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Appendices

Appendix A. Position , date and time of survey station

Station no.	Latitude	Longitude	Bottom Depth (m)	September 1995		April-May 1996	
				Date	Time	Date	Time
1	12.3	100.25	29	5/09/95	6:36:00	24/04/96	6:18:35
2	12.3	100.75	29	5/09/95	11:09:00	24/04/96	12:15:00
3	12.3	101.25	33	5/09/95	15:42:00	24/04/96	17:13:56
4	12.3	101.75	28	5/09/95	19:38:00	24/04/96	21:30:00
5	11.8	102.25	31	6/09/95	7:00:00	25/04/96	6:30:00
6	11.8	101.75	53	6/09/95	11:08:00	25/04/96	11:06:25
7	11.8	101.25	48	6/09/95	15:12:00	25/04/96	15:56:25
8	11.8	100.75	40	6/09/95	19:18:00	25/04/96	20:10:22
9	11.8	100.25	38	7/09/95	6:49:00	26/04/96	6:30:00
10	11.3	100.25	49	7/09/95	11:00:00	26/04/96	10:25:00
11	11.3	100.75	54	7/09/95	15:14:00	26/04/96	15:30:00
12	11.3	101.25	62	7/09/95	19:04:00	26/04/96	19:50:00
13	10.8	101.25	64	8/09/95	6:41:00	27/04/96	6:35:00
14	10.8	100.75	60	8/09/95	13:12:00	27/04/96	11:35:00
15	10.8	100.25	56	8/09/95	17:11:00	27/04/96	16:25:00
16	10.8	99.75	51	8/09/95	21:25:00	27/04/96	20:30:00
17	10.3	99.75	47	9/09/95	7:07:00	28/04/96	6:30:00
18	10.3	100.25	63	9/09/95	12:05:00	28/04/96	10:53:00
19	10.3	100.75	65	9/09/95	16:43:00	28/04/96	15:20:00
20	10.3	101.25	67	9/09/95	20:48:00	28/04/96	19:30:00
21	9.8	101.25	71	10/09/95	6:43:00	28/04/96	16:30:00
22	9.8	100.75	60	10/09/95	10:51:00	29/04/96	11:02:28
23	9.8	100.25	37	10/09/95	15:06:00	29/04/96	15:15:00
24	9.3	100.25	30	10/09/95	19:13:00	29/04/96	19:15:00
25	9.3	100.75	43	12/09/95	6:46:00	1/05/96	6:40:00
26	9.3	101.25	65	12/09/95	11:32:00	1/05/96	11:09:01
27	8.8	101.75	77			2/05/96	22:20:00
28	8.8	101.25	60	12/09/95	16:11:00	1/05/96	16:11:23
29	8.8	100.75	32	12/09/95	20:14:00	1/05/96	20:59:14
30	8.8	100.25	25	13/09/95	6:43:00	2/05/96	6:35:00
31	8.3	100.75	29	13/09/95	12:14:00	2/05/96	11:55:00
32	8.3	101.25	54	13/09/95	16:18:00	2/05/96	15:58:58
33	8.3	101.75	73	13/09/95	20:31:00	3/05/96	6:35:00
34	8.3	102.25	77	14/09/95	6:26:00	3/05/96	10:55:00
35	7.8	102.75	72	14/09/95	12:56:00	3/05/96	16:35:00
36	7.8	102.25	74	14/09/95	17:24:00	3/05/96	20:45:00
37	7.8	101.75	62	14/09/95	21:51:00	4/05/96	6:40:00
38	7.8	101.25	50	15/09/95	6:29:00	4/05/96	11:01:34
39	7.8	100.75	28	15/09/95	10:43:00	4/05/96	15:01:38
40	7.3	100.75	22	15/09/95	14:47:00	4/05/96	18:58:57
41	7.3	101.25	43	15/09/95	18:48:00	6/05/96	6:25:00
42	7.3	101.75	51	17/09/95	9:46:00	6/05/96	10:40:00
43	7.3	102.25	52	17/09/95	13:57:00	6/05/96	14:54:35

Appendix A. (Continue)

Station no.	Latitude	Longitude	Bottom Depth (m)	September 1995		April-May 1996	
				Date	Time	Date	Time
44	7.3	102.75	54	17/09/95	18:18:00	6/05/96	19:04:21
45	7.3	103.25	56	18/09/95	6:29:00	7/05/96	6:25:00
46	7.3	103.75	48	18/09/95	11:25:00	7/05/96	10:50:00
47	6.8	104.25	60	18/09/95	16:41:00	7/05/96	16:15:00
48	6.8	103.75	58	18/09/95	23:21:00	7/05/96	20:22:00
49	6.8	103.25	54	19/09/95	6:27:00	8/05/96	6:23:00
50	6.8	102.75	52	19/09/95	11:15:00	8/05/96	11:07:04
51	6.8	102.25	49	19/09/95	15:31:00	8/05/96	15:35:00
52	6.3	102.75	39	19/09/95	21:08:00	8/05/96	20:53:15
53	6.3	103.25	53	20/09/95	6:31:00	9/05/96	6:25:00
54	6.3	103.75	62	20/09/95	10:51:00	9/05/96	10:40:00
55	6.3	104.25	61	20/09/95	15:36:00	9/05/96	14:55:35
56	6.3	104.75	61	20/09/95	19:51:00	9/05/96	19:03:54
57	6.3	105.25	60	21/09/95	6:14:00	10/05/96	6:15:00
58	5.8	104.75	62	21/09/95	11:42:00	10/05/96	11:45:00
59	5.8	104.25	64	21/09/95	16:19:00	10/05/96	16:02:22
60	5.8	103.75	58	21/09/95	20:42:00	10/05/96	20:30:00
61	5.8	103.25	49	23/09/95	6:24:00	12/05/96	6:45:00
62	5.3	103.75	60	23/09/95	13:01:00	12/05/96	12:25:00
63	5.3	104.25	65	23/09/95	17:07:00	12/05/96	15:41:54
64	4.8	103.75	60	23/09/95	22:48:00	12/05/96	10:30:00
65	4.8	104.25	65	24/09/95	9:51:00	13/05/96	9:02:13
66	4.8	104.75	73	24/09/95	14:11:00	13/05/96	14:24:00
67	4.8	105.25	77	24/09/95	18:29:00	13/05/96	18:35:00
68	4.3	104.75	74	25/09/95	6:35:00	14/05/96	6:20:00
69	4.3	104.25	67	25/09/95	11:11:00	14/05/96	10:02:15
70	4.3	103.75	40	25/09/95	15:26:00	14/05/96	15:25:00
71	3.8	103.75	31	25/09/95	19:42:00	14/05/96	19:40:00
72	3.8	104.2	56	26/09/95	6:26:00	15/05/96	6:20:00
73	3.8	104.75	72	26/09/95	11:06:00	15/05/96	9:26:00
74	3.3	104.75	68	26/09/95	15:20:00	15/05/96	13:57:00
75	3.3	104.2	54	26/09/95	19:26:00	15/05/96	18:05:53
76	3.3	103.75	26	27/09/95	6:11:00	16/05/96	5:13:00
77	2.8	104.25	48	27/09/95	11:35:00	16/05/96	11:22:00
78	2.8	104.75	65	27/09/95	15:48:00	16/05/96	15:39:00
79	2.3	104.75	62	27/09/95	20:10:00	16/05/96	19:50:00
80	2.3	104.25	32	28/09/95	5:55:00	17/05/96	5:14:00
81	1.8	104.75	56	28/09/95	11:22:00	17/05/96	11:01:51

Appendix B. Temperature, salinity, sigma-theta, dissolved oxygen, apparent oxygen utilization, nitrate, preformed nitrate, fluorescense and relative abundance of pelagic fish in the Gulf of Thailand and east coast of Peninsular Malaysia during Sepetember 1995.

St no.	Depth [m]	Temp [°C]	Sal [psu]	Sigma-t (kg/m ³)	DO [ml/l]	AOU [ml/l]	Nitrate [uM]	Pre-No ₃ [uM]	Flur [V]	Chl-a [mg/m ³]	Relative pelagic abundance (no./10 ³ ton)
1	2.5	29.520	32.968	20.368	4.405	-0.043	0.23	0.445	2.880	0.069	34.4
	4.5	29.489	32.966	20.377	4.449	-0.085	0.25	0.673	2.732	0.067	
	10.4	29.493	32.966	20.377	4.500	-0.137	0.27	0.949	2.348	0.063	
	20.4	29.462	32.989	20.405	4.447	-0.082	0.3	0.708	1.762	0.056	
	21.4	29.485	32.975	20.387	4.383	-0.020	0.26	0.357	1.119	0.049	
2	3.5	29.033	33.089	20.621	4.434	-0.041	0.37	0.573	4.126	0.083	46.5
	4.5	29.033	33.091	20.624	4.458	-0.066	0.38	0.707	3.847	0.080	
	10.4	29.027	33.092	20.627	4.491	-0.099	0.34	0.831	4.164	0.083	
	15.4	29.028	33.093	20.627	4.489	-0.097	0.35	0.832	4.627	0.089	
	20.4	29.028	33.093	20.628	4.416	-0.024	0.35	0.469	5.280	0.096	
27.3	29.030	33.095	20.629	4.274	0.118	0.4	-0.184	4.969	0.092		
3	1.5	28.907	32.953	20.561	4.446	-0.041	0.3	0.506	3.226	0.073	44.4
	4.5	28.913	32.952	20.559	4.490	-0.086	0.33	0.756	3.726	0.078	
	10.4	28.892	32.952	20.566	4.542	-0.136	0.31	0.986	3.154	0.072	
	15.4	28.885	32.953	20.569	4.455	-0.049	0.27	0.512	3.228	0.073	
	20.4	28.870	32.949	20.572	4.446	-0.039	0.33	0.523	3.215	0.072	
28.3	28.869	32.950	20.574	4.362	0.045	0.31	0.085	3.900	0.080		
4	2.5	28.773	32.722	20.433	4.522	-0.102	0.31	0.815	1.680	0.055	19.7
	4.5	28.775	32.725	20.434	4.477	-0.057	0.23	0.511	1.731	0.056	
	9.4	28.779	32.723	20.432	4.532	-0.130	0.26	0.904	1.883	0.057	
	15.4	28.845	32.786	20.457	4.463	-0.049	0.27	0.515	1.660	0.055	
	20.4	28.887	32.848	20.491	4.402	0.007	0.24	0.205	3.377	0.074	
5	1.5	28.438	31.165	19.374	4.524	-0.035	0.18	0.352	2.353	0.063	40.2
	4.5	28.427	31.142	19.361	4.542	-0.052	0.24	0.499	2.261	0.062	
	10.4	28.405	31.404	19.565	4.720	-0.236	0.22	1.391	2.318	0.062	
	15.4	28.639	32.721	20.477	4.798	-0.368	0.26	2.085	2.535	0.065	
	20.4	28.874	32.910	20.541	4.838	-0.430	0.36	2.491	3.265	0.073	
	30.3	29.054	32.793	20.395	5.368	-0.969	0.46	5.268	4.332	0.085	
6	2.5	28.959	32.966	20.554	4.484	-0.084	0.3	0.716	3.578	0.077	19.8
	4.5	28.941	32.968	20.561	4.422	-0.020	0.38	0.482	3.534	0.076	
	10.4	28.938	32.968	20.563	4.475	-0.073	0.3	0.660	3.526	0.076	
	20.4	28.938	32.970	20.565	4.470	-0.068	0.29	0.626	4.349	0.085	
	30.3	28.940	32.971	20.566	4.480	-0.078	0.35	0.735	3.963	0.081	
	40.3	28.942	32.973	20.567	4.428	-0.027	0.27	0.402	3.948	0.081	

Appendix B. (Continue)

St no.	Depth [m]	Temp [°C]	Sal [psu]	Sigma-t (kg/m ³)	DO [ml/l]	AOU [ml/l]	Nitrate [uM]	Pre-NO ₃ [uM]	Flur [V]	Chl-a [mg/m ³]	Relative pelagic abundance (no./10 ³ ton)
6	48.2	28.943	32.975	20.569	4.516	-0.115	0.26	0.828	5.773	0.102	
7	3.5	28.967	33.061	20.623	4.517	-0.120	0.34	0.935	3.955	0.081	21.7
	5.5	28.953	33.061	20.628	4.471	-0.072	0.33	0.688	4.051	0.082	
	10.4	28.949	33.065	20.632	4.352	0.046	0.25	0.020	3.507	0.076	
	20.4	28.948	33.065	20.633	4.365	0.034	0.22	0.053	3.479	0.075	
	30.3	28.937	33.063	20.637	4.315	0.084	0.25	-0.169	3.520	0.076	
	40.3	28.909	33.061	20.644	4.285	0.117	0.32	-0.259	3.174	0.072	
	49.2	28.911	33.061	20.645	4.263	0.138	0.32	-0.365	3.258	0.073	
8	5.5	28.808	33.171	20.758	4.489	-0.082	0.26	0.669	2.287	0.062	19.3
	10.4	28.809	33.171	20.758	4.458	-0.052	0.3	0.560	2.488	0.064	
	20.4	28.815	33.172	20.758	4.439	-0.033	0.35	0.516	2.849	0.068	
	30.3	28.812	33.172	20.759	4.481	-0.076	0.17	0.548	2.484	0.064	8.0
	35.3	28.811	33.174	20.761	4.466	-0.061	0.21	0.512	2.737	0.067	
9	6.5	28.777	33.224	20.808	4.531	-0.125	0.3	0.921	4.115	0.083	55.3
	10.4	28.742	33.225	20.820	4.453	-0.044	0.24	0.458	3.482	0.075	
	20.4	28.745	33.225	20.820	4.438	-0.030	0.25	0.398	5.234	0.095	
	30.3	28.747	33.225	20.821	4.384	0.025	0.34	0.218	3.223	0.073	
	35.3	28.746	33.225	20.822	4.331	0.077	0.27	-0.113	3.183	0.072	
10	4.5	28.649	33.170	20.810	4.464	-0.048	0.2	0.436	4.206	0.084	10.2
	10.4	28.631	33.172	20.817	4.445	-0.027	0.23	0.363	4.258	0.084	
	20.4	28.615	33.175	20.825	4.410	0.009	0.29	0.247	5.774	0.102	
	30.3	28.611	33.180	20.831	4.347	0.072	0.25	-0.110	5.794	0.102	
	40.3	28.622	33.192	20.838	4.372	0.046	0.24	0.012	5.622	0.100	
	45.2	28.627	33.198	20.841	4.359	0.058	0.25	-0.038	5.194	0.095	
11	10.4	28.904	33.155	20.715	4.508	-0.109	0.17	0.710	2.269	0.062	7.1
	20.4	28.820	33.167	20.752	4.338	0.067	0.13	-0.202	2.579	0.065	
	30.3	28.729	33.202	20.809	4.274	0.136	0.14	-0.537	3.746	0.079	
	40.3	28.700	33.254	20.859	4.176	0.234	0.12	-1.043	3.733	0.078	
	49.2	28.688	33.290	20.890	4.116	0.295	0.16	-1.302	1.516	0.053	
12	2.5	28.975	32.856	20.466	4.464	-0.061	0.24	0.542	2.191	0.061	11.0
	4.5	28.974	32.856	20.466	4.468	-0.066	0.35	0.676	2.175	0.061	
	10.4	28.964	32.853	20.468	4.412	-0.008	0.36	0.402	2.218	0.061	
	20.4	28.977	32.879	20.484	4.482	-0.080	0.35	0.746	2.286	0.062	
	30.3	28.936	32.984	20.577	4.342	0.060	0.32	0.023	3.039	0.070	

Appendix B. (Continue)

St no.	Depth [m]	Temp [°C]	Sal [psu]	Sigma-t (kg/m ³)	DO [ml/l]	AOU [ml/l]	Nitrate [uM]	Pre-No ₃ [uM]	Flur [V]	Chl-a [mg/m ³]	Relative pelagic abundance (no./10 ³ ton)
12	50.2	28.905	33.039	20.630	4.382	0.020	0.36	0.259	2.714	0.067	
	54.2	28.894	33.057	20.647	4.373	0.030	0.31	0.161	2.721	0.067	
14	1.5	29.108	32.819	20.394	4.487	-0.093	0.16	0.621	0.618	0.043	1.8
	4.5	29.032	32.774	20.386	4.439	-0.039	0.23	0.422	1.106	0.048	
	10.4	29.032	32.774	20.386	4.298	0.102	0.19	-0.318	1.188	0.049	
	20.4	28.973	32.773	20.406	4.360	0.045	0.3	0.076	1.838	0.057	
	30.3	28.973	32.772	20.406	4.347	0.058	0.38	0.092	2.065	0.059	
	40.3	28.971	32.775	20.410	4.326	0.079	0.52	0.127	1.967	0.058	
	50.2	28.971	32.777	20.412	4.333	0.072	0.43	0.074	2.100	0.060	
	57.2	28.972	32.781	20.415	4.243	0.161	0.39	-0.410	1.848	0.057	
15	2.5	29.111	32.838	20.407	4.490	-0.097	0.4	0.879	1.551	0.053	23.0
	4.5	29.112	32.830	20.401	4.443	-0.049	0.43	0.673	1.584	0.054	
	10.4	29.048	32.827	20.421	4.448	-0.050	0.47	0.719	1.339	0.051	
	20.4	28.877	32.827	20.478	4.461	-0.051	0.44	0.692	1.593	0.054	
	30.3	28.862	32.830	20.486	4.412	-0.001	0.52	0.523	2.392	0.063	
	40.3	28.860	32.834	20.491	4.392	0.019	0.44	0.347	2.291	0.062	
	50.2	28.864	32.837	20.492	4.373	0.038	0.36	0.172	2.440	0.064	
	53.2	28.865	32.839	20.494		0.039	0.3	0.108	2.351	0.063	
16	1.5	28.893	32.894	20.521	4.424	-0.017	0.18	0.263	2.112	0.060	24.7
	4.5	28.903	32.893	20.518	4.522	-0.116	0.23	0.805	2.196	0.061	
	10.4	28.902	32.893	20.518	4.415	-0.008	0.21	0.252	2.213	0.061	
	20.4	28.912	32.893	20.516	4.430	-0.024	0.23	0.349	2.137	0.060	
	30.3	28.910	32.893	20.518	4.448	-0.042	0.23	0.437	2.226	0.061	
	35.3	28.874	32.890	20.528	4.444	-0.035	0.21	0.384	2.432	0.064	
	40.3	28.852	32.889	20.534	4.437	-0.027	0.35	0.482	3.083	0.071	
	47.2	28.839	32.901	20.549	4.357	0.054	0.23	-0.036	2.776	0.067	
17	1.5	28.783	32.926	20.582	4.455	-0.041	0.11	0.314	1.151	0.049	4.0
	4.5	28.700	32.939	20.619	4.523	-0.104	0.11	0.625	1.120	0.049	
	10.4	28.698	32.941	20.622	4.473	-0.054	0.18	0.446	1.223	0.050	
	20.4	28.707	32.942	20.621	4.463	-0.044	0.21	0.429	1.230	0.050	
	30.3	28.711	32.979	20.648	4.446	-0.028	0.18	0.321	1.224	0.050	
	35.3	28.986	33.655	21.065	4.208	0.171	2.35	1.500	1.933	0.058	
	40.3	28.922	33.674	21.100	3.894	0.489	1.98	-0.446	4.919	0.092	
18	2.5	28.954	32.808	20.437	4.405	0.001	0.25	0.246	0.578	0.042	0.2
	4.5	28.958	32.808	20.436	4.514	-0.109	0.14	0.680	0.585	0.042	

Appendix B. (Continue)

St no.	Depth [m]	Temp [°C]	Sal [psu]	Sigma-t (kg/m ³)	DO [ml/l]	AOU [ml/l]	Nitrate [uM]	Pre-No ₃ [uM]	Flur [V]	Chl-a [mg/m ³]	Relative pelagic abundance (no./10 ³ ton)
18	30.3	28.846	32.805	20.472	4.231	0.182	0.11	-0.791	1.025	0.047	
	40.3	28.391	33.469	21.121	4.155	0.272	0.6	-0.749	2.060	0.059	3.8
	50.2	28.154	33.800	21.448	3.590	0.845	2.23	-1.960	5.992	0.104	
	57.2	28.155	33.800	21.449	3.471	0.963	2.35	-2.428	5.411	0.097	
19	4.5	29.170	32.835	20.385	4.506	-0.117	0.04	0.829	3.924	0.081	2.6
	10.4	29.133	32.822	20.389	4.462	-0.070	0.16	0.487	3.350	0.074	
	15.4	29.053	32.810	20.407	4.451	-0.053	0.16	0.422	4.803	0.091	
	20.4	28.921	32.796	20.440	4.437	-0.029	0.14	0.325	3.618	0.077	
	30.3	28.899	32.804	20.455	4.397	0.012	0.28	0.049	0.687	0.044	
	40.3	28.877	32.824	20.477	4.375	0.036	0.25	0.424	1.572	0.054	
	50.2	27.779	33.859	21.615	4.054	0.406	1.86	0.218	2.962	0.070	
	60.1	27.776	33.856	21.614	3.585	0.875	2.16	-1.990	4.579	0.088	
20	1.5	29.124	32.742	20.331	4.498	-0.102	0.32	0.827	0.235	0.038	16.4
	10.4	29.045	32.744	20.359	4.506	-0.105	0.37	0.891	0.135	0.037	
	20.4	28.992	32.748	20.381	4.502	-0.097	0.32	0.803	0.167	0.038	
	30.3	28.992	32.762	20.392	4.513	-0.109	0.37	0.911	0.300	0.039	
	40.3	28.982	32.765	20.399	4.518	-0.113	0.3	0.863	0.500	0.042	
	50.2	28.969	32.768	20.406	4.501	-0.095	0.3	0.772	0.724	0.044	
	60.1	28.064	33.875	21.535	4.012	0.427	2	-0.119	3.425	0.075	
21	5.5	29.046	32.835	20.427	4.478	-0.080	0.11	0.508	0.443	0.041	3.2
	10.4	29.006	32.837	20.442	4.529	-0.129	0.18	0.818	0.381	0.040	
	20.4	29.010	32.842	20.445	4.400	0.001	0.11	0.107	0.383	0.040	
	25.4	29.003	32.890	20.484	4.379	0.020	0.07	-0.031	0.341	0.040	
	30.3	29.042	32.975	20.535	4.347	0.048	0.14	-0.096	0.392	0.040	
	40.3	28.986	33.015	20.585	4.369	0.028	0.09	-0.048	0.507	0.042	
	45.2	29.113	33.246	20.716	4.250	0.132	0.09	-0.567	0.832	0.045	
	50.2	27.634	33.896	21.689	3.861	0.608	1.21	-1.805	3.921	0.080	0.9
	60.1	27.615	33.895	21.695	3.532	0.938	1.86	-2.793	3.582	0.077	
	66.1	27.616	33.895	21.696	3.513	0.958	1.86	-2.890	3.480	0.075	
22	2.5	28.872	33.005	20.612	4.511	-0.105	0.11	0.630	0.878	0.046	0.2
	10.4	28.858	32.986	20.603	4.440	-0.032	0.09	0.251	1.116	0.049	
	20.4	28.855	32.987	20.605	4.380	0.027	0.11	-0.025	1.138	0.049	
	30.3	28.857	32.988	20.606	4.405	0.002	0.21	0.200	1.241	0.050	
	40.3	27.564	33.911	21.722	3.988	0.486	1.26	-1.149	5.182	0.095	0.6
	50.2	27.533	33.910	21.732	3.715	0.761	1.56	-2.216	5.609	0.100	
	55.2	27.512	33.909	21.739	3.622	0.856	1.67	-2.574	5.048	0.093	

Appendix B. (Continue)

St no.	Depth [m]	Temp [°C]	Sal [psu]	Sigma-t (kg/m ³)	DO [ml/l]	AOU [ml/l]	Nitrate [uM]	Pre-NO ₃ [uM]	Flur [V]	Chl-a [mg/m ³]	Relative pelagic abundance (no./10 ³ ton)
23	0.5	28.896	32.928	20.546	4.438	-0.031	0.16	0.316	1.024	0.047	14.6
	4.5	28.905	32.929	20.544	4.524	-0.119	0.25	0.840	1.043	0.048	
	10.4	28.835	32.937	20.574	4.459	-0.049	0.23	0.474	1.311	0.051	
	20.4	28.785	32.962	20.610	4.444	-0.032	0.21	0.367	1.460	0.052	
	29.3	28.787	32.984	20.626	4.415	-0.003	0.21	0.223	1.625	0.054	
24	2.5	29.252	33.092	20.551	4.473	-0.096	0.23	0.707	0.827	0.045	23.2
	4.5	29.235	33.087	20.553	4.437	-0.059	0.28	0.573	0.807	0.045	
	10.4	29.140	33.068	20.571	4.431	-0.046	0.3	0.527	0.834	0.045	
	15.4	29.061	33.057	20.590	4.483	-0.092	0.25	0.708	0.857	0.046	
	20.4	29.059	33.071	20.601	4.485	-0.095	0.28	0.749	0.877	0.046	
	26.3	29.206	33.229	20.671	4.318	0.058	0.32	0.033	1.973	0.058	
25	1.5	28.994	33.060	20.612	4.477	-0.081	0.25	0.654	1.187	0.049	29.2
	4.5	28.903	33.058	20.642	4.452	-0.050	0.3	0.547	1.214	0.050	
	10.4	28.895	33.059	20.645	4.241	0.161	0.3	-0.500	1.223	0.050	
	20.4	28.900	33.060	20.646	4.349	0.053	0.28	0.016	1.165	0.049	
	30.3	28.904	33.063	20.647	4.412	-0.010	0.28	0.331	1.167	0.049	
	34.3	28.235	33.652	21.310	4.387	0.046	0.42	0.193	1.355	0.051	
26	0.5	29.274	32.869	20.376	4.497	-0.115	0.36	0.932	0.955	0.047	2.6
	10.4	29.256	32.871	20.385	4.485	-0.102	0.25	0.757	0.862	0.046	
	20.4	29.255	32.872	20.386	4.323	0.060	0.21	-0.086	1.119	0.049	
	30.3	29.257	32.872	20.386	4.384	-0.001	0.19	0.197	1.438	0.052	
	40.3	29.255	32.887	20.399	4.365	0.017	0.23	0.144	1.724	0.055	
	45.2	28.167	33.476	21.200	4.183	0.259	0.32	-0.967	2.991	0.070	2.6
	50.2	27.096	33.920	21.879	3.567	0.941	2.53	-2.137	5.043	0.093	
	60.2	27.095	33.920	21.881	3.330	1.177	2.44	-3.399	4.324	0.085	
28	3.5	29.393	32.872	20.339	4.513	-0.140	0.27	0.964	1.207	0.050	2.3
	4.5	29.394	32.871	20.338	4.509	-0.136	0.27	0.946	1.181	0.049	
	10.4	29.387	32.871	20.341	4.389	-0.015	0.3	0.376	1.152	0.049	
	20.4	29.309	32.867	20.364	4.348	0.031	0.27	0.118	1.475	0.053	
	30.3	29.299	32.867	20.369	4.342	0.038	0.3	0.113	1.865	0.057	
	40.3	29.155	32.974	20.497	4.305	0.082	0.3	-0.104	2.692	0.066	
	50.2	27.189	33.858	21.804	3.546	0.957	2.73	-2.016	4.566	0.088	
	55.2	27.177	33.861	21.810	3.305	1.199	2.79	-3.155	3.938	0.081	
29	5.5	29.400	33.310	20.665	4.483	-0.122	0.36	0.967	1.766	0.056	34.5
	10.4	29.399	33.311	20.667	4.443	-0.082	0.38	0.789	1.544	0.053	

Appendix B. (Continue)

St no.	Depth [m]	Temp [°C]	Sal [psu]	Sigma-t (kg/m ³)	DO [ml/l]	AOU [ml/l]	Nitrate [uM]	Pre-NO ₃ [uM]	Flur [V]	Chl-a [mg/m ³]	Relative pelagic abundance (no./10 ³ ton)
29	20.4	29.403	33.314	20.668	4.345	0.016	0.38	0.303	1.442	0.052	
	29.3	29.270	33.344	20.736	4.354	0.015	0.5	0.427	2.253	0.061	
30	5.5	29.216	33.151	20.607	4.421	-0.043	0.38	0.594	1.863	0.057	35.9
	10.4	29.206	33.153	20.613	4.505	-0.126	0.36	0.987	1.762	0.056	
	15.4	29.214	33.155	20.612	4.384	-0.006	0.41	0.441	1.979	0.058	
	20.4	29.215	33.165	20.619	4.284	0.094	0.45	-0.015	1.749	0.056	
31	1.5	29.516	32.841	20.274	4.442	-0.077	0.43	0.811	0.909	0.046	14.0
	4.5	29.512	32.842	20.277	4.453	-0.088	0.52	0.955	0.982	0.047	
	10.4	29.378	32.840	20.321	4.470	-0.095	0.47	0.942	1.170	0.049	
	20.4	29.323	32.842	20.341	4.338	0.041	0.56	0.357	2.464	0.064	
	25.4	29.322	32.843	20.343	4.308	0.071	0.47	0.119	2.749	0.067	
32	0.5	29.413	32.895	20.349	4.413	-0.042	1.44	1.649	0.714	0.044	6.3
	10.4	29.370	32.894	20.364	4.362	0.012	0.63	0.569	0.720	0.044	
	20.4	29.194	32.906	20.432	4.386	-0.001	0.54	0.543	0.855	0.046	
	30.3	29.146	32.923	20.462	4.384	0.005	1.45	1.424	0.921	0.046	
	40.3	29.150	33.005	20.523	4.395	-0.009	0.65	0.694	1.609	0.054	
	45.2	28.495	33.360	21.006	4.349	0.073	0.52	0.157	3.056	0.071	
33	50.2	27.797	33.709	21.496	3.363	1.099	2.75	-2.702	7.331	0.119	
	5.5	28.910	32.814	20.457	4.507	-0.099	0.01	0.500	1.002	0.047	14.5
	10.4	28.899	32.816	20.462	4.404	0.005	0.22	0.197	1.226	0.050	
	20.4	28.894	32.813	20.462	4.433	-0.023	0.28	0.395	1.914	0.058	
	30.3	28.725	32.791	20.502	4.458	-0.036	0.1	0.279	1.566	0.054	
	40.3	28.752	32.883	20.563	4.413	0.004	0.13	0.110	3.116	0.071	
	45.2	28.581	33.187	20.848	4.245	0.176	0.19	-0.682	3.148	0.072	
	50.2	27.766	33.603	21.427	3.985	0.482	0.33	-2.062	2.977	0.070	
	60.2	27.526	33.780	21.638	3.412	1.068	2.37	-2.928	5.430	0.098	
70.1	27.523	33.853	21.694	3.180	1.298	3.2	-3.239	3.449	0.075		
34	2.5	29.049	32.905	20.478	4.556	-0.160	0.01	0.801	1.039	0.048	10.8
	10.4	29.051	32.907	20.479	4.459	-0.063	0.04	0.352	1.067	0.048	
	20.4	29.056	32.908	20.480	4.435	-0.039	0.13	0.325	1.103	0.048	
	40.3	28.981	32.953	20.540	4.387	0.013	0.01	-0.053	1.708	0.055	
	50.2	28.652	33.287	20.900	4.304	0.110	0.25	-0.293	2.108	0.060	
	60.2	27.963	33.563	21.334	3.781	0.673	1.46	-1.881	2.767	0.067	0.2
	70.1	27.601	33.739	21.583	3.452	1.023	2.52	-2.556	2.122	0.060	
	74.1	27.595	33.742	21.588	3.380	1.096	3.14	-2.295	2.052	0.059	

Appendix B. (Continue)

St no.	Depth [m]	Temp [°C]	Sal [psu]	Sigma-t (kg/m ³)	DO [ml/l]	AOU [ml/l]	Nitrate [uM]	Pre-No ₃ [uM]	Flur [V]	Chl-a [mg/m ³]	Relative pelagic abundance (no./10 ³ ton)
35	4.5	29.279	32.730	20.271	4.545	-0.160	0.1	0.895	0.694	0.044	2.6
	10.4	29.281	32.730	20.270	4.485	-0.100	0.13	0.628	0.655	0.043	
	20.4	29.154	32.800	20.366	4.430	-0.038	0.26	0.450	0.829	0.045	
	30.3	28.598	32.991	20.694	4.370	0.055	0.16	-0.115	1.188	0.049	
	40.3	28.249	33.275	21.022	4.228	0.214	0.13	-0.930	1.824	0.057	0.8
	50.2	27.932	33.349	21.181	4.121	0.342	0.26	-1.436	3.261	0.073	
	60.2	27.700	33.416	21.308	3.821	0.657	1.93	-1.330	3.672	0.078	
	67.1	27.696	33.409	21.304	3.731	0.748	1.96	-1.749	3.421	0.075	
36	10.4	29.169	32.921	20.451	4.420		0.06	0.221	0.812	0.045	
	20.4	29.049	32.898	20.475	4.411	-0.014	0.13	0.202	0.917	0.046	10.9
	36.3	27.748	33.502	21.355	4.367	0.105	0.29	-0.232	1.999	0.059	7.2
	40.3	27.502	33.626	21.528	3.882	0.604	1.73	-1.267	7.214	0.118	
	50.2	27.434	33.639	21.560	3.719	0.772	2.16	-1.670	5.286	0.096	
	60.2	27.476	33.721	21.609	3.348	1.137	3.4	-2.241	2.441	0.064	
	69.1	27.480	33.733	21.617	3.190	1.295	3.59	-2.833	2.050	0.059	
37	2.5	29.108	32.869	20.432	4.400	-0.007	0.22	0.253	0.865	0.046	13.8
	10.4	29.090	32.886	20.451	4.552	-0.159	0.22	1.007	0.769	0.045	
	20.4	29.134	32.960	20.493	4.445	-0.057	0.53	0.810	0.968	0.047	
	30.3	29.129	32.967	20.501	4.514	-0.125	0.18	0.802	0.825	0.045	
	40.3	27.472	33.904	21.747	3.865	0.616	0.56	-2.494	2.613	0.066	22.3
	45.2	27.270	33.925	21.828	3.585	0.910	3.62	-0.894	6.043	0.105	
	50.2	27.255	33.926	21.833	3.475	1.020	2.27	-2.791	5.689	0.101	
	55.2	27.256	33.926	21.834	3.365	1.131	2.43	-3.179	5.121	0.094	
38	4.5	29.233	32.894	20.409	4.496	-0.112	0.33	0.888	1.308	0.051	35.0
	10.4	29.222	32.893	20.412	4.485	-0.101	0.39	0.890	0.901	0.046	
	20.4	29.226	32.894	20.413	4.340	0.044	0.37	0.153	0.925	0.046	
	25.4	29.226	32.894	20.413	4.507	-0.123	0.3	0.910	0.871	0.046	
	30.3	29.227	32.896	20.415	4.430	-0.046	0.3	0.527	0.900	0.046	
	40.3	28.329	33.739	21.345	4.039	0.385	0.3	-1.608	1.317	0.051	
	46.2	27.931	33.802	21.522	3.501	0.950	0.95	-3.760	7.467	0.121	
39	2.5	29.471	32.895	20.330	4.402	-0.035	0.16	0.336	0.746	0.044	15.8
	4.5	29.422	32.877	20.333	4.461	-0.091	0.18	0.629	0.755	0.044	
	10.4	29.390	32.881	20.347	4.469	-0.096	0.24	0.715	0.791	0.045	
	15.4	29.376	32.880	20.352	4.371	0.003	0.26	0.245	0.907	0.046	
	20.4	29.362	32.877	20.354	4.456	-0.081	0.24	0.642	1.038	0.048	
	25.4	29.380	32.940	20.396	4.397	-0.025	0.18	0.305	1.893	0.057	

Appendix B. (Continue)

St no.	Depth [m]	Temp [°C]	Sal [psu]	Sigma-t (kg/m ³)	DO [ml/l]	AOU [ml/l]	Nitrate [uM]	Pre-No ₃ [uM]	Flur [V]	Chl-a [mg/m ³]	Relative pelagic abundance (no./10 ³ ton)
40	1.5	29.562	33.055	20.420	4.371	-0.014	0.2	0.271	1.398	0.052	32.4
	4.5	29.532	33.050	20.426	4.472	-0.114	0.22	0.784	1.403	0.052	
	10.4	29.504	33.046	20.433	4.372	-0.011	0.24	0.295	1.504	0.053	
	15.4	29.445	33.044	20.451	4.377	-0.012	0.24	0.300	2.271	0.062	
	20.4	29.439	33.047	20.456	4.255	0.110	0.32	-0.226	3.791	0.079	
41	6.5	29.375	32.834	20.317	4.431	-0.056	0.32	0.597	1.896	0.057	7.9
	10.4	29.305	32.817	20.328	4.487	-0.106	0.26	0.788	1.881	0.057	
	20.4	29.312	32.912	20.397	4.369	0.009	0.3	0.256	2.733	0.067	
	30.3	28.482	33.681	21.250	3.879	0.536	0.33	-2.327	2.612	0.066	
	35.3	28.134	33.767	21.429	3.629	0.807	0.39	-3.614	4.520	0.087	
	39.3	28.096	33.776	21.449	3.501	0.938	0.47	-4.182	5.447	0.098	
42	2.5	29.067	32.861	20.439	4.411	-0.015	0.35	0.426	0.786	0.045	1.5
	10.4	29.046	32.860	20.446	4.545	-0.148	0.32	1.053	0.826	0.045	
	20.4	29.043	32.862	20.449	4.447	-0.050	0.33	0.577	0.989	0.047	
	30.3	28.932	32.934	20.541	4.462	-0.059	0.32	0.612	1.256	0.050	
	35.3	27.143	33.842	21.805	3.903	0.604	0.95	-2.044	3.666	0.078	4.8
	40.3	27.140	33.840	21.805	3.559	0.947	0.89	-3.809	3.802	0.079	
	45.2	27.142	33.841	21.805	3.555	0.951	0.99	-3.729	4.212	0.084	
43	2.5	28.754	32.845	20.531	4.450	-0.031	0.12	0.276	0.943	0.047	4.4
	10.4	28.697	32.842	20.548	4.470	-0.047	0.24	0.474	1.011	0.047	
	20.4	28.652	32.879	20.591	4.347	0.078	0.26	-0.125	1.785	0.056	
	30.3	28.454	33.229	20.920	4.215	0.214	0.37	-0.690	6.393	0.109	
	40.3	27.768	33.442	21.304	3.798	0.674	1.74	-1.602	4.992	0.093	3.9
	48.2	27.725	33.449	21.324	3.704	0.771	1.74	-2.084	3.944	0.081	
44	2.5	28.857	32.891	20.531	4.464	-0.054	0.11	0.380	1.751	0.056	15.4
	10.4	28.859	32.890	20.531	4.444	-0.034	0.11	0.281	1.692	0.055	
	30.3	28.831	32.887	20.539	4.370	0.041	0.64	0.434	1.912	0.058	
	40.3	28.794	32.883	20.549	4.404	0.011	0.3	0.247	2.537	0.065	
	45.2	28.658	32.905	20.611	4.279	0.145	0.23	-0.489	2.867	0.068	
	49.2	28.615	32.919	20.636	4.152	0.274	0.36	-0.999	2.548	0.065	
	53.2	28.546	32.945	20.678	3.980	0.450	0.56	-1.674	2.600	0.065	
45	3.5	28.929	32.806	20.444	4.424	-0.017	0.48	0.564	1.678	0.055	10.6
	10.4	28.927	32.806	20.445	4.578	-0.171	0.47	1.319	1.640	0.054	
	17.4	28.929	32.806	20.445	4.487		0.17	0.580	1.733	0.056	
	30.3	28.931	32.810	20.448	4.487	-0.080	0.23	0.629	1.692	0.055	

Appendix B. (Continue)

St no.	Depth [m]	Temp [°C]	Sal [psu]	Sigma-t (kg/m ³)	DO [ml/l]	AOU [ml/l]	Nitrate [uM]	Pre-No ₃ [uM]	Flur [V]	Chl-a [mg/m ³]	Relative pelagic abundance (no./10 ³ ton)
45	40.3	28.938	32.807	20.444	4.504	-0.097	0.43	0.914	1.663	0.055	
	50.2	28.782	32.826	20.511	4.414	0.003	0.41	0.396	1.948	0.058	
	53.2	28.493	32.864	20.635	4.038	0.398	0.68	-1.296	3.783	0.079	
46	4.5	28.789	32.788	20.477	4.472	-0.054	0.39	0.659	1.615	0.054	12.1
	10.4	28.786	32.791	20.480	4.501	-0.084	0.31	0.725	1.602	0.054	
	20.4	28.785	32.789	20.480	4.477	-0.059	0.27	0.565	2.207	0.061	
	30.3	28.787	32.790	20.481	4.489	-0.072	0.33	0.685	2.371	0.063	
	40.3	28.792	32.790	20.480	4.532	-0.115	0.33	0.899	2.168	0.061	
	48.2	28.786	32.791	20.483	4.583	-0.166	0.35	1.172	2.237	0.061	
47	5.5	29.022	32.830	20.431	4.459	-0.059	0.27	0.564	1.717	0.055	6.5
	10.4	29.023	32.830	20.432	4.407	-0.007	0.29	0.325	1.705	0.055	
	20.4	29.025	32.830	20.432	4.234	0.166	0.21	-0.614	1.767	0.056	
	30.3	29.029	32.830	20.431	4.382	0.017	0.27	0.185	1.782	0.056	
	40.3	29.031	32.838	20.437	4.334	0.065	0.27	-0.052	1.884	0.057	
	50.2	29.040	32.847	20.442	4.273	0.125	0.25	-0.370	2.026	0.059	
	55.2	29.041	32.849	20.443	4.305	0.093	0.29	-0.170	1.963	0.058	
48	1.5	28.960	32.876	20.486	4.572	-0.169	0.35	1.189	1.919	0.058	6.2
	10.4	28.954	32.877	20.489	4.492	-0.089	0.35	0.792	1.940	0.058	
	20.4	28.956	32.877	20.489	4.422	-0.019	0.31	0.402	2.060	0.059	
	30.3	28.965	32.876	20.487	4.434	-0.032	0.35	0.507	2.031	0.059	
	40.3	28.967	32.877	20.487	4.352	0.050	0.29	0.041	2.092	0.060	
	52.2	28.966	32.877	20.489	4.436	-0.033	0.35	0.513	2.164	0.060	
49	2.5	28.914	32.931	20.543	4.440	-0.035	0.07	0.244	2.052	0.059	2.9
	10.4	28.915	32.931	20.543	4.378	0.027	0.07	-0.062	2.086	0.060	
	20.4	28.917	32.933	20.544	4.390	0.014	0.13	0.058	2.069	0.059	
	30.3	28.918	32.932	20.544	4.373	0.031	0.11	-0.044	2.068	0.059	
	40.3	28.920	32.933	20.545	4.394	0.011	0.17	0.117	2.118	0.060	
	52.2	28.921	32.933	20.546	4.439	-0.034	0.17	0.341	2.189	0.061	
50	1.5	28.753	32.974	20.628	4.520	-0.105	0.07	0.591	1.354	0.051	7.8
	10.4	28.730	32.975	20.637	4.408	0.008	0.15	0.108	1.463	0.052	
	20.4	28.691	32.971	20.648	4.366	0.053	0.19	-0.072	2.292	0.062	
	30.3	28.667	33.009	20.685	4.308	0.112	0.25	-0.304	2.850	0.068	
	40.3	28.652	33.045	20.717	4.272	0.148	0.55	-0.182	2.946	0.069	
	47.2	28.653	33.046	20.718	4.272	0.147	0.62	-0.111	3.071	0.071	

Appendix B. (Continue)

St no.	Depth [m]	Temp [°C]	Sal [psu]	Sigma-t (kg/m ³)	DO [ml/l]	AOU [ml/l]	Nitrate [uM]	Pre-No ₃ [uM]	Flur [V]	Chl-a [mg/m ³]	Relative pelagic abundance (no./10 ³ ton)
51	1.5	28.627	33.075	20.745	4.376	0.045	0.22	-0.005	3.404	0.075	15.4
	10.4	28.545	33.136	20.819	4.918	-0.493	0.29	2.735	3.215	0.072	
	20.4	28.436	33.131	20.851	4.656	-0.223	0.25	1.354	3.835	0.080	
	30.3	28.349	33.192	20.926	4.276	0.162	0.53	-0.273	5.035	0.093	3.6
	40.3	27.902	33.419	21.243	3.768	0.695	1.87	-1.575	3.602	0.077	
	46.2	27.893	33.422	21.249	3.533	0.930	2.03	-2.585	3.487	0.076	
52	2	28.753	32.689	20.407	4.482	-0.059	0.11	0.403	1.074	0.048	30.5
	10.9	28.542	32.829	20.603	4.468	-0.054	0.08	0.349	1.031	0.048	
	20.9	27.850	33.419	21.270	4.216	0.251	1.26	0.016	2.689	0.066	4.2
	29.8	27.763	33.474	21.330	3.953	0.519	1.42	-1.154	3.872	0.080	
	35.8	27.762	33.475	21.331	3.959	0.513	1.47	-1.073	3.961	0.081	
53	3	28.837	33.039	20.649	4.486	-0.078	0.08	0.469	2.370	0.063	3.2
	9.9	28.835	33.039	20.650	4.407	0.000	0.08	0.080	2.368	0.063	
	19.9	28.842	33.040	20.649	4.288	0.119	0.11	-0.479	2.385	0.063	
	29.8	28.847	33.041	20.649	4.319	0.087	0.15	-0.283	2.287	0.062	
	39.8	28.853	33.042	20.649	4.303	0.103	0.15	-0.361	2.228	0.061	
	49.7	28.856	33.042	20.648	4.297	0.109	0.08	-0.461	2.735	0.067	
54	3	28.936	32.539	20.241	4.500	-0.086	0.04	0.466	0.723	0.044	6.9
	9.9	28.919	32.544	20.251	4.459	-0.044	0.01	0.226	0.802	0.045	
	19.9	28.901	32.543	20.258	4.391	0.026	0.04	-0.087	0.979	0.047	
	29.8	28.885	32.543	20.263	4.253	0.165	0.06	-0.757	1.106	0.048	
	39.8	28.739	32.903	20.582	4.317	0.101	0.25	-0.250	2.467	0.064	
	49.7	28.749	33.072	20.707	4.243	0.169	0.36	-0.480	2.638	0.066	
	56.7	28.752	33.077	20.710	4.315	0.098	0.34	-0.144	2.623	0.066	
56	6.5	28.952	32.770	20.410	4.497	-0.090	0.06	0.507	1.596	0.054	2.7
	10.4	28.958	32.769	20.407	4.434	-0.028	0.29	0.429	1.576	0.054	
	20.4	28.963	32.769	20.406	4.379	0.027	0.34	0.205	1.571	0.054	
	30.3	28.966	32.769	20.406	4.480	-0.072	0.32	0.677	1.553	0.054	
	40.3	28.959	32.771	20.410	4.370	0.036	0.22	0.039	1.696	0.055	
	50.2	28.959	32.772	20.412	4.308	0.098	0.2	-0.285	1.712	0.055	
	54.2	28.960	32.772	20.412	4.299	0.107	0.18	-0.349	1.850	0.057	
57	3.5	28.987	32.804	20.423	4.470	-0.066	0.25	0.579	1.409	0.052	2.8
	10.4	28.950	32.810	20.441	4.380	0.025	0.22	0.094	1.389	0.052	
	20.4	28.965	32.811	20.437	4.329	0.075	0.2	-0.174	1.411	0.052	
	30.3	28.966	32.811	20.438	4.391	0.013	0.22	0.155	1.369	0.051	

Appendix B. (Continue)

St no.	Depth [m]	Temp [°C]	Sal [psu]	Sigma-t (kg/m ³)	DO [ml/l]	AOU [ml/l]	Nitrate [uM]	Pre-No ₃ [uM]	Flur [V]	Chl-a [mg/m ³]	Relative pelagic abundance (no./10 ³ ton)
57	40.3	28.972	32.813	20.438	4.328	0.076	0.2	-0.177	1.365	0.051	
	50.2	28.976	32.813	20.437	4.327	0.077	0.2	-0.182	1.402	0.052	
	58.2	28.981	32.813	20.437	4.329	0.074	0.22	-0.148	1.499	0.053	
58	6.5	29.086	32.812	20.396	4.400	-0.004	0.39	0.408	0.804	0.045	2.2
	10.4	29.035	32.810	20.412	4.641	-0.242	0.27	1.469	0.819	0.045	
	20.4	28.969	32.810	20.435	4.632	-0.228	0.27	1.399	1.042	0.048	
	30.3	28.965	32.810	20.437	4.333	0.071	0.36	0.006	1.204	0.050	
	40.3	28.969	32.815	20.440	3.970	0.434	0.13	-2.024	1.422	0.052	
	50.2	28.975	32.827	20.448	3.831	0.572	0.2	-2.639	1.482	0.053	
	60.2	27.954	33.469	21.266	3.388	1.070	2.34	-2.968	3.899	0.080	
59	1.5	29.173	32.654	20.249	4.420	-0.026	0.433	0.562	0.981	0.047	7.6
	10.4	28.930	32.649	20.327	4.418	-0.006	0.283	0.315	1.034	0.048	
	20.4	28.900	32.651	20.338	4.405	0.008	0.326	0.285	1.189	0.049	
	30.3	28.889	32.652	20.344	4.429	-0.015	0.45	0.524	1.458	0.052	
	40.3	28.894	32.660	20.348	4.403	0.011	0.49	0.436	1.755	0.056	
	50.2	28.964	32.734	20.375	4.375	0.032	0.33	0.172	1.786	0.056	
	55.2	29.151	32.988	20.457	4.365	0.022	0.49	0.381	1.814	0.056	
	63.1	28.505	33.356	21.001	4.093	0.329	0.18	-1.453	3.243	0.073	
60	1.5	28.970	32.595	20.272	4.487	-0.077	0.26	0.643	0.800	0.045	9.0
	10.4	28.776	32.596	20.337	4.431	-0.008	0.24	0.278	0.786	0.045	
	20.4	28.780	32.606	20.345	4.468	-0.045	0.2	0.421	1.779	0.056	
	30.3	28.752	32.604	20.353	4.448	-0.023	0.33	0.444	1.301	0.051	
	40.3	28.612	32.725	20.491	4.435	-0.004	0.49	0.508	1.806	0.056	
	45.2	27.888	33.341	21.189	4.343	0.123	1.01	0.399	3.111	0.071	2.3
	54.2	27.515	33.635	21.532	4.016	0.469	1.39	-0.937	3.751	0.079	
	61	2.5	29.121	32.675	20.282	4.582	-0.184	0.1	1.013	0.959	0.047
10.4		28.927	32.695	20.362	4.384	0.027	0.12	-0.012	0.967	0.047	
20.4		27.990	33.058	20.942	4.424	0.043	0.2	-0.011	1.501	0.053	
30.3		27.641	33.469	21.365	4.133	0.347	0.7	-1.022	3.924	0.081	5.1
40.3		27.265	33.586	21.574	3.977	0.527	1.33	-1.285	4.276	0.085	
49.2		27.218	33.624	21.618	3.654	0.853	1.83	-2.399	3.876	0.080	
62		2.5	29.064	32.587	20.235	4.468	-0.065	0.18	0.500	0.551	0.042
	10.4	28.657	32.585	20.368	4.606	-0.174	0.16	1.021	0.726	0.044	
	20.4	28.623	32.607	20.397	4.394	0.040	0.26	0.060	1.057	0.048	
	30.3	28.479	32.656	20.482	4.332	0.111	0.22	-0.333	1.676	0.055	

Appendix B. (Continue)

St no.	Depth [m]	Temp [°C]	Sal [psu]	Sigma-t (kg/m ³)	DO [ml/l]	AOU [ml/l]	Nitrate [uM]	Pre-NO ₃ [uM]	Flur [V]	Chl-a [mg/m ³]	Relative pelagic abundance (no./10 ³ ton)
62	40.3	26.831	33.542	21.678	3.970	0.568	0.93	-1.888	5.621	0.100	8.2
	50.2	26.610	33.710	21.876	3.797	0.752	1.35	-2.382	4.451	0.087	
	58.2	26.598	33.715	21.883	3.632	0.918	1.49	-3.066	3.786	0.079	
63	2.5	29.209	32.625	20.215	4.481	-0.088	0.68	1.118	0.822	0.045	2.8
	10.4	29.014	32.607	20.267	4.541	-0.134	0.6	1.265	0.779	0.045	
	20.4	28.825	32.622	20.342	4.396	0.023	0.55	0.435	1.124	0.049	
	30.3	28.751	32.645	20.384	4.318	0.106	0.55	0.022	1.333	0.051	
	40.3	28.691	32.637	20.398	4.349	0.079	0.6	0.207	1.590	0.054	
	50.2	28.816	32.761	20.451	4.251	0.165	0.55	-0.271	2.467	0.064	
	62.1	25.625	34.082	22.463	3.642	0.972	2.66	-2.161	3.967	0.081	
64	1.5	28.916	32.636	20.320	4.429	-0.016	0.63	0.709	0.879	0.046	6.1
	10.4	28.695	32.665	20.416	5.054	-0.627	0.65	3.758	0.977	0.047	
	20.4	28.499	32.838	20.611	5.139	-0.702	0.6	4.083	1.633	0.054	
	30.3	27.816	33.092	21.024	4.542	-0.063	0.99	1.304	4.469	0.087	3.4
	40.3	25.440	34.018	22.470	3.545	1.085	3.66	-1.722	5.776	0.102	1.8
	50.2	25.249	34.030	22.538	3.292	1.352	3.89	-2.817	4.002	0.081	
	56.2	25.235	34.032	22.544	3.186	1.459	3.42	-3.818	3.617	0.077	
65	2.5	29.267	32.855	20.368	4.447	-0.065	0.6	0.920	0.861	0.046	3.6
	10.4	29.198	32.853	20.390	4.526	-0.139	0.63	1.321	0.653	0.043	
	20.4	28.998	32.831	20.441	4.415	-0.014	0.68	0.747	0.928	0.046	
	30.3	28.910	32.838	20.476	4.420	-0.013	0.6	0.663	1.249	0.050	
	40.3	28.983	32.949	20.536	4.439	-0.040	0.71	0.907	1.613	0.054	
	51.2	27.675	33.309	21.235	4.403	0.080	1.36	0.963	2.547	0.065	
	53.2	26.641	33.530	21.730	4.147	0.405	2.56	0.549	3.414	0.075	
	64.1	24.504	34.194	22.887	3.573	1.125	3.76	-1.821	3.592	0.077	<0.1
66	2.5	29.171	32.637	20.237	4.476	-0.081	0.6	1.004	0.739	0.044	0.8
	10.4	28.930	32.640	20.319	4.383	0.029	0.67	0.526	0.957	0.047	
	20.4	28.842	32.675	20.376	4.404	0.013	0.58	0.516	1.105	0.048	
	30.3	28.878	32.786	20.448	4.393	0.019	0.67	0.578	1.723	0.055	
	39.3	28.914	32.837	20.475	4.371	0.036	0.67	0.490	2.212	0.061	
	50.2	28.902	32.900	20.527	4.358	0.048	0.67	0.432	3.208	0.072	
	56.2	29.096	33.177	20.671	4.301	0.084	0.62	0.205	2.618	0.066	
	57.2	29.075	33.450	20.883	4.319	0.060	0.71	0.413	2.551	0.065	
	59.2	27.499	33.771	21.639	4.366	0.116	1.53	0.954	2.512	0.064	
	60.2	25.895	34.027	22.338	4.262	0.332	2.6	0.952	2.657	0.066	0.2
	71.1	24.387	34.234	22.953	3.534	1.172	4.26	-1.555	3.034	0.070	

Appendix B. (Continue)

St no.	Depth [m]	Temp [°C]	Sal [psu]	Sigma-t (kg/m ³)	DO [ml/l]	AOU [ml/l]	Nitrate [uM]	Pre-No ₃ [uM]	Flur [V]	Chl-a [mg/m ³]	Relative pelagic abundance (no./10 ³ ton)
67	1.5	29.461	32.860	20.307	4.334	0.034	0.92	0.750	0.754	0.044	1.7
	10.4	29.208	32.857	20.390	4.404	-0.017	0.6	0.686	0.823	0.045	
	20.4	29.144	32.857	20.412	4.373	0.018	0.56	0.473	0.835	0.045	
	30.3	29.131	32.878	20.433	4.427	-0.036	0.82	0.999	0.987	0.047	
	50.2	29.076	32.938	20.498	4.415	-0.022	0.56	0.667	1.652	0.055	
	60.2	29.168	33.350	20.777	4.434	-0.059	0.56	0.851	1.845	0.057	
	64.1	27.140	33.844	21.809	4.494	0.013	0.71	0.647	2.182	0.061	
	74.1	24.036	34.249	23.068	3.365	1.369	4.11	-2.682	3.896	0.080	
68	2.5	28.950	32.724	20.375	4.433	-0.025	0.56	0.685	0.913	0.046	3.7
	10.4	28.929	32.724	20.383	4.545	-0.135	0.54	1.212	0.901	0.046	
	20.4	29.021	32.788	20.401	4.574	-0.173	0.54	1.398	1.460	0.052	
	30.3	29.055	32.873	20.454	4.543	-0.147	0.52	1.249	1.059	0.048	
	40.3	29.117	33.001	20.530	4.552	-0.164	0.56	1.371	1.157	0.049	
	58.2	28.337	33.680	21.299	4.564	-0.139	0.56	1.251	1.598	0.054	
	68.1	23.717	34.283	23.188	3.606	1.152	4.34	-1.376	3.332	0.074	
	69	1.5	28.979	32.313	20.057	4.449	-0.031	0.54	0.695	0.913	
10.4		29.159	32.900	20.439	4.551	-0.163	0.56	1.367	0.943	0.047	
20.4		29.218	33.001	20.496	4.501	-0.120	0.52	1.114	0.989	0.047	
30.3		29.198	33.005	20.506	4.560	-0.177	0.62	1.499	1.246	0.050	
40.3		29.194	33.032	20.529	4.539	-0.157	0.64	1.417	1.168	0.049	
50.2		27.839	33.473	21.305	4.518	-0.052	1.55	1.807	1.479	0.053	
60.2		24.117	34.216	23.019	3.460	1.269	8.78	2.487	4.785	0.090	
64.1		24.113	34.217	23.021	3.348	1.381	9.47	2.622	4.900	0.092	
70	1.5	28.995	32.067	19.868	4.499	-0.076	0.52	0.897	1.600	0.054	15.8
	10.4	28.692	32.772	20.497	4.356	0.068	0.56	0.220	1.638	0.054	
	20.4	28.568	33.096	20.782	4.320	0.104	0.84	0.323	3.708	0.078	
	30.3	27.856	33.183	21.080	4.030	0.443	2.04	-0.155	4.880	0.091	
	36.3	27.272	33.366	21.406	3.795	0.716	3.27	-0.280	5.122	0.094	
	71	2.5	28.479	32.684	20.500	4.554	-0.111	0.54	1.091	2.046	
10.4		28.472	32.733	20.540	4.388	0.053	0.56	0.295	2.932	0.069	
20.4		28.337	32.904	20.714	4.299	0.147	0.84	0.111	4.210	0.084	
32.3		28.342	32.907	20.715	4.233	0.212	0.86	-0.194	4.883	0.091	
72	2.5	28.674	32.657	20.417	4.483	-0.054	0.56	0.829	1.961	0.058	1.9
	10.4	28.669	32.661	20.421	4.539	-0.109	0.58	1.123	1.261	0.050	
	20.4	28.971	32.904	20.505	4.382	0.019	0.58	0.484	1.322	0.051	

Appendix B. (Continue)

St no.	Depth [m]	Temp [°C]	Sal [psu]	Sigma-t (kg/m ³)	DO [ml/l]	AOU [ml/l]	Nitrate [uM]	Pre-NO ₃ [uM]	Flur [V]	Chl-a [mg/m ³]	Relative pelagic abundance (no./10 ³ ton)
72	30.3	29.101	33.052	20.573	4.418	-0.030	0.6	0.747	1.210	0.050	
	40.3	29.099	33.058	20.579	4.439	-0.051	0.62	0.873	1.297	0.051	
	52.2	25.981	33.786	22.129	3.576	1.019	8.08	3.025	2.950	0.069	
73	1.5	29.263	32.848	20.364	4.466	-0.084	0.65	1.065	0.763	0.044	2.5
	10.4	29.087	32.846	20.422	4.424	-0.029	0.53	0.674	0.850	0.045	
	21.4	29.072	32.852	20.433	4.263	0.133	0.59	-0.070	0.950	0.047	
	30.3	29.101	32.893	20.454	4.395	-0.002	0.51	0.520	1.105	0.048	
	40.3	29.053	32.935	20.503	4.445	-0.050	0.55	0.799	1.356	0.051	
	55.2	27.156	33.851	21.809	4.409	0.096	1.53	1.055	2.231	0.061	4.7
	58.2	24.890	34.072	22.679	4.067	0.604	6.83	3.834	3.115	0.071	
	69.1	23.586	34.280	23.224	3.168	1.602	11	3.054	4.095	0.082	
74	2.5	29.509	32.875	20.302	4.443	-0.078	0.61	0.997	0.614	0.043	0.4
	10.4	28.891	32.791	20.446	4.416	-0.006	0.57	0.597	0.811	0.045	
	20.4	29.013	32.892	20.482	4.286	0.113	0.53	-0.032	0.677	0.044	
	30.3	29.017	32.944	20.520	4.363	0.034	0.51	0.339	0.786	0.045	
	40.3	29.057	32.980	20.535	4.388	0.005	0.57	0.545	0.812	0.045	
	56.2	24.271	34.155	22.927	3.801	0.917	2.55	-1.999	4.111	0.083	1.9
	60.2	23.875	34.237	23.106	3.215	1.533	11.28	3.677	4.289	0.085	
	65.1	23.858	34.238	23.112	3.073	1.675	11.42	3.109	4.053	0.082	
75	3.5	29.071	32.717	20.330	4.506	-0.106	0.53	1.055	0.951	0.047	3.2
	10.4	28.785	32.760	20.457	4.567	-0.149	0.53	1.267	1.159	0.049	
	20.4	28.890	32.858	20.497	4.417	-0.009	0.35	0.394	1.117	0.049	
	30.3	29.104	33.110	20.616	4.421	-0.034	0.47	0.639	1.342	0.051	
	40.3	28.848	33.201	20.770	4.402	0.000	0.51	0.512	2.033	0.059	
	48.2	26.630	33.695	21.858	3.781	0.767	9.33	5.524	4.698	0.089	
76	1.5	28.687	32.491	20.288	4.478	-0.045	0.4	0.622	1.257	0.050	37.9
	10.4	28.599	32.508	20.330	4.594	-0.155	0.16	0.928	1.254	0.050	
	20.4	28.421	32.825	20.627	4.362	0.081	0.19	-0.210	5.395	0.097	
	23.4	28.421	32.825	20.627	4.362	0.081	0.05	-0.350	5.139	0.094	
77	1.5	29.095	32.629	20.256	4.415	-0.015	0.08	0.154	0.574	0.042	2.4
	10.4	28.840	32.815	20.481	4.540	-0.127	0.08	0.708	0.716	0.044	
	20.4	28.968	33.097	20.651	4.396	0.000	0.24	0.239	1.020	0.047	
	30.3	29.036	33.169	20.683	4.385	0.005	0.29	0.265	1.327	0.051	
	40.3	28.864	33.192	20.758	4.366	0.035	0.4	0.224	2.336	0.062	
	46.2	27.196	33.468	21.508	3.634	0.879	12.95	8.588	5.366	0.097	

Appendix B. (Continue)

St no.	Depth [m]	Temp [°C]	Sal [psu]	Sigma-t (kg/m ³)	DO [ml/l]	AOU [ml/l]	Nitrate [uM]	Pre-No ₃ [uM]	Flur [V]	Chl-a [mg/m ³]	Relative pelagic abundance (no./10 ³ ton)
78	1.5	29.922	32.846	20.141	4.365	-0.027	0.43	0.565	0.658	0.043	1.0
	10.4	29.389	32.983	20.424	4.433	-0.063	0.32	0.633	0.651	0.043	
	20.4	29.180	32.939	20.461	4.391	-0.005	0.32	0.346	0.677	0.044	
	40.3	29.009	33.226	20.736	4.393	-0.003	0.4	0.415	1.182	0.049	
	50.2	27.560	33.429	21.362	4.157	0.331	2.4	0.760	5.277	0.096	
	55.2	24.546	34.157	22.847	3.279	1.417	9.47	2.443	6.750	0.113	
	60.2	24.390	34.178	22.909	3.075	1.633	9.75	1.651	4.876	0.091	
63.1	24.367	34.182	22.919	3.008	1.701	9.75	1.310	4.644	0.089		
79	1.5	29.312	32.495	20.083	4.441	-0.052	0.15	0.410	0.788	0.045	3.4
	10.4	28.900	32.788	20.440	4.425	-0.015	0.26	0.336	0.764	0.045	
	20.4	29.006	32.958	20.534	4.501	-0.104	0.38	0.895	0.889	0.046	
	30.3	29.033	33.005	20.561	4.496	-0.102	0.32	0.824	1.089	0.048	
	40.3	28.675	33.330	20.924	4.318	0.093	0.91	0.450	1.568	0.054	
	50.2	26.639	33.605	21.788	3.849	0.702	8.36	4.880	4.671	0.089	
	57.2	25.726	33.869	22.271	2.989	1.623	12.25	4.201	5.522	0.099	
80	2.5	28.944	32.618	20.298	4.448	-0.037	0.78	0.961	1.017	0.047	9.3
	10.4	28.902	32.635	20.325	4.482	-0.068	0.74	1.078	1.161	0.049	
	20.4	28.481	32.938	20.692	4.374	0.062	0.77	0.465	1.344	0.051	
	30.3	28.459	32.948	20.708	4.205	0.231	0.94	-0.208	6.377	0.108	
81	2.5	29.183	32.550	20.168	4.468	-0.072	0.77	1.127	0.537	0.042	54.3
	10.4	28.890	32.582	20.289	4.447	-0.031	0.74	0.893	0.595	0.043	
	20.4	29.134	33.115	20.609	4.430	-0.045	0.74	0.965	0.796	0.045	
	30.3	29.063	33.149	20.659	4.395	-0.006	0.75	0.782	1.120	0.049	
	40.3	28.394	33.164	20.891	4.149	0.286	1.5	0.079	5.377	0.097	
	48.2	27.295	33.412	21.434	3.437	1.070	2.25	-3.059	5.661	0.100	

Appendix C. Temperature, salinity, sigma- theta, dissolved oxygen, apparent oxygen utilization, nitrate, preformed nitrate, fluorescence and relative abundance of pelagic fish in the Gulf of Thailand and east coast of Peninsular Malaysia during April-May 1996

St no.	Depth [m]	Temp [°C]	Sal [psu]	Sigma-t (kg/m ³)	DO [ml/l]	AOU [ml/l]	Nitrate [uM]	Pre-NO ₃ [uM]	Flur [V]	Chl-a [mg/m ³]	Relative pelagic abundance (no./10 ³ ton)
1	5	29.923	32.254	19.698	4.386	-0.033	0.47	0.630	3.814	1.043	20.2
	14.9	29.927	32.254	19.698	4.412	-0.059	0.12	0.410	4.019	1.097	
	19.9	29.928	32.255	19.698	4.407	-0.054	0.11	0.380	5.912	1.598	
	26.8	29.929	32.253	19.697	4.086	0.267	0.13	-1.190	3.990	1.090	
2	5	30.417	32.259	19.534	4.395	-0.070	0.13	0.510	1.112	0.328	9.0
	9.9	30.084	32.243	19.635	4.416	-0.073	0.13	0.490	1.790	0.507	
	14.9	30.075	32.247	19.642	4.403	-0.063	0.1	0.400	2.451	0.682	
	19.9	30.073	32.248	19.644	4.390	-0.047	0.13	0.360	3.190	0.878	
	26.8	30.075	32.247	19.643	4.357	-0.014	0.12	0.190	3.163	0.871	
3	5	30.971	32.194	19.294	4.340	-0.055	0.21	0.480	1.160	0.341	27.0
	9.9	30.757	32.139	19.313	4.388	-0.088	0.18	0.620	1.155	0.339	
	14.9	30.501	32.157	19.427	4.389	-0.072	0.17	0.530	1.515	0.435	
	19.9	30.470	32.166	19.446	4.387	-0.068	0.31	0.650	1.275	0.371	
4	9.9	30.484	32.032	19.342	4.404	-0.083	0.29	0.700	0.913	0.275	27.6
	14.9	30.496	32.040	19.344	4.399	-0.078	0.34	0.730	0.902	0.272	
	17.9	30.497	32.084	19.371	4.397	-0.078	0.23	0.620	0.921	0.277	
5	9.9	30.257	32.067	19.445	4.431	-0.095	0.26	0.730		0.034	14.7
	14.9	30.266	32.075	19.449	4.439	-0.104	0.22	0.740		0.034	
	19.9	30.280	32.088	19.452	4.367	-0.034	0.28	0.450		0.034	
	25.8	30.300	32.128	19.475	4.408	-0.077	0.35	0.730		0.034	
	28.8	30.041	32.247	19.633	4.318	0.027	0.31	0.170		0.034	
6	9.9	30.122	32.001	19.438	4.420	-0.073	0.27	0.630		0.034	2.4
	19.9	30.061	31.995	19.459	4.438	-0.087	0.39	0.820		0.034	
	24.9	29.987	32.306	19.598	4.451	-0.103	0.28	0.790		0.034	
	29.8	29.383	32.367	19.957	4.443	-0.056	0.31	0.590		0.034	
8	9.9	30.009	32.176	19.611	4.445	-0.095	0.41	0.880	0.815	0.249	18.4
	19.9	29.757	32.181	19.701	4.434	-0.068	0.63	0.970	0.831	0.254	
	31.8	28.987	32.084	19.886	4.386	-0.013	0.63	0.440	3.437	0.943	
	36.8	28.967	32.078	19.888	4.349	0.076	0.35	-0.030	5.009	1.359	
9	9.9	29.699	32.124	19.676	4.443	-0.071	0.39	0.740	0.791	0.243	10.5
	19.9	29.312	32.071	19.734	4.438	-0.037	0.44	0.630	0.821	0.251	
	23.9	28.630	32.107	20.004	4.353	0.095	0.55	0.080	0.967	0.290	
	29.8	28.570	32.127	20.054	4.154	0.297	0.4	-1.070	2.555	0.710	

Appendix C. (Continue)

St no.	Depth [m]	Temp [°C]	Sal [psu]	Sigma-t (kg/m ³)	DO [ml/l]	AOU [ml/l]	Nitrate [uM]	Pre-NO ₃ [uM]	Flur [V]	Chl-a [mg/m ³]	Relative pelagic abundance (no./10 ³ ton)
9	34.8	28.554	32.131	20.060	4.086	0.366	0.75	-1.020	3.304	0.908	
10	5	30.001	31.939	19.436			0.49		0.795	0.244	3.3
	9.9	29.988	31.938	19.440			0.52		0.809	0.248	
	19.9	29.916	31.959	19.481			0.55		0.977	0.292	
	29.8	28.465	32.022	20.011			1.17		1.378	0.398	12.4
	36.8	28.123	32.193	20.251			1.68		3.944	1.077	
	46.7	28.107	32.206	20.266			2		5.753	1.556	
11	9.9	30.104	31.905	19.386	4.408	-0.057	0.51	0.790	0.710	0.222	3.7
	19.9	30.007	31.975	19.464	4.464	-0.109	0.6	1.140	0.716	0.223	
	29.8	29.985	32.062	19.544	4.481	-0.127	0.52	1.150	0.867	0.263	
	40.8	28.643	31.984	19.957	4.509	-0.059	0.48	0.770	1.388	0.401	
	44.7	28.525	32.148	20.088	4.430	0.024	0.58	0.460	2.476	0.689	42.0
12	9.9	30.180	31.764	19.236	4.406	-0.057	0.58	0.860	0.670	0.211	11.4
	19.9	30.159	31.809	19.288	4.472	-0.123	0.55	1.160	0.771	0.238	
	24.9	29.565	31.872	19.488	4.414	-0.025	0.52	0.650	0.792	0.243	
	29.8	29.143	31.914	19.700	4.524	-0.107	0.81	1.340	0.879	0.266	
	39.8	28.854	32.168	19.978	4.572	-0.142	0.59	1.290	1.127	0.332	
	56.7	27.826	32.420	20.519			0.96		5.528	1.497	3.4
13	14.5	29.939	31.646	19.239	4.484	-0.115	0.63	1.200	0.789	0.243	4.1
	29.5	29.183	31.644	19.491	4.558	-0.136	0.47	1.140	0.846	0.258	
	39.5	29.042	31.922	19.747	4.611	-0.187	0.53	1.460	1.010	0.301	
	49.5	28.524	32.073	20.031	4.604	-0.147	0.58	1.310	1.415	0.408	1.9
14	9.9	29.937	31.625	19.221	4.468	-0.098	0.65	1.140	0.610	0.195	0.2
	19.9	29.888	31.668	19.251	4.495	-0.123	0.58	1.190	0.675	0.212	
	29.8	29.167	31.689	19.491	4.444	-0.023	0.32	0.430	0.899	0.272	
	34.8	29.392	31.656	19.574	4.450	-0.043	0.59	0.800	0.997	0.298	
	44.7	28.650	31.935	19.892	4.450	0.001	0.6	0.590	1.368	0.396	
	59.7	27.638	32.309	20.456	3.877	0.637	2.06		5.184	1.405	
15	31.8	29.223	31.676	19.459	4.495	-0.077	0.28	0.660	1.074	0.318	1.5
	44.7	28.089	32.217	20.235	3.065	1.418	0.25	-6.780	2.512	0.698	1.2
	52.7	27.932	32.277	20.378			1.78		5.457	1.478	
16	9.9	29.974	32.004	19.492	4.449	-0.092	0.2	0.660	0.996	0.297	12.5
	14.9	29.268	31.943	19.661	4.418	-0.011	0.23	0.280	1.171	0.344	

Appendix C. (Continue)

St no.	Depth [m]	Temp [°C]	Sal [psu]	Sigma-t (kg/m ³)	DO [ml/l]	AOU [ml/l]	Nitrate [uM]	Pre-No ₃ [uM]	Flur [V]	Chl-a [mg/m ³]	Relative pelagic abundance (no./10 ³ ton)
16	19.9	28.635	31.882	19.843	4.351	0.103	0.19	-0.320	1.316	0.382	
	29.8	28.377	31.955	19.980	4.230	0.240	0.2	-0.990	1.517	0.435	
	39.8	27.955	32.208	20.291	3.686	0.808	0.32	-3.690	2.389	0.666	16.5
	47.7	27.259	32.360	20.654	2.265	2.275	6.08	-5.200	3.979	1.087	
17	9.9	30.154	31.998	19.428	4.447	-0.102	0.25	0.760	1.026	0.305	3.1
	19.9	29.313	31.828	19.556	4.441	-0.033	0.36	0.530	0.974	0.292	
	29.8	28.414	31.861	19.891	4.547	0.007	0.24	0.620	1.042	0.310	
	37.8	28.108	32.089	20.176	3.945	0.541	0.37	-2.310	2.647	0.734	6.4
18	9.9	30.277	31.949	19.349	4.445	-0.107	0.2	0.640	0.658	0.208	0.9
	19.9	30.265	31.952	19.358	4.377	-0.039	0.17	0.360	0.693	0.217	
	29.8	30.247	31.944	19.358	4.513	-0.170	0.32	1.180	0.761	0.235	
	39.8	28.851	31.814	19.711	4.166	0.275	0.16	-1.200	1.055	0.313	
	49.7	27.893	32.106	20.257	3.417	1.084	1.26	-4.110	3.134	0.863	1.8
19	9.5	30.375	31.822	19.222	4.428	-0.094	0.22	0.680	0.580	0.187	1.6
	19.5	30.272	31.853	19.281	4.469	-0.128	0.25	0.890	0.632	0.201	
	29.5	30.237	31.848	19.290	4.472	-0.128	0.23	0.870	0.853	0.260	
	39.5	29.199	31.852	19.642	4.581	-0.166	0.19	1.020	1.229	0.359	
	54.5	28.215	32.041	20.108			1.29		5.074	1.376	
	61.5	28.186	32.078	20.146			0.36		4.643	1.262	
20	9.5	30.213	31.693	19.181	4.439	-0.090	0.29	0.740	0.664	0.209	1.4
	19.5	30.136	31.711	19.221	4.486	-0.132	0.22	0.880	0.742	0.230	
	29.5	30.125	31.726	19.237	4.483	-0.129	0.31	0.950	0.800	0.245	
	39.5	29.283	31.659	19.470	4.498	-0.084	0.28	0.700	0.941	0.283	
	49.5	28.583	31.676	19.714			0.28		1.183	0.347	
	57.5	28.189	32.118	20.174			1.27		2.089	0.587	
21	9.5	30.093	31.722	19.243	4.432	-0.076	0.26	0.640	0.684	0.215	5.8
	19.5	30.093	31.723	19.244	4.450	-0.094	0.17	0.640	0.705	0.220	
	29.5	29.673	31.701	19.370	4.458	-0.073	0.18	0.540	0.781	0.240	
	39.5	28.710	31.752	19.729	4.576	-0.124	0.2	0.820	1.025	0.305	
	49.5	28.317	31.762	19.865	4.528	-0.048	0.21	0.450	1.205	0.353	
	59.5	28.246	31.920	20.008	4.450	0.030	0.18	0.030	1.729	0.491	
22	9.5	30.272	31.930	19.337	4.471	-0.133	0.24	0.900	0.526	0.173	0.2
	19.5	30.217	31.935	19.361	4.334	0.008	0.25	0.210	0.587	0.189	
	29.5	30.209	31.935	19.365	4.147	0.196	0.24		0.695	0.218	

Appendix C. (Continue)

St no.	Depth [m]	Temp [°C]	Sal [psu]	Sigma-t (kg/m ³)	DO [ml/l]	AOU [ml/l]	Nitrate [uM]	Pre-No ₃ [uM]	Flur [V]	Chl-a [mg/m ³]	Relative pelagic abundance (no./10 ³ ton)
25	39.5	29.232	32.166	19.866	4.213	0.190	0.21	-0.730	1.444	0.416	
26	9.5	30.171	31.705	19.204	4.420	-0.069	0.25	0.590	0.543	0.177	2.4
	19.5	30.171	31.707	19.206	4.425	-0.074	0.34	0.710	0.572	0.185	
	29.5	30.088	31.710	19.237	4.385	-0.028	0.28	0.420	0.681	0.214	
	39.5	28.680	31.685	19.688	4.205	0.251	0.29	-0.960	0.995	0.297	
	49.5	28.650	31.902	19.862			0.3	0.120	1.191	0.349	
	62.5	27.952	32.929	20.860			1.16		5.577	1.509	
27	19.5	30.063	31.804	19.315	4.406	-0.050	0.23	0.480	0.641	0.203	
	39.5	28.275	32.776	20.639	4.268	0.186	0.63	-0.290	1.261	0.367	
	54.5	26.170	33.634	21.956	3.288	1.297	2.5	-3.930	4.171	1.137	
	64.5	25.983	33.732	22.088	3.669	0.927	3.24	-1.360	3.435	0.943	
	76.5	25.985	33.734	22.090	3.779	0.818	3.22	-0.840	3.309	0.909	
28	9.5	29.856	31.695	19.302	4.449	-0.076	0.26	0.640	0.756	0.234	13.8
	19.5	29.865	31.696	19.301	4.467	-0.094	0.34	0.810	0.739	0.229	
	29.5	29.651	31.694	19.372	4.462	-0.075	0.32	0.690	0.810	0.248	
	39.5	28.522	31.704	19.754	4.308	0.159	0.29	-0.500	1.109	0.327	
	49.5	28.251	32.798	20.664	4.237	0.219	0.41	-0.680	2.468	0.687	
	57.5	28.142	33.165	20.976			2.65		6.817	1.838	
29	9.5	29.903	31.867	19.415	4.472	-0.107	0.19	0.720	0.649	0.206	13.3
	19.5	29.907	31.868	19.416	4.497	-0.132	0.24	0.890	0.659	0.208	
	29.5	29.182	32.295	19.979	4.442	-0.039	0.4	0.590	1.082	0.320	
30	9.5	29.828	31.848	19.427	3.946	0.425	0.15	-1.960			25.3
	14.5	29.839	31.844	19.420	3.998	0.372	0.14	-1.710			
	23.5	29.833	31.848	19.426	4.003	0.368	0.33	-1.490			
31	9.5	29.893	32.002	19.520	4.436	-0.074	0.33	0.700	0.794	0.244	1.5
	19.5	29.852	32.018	19.547	4.416	-0.051	0.2	0.450	0.959	0.288	
	24.5	29.369	32.270	19.898	4.371	0.020	0.23	0.130	1.379	0.399	
	26.5	29.322	32.299	19.935	4.378	0.016	0.28	0.200	2.240	0.627	
32	9.5	29.939	31.931	19.451	4.446	-0.085	0.33	0.750	0.707	0.221	8.4
	19.5	29.898	31.938	19.471	4.490	-0.126	0.27	0.900	0.808	0.248	
	39.5	28.284	32.818	20.667			0.31		2.178	0.610	
	51.5	27.485	33.414	21.375			2.22		5.516	1.493	
33	9.5	29.871	31.728	19.322	4.452	-0.081	0.26	0.660	0.630	0.200	2.0
	19.5	29.881	31.729	19.320	4.485	-0.114	0.45	1.020	0.699	0.219	
	29.5	29.726	32.045	19.610	4.529	-0.157	0.27	1.050	0.773	0.238	
	39.5	29.240	33.412	20.798	3.826	0.543	0.38	-2.310	1.528	0.438	10.6
	44.5	28.319	33.378	21.077	3.564	0.870	0.51	-3.810	1.492	0.429	0.4
	49.5	27.345	33.521	21.500	3.773	0.728	0.82	-2.790	1.639	0.467	
	59.5	26.832	33.687	21.789	4.015	0.519	3.18	0.610	3.852	1.053	
	70.5	26.343	33.748	21.989	4.042	0.526	3.17	0.560	2.471	0.688	

Appendix C. (Continue)

St no.	Depth [m]	Temp [°C]	Sal [psu]	Sigma-t (kg/m ³)	DO [ml/l]	AOU [ml/l]	Nitrate [uM]	Pre-No ₃ [uM]	Flur [V]	Chl-a [mg/m ³]	Relative pelagic abundance (no./10 ³ ton)
34	19.5	30.128	32.051	19.478	4.267	0.078	0.5	0.120	0.692	0.217	0.3
	29.5	28.789	33.851	21.276	4.408	0.132	0.23		1.046	0.311	0.3
	36.5	28.579	33.879	21.367	4.186	0.216	0.22	-0.850	0.959	0.288	
	49.5	28.183	33.913	21.524	4.394	0.249	0.34		1.088	0.322	
	59.5	26.962	33.882	21.894	3.986	0.532	0.69	-1.950	1.511	0.434	
	69.5	26.121	33.861	22.144	3.815	0.767	1.48	-2.330	4.090	1.116	0.8
	76.5	26.122	33.862	22.144			1.15		4.372	1.191	
35	19.5	29.954	32.986	20.237	4.445	-0.114	0.33	0.890	0.534	0.175	0.1
	29.5	29.129	33.822	21.142	4.408	-0.043	0.51	0.720	0.586	0.189	<0.1
	39.5	26.592	33.640	21.827	4.381	0.172	0.39	-0.460	1.001	0.299	
	49.5	26.119	33.639	21.975	4.394	0.195	0.38	-0.590	1.638	0.467	
	59.5	25.930	33.778	22.140	4.336	0.263	0.71	-0.600	3.912	1.069	<0.1
	69.5	25.938	33.797	22.152	4.290	0.308	0.66	-0.870	4.737	1.287	
36	9.5	30.127	32.399	19.738	4.421	-0.085	0.43	0.850	0.625	0.199	8.4
	19.5	29.937	32.568	19.930	4.451	-0.107	0.38	0.910	0.629	0.200	
	24.5	29.950	32.781	20.085	4.484	-0.147	0.37	0.100	0.622	0.198	2.5
	29.5	29.117	33.775	21.110	4.429	-0.062	0.37	0.680	0.672	0.212	1.1
	39.5	28.201	33.782	21.419	4.552	-0.120	0.64	1.240	0.855	0.260	
	49.5	26.392	33.598	21.859	4.533	0.036	0.41	0.230	1.405	0.406	
	59.5	25.968	33.747	22.104	4.478	0.119	0.61	0.020	2.087	0.586	
	64.5	25.849	33.799	22.181	4.308	0.297	0.98	-0.490	4.326	1.178	
	71.5	25.846	33.803	22.185	4.097	0.508	0.92		5.326	1.443	
37	9.5	30.312	32.154	19.492	4.432	-0.102	0.36	0.870	0.748	0.232	4.4
	19.5	30.312	32.156	19.494	4.450	-0.120	0.44	1.040	0.844	0.257	
	29.5	30.054	32.599	19.914	4.390	-0.055	0.45	0.720	0.777	0.239	
	39.5	28.928	33.396	20.890	3.864	0.527	0.44	-2.170	1.046	0.311	1.3
	49.5	27.795	33.702	21.491	4.263	0.199	0.54	-0.450	2.293	0.641	
	57.5	27.531	33.739	21.604	4.365	0.116	0.65	0.070	3.611	0.989	
38	9.5	30.005	31.843	19.363	4.462	-0.103	0.42	0.930	0.859	0.261	6.0
	19.5	29.999	31.879	19.393	4.470	-0.112	0.38	0.930	0.847	0.258	
	29.5	29.997	31.891	19.404	4.496	-0.138	0.53	1.210	0.929	0.280	
	39.5	29.063	32.932	20.497	4.495	-0.100	0.43	0.930	1.283	0.373	
	47.5	28.085	33.299	21.094	4.204	0.249	0.53	-0.710	4.690	1.275	
39	9.5	30.041	31.788	19.310	4.436	-0.078	0.48	0.870	1.269	0.370	1.1
	19.5	30.076	31.862	19.354	4.425	-0.071	0.46	0.810	1.395	0.403	

Appendix C. (Continue)

St no.	Depth [m]	Temp [°C]	Sal [psu]	Sigma-t (kg/m ³)	DO [ml/l]	AOU [ml/l]	Nitrate [uM]	Pre-No ₃ [uM]	Flur [V]	Chl-a [mg/m ³]	Relative pelagic abundance (no./10 ³ ton)
39	26.5	29.486	32.353	19.921	4.371	0.010	0.45	0.400	2.918	0.806	
40	9.5	30.165	31.915	19.363	4.415	-0.069	0.43	0.770	1.974	0.556	6.6
	19.5	30.162	31.913	19.363	4.446	-0.100	0.39	0.880	1.932	0.545	
41	9.5	30.130	31.936	19.390	4.466	-0.118	0.92	1.510	0.797	0.245	
	19.5	29.983	31.996	19.486	4.118	0.238	0.9	-0.280	0.878	0.266	
	24.5	29.899	32.244	19.700	3.999	0.356	0.45	-1.320	0.913	0.275	
	29.5	28.917	32.803	20.448	3.982	0.426	0.54	-1.580	1.175	0.345	
	39.5	28.867	33.242	20.794	4.016	0.384	0.51	-1.398	3.131	0.862	
42	9.5	30.274	32.067	19.440	4.404	-0.069	0.36	2.870	0.559	0.182	13.8
	19.5	30.264	32.225	19.562	4.413	-0.082	0.31	1.720	0.655	0.207	
	29.5	29.533	33.333	20.639	4.415	-0.064	0.5	0.930	0.837	0.255	
	39.5	27.614	33.669	21.524	4.414	0.061	0.35	0.050	2.784	0.770	3.6
	48.5	27.538	33.665	21.546			0.47		6.097	1.647	
43	9.5	30.190	32.606	19.871	4.396	-0.069	0.36	0.701	0.564	0.183	2.3
	19.5	29.869	32.764	20.100	4.397	-0.054	0.44	0.710	0.624	0.199	
	26.5	27.219	33.569	21.574	4.400	0.109	0.38	-0.160	2.298	0.642	2.4
	34.5	26.937	33.603	21.690	4.271	0.257	0.42	-0.860	3.514	0.964	
	39.5	26.901	33.601	21.701	4.209	0.322	0.52	-1.080	4.342	1.183	
	48.5	26.893	33.600	21.704	4.172	0.360	0.38	-1.402	4.329	1.179	
44	9.5	30.183	32.570	19.847			0.34		0.718	0.224	3.4
	19.5	28.967	33.149	20.690	4.457	-0.062	0.63	0.940	0.639	0.203	
	29.5	26.899	33.687	21.765	4.608	-0.079	0.36	0.750	0.843	0.257	2.4
	39.5	26.453	33.695	21.913	4.313	0.248	0.38	-0.850	3.349	0.920	
	51.5	26.451	33.695	21.914	4.260	0.302	0.43	-1.070	4.124	1.125	
45	14.5	30.025	33.201	20.373	4.395	-0.074	0.62	0.990	0.581	0.188	3.5
	24.5	29.827	33.719	20.829	4.454	-0.134	0.46	1.120	0.548	0.179	
	34.5	29.419	33.808	21.034	4.485	-0.139	0.4	1.090	0.521	0.172	2.5
	44.5	27.726	33.873	21.642	4.470	-0.007	0.25	0.290	1.098	0.324	
	54.5	27.451	33.905	21.755			0.37		2.605	0.723	
46	9.5	30.065	33.684	20.721	4.386	-0.081	0.48	0.880	0.448	0.152	1.5
	19.5	29.732	33.748	20.883	4.433	-0.107	0.36	0.890	0.475	0.159	
	29.5	29.291	33.803	21.073	4.475	-0.121	0.23	0.830	0.580	0.187	7.4
	39.5	28.903	33.918	21.289	4.485	-0.107	0.33	0.860	1.096	0.324	

Appendix C. (Continue)

St no.	Depth [m]	Temp [°C]	Sal [psu]	Sigma-t (kg/m ³)	DO [ml/l]	AOU [ml/l]	Nitrate [uM]	Pre-NO ₃ [uM]	Flur [V]	Chl-a [mg/m ³]	Relative pelagic abundance (no./10 ³ ton)
46	45.5	28.763	33.916	21.335			0.55		1.954	0.551	
47	9.5	29.806	33.619	20.760	4.406	-0.082	0.4	0.800	0.524	0.172	1.6
	19.5	29.569	33.638	20.856	4.420	-0.080	0.37	0.770	0.528	0.174	
	29.5	29.251	33.645	20.969	4.442	-0.080	0.38	0.780	0.626	0.199	
	39.5	28.658	33.727	21.228	4.482	-0.081	0.37	0.780	0.730	0.227	2.0
	49.5	28.106	33.815	21.475	4.497	-0.060	0.35	0.650	1.750	0.497	
	57.5	27.942	33.864	21.566	4.469	-0.021	0.28	0.380	4.211	1.148	
48	9.5	30.013	33.211	20.385			0.42		0.537	0.176	
	19.5	29.785	33.717	20.842	4.400	-0.077	0.41	0.790	0.520	0.171	1.6
	29.5	29.247	33.717	21.023	4.438	-0.078	0.42	0.810	0.613	0.196	1.6
	39.5	28.854	33.886	21.282	4.504	-0.122	0.44	1.040	0.813	0.249	
	49.5	27.931	33.909	21.603	4.424	0.023	0.52	0.400	1.949	0.550	
	56.5	27.889	33.912	21.619	4.392	0.058	0.52	0.230	2.964	0.818	
49	9.5	30.082	32.422	19.770	4.431	-0.093	0.41	0.870	0.608	0.195	
	19.5	29.634	33.729	20.901	4.431	-0.098	0.54	1.030	0.648	0.205	4.5
	29.5	28.607	33.962	21.420	4.452	-0.055	0.42	0.690	0.639	0.203	1.6
	39.5	27.907	33.879	21.587	4.406	0.044	0.44	0.220	0.882	0.267	
	52.5	27.008	33.858	21.861	4.354	0.162	0.42	-0.380	3.356	0.922	
50	9.5	30.142	32.287	19.648	4.264	0.074	0.38	0.010	0.554	0.180	0.7
	19.5	29.920	32.737	20.062	4.287	0.054	0.38	0.110	0.649	0.206	8.1
	29.5	26.977	33.523	21.617	4.209	0.318	0.43	-1.150	1.083	0.320	3.9
	34.5	26.611	33.605	21.795	4.173	0.380	0.41	-1.470	2.255	0.630	
	39.5	26.566	33.609	21.812	4.137	0.419	0.41	-1.670	4.040	1.103	
	49.5	26.559	33.608	21.814	4.079	0.477	0.48	-1.890	3.887	1.062	
51	9.5	30.289	32.268	19.584	4.403	-0.075	0.41		0.580	0.187	1.4
	19.5	30.013	32.730	20.025	4.420	-0.086	0.43	0.860	0.604	0.194	6.0
	24.5	29.772	33.066	20.358	4.477	-0.135	0.53	1.200	0.698	0.218	
	29.5	27.842	33.479	21.307	4.361	0.105	0.44	-0.080	1.010	0.301	14.3
	34.5	27.485	33.429	21.385	4.169	0.325	0.38	-1.230	2.147	0.602	
	40.5	27.313	33.408	21.425	4.007	0.499	0.55	-1.930	5.584	1.511	
52	9.5	30.068	32.080	19.519	4.424	-0.076	0.4	0.780	0.736	0.229	19.0
	19.5	29.512	32.415	19.958	4.342	0.035	0.46	0.280	0.894	0.270	
	24.5	29.306	32.588	20.157	4.187	0.200	0.44	-0.550	1.145	0.337	15.9
	34.5	27.473	33.304	21.295	3.804	0.693	0.56	-2.880	4.647	1.263	

Appendix C. (Continue)

St no.	Depth [m]	Temp [°C]	Sal [psu]	Sigma-t (kg/m ³)	DO [ml/l]	AOU [ml/l]	Nitrate [uM]	Pre-No ₃ [uM]	Flur [V]	Chl-a [mg/m ³]	Relative pelagic abundance (no./10 ³ ton)
52	38.5	27.445	33.313	21.310	3.772	0.728	0.52	-3.090	5.780	1.563	
53	9.5	30.097	32.090	19.517			0.43		0.733	0.228	5.4
	19.5	30.096	32.996	20.196	4.398	-0.076	0.41	0.790	0.614	0.196	6.0
	29.5	29.555	33.759	20.952	4.530	-0.192	0.43	1.380	0.606	0.194	
	39.5	26.915	33.812	21.855	4.480	0.044	0.46	0.240	1.322	0.384	3.2
	44.5	26.806	33.831	21.904	4.391	0.141	0.53	-0.170	2.698	0.748	
	50.5	26.832	33.811	21.882	4.362	0.169	0.39		3.251	0.894	
54	9.5	30.143	32.716	19.970	4.386	-0.059	0.42		0.423	0.146	
	19.5	29.981	33.606	20.692	4.403	-0.087	0.37		0.452	0.153	2.7
	29.5	27.986	33.907	21.582	4.474	-0.031	0.43	0.580	0.689	0.216	1.1
	39.5	27.359	33.873	21.759	4.489	0.001	0.4	0.400	0.606	0.194	
	44.5	26.830	33.880	21.933	4.403	0.126	0.73	0.110	1.369	0.396	
	49.5	26.804	33.885	21.946			0.45		2.775	0.768	
	59.5	26.801	33.883	21.946			0.4		3.103	0.855	
55	9.5	30.177	33.490	20.537	4.374	-0.071	0.38	0.730	0.411	0.143	0.1
	19.5	29.889	33.693	20.789	4.409	-0.092	0.37	0.830	0.433	0.148	
	29.5	29.341	33.741	21.010	4.456	-0.103	0.54	1.050	0.555	0.181	0.1
	39.5	26.868	33.834	21.886			0.45		0.617	0.197	
	49.5	26.698	33.857	21.958			0.43		1.691	0.481	
	58.5	26.695	33.856	21.959			0.42		2.055	0.578	
56	9.5	30.084	33.698	20.725	4.383	-0.079	0.41	0.800	0.548	0.179	1.1
	19.5	29.631	33.656	20.848	4.371	-0.036	0.41	0.590	0.553	0.180	
	29.5	29.186	33.656	20.998	4.426	-0.060	0.4	0.700	0.681	0.214	
	34.5	27.399	33.857	21.734	4.458	0.030	0.43	0.280	0.819	0.251	1.0
	44.5	26.844	33.884	21.932			0.4		1.613	0.461	
	49.5	26.782	33.890	21.956			0.39		2.645	0.734	
	59.5	26.782	33.888	21.956			0.44		3.510	0.963	
57	9.5	29.831	33.659	20.781	4.396	-0.074	0.4	0.770	0.546	0.178	0.7
	19.5	29.784	33.649	20.791	4.414	-0.089	0.42	0.860	0.587	0.189	
	29.5	27.688	33.609	21.455	4.385	0.089	0.36	-0.080	0.665	0.210	0.3
	34.5	26.539	33.883	22.027	4.479	0.071	0.38	0.030	1.085	0.321	0.1
	44.5	26.486	33.881	22.043	4.493	0.061	0.42	0.120	2.226	0.623	
	58.5	26.486	33.881	22.044	4.492	0.062	0.42	0.110	2.421	0.674	
58	9.5	30.203	33.548	20.572	4.372	-0.072	0.38	0.740	0.387	0.136	<0.1

Appendix C. (Continue)

St no.	Depth [m]	Temp [°C]	Sal [psu]	Sigma-t (kg/m ³)	DO [ml/l]	AOU [ml/l]	Nitrate [uM]	Pre-No ₃ [uM]	Flur [V]	Chl-a [mg/m ³]	Relative pelagic abundance (no./10 ³ ton)
58	19.5	29.614	33.655	20.853	4.501	-0.165	0.43	1.250	0.699	0.219	
	29.5	28.224	33.752	21.388	4.555	-0.124	0.43	1.040	0.578	0.187	<0.1
	39.5	26.511	33.787	21.964	4.595	-0.040	0.42	0.620	0.671	0.211	
	49.5	26.462	33.790	21.982	4.529	0.030	0.38	0.230	1.822	0.516	
	59.5	26.460	33.788	21.982	4.479	0.080	0.39	-0.010	2.262	0.632	
59	9.5	30.315	32.666	19.874	4.389	-0.073	0.39	0.750	0.474	0.159	
	19.5	29.820	33.638	20.771	4.424	-0.101	0.37	0.870	0.468	0.158	0.8
	29.5	27.276	33.749	21.692	4.480	0.019	0.37	0.280	0.556	0.181	1.0
	39.5	26.416	33.822	22.020	4.440	0.121	0.41	-0.190	0.929	0.280	0.2
	49.5	26.404	33.821	22.023	4.392	0.169	0.4	-0.440	1.415	0.408	
	62.5	26.403	33.820	22.024			0.41		1.657	0.472	
60	9.5	30.235	32.730	19.948	4.388	-0.069	0.42	0.760	0.495	0.165	
	19.5	29.919	33.658	20.752	4.432	-0.116	0.35	0.930	0.498	0.166	18.0
	34.5	26.601	33.846	21.979	4.502	0.044	0.25	0.030	0.651	0.206	1.2
	44.5	26.454	33.860	22.037	4.405	0.152	0.38	-0.370	2.068	0.581	0.5
	56.5	26.456	33.859	22.037	4.346	0.210	0.35	-0.690	2.350	0.656	
61	9.5	30.346	32.124	19.457	4.399	-0.071	0.79	1.140	0.627	0.200	6.3
	19.5	30.175	33.613	20.631	4.519	-0.219	0.43	1.520	0.580	0.187	
	29.5	27.375	33.472	21.452	4.468	0.031	0.64	0.480	0.736	0.229	3.7
	34.5	26.687	33.775	21.898	4.491	0.051	0.73	0.480	1.735	0.493	
	47.5	26.679	33.775	21.902	4.431	0.112	0.62	0.650	2.703	0.749	
62	9.5	30.338	33.488	20.481	4.382	-0.090	0.73	1.180	0.547	0.179	5.7
	19.5	29.041	33.661	21.049	4.497	-0.121	0.67	1.270	0.501	0.166	1.2
	24.5	27.182	33.811	21.768	4.557	-0.053	0.68	0.940	0.536	0.176	
	29.5	26.584	33.792	21.944	4.514	0.035	0.82	0.650	0.616	0.197	
	39.5	26.399	33.842	22.040	4.414	0.148	1.19	0.460	1.504	0.432	0.9
	49.5	26.389	33.842	22.044	4.364	0.199	0.9	-0.090	2.430	0.677	
	57.5	26.389	33.843	22.045	4.330	0.233	0.73	-0.420	2.468	0.687	
63	5.5	30.274	32.809	19.995	4.357	-0.042	0.32	0.530	0.504	0.167	
	9.5	29.796	33.670	20.802	4.347	-0.023	0.33	0.450	0.474	0.159	2.8
	19.5	29.289	33.686	20.985	4.444	-0.086	0.3	0.730	0.462	0.156	
	24.5	27.823	33.678	21.462	4.322	0.139	0.47	-0.220	0.502	0.167	1.4
	34.5	26.346	33.791	22.018	4.170	0.398	0.27	-1.700	0.919	0.277	1.3
	39.5	26.184	33.818	22.089	4.175	0.404	0.03	-1.970	1.171	0.344	
	49.5	26.168	33.818	22.095	4.219	0.360	0.26	-1.530	1.971	0.555	

Appendix C. (Continue)

St no.	Depth [m]	Temp [°C]	Sal [psu]	Sigma-t (kg/m ³)	DO [ml/l]	AOU [ml/l]	Nitrate [uM]	Pre-No ₃ [uM]	Flur [V]	Chl-a [mg/m ³]	Relative pelagic abundance (no./10 ³ ton)
63	63.5	26.169	33.818	22.095			0.27		2.350	0.656	
64	9.5	29.820	32.574	19.973	4.464	-0.112	0.22	0.780	0.703	0.220	
	19.5	29.189	33.699	21.029	4.550	-0.185	0.32	1.240	0.786	0.242	3.9
	29.5	27.013	33.675	21.720	4.422	0.099	0.14	-0.350	1.123	0.331	
	49.5	26.300	33.802	22.042	4.369	0.201	0.17	-0.830	2.828	0.782	0.4
	56.5	26.301	33.804	22.043	4.405	0.165	0.38	-0.440	2.708	0.750	
65	9.5	29.808	32.150	19.660	4.467	-0.103	0.14	0.650	1.077	0.319	
	19.5	28.385	33.670	21.273	4.534	-0.112	0.22	0.780	0.737	0.229	0.7
	29.5	26.386	33.775	21.993	4.660	-0.096	0.15	0.620	0.794	0.244	
	39.5	26.178	33.825	22.096	4.574	0.005	0.22	0.190	1.296	0.377	0.7
	44.5	26.074	33.826	22.130	4.531	0.056	0.14	-0.140	2.271	0.635	
	54.5	25.890	33.836	22.195	4.430	0.170	1.13	0.290	3.056	0.842	
	63.5	25.884	33.837	22.198	4.468	0.133	1.25	0.590	2.964	0.818	
66	19.5	29.562	33.678	20.887	4.466	-0.127	0.19	0.820	0.956	0.287	15.2
	29.5	27.453	33.730	21.621	4.553	-0.066	0.15	0.480	1.038	0.308	5.1
	39.5	26.439	33.877	22.054	4.664	-0.106	0.2	0.730	1.128	0.332	0.2
	49.5	25.203	33.934	22.479	4.722	-0.071	1.03	1.380	1.709	0.486	
	59.5	24.905	33.936	22.572	4.627	0.047	1.89	1.660	2.963	0.818	
	69.5	24.906	33.935	22.571			1.57		2.807	0.777	
67	19.5	29.957	33.118	20.335	4.441	-0.113	0.13	0.690	0.865	0.263	7.8
	29.5	27.894	33.731	21.480	4.663	-0.208	0.23	1.260	0.976	0.292	
	39.5	25.673	33.895	22.306	4.801	-0.186	0.22	1.140	1.293	0.376	1.7
	49.5	24.851	33.920	22.575	4.654	0.025	0.27	0.150	1.173	0.344	
	57.5	24.123	34.000	22.853	4.483	0.252	0.89	-0.360	2.217	0.620	
	64.5	24.081	34.008	22.872	4.358	0.380	1.57	-0.320	2.630	0.730	
	75.5	24.080	34.008	22.874			4.41		2.579	0.716	
68	9.5	29.891	32.565	19.942	4.437	-0.090	0.33	0.780	0.635	0.202	3.6
	19.5	29.927	32.600	19.957	4.484	-0.140	0.3	1.000	0.669	0.211	
	29.5	27.585	33.661	21.527	4.512	-0.033	0.26	0.420	0.733	0.228	0.2
	39.5	26.533	33.673	21.871	4.603	-0.047	0.43	0.660	0.842	0.257	
	49.5	25.997	33.767	22.109	4.558	0.036	0.34	0.160	1.376	0.398	<0.1
	59.5	24.725	33.956	22.641	4.469	0.218	1.29	0.210	2.527	0.702	
	70.5	24.713	33.958	22.647	4.496	0.193	1.44	0.480	2.727	0.755	
69	9.5	29.508	32.792	20.241	4.433	-0.066	0.43	0.760	1.047	0.311	9.1

Appendix C. (Continue)

St no.	Depth [m]	Temp [°C]	Sal [psu]	Sigma-t (kg/m ³)	DO [ml/l]	AOU [ml/l]	Nitrate [uM]	Pre-No ₃ [uM]	Flur [V]	Chl-a [mg/m ³]	Relative pelagic abundance (no./10 ³ ton)
69	19.5	29.572	33.305	20.605	4.554	-0.205	0.33	1.350	1.156	0.340	
	24.5	27.158	33.767	21.743	4.610	-0.103	0.28	0.790	1.118	0.330	2.2
	29.5	26.728	33.741	21.860	4.547	-0.007	0.48	0.510	1.375	0.398	
	39.5	26.241	33.742	22.015	4.474	0.102	0.37	-0.140	2.223	0.622	0.1
	44.5	26.144	33.767	22.064	4.425	0.158	0.4	-0.390	3.008	0.830	
	63.5	26.142	33.770	22.068	4.353	0.230	0.34	-0.800	2.368	0.660	
70	14.5	27.784	33.459	21.310	4.441	0.029	0.25	0.100	1.172	0.344	6.3
	19.5	27.028	33.677	21.716	4.278	0.242	0.26	-0.940	2.252	0.630	
	24.5	26.841	33.703	21.795	4.279	0.254	0.41	-0.850	4.675	1.271	
	29.5	26.836	33.703	21.797	4.263	0.270	0.47	-0.870	6.213	1.678	
	37.5	26.834	33.703	21.798	4.236	0.297	0.61	-0.860	4.706	1.279	
71	9.5	28.627	33.356	20.957	4.448	-0.035	0.19	0.360	2.096	0.588	
	14.5	27.570	33.624	21.503	4.381	0.100	0.31	-0.190	2.447	0.681	26.4
	19.5	27.297	33.671	21.626	4.312	0.188	0.39	-0.540	4.498	1.224	
	29.5	27.298	33.670	21.625	4.283	0.216	0.03	-1.040	4.752	1.291	
72	9.5	29.345	32.749	20.263	4.447	-0.067	0.24	0.570	0.915	0.276	14.3
	19.5	27.810	33.667	21.458	4.230	0.233	0.18	-0.970	0.840	0.256	2.3
	24.5	26.760	33.717	21.832	4.144	0.394	0.42	-1.530	1.074	0.318	
	34.5	26.237	33.723	22.001			0.24		2.899	0.801	
	39.5	26.242	33.722	21.999			0.34		3.203	0.881	
	53.5	26.240	33.722	22.000			0.21		3.266	0.898	
73	14.5	29.419	32.982	20.413	4.463	-0.095	0.21	0.680	0.574	0.186	2.2
	29.5	27.879	33.566	21.360	4.498	-0.037	0.41	0.590	0.950	0.285	<0.1
	39.5	26.347	33.665	21.923	4.502	0.069	0.08	-0.260	1.005	0.300	
	49.5	25.751	33.727	22.155	4.428	0.187	0.43	-0.500	2.563	0.712	<0.1
	59.5	25.238	33.854	22.409	4.371	0.280	0.85	-0.540	3.117	0.859	
	71.5	25.014	33.904	22.516	4.456	0.211	1.18	0.140	2.640	0.732	
74	9.5	29.273	33.091	20.543	4.465	-0.090	0.24	0.680	0.509	0.168	2.2
	24.5	27.625	33.500	21.392	4.605	-0.124	0.21	0.830	1.123	0.331	0.3
	34.5	26.210	33.668	21.968	4.584	-0.003	0.25	0.270	1.472	0.423	
	44.5	25.959	33.715	22.082	4.453	0.145	0.26	-0.460	3.668	1.004	<0.1
	54.5	25.945	33.724	22.094	4.375	0.225	0.33	-0.780	4.110	1.121	
	65.5	25.947	33.723	22.093	4.308	0.291	0.4	-1.040	3.252	0.894	
75	9.5	28.986	33.273	20.776	4.453	-0.063	0.18	0.490	0.589	0.190	

Appendix C. (Continue)

St no.	Depth [m]	Temp [°C]	Sal [psu]	Sigma-t (kg/m ³)	DO [ml/l]	AOU [ml/l]	Nitrate [uM]	Pre-No ₃ [uM]	Flur [V]	Chl-a [mg/m ³]	Relative pelagic abundance (no./10 ³ ton)
	19.5	27.079	33.620	21.657	4.577	-0.060	0.24	0.540	0.752	0.233	3.4
	39.5	26.285	33.718	21.982	4.415	0.159	0.35	-0.440	4.371	1.190	
	44.5	26.284	33.718	21.983	4.362	0.212	0.32	-0.730	4.364	1.189	
	53.5	26.287	33.719	21.983	4.299	0.275	0.22	-1.140	4.104	1.120	
76	9.5	28.635	33.222	20.854	4.408	0.008	0.18	0.140	0.945	0.284	
	14.5	28.042	33.540	21.287	4.341	0.109	0.4	-0.140	2.170	0.608	12.4
	25.5	27.999	33.562	21.318	4.293	0.159	0.24	-0.550	1.625	0.464	
77	9.5	27.784	33.514	21.350	4.513	-0.044	0.57	0.790	1.015	0.302	2.7
	14.5	27.213	33.683	21.662	4.698	-0.192	0.35	1.300	0.782	0.241	
	24.5	26.993	33.692	21.739	4.755	-0.233	0.68	1.840	0.887	0.269	
	34.5	26.392	33.704	21.938	4.616	-0.050	0.4	0.650	2.384	0.665	
	39.5	26.385	33.704	21.941	4.596	-0.029	0.31	0.450	3.361	0.923	
	47.5	26.386	33.706	21.942	4.470	0.097	0.58	0.100	3.387	0.930	
78	9.5	28.862	33.215	20.774	4.479	-0.078	0.77	1.160	0.811	0.248	3.9
	27.5	27.431	33.536	21.482	4.524	-0.030	0.93	1.080	1.357	0.393	1.0
	39.5	26.367	33.664	21.916	4.581	-0.012	2.47	2.530	1.914	0.540	
	44.5	26.148	33.673	21.992	4.536	0.049	2.51	2.270	2.633	0.730	
	49.5	25.969	33.691	22.061	4.458	0.141	0.63	-0.070	4.081	1.114	
	62.5	25.969	33.689	22.061			2.94		3.494	0.958	
79	9.5	29.259	32.907	20.410	5.017	-0.633	2.06	5.210	1.343	0.389	26.0
	19.5	28.116	33.523	21.250	4.999	-0.554	2.02	4.770	1.503	0.431	4.5
	24.5	27.311	33.588	21.559	5.032	-0.531	0.96	3.590	2.137	0.599	
	29.5	26.996	33.618	21.682	5.064	-0.540	0.51	3.190	2.033	0.572	
	41.5	26.275	33.681	21.958	4.959	-0.383	1.22	3.120	4.149	1.132	
	49.5	26.209	33.684	21.981	4.852	-0.271	1.84	3.190	4.021	1.098	
	58.5	26.211	33.685	21.982	4.794	-0.214	1.25	2.310	3.179	0.875	
80	9.5	27.965	33.450	21.244	4.752	-0.294	2.17	3.630	1.094	0.323	20.3
	14.5	27.592	33.535	21.429	4.811	-0.329	1.1	2.730	1.152	0.339	
	19.5	27.135	33.635	21.651	4.869	-0.356	0.57	2.340	1.330	0.386	
	24.5	26.924	33.660	21.737	4.835	-0.307	0.93	2.450	2.969	0.819	
	30.5	26.901	33.662	21.746	4.728	-0.199	1	1.990	3.980	1.087	
81	9.5	28.967	33.093	20.647	5.159	-0.762	1.51	5.290	1.905	0.538	
	19.5	27.621	33.601	21.469	5.131	-0.653	2.56	5.800	2.403	0.670	19.8
	29.5	27.172	33.622	21.629	5.152	-0.642	0.77	3.950	3.721	1.018	
	39.5	26.912	33.641	21.727	5.069	-0.540	2.31	4.990	3.601	0.987	
	44.5	26.852	33.645	21.750	4.995	-0.462	2.2	4.490	3.308	0.909	
	52.5	26.833	33.645	21.757	4.967	-0.432	1.35	3.490	3.262	0.897	

Biography

Mrs. Penjan Laongmanee was born on April, 13 1971 at Bangkok. She received a B.Sc. Degree from Department of Marine Science, Faculty of Fishery, Kasetsart University in 1993. She works with Southeast Asian Fisheries Development Center as a Fishing ground information researcher since 1994 to present. In 1998, she enrolled in a Master Degree Program at Department of Marine Science, Faculty of Science, Chulalongkorn University.

