017	21:27:00	-1.51171	-159.45684	SF	1693	2.64	34.6194	3.1943
4	No	5/5/2017	2:45:30	-1.50827	-159.45482	WC	1477	3.00	34.6012	3.0627
4	Yes	5/5/2017	2:46:30	-1.50832	-159.45495	WC	1448	3.05	34.5989	3.0953
4	Yes	5/5/2017	2:47:18	-1.50829	-159.45487	WC	1433	3.07	34.5976	3.1469
4	No	5/5/2017	2:50:00	-1.50836	-159.45499	WC	1345	3.36	34.5850	2.9682
4	Yes	5/5/2017	2:53:30	-1.50832	-159.45477	WC	1238	3.81	34.5687	10.0288
4	Yes	5/5/2017	2:54:00	-1.50827	-159.45471	WC	1221	3.88	34.5676	2.8684
4	Yes	5/5/2017	2:55:00	-1.50818	-159.45461	WC	1189	4.00	34.5628	3.0332
4	Yes	5/5/2017	2:55:30	-1.50816	-159.45456	WC	1174	4.09	34.5601	3.0023
4	No	5/5/2017	2:57:00	-1.50806	-159.45444	WC	1130	4.23	34.5569	2.9915
4	No	5/5/2017	3:00:00	-1.50797	-159.45403	WC	1042	4.69	34.5463	2.9549
4	No	5/5/2017	3:00:30	-1.50789	-159.45396	WC	1027	4.78	34.5447	2.8915
4	Yes	5/5/2017	3:00:30	-1.50789	-159.45396	WC	1027	4.78	34.5447	2.8915
4	No	5/5/2017	3:01:00	-1.50784	-159.45393	WC	1013	4.84	34.5439	2.9522
4	No	5/5/2017	3:07:30	-1.50746	-159.45303	WC	821	5.68	34.5448	2.4114
4	No	5/5/2017	3:21:30	-1.50723	-159.45094	WC	393	10.45	34.7671	8.4161
4	No	5/5/2017	3:28:00	-1.50736	-159.44997	WC	197	15.42	35.1852	3.3502
5	No	5/5/2017	19:58:30	-0.39961	-159.96654	WC	789	6.04	34.5492	2.2829
5	No	5/5/2017	21:25:00	-0.39862	-159.96603	SF	785	5.73	34.5457	2.3940
5	No	5/5/2017	21:52:30	-0.39826	-159.96586	SF	770	5.92	34.5475	2.2942
5	No	5/5/2017	22:52:30	-0.39826	-159.96586	SF	770	5.92	34.5475	2.2942
5	Yes	5/5/2017	22:17:00	-0.39815	-159.96582	SF	754	6.04	34.5490	2.2944
5	No	5/5/2017	22:24:30	-0.39809	-159.96588	SF	755	6.06	34.5490	2.2814
5	No	5/5/2017	22:26:30	-0.39811	-159.9659	SF	756	6.08	34.5500	2.2190
5	Yes	5/5/2017	23:26:00	-0.39673	-159.96537	SF	678	6.32	34.5556	2.1653
5	No	5/5/2017	23:31:30	-0.39654	-159.96542	SF	673	6.34	34.5577	2.1418
5	No	5/5/2017	23:42:00	-0.39625	-159.9655	SF	651	6.81	34.5720	1.9489
5	No	5/6/2017	0:25:30	-0.39494	-159.9655	SF	551	7.48	34.5865	2.3009
5	No	5/6/2017	0:30:00	-0.39476	-159.9655	SF	539	7.49	34.5872	2.1234
5	Yes	5/6/2017	0:36:30	-0.39463	-159.96547	SF	529	7.49	34.5865	2.1267
5	Yes	5/6/2017	1:06:30	-0.39432	-159.96542	SF	517	7.49	34.5870	2.1186
5	Yes	5/6/2017	1:22:00	-0.394	-159.9653	SF	473	7.51	34.5873	2.5231
5	No	5/6/2017	1:46:30	-0.39349	-159.96516	SF	436	8.56	34.6370	1.7066
5	No	5/6/2017	2:54:00	-0.39158	-159.96579	SF	363	10.55	34.7617	1.8095
5	Yes	5/6/2017	3:13:00	-0.39129	-159.96573	SF	350	10.67	34.7685	1.8368
6	Yes	5/6/2017	20:35:00	1.32513	-159.92591	WC	1098	4.44	34.5544	2.9244
6	Yes	5/6/2017	20:35:00	1.32513	-159.92591	WC	1098	4.44	34.5544	2.9244
6	No	5/6/2017	20:46:00	1.32461	-159.9268	WC	1424	3.33	34.5915	3.2143
6	Yes	5/7/2017	1:34:00	1.32337	-159.93126	WC	1401	3.23	34.5934	2.9348
6	No	5/7/2017	2:07:30	1.323	-159.93218	WC	1149	4.12	34.5622	2.8881
6	Yes	5/7/2017	2:26:30	1.32294	-159.93265	WC	1000	4.82	34.5471	2.8454
6	No	5/7/2017	2:26:30	1.32294	-159.93265	WC	1000	4.82	34.5471	2.8454
6	Yes	5/7/2017	2:27:00	1.32294	-159.93269	WC	996	4.85	34.5467	2.8288
6	Yes	5/7/2017	2:41:30	1.32273	-159.93321	WC	751	5.98	34.5473	2.3714

Dive #	Real-time annotation	Date	Time (UTC)	Latitude	Longitude	Habitat*	Depth (m)	Temp (°C)	Salinity	Oxygen (mg L ⁻¹)
6	Yes	5/7/2017	2:44:30	1.32276	-159.93317	WC	751	6.01	34.5443	2.3726
6	Yes	5/7/2017	2:44:30	1.32276	-159.93317	WC	751	6.01	34.5443	2.3726
6	No	5/7/2017	2:54:00	1.3225	-159.93348	WC	674	6.60	34.5592	2.3707
6	Yes	5/7/2017	3:14:00	1.32237	-159.9339	WC	474	7.77	34.6012	2.3429
6	No	5/7/2017	3:16:30	1.32215	-159.93371	WC	454	7.94	34.6031	2.3534
7	Yes	5/7/2017	19:52:00	1.0837	-161.2867	WC	560	6.94	34.5736	1.8056
7	No	5/7/2017	20:32:30	1.08235	-161.28258	SF	1102	4.17	34.5632	2.6898
7	No	5/7/2017	21:28:00	1.08183	-161.28314	SF	1064	4.18	34.5630	2.5737
7	No	5/7/2017	21:37:30	1.08194	-161.28319	SF	1064	4.18	34.5619	2.6908
7	Yes	5/7/2017	21:41:30	1.08175	-161.28324	SF	1063	4.19	34.5625	2.6800
7	No	5/7/2017	22:07:00	1.08134	-161.28363	SF	1048	4.56	34.5522	2.6624
7	No	5/7/2017	23:14:30	1.08083	-161.28442	SF	1000	5.04	34.5458	2.5201
7	No	5/7/2017	23:29:30	1.08092	-161.2844	WC	993	5.01	34.5453	2.4995
7	No	5/7/2017	23:30:00	1.0809	-161.28438	WC	992	4.99	34.5477	2.5521
7	No	5/7/2017	23:46:00	1.08125	-161.28462	WC	992	4.94	34.5460	2.5415
7	No	5/7/2017	23:49:30	1.08089	-161.28441	WC	993	4.95	34.5465	2.5316
7	No	5/8/2017	0:15:00	1.08038	-161.28461	SF	980	4.93	34.5467	2.5655
7	No	5/8/2017	0:17:30	1.08043	-161.28468	SF	980	4.93	34.5463	2.6102
7	Yes	5/8/2017	0:15:30	1.08045	-161.2847	SF	978	4.94	34.5456	2.5169
7	No	5/8/2017	3:01:30	1.07814	-161.28659	WC	858	5.28	34.5450	2.3927
7	Yes	5/8/2017	3:02:30	1.07823	-161.28651	WC	850	5.54	34.5428	2.4011
7	No	5/8/2017	3:04:30	1.07834	-161.28656	WC	798	5.87	34.5471	2.2883
7	No	5/8/2017	3:05:00	1.07835	-161.2866	WC	783	5.95	34.5479	2.2838
7	yes	5/8/2017	3:09:00	1.07847	-161.28668	WC	666	6.69	34.5596	2.0731
7	No	5/8/2017	3:09:30	1.07846	-161.2867	WC	651	6.80	34.5661	2.0345
7	Yes	5/8/2017	3:10:00	1.07845	-161.28681	WC	638	6.93	34.5703	1.9746
7	No	5/8/2017	3:12:30	1.07842	-161.28715	WC	566	7.46	34.5910	1.8539
7	No	5/8/2017	3:26:00	1.07697	-161.28684	WC	502	7.65	34.5925	1.7654
8	No	5/8/2017	19:50:30	0.97639	-162.37845	WC	424	8.71	34.6360	1.7434
8	No	5/8/2017	20:01:30	0.97612	-162.37943	WC	764	5.60	34.5433	2.2008
8	No	5/8/2017	20:09:00	0.97627	-162.3796	WC	978	4.69	34.5508	2.5459
8	No	5/8/2017	20:09:30	0.97625	-162.37959	WC	995	4.63	34.5514	2.5779
8	No	5/8/2017	20:11:00	0.97622	-162.37961	WC	1040	4.39	34.5562	2.4748
8	No	5/8/2017	22:07:30	0.97639	-162.37976	WC	4441	1.30	34.6988	5.2668
9	No	5/10/2017	19:41:30	5.85295	-162.51034	WC	253	10.56	34.6989	0.8108
9	No	5/10/2017	19:47:30	5.85301	-162.51055	WC	437	8.64	34.6293	0.4032
9	Yes	5/10/2017	20:09:00	5.8527	-162.51034	WC	1088	4.01	34.5736	1.8976
9	No	5/10/2017	20:45:00	5.8527	-162.51034	WC	2136	2.13	34.6483	3.1195
9	Yes	5/10/2017	22:58:00	5.85248	-162.51029	WC	1472	3.15	34.6001	2.2658
9	No	5/10/2017	23:08:30	5.85263	-162.50896	WC	1161	3.86	34.5760	1.9729
9	No	5/10/2017	23:18:00	5.85263	-162.50896	WC	865	5.24	34.5527	1.2109
9	No	5/10/2017	23:26:30	5.85263	-162.50896	WC	623	6.94	34.5667	0.6523
11	No	5/12/2017	20:09:00	6.36532	-162.30589	WC	997	4.61	34.5588	1.6107
11	No	5/12/2017	23:36:00	6.36546	-162.30682	WC	705	6.47	34.5535	0.6564
11	No	5/12/2017	23:43:30	6.36512	-162.30663	WC	487	8.31	34.6150	0.2677
12	Yes	5/13/2017	19:43:00	6.41882	-162.21648	WC	694	6.42	34.5558	0.3790
12	No	5/13/2017	20:30:30	6.41703	-162.21499	WC	2149	2.11	34.6473	2.9922
12	No	5/14/2017	4:29:00	6.41703	-162.21499	WC	557	7.44	34.5828	0.2484