

Fig. 1. Maps of studied lakes.

Fig. 2. Designs of mooring arrays set in Oyako Ike (left) and Naga Ike (right).

L Oyako Ike

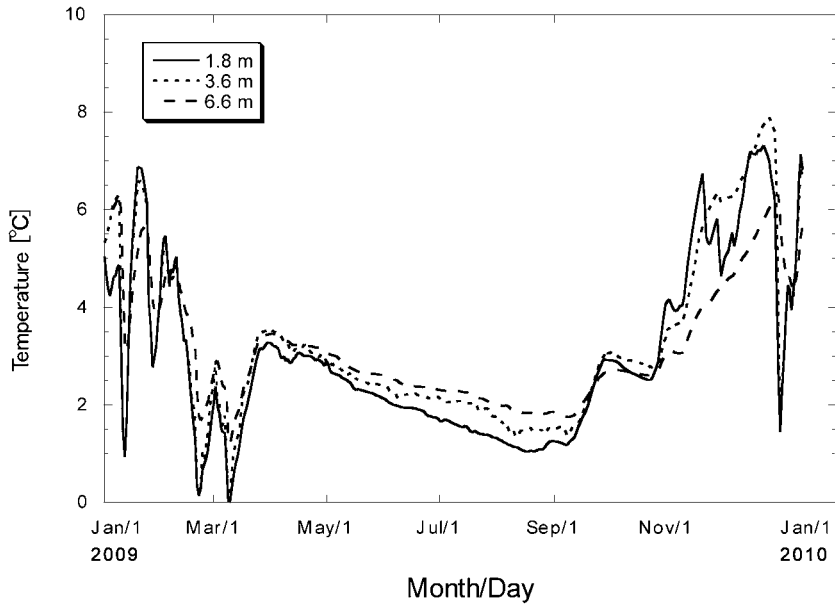


Fig. 3. Seasonal changes of water temperature at three depths in Oyako Ike (2009–2010). Daily average data.

Table 1-1. Water temperature data (°C) at 3 depths in Oyako Ike, January 2009.

Depth Date	1.8 m			3.6 m			6.6 m		
	daily average	minimum	maximum	daily average	minimum	maximum	daily average	minimum	maximum
2009/1/1	5.042	4.561	5.203	5.328	5.138	5.622	5.803	5.792	5.817
2009/1/2	4.693	4.389	5.131	5.413	5.283	5.517	5.810	5.799	5.822
2009/1/3	4.379	4.009	4.676	5.589	5.481	5.737	5.836	5.825	5.867
2009/1/4	4.243	3.805	4.575	5.734	5.599	5.851	5.888	5.871	5.920
2009/1/5	4.409	3.973	4.896	5.986	5.776	6.134	5.955	5.924	6.013
2009/1/6	4.630	4.330	5.045	6.189	6.103	6.296	6.048	6.017	6.094
2009/1/7	4.634	4.279	4.909	6.203	6.080	6.279	6.123	6.098	6.172
2009/1/8	4.812	4.574	5.093	6.264	6.220	6.332	6.205	6.176	6.254
2009/1/9	4.868	4.242	5.235	6.304	6.236	6.392	6.290	6.258	6.341
2009/1/10	3.222	2.488	5.113	3.498	2.515	6.366	5.982	5.368	6.361
2009/1/11	1.455	1.040	2.355	1.461	0.976	2.405	4.579	3.992	5.321
2009/1/12	0.932	0.577	1.185	0.915	0.574	1.197	3.277	2.679	3.953
2009/1/13	1.694	1.034	2.709	1.753	1.017	2.794	3.122	3.076	3.196
2009/1/14	3.178	2.586	4.092	3.240	2.745	3.986	3.394	3.216	3.597
2009/1/15	4.549	3.894	5.449	4.411	3.918	5.361	3.814	3.618	4.040
2009/1/16	5.342	4.644	6.401	5.164	4.598	5.734	4.267	4.064	4.440
2009/1/17	5.818	5.168	6.737	5.548	5.004	5.972	4.613	4.456	4.758
2009/1/18	6.396	5.893	7.259	5.934	5.724	6.262	4.888	4.771	5.011
2009/1/19	6.875	6.221	7.582	6.435	5.991	7.013	5.131	5.023	5.255
2009/1/20	6.862	6.212	7.541	6.603	6.135	6.998	5.383	5.264	5.513
2009/1/21	6.857	6.519	7.215	6.515	6.243	6.908	5.577	5.524	5.595
2009/1/22	6.658	6.345	6.959	6.441	6.126	6.695	5.609	5.596	5.644
2009/1/23	6.429	6.139	6.726	6.280	5.997	6.556	5.669	5.648	5.692
2009/1/24	6.144	5.561	6.587	6.047	5.516	6.363	5.683	5.659	5.707
2009/1/25	4.078	3.788	5.187	4.073	3.779	5.185	5.297	4.983	5.649
2009/1/26	3.597	3.291	3.771	3.591	3.288	3.765	4.713	4.318	4.962
2009/1/27	2.768	2.566	3.192	2.765	2.547	3.158	4.165	4.007	4.292
2009/1/28	2.978	2.782	3.244	2.979	2.779	3.271	3.913	3.847	4.000
2009/1/29	3.220	2.912	3.650	3.222	2.919	3.613	3.852	3.848	3.865
2009/1/30	3.780	3.594	4.072	3.752	3.557	4.083	3.905	3.868	3.962
2009/1/31	4.207	3.869	4.675	4.121	3.799	4.560	4.028	3.970	4.100
<i>Monthly</i>	4.476	4.041	5.047	4.766	4.441	5.239	4.994	4.857	5.136

Table 1-2. Water temperature data (°C) at 3 depths in Oyako Ike, February 2009.

Depth Date	1.8 m			3.6 m			6.6 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/2/1	5.006	4.386	6.006	4.795	4.321	5.408	4.195	4.107	4.300
2009/2/2	5.380	4.820	6.054	5.130	4.756	5.501	4.434	4.310	4.550
2009/2/3	5.463	5.203	5.639	5.392	5.161	5.587	4.647	4.559	4.751
2009/2/4	5.032	4.383	5.499	5.024	4.358	5.502	4.814	4.761	4.864
2009/2/5	4.466	4.025	5.063	4.396	3.985	4.992	4.628	4.553	4.764
2009/2/6	4.784	4.630	4.953	4.751	4.611	4.889	4.601	4.570	4.611
2009/2/7	4.704	4.195	5.348	4.588	4.122	5.103	4.570	4.538	4.610
2009/2/8	4.936	4.514	5.232	4.809	4.421	5.219	4.589	4.571	4.608
2009/2/9	5.036	4.677	5.503	4.909	4.358	5.418	4.633	4.615	4.650
2009/2/10	4.258	3.702	5.087	4.229	3.690	5.097	4.603	4.485	4.667
2009/2/11	3.938	3.550	4.566	3.891	3.608	4.382	4.353	4.308	4.470
2009/2/12	3.683	3.285	4.131	3.675	3.230	4.158	4.253	4.169	4.325
2009/2/13	3.295	2.803	3.709	3.297	2.889	3.773	4.057	3.955	4.166
2009/2/14	3.350	2.973	3.756	3.329	2.978	3.755	3.901	3.862	3.955
2009/2/15	2.983	2.778	3.582	3.011	2.810	3.574	3.838	3.752	3.887
2009/2/16	2.480	2.300	2.812	2.758	2.379	2.913	3.679	3.649	3.743
2009/2/17	2.055	1.675	2.332	2.154	1.808	2.596	3.578	3.451	3.674
2009/2/18	1.664	1.177	2.005	2.038	1.871	2.189	3.312	3.251	3.438
2009/2/19	1.313	0.987	1.765	1.738	1.019	2.133	3.208	2.888	3.303
2009/2/20	0.362	0.153	0.874	0.354	0.138	0.886	2.338	1.662	3.063
2009/2/21	0.148	-0.057	0.324	0.133	-0.072	0.307	1.782	1.515	2.030
2009/2/22	0.286	0.079	0.642	0.319	0.056	0.800	1.687	1.646	1.756
2009/2/23	0.675	0.317	1.001	1.031	0.746	1.575	1.770	1.680	1.922
2009/2/24	0.798	0.484	1.131	0.900	0.536	1.629	1.930	1.868	2.004
2009/2/25	0.904	0.626	1.087	1.212	1.019	1.375	1.982	1.898	2.057
2009/2/26	1.096	0.820	1.322	1.495	1.280	1.874	2.089	2.060	2.178
2009/2/27	1.424	1.256	1.640	1.982	1.853	2.146	2.287	2.189	2.394
2009/2/28	1.753	1.531	1.999	2.239	2.089	2.344	2.470	2.401	2.581
<i>Monthly</i>	2.903	2.545	3.324	2.985	2.644	3.397	3.508	3.403	3.619

Table 1-3. Water temperature data (°C) at 3 depths in Oyako Ike, March 2009.

Depth Date	1.8 m			3.6 m			6.6 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/3/1	1.320	1.303	1.362	1.798	1.780	1.812	2.022	2.019	2.027
2009/3/2	1.294	1.282	1.301	1.743	1.672	1.792	2.020	2.007	2.028
2009/3/3	1.279	1.267	1.294	1.665	1.648	1.696	1.996	1.989	2.006
2009/3/4	1.258	1.214	1.274	1.646	1.551	1.732	1.984	1.982	1.989
2009/3/5	1.226	1.210	1.248	1.546	1.538	1.560	1.986	1.983	1.993
2009/3/6	1.219	1.193	1.248	1.585	1.563	1.616	1.994	1.991	1.997
2009/3/7	1.187	1.179	1.195	1.529	1.397	1.619	1.976	1.956	1.991
2009/3/8	1.181	1.174	1.184	1.412	1.395	1.427	1.935	1.919	1.954
2009/3/9	1.161	1.151	1.173	1.455	1.430	1.479	1.909	1.901	1.919
2009/3/10	1.146	1.141	1.150	1.468	1.423	1.486	1.893	1.887	1.900
2009/3/11	1.142	1.139	1.144	1.346	1.309	1.412	1.883	1.880	1.887
2009/3/12	1.135	1.125	1.142	1.363	1.313	1.402	1.880	1.880	1.882
2009/3/13	1.108	1.096	1.122	1.426	1.403	1.460	1.884	1.882	1.886
2009/3/14	1.089	1.084	1.096	1.481	1.463	1.488	1.860	1.846	1.880
2009/3/15	1.071	1.058	1.083	1.482	1.477	1.486	1.839	1.835	1.845
2009/3/16	1.053	1.048	1.064	1.481	1.475	1.492	1.834	1.832	1.838
2009/3/17	1.047	1.039	1.055	1.519	1.485	1.552	1.839	1.836	1.842
2009/3/18	1.047	1.037	1.058	1.542	1.536	1.548	1.843	1.840	1.847
2009/3/19	1.065	1.055	1.074	1.542	1.536	1.546	1.845	1.842	1.847
2009/3/20	1.061	1.054	1.067	1.479	1.454	1.532	1.833	1.827	1.841
2009/3/21	1.049	1.044	1.054	1.457	1.454	1.465	1.820	1.816	1.826
2009/3/22	1.061	1.052	1.070	1.456	1.450	1.462	1.810	1.806	1.815
2009/3/23	1.082	1.063	1.108	1.471	1.460	1.492	1.800	1.794	1.805
2009/3/24	1.091	1.070	1.122	1.496	1.475	1.523	1.804	1.797	1.818
2009/3/25	1.086	1.066	1.108	1.494	1.443	1.527	1.813	1.806	1.822
2009/3/26	1.103	1.080	1.133	1.408	1.390	1.437	1.818	1.809	1.827
2009/3/27	1.141	1.111	1.173	1.417	1.386	1.451	1.824	1.815	1.834
2009/3/28	1.199	1.158	1.252	1.473	1.443	1.520	1.830	1.822	1.841
2009/3/29	1.238	1.205	1.281	1.533	1.515	1.574	1.845	1.837	1.861
2009/3/30	1.258	1.234	1.284	1.521	1.512	1.549	1.864	1.859	1.872
2009/3/31	1.261	1.256	1.269	1.514	1.510	1.519	1.865	1.861	1.871
<i>Monthly</i>	1.150	1.135	1.167	1.508	1.480	1.537	1.882	1.876	1.890

Table 1-4. Water temperature data (°C) at 3 depths in Oyako Ike, April 2009.

Depth Date	1.8 m			3.6 m			6.6 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/4/1	1.320	1.303	1.362	1.798	1.780	1.812	2.022	2.019	2.027
2009/4/2	1.294	1.282	1.301	1.743	1.672	1.792	2.020	2.007	2.028
2009/4/3	1.279	1.267	1.294	1.665	1.648	1.696	1.996	1.989	2.006
2009/4/4	1.258	1.214	1.274	1.646	1.551	1.732	1.984	1.982	1.989
2009/4/5	1.226	1.210	1.248	1.546	1.538	1.560	1.986	1.983	1.993
2009/4/6	1.219	1.193	1.248	1.585	1.563	1.616	1.994	1.991	1.997
2009/4/7	1.187	1.179	1.195	1.529	1.397	1.619	1.976	1.956	1.991
2009/4/8	1.181	1.174	1.184	1.412	1.395	1.427	1.935	1.919	1.954
2009/4/9	1.161	1.151	1.173	1.455	1.430	1.479	1.909	1.901	1.919
2009/4/10	1.146	1.141	1.150	1.468	1.423	1.486	1.893	1.887	1.900
2009/4/11	1.142	1.139	1.144	1.346	1.309	1.412	1.883	1.880	1.887
2009/4/12	1.135	1.125	1.142	1.363	1.313	1.402	1.880	1.880	1.882
2009/4/13	1.108	1.096	1.122	1.426	1.403	1.460	1.884	1.882	1.886
2009/4/14	1.089	1.084	1.096	1.481	1.463	1.488	1.860	1.846	1.880
2009/4/15	1.071	1.058	1.083	1.482	1.477	1.486	1.839	1.835	1.845
2009/4/16	1.053	1.048	1.064	1.481	1.475	1.492	1.834	1.832	1.838
2009/4/17	1.047	1.039	1.055	1.519	1.485	1.552	1.839	1.836	1.842
2009/4/18	1.047	1.037	1.058	1.542	1.536	1.548	1.843	1.840	1.847
2009/4/19	1.065	1.055	1.074	1.542	1.536	1.546	1.845	1.842	1.847
2009/4/20	1.061	1.054	1.067	1.479	1.454	1.532	1.833	1.827	1.841
2009/4/21	1.049	1.044	1.054	1.457	1.454	1.465	1.820	1.816	1.826
2009/4/22	1.061	1.052	1.070	1.456	1.450	1.462	1.810	1.806	1.815
2009/4/23	1.082	1.063	1.108	1.471	1.460	1.492	1.800	1.794	1.805
2009/4/24	1.091	1.070	1.122	1.496	1.475	1.523	1.804	1.797	1.818
2009/4/25	1.086	1.066	1.108	1.494	1.443	1.527	1.813	1.806	1.822
2009/4/26	1.103	1.080	1.133	1.408	1.390	1.437	1.818	1.809	1.827
2009/4/27	1.141	1.111	1.173	1.417	1.386	1.451	1.824	1.815	1.834
2009/4/28	1.199	1.158	1.252	1.473	1.443	1.520	1.830	1.822	1.841
2009/4/29	1.238	1.205	1.281	1.533	1.515	1.574	1.845	1.837	1.861
2009/4/30	1.258	1.234	1.284	1.521	1.512	1.549	1.864	1.859	1.872
<i>Monthly</i>	1.146	1.131	1.164	1.508	1.479	1.538	1.883	1.877	1.891

Table 1-5. Water temperature data (°C) at 3 depths in Oyako Ike, May 2009.

Depth Date	1.8 m			3.6 m			6.6 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/5/1	1.320	1.303	1.362	1.798	1.780	1.812	2.022	2.019	2.027
2009/5/2	1.294	1.282	1.301	1.743	1.672	1.792	2.020	2.007	2.028
2009/5/3	1.279	1.267	1.294	1.665	1.648	1.696	1.996	1.989	2.006
2009/5/4	1.258	1.214	1.274	1.646	1.551	1.732	1.984	1.982	1.989
2009/5/5	1.226	1.210	1.248	1.546	1.538	1.560	1.986	1.983	1.993
2009/5/6	1.219	1.193	1.248	1.585	1.563	1.616	1.994	1.991	1.997
2009/5/7	1.187	1.179	1.195	1.529	1.397	1.619	1.976	1.956	1.991
2009/5/8	1.181	1.174	1.184	1.412	1.395	1.427	1.935	1.919	1.954
2009/5/9	1.161	1.151	1.173	1.455	1.430	1.479	1.909	1.901	1.919
2009/5/10	1.146	1.141	1.150	1.468	1.423	1.486	1.893	1.887	1.900
2009/5/11	1.142	1.139	1.144	1.346	1.309	1.412	1.883	1.880	1.887
2009/5/12	1.135	1.125	1.142	1.363	1.313	1.402	1.880	1.880	1.882
2009/5/13	1.108	1.096	1.122	1.426	1.403	1.460	1.884	1.882	1.886
2009/5/14	1.089	1.084	1.096	1.481	1.463	1.488	1.860	1.846	1.880
2009/5/15	1.071	1.058	1.083	1.482	1.477	1.486	1.839	1.835	1.845
2009/5/16	1.053	1.048	1.064	1.481	1.475	1.492	1.834	1.832	1.838
2009/5/17	1.047	1.039	1.055	1.519	1.485	1.552	1.839	1.836	1.842
2009/5/18	1.047	1.037	1.058	1.542	1.536	1.548	1.843	1.840	1.847
2009/5/19	1.065	1.055	1.074	1.542	1.536	1.546	1.845	1.842	1.847
2009/5/20	1.061	1.054	1.067	1.479	1.454	1.532	1.833	1.827	1.841
2009/5/21	1.049	1.044	1.054	1.457	1.454	1.465	1.820	1.816	1.826
2009/5/22	1.061	1.052	1.070	1.456	1.450	1.462	1.810	1.806	1.815
2009/5/23	1.082	1.063	1.108	1.471	1.460	1.492	1.800	1.794	1.805
2009/5/24	1.091	1.070	1.122	1.496	1.475	1.523	1.804	1.797	1.818
2009/5/25	1.086	1.066	1.108	1.494	1.443	1.527	1.813	1.806	1.822
2009/5/26	1.103	1.080	1.133	1.408	1.390	1.437	1.818	1.809	1.827
2009/5/27	1.141	1.111	1.173	1.417	1.386	1.451	1.824	1.815	1.834
2009/5/28	1.199	1.158	1.252	1.473	1.443	1.520	1.830	1.822	1.841
2009/5/29	1.238	1.205	1.281	1.533	1.515	1.574	1.845	1.837	1.861
2009/5/30	1.258	1.234	1.284	1.521	1.512	1.549	1.864	1.859	1.872
2009/5/31	1.261	1.256	1.269	1.514	1.510	1.519	1.865	1.861	1.871
<i>Monthly</i>	1.150	1.135	1.167	1.508	1.480	1.537	1.882	1.876	1.890

Table 1-6. Water temperature data (°C) at 3 depths in Oyako Ike, June 2009.

Depth Date	1.8 m			3.6 m			6.6 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/6/1	1.320	1.303	1.362	1.798	1.780	1.812	2.022	2.019	2.027
2009/6/2	1.294	1.282	1.301	1.743	1.672	1.792	2.020	2.007	2.028
2009/6/3	1.279	1.267	1.294	1.665	1.648	1.696	1.996	1.989	2.006
2009/6/4	1.258	1.214	1.274	1.646	1.551	1.732	1.984	1.982	1.989
2009/6/5	1.226	1.210	1.248	1.546	1.538	1.560	1.986	1.983	1.993
2009/6/6	1.219	1.193	1.248	1.585	1.563	1.616	1.994	1.991	1.997
2009/6/7	1.187	1.179	1.195	1.529	1.397	1.619	1.976	1.956	1.991
2009/6/8	1.181	1.174	1.184	1.412	1.395	1.427	1.935	1.919	1.954
2009/6/9	1.161	1.151	1.173	1.455	1.430	1.479	1.909	1.901	1.919
2009/6/10	1.146	1.141	1.150	1.468	1.423	1.486	1.893	1.887	1.900
2009/6/11	1.142	1.139	1.144	1.346	1.309	1.412	1.883	1.880	1.887
2009/6/12	1.135	1.125	1.142	1.363	1.313	1.402	1.880	1.880	1.882
2009/6/13	1.108	1.096	1.122	1.426	1.403	1.460	1.884	1.882	1.886
2009/6/14	1.089	1.084	1.096	1.481	1.463	1.488	1.860	1.846	1.880
2009/6/15	1.071	1.058	1.083	1.482	1.477	1.486	1.839	1.835	1.845
2009/6/16	1.053	1.048	1.064	1.481	1.475	1.492	1.834	1.832	1.838
2009/6/17	1.047	1.039	1.055	1.519	1.485	1.552	1.839	1.836	1.842
2009/6/18	1.047	1.037	1.058	1.542	1.536	1.548	1.843	1.840	1.847
2009/6/19	1.065	1.055	1.074	1.542	1.536	1.546	1.845	1.842	1.847
2009/6/20	1.061	1.054	1.067	1.479	1.454	1.532	1.833	1.827	1.841
2009/6/21	1.049	1.044	1.054	1.457	1.454	1.465	1.820	1.816	1.826
2009/6/22	1.061	1.052	1.070	1.456	1.450	1.462	1.810	1.806	1.815
2009/6/23	1.082	1.063	1.108	1.471	1.460	1.492	1.800	1.794	1.805
2009/6/24	1.091	1.070	1.122	1.496	1.475	1.523	1.804	1.797	1.818
2009/6/25	1.086	1.066	1.108	1.494	1.443	1.527	1.813	1.806	1.822
2009/6/26	1.103	1.080	1.133	1.408	1.390	1.437	1.818	1.809	1.827
2009/6/27	1.141	1.111	1.173	1.417	1.386	1.451	1.824	1.815	1.834
2009/6/28	1.199	1.158	1.252	1.473	1.443	1.520	1.830	1.822	1.841
2009/6/29	1.238	1.205	1.281	1.533	1.515	1.574	1.845	1.837	1.861
2009/6/30	1.258	1.234	1.284	1.521	1.512	1.549	1.864	1.859	1.872
<i>Monthly</i>	1.146	1.131	1.164	1.508	1.479	1.538	1.883	1.877	1.891

Table 1-7. Water temperature data (°C) at 3 depths in Oyako Ike, July 2009.

Depth Date	1.8 m			3.6 m			6.6 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/7/1	1.320	1.303	1.362	1.798	1.780	1.812	2.022	2.019	2.027
2009/7/2	1.294	1.282	1.301	1.743	1.672	1.792	2.020	2.007	2.028
2009/7/3	1.279	1.267	1.294	1.665	1.648	1.696	1.996	1.989	2.006
2009/7/4	1.258	1.214	1.274	1.646	1.551	1.732	1.984	1.982	1.989
2009/7/5	1.226	1.210	1.248	1.546	1.538	1.560	1.986	1.983	1.993
2009/7/6	1.219	1.193	1.248	1.585	1.563	1.616	1.994	1.991	1.997
2009/7/7	1.187	1.179	1.195	1.529	1.397	1.619	1.976	1.956	1.991
2009/7/8	1.181	1.174	1.184	1.412	1.395	1.427	1.935	1.919	1.954
2009/7/9	1.161	1.151	1.173	1.455	1.430	1.479	1.909	1.901	1.919
2009/7/10	1.146	1.141	1.150	1.468	1.423	1.486	1.893	1.887	1.900
2009/7/11	1.142	1.139	1.144	1.346	1.309	1.412	1.883	1.880	1.887
2009/7/12	1.135	1.125	1.142	1.363	1.313	1.402	1.880	1.880	1.882
2009/7/13	1.108	1.096	1.122	1.426	1.403	1.460	1.884	1.882	1.886
2009/7/14	1.089	1.084	1.096	1.481	1.463	1.488	1.860	1.846	1.880
2009/7/15	1.071	1.058	1.083	1.482	1.477	1.486	1.839	1.835	1.845
2009/7/16	1.053	1.048	1.064	1.481	1.475	1.492	1.834	1.832	1.838
2009/7/17	1.047	1.039	1.055	1.519	1.485	1.552	1.839	1.836	1.842
2009/7/18	1.047	1.037	1.058	1.542	1.536	1.548	1.843	1.840	1.847
2009/7/19	1.065	1.055	1.074	1.542	1.536	1.546	1.845	1.842	1.847
2009/7/20	1.061	1.054	1.067	1.479	1.454	1.532	1.833	1.827	1.841
2009/7/21	1.049	1.044	1.054	1.457	1.454	1.465	1.820	1.816	1.826
2009/7/22	1.061	1.052	1.070	1.456	1.450	1.462	1.810	1.806	1.815
2009/7/23	1.082	1.063	1.108	1.471	1.460	1.492	1.800	1.794	1.805
2009/7/24	1.091	1.070	1.122	1.496	1.475	1.523	1.804	1.797	1.818
2009/7/25	1.086	1.066	1.108	1.494	1.443	1.527	1.813	1.806	1.822
2009/7/26	1.103	1.080	1.133	1.408	1.390	1.437	1.818	1.809	1.827
2009/7/27	1.141	1.111	1.173	1.417	1.386	1.451	1.824	1.815	1.834
2009/7/28	1.199	1.158	1.252	1.473	1.443	1.520	1.830	1.822	1.841
2009/7/29	1.238	1.205	1.281	1.533	1.515	1.574	1.845	1.837	1.861
2009/7/30	1.258	1.234	1.284	1.521	1.512	1.549	1.864	1.859	1.872
2009/7/31	1.261	1.256	1.269	1.514	1.510	1.519	1.865	1.861	1.871
<i>Monthly</i>	1.150	1.135	1.167	1.508	1.480	1.537	1.882	1.876	1.890

Table 1-8. Water temperature data (°C) at 3 depths in Oyako Ike, August 2009.

Depth Date	1.8 m			3.6 m			6.6 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/8/1	1.320	1.303	1.362	1.798	1.780	1.812	2.022	2.019	2.027
2009/8/2	1.294	1.282	1.301	1.743	1.672	1.792	2.020	2.007	2.028
2009/8/3	1.279	1.267	1.294	1.665	1.648	1.696	1.996	1.989	2.006
2009/8/4	1.258	1.214	1.274	1.646	1.551	1.732	1.984	1.982	1.989
2009/8/5	1.226	1.210	1.248	1.546	1.538	1.560	1.986	1.983	1.993
2009/8/6	1.219	1.193	1.248	1.585	1.563	1.616	1.994	1.991	1.997
2009/8/7	1.187	1.179	1.195	1.529	1.397	1.619	1.976	1.956	1.991
2009/8/8	1.181	1.174	1.184	1.412	1.395	1.427	1.935	1.919	1.954
2009/8/9	1.161	1.151	1.173	1.455	1.430	1.479	1.909	1.901	1.919
2009/8/10	1.146	1.141	1.150	1.468	1.423	1.486	1.893	1.887	1.900
2009/8/11	1.142	1.139	1.144	1.346	1.309	1.412	1.883	1.880	1.887
2009/8/12	1.135	1.125	1.142	1.363	1.313	1.402	1.880	1.880	1.882
2009/8/13	1.108	1.096	1.122	1.426	1.403	1.460	1.884	1.882	1.886
2009/8/14	1.089	1.084	1.096	1.481	1.463	1.488	1.860	1.846	1.880
2009/8/15	1.071	1.058	1.083	1.482	1.477	1.486	1.839	1.835	1.845
2009/8/16	1.053	1.048	1.064	1.481	1.475	1.492	1.834	1.832	1.838
2009/8/17	1.047	1.039	1.055	1.519	1.485	1.552	1.839	1.836	1.842
2009/8/18	1.047	1.037	1.058	1.542	1.536	1.548	1.843	1.840	1.847
2009/8/19	1.065	1.055	1.074	1.542	1.536	1.546	1.845	1.842	1.847
2009/8/20	1.061	1.054	1.067	1.479	1.454	1.532	1.833	1.827	1.841
2009/8/21	1.049	1.044	1.054	1.457	1.454	1.465	1.820	1.816	1.826
2009/8/22	1.061	1.052	1.070	1.456	1.450	1.462	1.810	1.806	1.815
2009/8/23	1.082	1.063	1.108	1.471	1.460	1.492	1.800	1.794	1.805
2009/8/24	1.091	1.070	1.122	1.496	1.475	1.523	1.804	1.797	1.818
2009/8/25	1.086	1.066	1.108	1.494	1.443	1.527	1.813	1.806	1.822
2009/8/26	1.103	1.080	1.133	1.408	1.390	1.437	1.818	1.809	1.827
2009/8/27	1.141	1.111	1.173	1.417	1.386	1.451	1.824	1.815	1.834
2009/8/28	1.199	1.158	1.252	1.473	1.443	1.520	1.830	1.822	1.841
2009/8/29	1.238	1.205	1.281	1.533	1.515	1.574	1.845	1.837	1.861
2009/8/30	1.258	1.234	1.284	1.521	1.512	1.549	1.864	1.859	1.872
2009/8/31	1.261	1.256	1.269	1.514	1.510	1.519	1.865	1.861	1.871
<i>Monthly</i>	1.150	1.135	1.167	1.508	1.480	1.537	1.882	1.876	1.890

Table 1-9. Water temperature data (°C) at 3 depths in Oyako Ike, September 2009.

Depth Date	1.8 m			3.6 m			6.6 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/9/1	1.451	1.053	2.284	1.920	1.503	2.480	5.793	5.482	6.181
2009/9/2	2.290	1.881	2.744	2.513	2.285	2.925	5.260	5.102	5.462
2009/9/3	2.941	2.530	3.611	3.007	2.625	3.755	4.954	4.833	5.092
2009/9/4	3.798	3.173	4.468	3.771	3.279	4.413	4.677	4.605	4.818
2009/9/5	4.452	4.168	4.813	4.335	4.117	4.706	4.597	4.568	4.628
2009/9/6	4.361	4.102	4.775	4.340	4.155	4.682	4.615	4.577	4.632
2009/9/7	3.951	3.748	4.195	3.947	3.708	4.179	4.468	4.396	4.572
2009/9/8	4.341	3.664	5.289	4.200	3.598	5.181	4.357	4.308	4.400
2009/9/9	4.703	4.180	5.213	4.647	4.143	5.164	4.488	4.418	4.554
2009/9/10	5.455	4.900	6.163	5.280	4.841	5.942	4.681	4.565	4.827
2009/9/11	6.570	5.799	7.644	6.134	5.739	6.649	5.020	4.840	5.260
2009/9/12	7.136	6.760	7.441	6.847	6.508	7.234	5.437	5.277	5.614
2009/9/13	6.823	6.616	7.176	6.642	6.296	7.113	5.681	5.627	5.708
2009/9/14	1.451	1.053	2.284	1.920	1.503	2.480	5.793	5.482	6.181
2009/9/15	2.290	1.881	2.744	2.513	2.285	2.925	5.260	5.102	5.462
2009/9/16	2.941	2.530	3.611	3.007	2.625	3.755	4.954	4.833	5.092
2009/9/17	3.798	3.173	4.468	3.771	3.279	4.413	4.677	4.605	4.818
2009/9/18	4.452	4.168	4.813	4.335	4.117	4.706	4.597	4.568	4.628
2009/9/19	4.361	4.102	4.775	4.340	4.155	4.682	4.615	4.577	4.632
2009/9/20	3.951	3.748	4.195	3.947	3.708	4.179	4.468	4.396	4.572
2009/9/21	4.341	3.664	5.289	4.200	3.598	5.181	4.357	4.308	4.400
2009/9/22	4.703	4.180	5.213	4.647	4.143	5.164	4.488	4.418	4.554
2009/9/23	5.455	4.900	6.163	5.280	4.841	5.942	4.681	4.565	4.827
2009/9/24	6.570	5.799	7.644	6.134	5.739	6.649	5.020	4.840	5.260
2009/9/25	7.136	6.760	7.441	6.847	6.508	7.234	5.437	5.277	5.614
2009/9/26	6.823	6.616	7.176	6.642	6.296	7.113	5.681	5.627	5.708
2009/9/27	1.451	1.053	2.284	1.920	1.503	2.480	5.793	5.482	6.181
2009/9/28	2.290	1.881	2.744	2.513	2.285	2.925	5.260	5.102	5.462
2009/9/29	2.941	2.530	3.611	3.007	2.625	3.755	4.954	4.833	5.092
2009/9/30	3.798	3.173	4.468	3.771	3.279	4.413	4.677	4.605	4.818
<i>Monthly</i>	4.234	3.793	4.825	4.213	3.843	4.747	4.958	4.841	5.102

Table 1-10. Water temperature data (°C) at 3 depths in Oyako Ike, October 2009.

Depth Date	1.8 m			3.6 m			6.6 m		
	daily average	minimum	maximum	daily average	minimum	maximum	daily average	minimum	maximum
2009/10/1	1.451	1.053	2.284	1.920	1.503	2.480	5.793	5.482	6.181
2009/10/2	2.290	1.881	2.744	2.513	2.285	2.925	5.260	5.102	5.462
2009/10/3	2.941	2.530	3.611	3.007	2.625	3.755	4.954	4.833	5.092
2009/10/4	3.798	3.173	4.468	3.771	3.279	4.413	4.677	4.605	4.818
2009/10/5	4.452	4.168	4.813	4.335	4.117	4.706	4.597	4.568	4.628
2009/10/6	4.361	4.102	4.775	4.340	4.155	4.682	4.615	4.577	4.632
2009/10/7	3.951	3.748	4.195	3.947	3.708	4.179	4.468	4.396	4.572
2009/10/8	4.341	3.664	5.289	4.200	3.598	5.181	4.357	4.308	4.400
2009/10/9	4.703	4.180	5.213	4.647	4.143	5.164	4.488	4.418	4.554
2009/10/10	5.455	4.900	6.163	5.280	4.841	5.942	4.681	4.565	4.827
2009/10/11	6.570	5.799	7.644	6.134	5.739	6.649	5.020	4.840	5.260
2009/10/12	7.136	6.760	7.441	6.847	6.508	7.234	5.437	5.277	5.614
2009/10/13	6.823	6.616	7.176	6.642	6.296	7.113	5.681	5.627	5.708
2009/10/14	1.451	1.053	2.284	1.920	1.503	2.480	5.793	5.482	6.181
2009/10/15	2.290	1.881	2.744	2.513	2.285	2.925	5.260	5.102	5.462
2009/10/16	2.941	2.530	3.611	3.007	2.625	3.755	4.954	4.833	5.092
2009/10/17	3.798	3.173	4.468	3.771	3.279	4.413	4.677	4.605	4.818
2009/10/18	4.452	4.168	4.813	4.335	4.117	4.706	4.597	4.568	4.628
2009/10/19	4.361	4.102	4.775	4.340	4.155	4.682	4.615	4.577	4.632
2009/10/20	3.951	3.748	4.195	3.947	3.708	4.179	4.468	4.396	4.572
2009/10/21	4.341	3.664	5.289	4.200	3.598	5.181	4.357	4.308	4.400
2009/10/22	4.703	4.180	5.213	4.647	4.143	5.164	4.488	4.418	4.554
2009/10/23	5.455	4.900	6.163	5.280	4.841	5.942	4.681	4.565	4.827
2009/10/24	6.570	5.799	7.644	6.134	5.739	6.649	5.020	4.840	5.260
2009/10/25	7.136	6.760	7.441	6.847	6.508	7.234	5.437	5.277	5.614
2009/10/26	6.823	6.616	7.176	6.642	6.296	7.113	5.681	5.627	5.708
2009/10/27	1.451	1.053	2.284	1.920	1.503	2.480	5.793	5.482	6.181
2009/10/28	2.290	1.881	2.744	2.513	2.285	2.925	5.260	5.102	5.462
2009/10/29	2.941	2.530	3.611	3.007	2.625	3.755	4.954	4.833	5.092
2009/10/30	3.798	3.173	4.468	3.771	3.279	4.413	4.677	4.605	4.818
2009/10/31	4.452	4.168	4.813	4.335	4.117	4.706	4.597	4.568	4.628
<i>Monthly</i>	4.241	3.805	4.824	4.216	3.852	4.746	4.946	4.832	5.086

Table 1-11. Water temperature data (°C) at 3 depths in Oyako Ike, November 2009.

Depth Date	1.8 m			3.6 m			6.6 m		
	daily average	minimum	maximum	daily average	minimum	maximum	daily average	minimum	maximum
2009/11/1	1.451	1.053	2.284	1.920	1.503	2.480	5.793	5.482	6.181
2009/11/2	2.290	1.881	2.744	2.513	2.285	2.925	5.260	5.102	5.462
2009/11/3	2.941	2.530	3.611	3.007	2.625	3.755	4.954	4.833	5.092
2009/11/4	3.798	3.173	4.468	3.771	3.279	4.413	4.677	4.605	4.818
2009/11/5	4.452	4.168	4.813	4.335	4.117	4.706	4.597	4.568	4.628
2009/11/6	4.361	4.102	4.775	4.340	4.155	4.682	4.615	4.577	4.632
2009/11/7	3.951	3.748	4.195	3.947	3.708	4.179	4.468	4.396	4.572
2009/11/8	4.341	3.664	5.289	4.200	3.598	5.181	4.357	4.308	4.400
2009/11/9	4.703	4.180	5.213	4.647	4.143	5.164	4.488	4.418	4.554
2009/11/10	5.455	4.900	6.163	5.280	4.841	5.942	4.681	4.565	4.827
2009/11/11	6.570	5.799	7.644	6.134	5.739	6.649	5.020	4.840	5.260
2009/11/12	7.136	6.760	7.441	6.847	6.508	7.234	5.437	5.277	5.614
2009/11/13	6.823	6.616	7.176	6.642	6.296	7.113	5.681	5.627	5.708
2009/11/14	1.451	1.053	2.284	1.920	1.503	2.480	5.793	5.482	6.181
2009/11/15	2.290	1.881	2.744	2.513	2.285	2.925	5.260	5.102	5.462
2009/11/16	2.941	2.530	3.611	3.007	2.625	3.755	4.954	4.833	5.092
2009/11/17	3.798	3.173	4.468	3.771	3.279	4.413	4.677	4.605	4.818
2009/11/18	4.452	4.168	4.813	4.335	4.117	4.706	4.597	4.568	4.628
2009/11/19	4.361	4.102	4.775	4.340	4.155	4.682	4.615	4.577	4.632
2009/11/20	3.951	3.748	4.195	3.947	3.708	4.179	4.468	4.396	4.572
2009/11/21	4.341	3.664	5.289	4.200	3.598	5.181	4.357	4.308	4.400
2009/11/22	4.703	4.180	5.213	4.647	4.143	5.164	4.488	4.418	4.554
2009/11/23	5.455	4.900	6.163	5.280	4.841	5.942	4.681	4.565	4.827
2009/11/24	6.570	5.799	7.644	6.134	5.739	6.649	5.020	4.840	5.260
2009/11/25	7.136	6.760	7.441	6.847	6.508	7.234	5.437	5.277	5.614
2009/11/26	6.823	6.616	7.176	6.642	6.296	7.113	5.681	5.627	5.708
2009/11/27	1.451	1.053	2.284	1.920	1.503	2.480	5.793	5.482	6.181
2009/11/28	2.290	1.881	2.744	2.513	2.285	2.925	5.260	5.102	5.462
2009/11/29	2.941	2.530	3.611	3.007	2.625	3.755	4.954	4.833	5.092
2009/11/30	3.798	3.173	4.468	3.771	3.279	4.413	4.677	4.605	4.818
<i>Monthly</i>	4.234	3.793	4.825	4.213	3.843	4.747	4.958	4.841	5.102

Table 1-12. Water temperature data (°C) at 3 depths in Oyako Ike, December 2009.

Depth Date	1.8 m			3.6 m			6.6 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/12/1	1.451	1.053	2.284	1.920	1.503	2.480	5.793	5.482	6.181
2009/12/2	2.290	1.881	2.744	2.513	2.285	2.925	5.260	5.102	5.462
2009/12/3	2.941	2.530	3.611	3.007	2.625	3.755	4.954	4.833	5.092
2009/12/4	3.798	3.173	4.468	3.771	3.279	4.413	4.677	4.605	4.818
2009/12/5	4.452	4.168	4.813	4.335	4.117	4.706	4.597	4.568	4.628
2009/12/6	4.361	4.102	4.775	4.340	4.155	4.682	4.615	4.577	4.632
2009/12/7	3.951	3.748	4.195	3.947	3.708	4.179	4.468	4.396	4.572
2009/12/8	4.341	3.664	5.289	4.200	3.598	5.181	4.357	4.308	4.400
2009/12/9	4.703	4.180	5.213	4.647	4.143	5.164	4.488	4.418	4.554
2009/12/10	5.455	4.900	6.163	5.280	4.841	5.942	4.681	4.565	4.827
2009/12/11	6.570	5.799	7.644	6.134	5.739	6.649	5.020	4.840	5.260
2009/12/12	7.136	6.760	7.441	6.847	6.508	7.234	5.437	5.277	5.614
2009/12/13	6.823	6.616	7.176	6.642	6.296	7.113	5.681	5.627	5.708
2009/12/14	1.451	1.053	2.284	1.920	1.503	2.480	5.793	5.482	6.181
2009/12/15	2.290	1.881	2.744	2.513	2.285	2.925	5.260	5.102	5.462
2009/12/16	2.941	2.530	3.611	3.007	2.625	3.755	4.954	4.833	5.092
2009/12/17	3.798	3.173	4.468	3.771	3.279	4.413	4.677	4.605	4.818
2009/12/18	4.452	4.168	4.813	4.335	4.117	4.706	4.597	4.568	4.628
2009/12/19	4.361	4.102	4.775	4.340	4.155	4.682	4.615	4.577	4.632
2009/12/20	3.951	3.748	4.195	3.947	3.708	4.179	4.468	4.396	4.572
2009/12/21	4.341	3.664	5.289	4.200	3.598	5.181	4.357	4.308	4.400
2009/12/22	4.703	4.180	5.213	4.647	4.143	5.164	4.488	4.418	4.554
2009/12/23	5.455	4.900	6.163	5.280	4.841	5.942	4.681	4.565	4.827
2009/12/24	6.570	5.799	7.644	6.134	5.739	6.649	5.020	4.840	5.260
2009/12/25	7.136	6.760	7.441	6.847	6.508	7.234	5.437	5.277	5.614
2009/12/26	6.823	6.616	7.176	6.642	6.296	7.113	5.681	5.627	5.708
2009/12/27	1.451	1.053	2.284	1.920	1.503	2.480	5.793	5.482	6.181
2009/12/28	2.290	1.881	2.744	2.513	2.285	2.925	5.260	5.102	5.462
2009/12/29	2.941	2.530	3.611	3.007	2.625	3.755	4.954	4.833	5.092
2009/12/30	3.798	3.173	4.468	3.771	3.279	4.413	4.677	4.605	4.818
2009/12/31	4.452	4.168	4.813	4.335	4.117	4.706	4.597	4.568	4.628
<i>Monthly</i>	4.241	3.805	4.824	4.216	3.852	4.746	4.946	4.832	5.086

Table 1-13. Water temperature data (°C) at 3 depths in Oyako Ike, January 2010.

Depth Date	1.8 m			3.6 m			6.6 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2010/1/1	1.451	1.053	2.284	1.920	1.503	2.480	5.793	5.482	6.181
2010/1/2	2.290	1.881	2.744	2.513	2.285	2.925	5.260	5.102	5.462
2010/1/3	2.941	2.530	3.611	3.007	2.625	3.755	4.954	4.833	5.092
2010/1/4	3.798	3.173	4.468	3.771	3.279	4.413	4.677	4.605	4.818
2010/1/5	4.452	4.168	4.813	4.335	4.117	4.706	4.597	4.568	4.628
2010/1/6	4.361	4.102	4.775	4.340	4.155	4.682	4.615	4.577	4.632
2010/1/7	3.951	3.748	4.195	3.947	3.708	4.179	4.468	4.396	4.572
2010/1/8	4.341	3.664	5.289	4.200	3.598	5.181	4.357	4.308	4.400
2010/1/9	4.703	4.180	5.213	4.647	4.143	5.164	4.488	4.418	4.554
2010/1/10	5.455	4.900	6.163	5.280	4.841	5.942	4.681	4.565	4.827
2010/1/11	6.570	5.799	7.644	6.134	5.739	6.649	5.020	4.840	5.260
2010/1/12	7.136	6.760	7.441	6.847	6.508	7.234	5.437	5.277	5.614
2010/1/13	6.823	6.616	7.176	6.642	6.296	7.113	5.681	5.627	5.708
<i>Monthly</i>	4.482	4.044	5.063	4.429	4.061	4.956	4.925	4.815	5.058

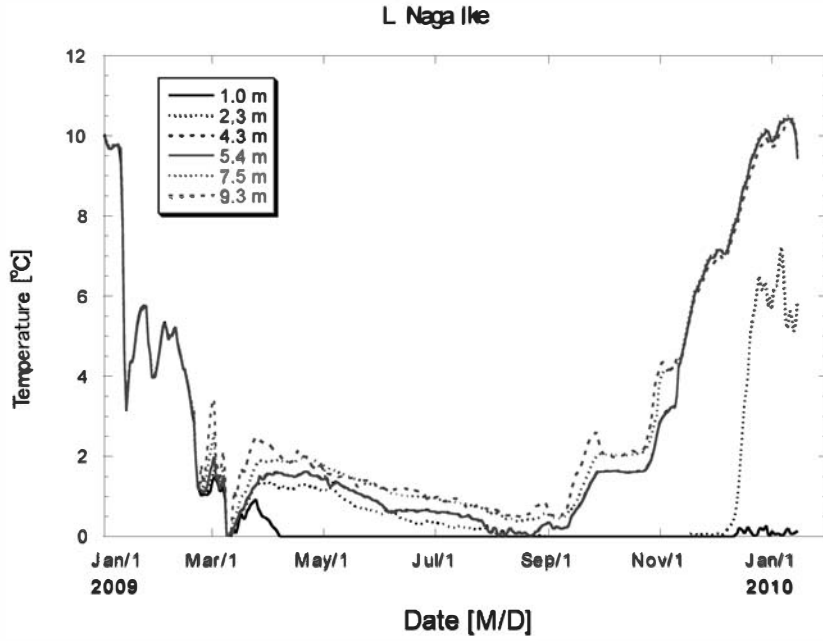


Fig. 4. Seasonal changes of water temperature at six depths in Naga Ike (2009–2010). Daily average data.

Table 2-1. Water temperature data (°C) at 6 depths in Naga Ike, January 2009.

Depth Date	1.0 m		2.3 m		4.3 m		5.35 m		7.5 m		9.3 m						
	daily average minimum	maximum	daily average minimum	maximum	daily average minimum	maximum	daily average minimum	maximum	daily average minimum	maximum	daily average minimum	maximum					
2009/1/1	10.011	9.963	10.058	9.977	10.088	10.010	9.988	10.078	10.038	9.983	10.086	9.958					
2009/1/1	9.854	9.795	9.944	9.870	9.984	9.955	9.952	9.852	9.890	9.852	9.968	9.851					
2009/1/2	9.729	9.664	9.761	9.748	9.806	9.736	9.663	9.796	9.772	9.704	9.882	9.720					
2009/1/4	9.674	9.623	9.722	9.685	9.644	9.671	9.620	9.732	9.703	9.642	9.771	9.664					
2009/1/5	9.691	9.616	9.769	9.703	9.621	9.689	9.615	9.764	9.720	9.630	9.827	9.652					
2009/1/6	9.730	9.683	9.778	9.742	9.700	9.734	9.690	9.800	9.765	9.706	9.871	9.728					
2009/1/7	9.774	9.712	9.831	9.785	9.724	9.844	9.772	9.841	9.816	9.733	9.924	9.760					
2009/1/8	9.767	9.733	9.817	9.776	9.735	9.806	9.762	9.810	9.796	9.722	9.876	9.748					
2009/1/9	9.735	9.686	9.786	9.746	9.671	9.802	9.730	9.795	9.764	9.672	9.900	9.697					
2009/1/10	9.335	8.792	9.706	9.546	9.069	9.724	9.664	9.454	9.728	9.733	9.670	9.556					
2009/1/11	7.699	6.748	8.865	7.708	6.744	9.010	7.884	6.690	9.660	7.787	9.787	9.678					
2009/1/12	4.404	2.882	6.568	4.440	2.837	6.572	4.416	2.926	6.452	4.399	6.403	4.411					
2009/1/13	3.135	2.837	3.656	3.153	2.844	3.619	3.164	2.842	3.607	3.236	3.614	2.972					
2009/1/14	3.720	3.380	4.205	3.761	3.431	4.233	3.811	3.511	4.182	3.936	4.364	3.303					
2009/1/15	4.346	4.030	4.679	4.361	4.079	4.690	4.340	4.012	4.665	4.377	4.779	4.350					
2009/1/16	4.353	3.999	4.653	4.362	4.000	4.647	4.340	3.997	4.630	4.382	4.675	4.015					
2009/1/17	4.492	4.139	4.907	4.483	4.167	4.899	4.483	4.176	4.862	4.526	4.974	4.234					
2009/1/18	4.911	4.625	5.296	4.915	4.647	5.272	4.880	4.634	5.192	4.908	5.222	4.685					
2009/1/19	5.298	4.976	5.769	5.291	4.999	5.723	5.251	4.982	5.581	5.276	5.566	5.222					
2009/1/20	5.523	5.144	5.970	5.511	5.146	5.931	5.466	5.149	5.786	5.463	5.780	5.460					
2009/1/21	5.691	5.475	5.914	5.681	5.474	5.855	5.646	5.440	5.802	5.643	5.829	5.620					
2009/1/22	5.728	5.583	5.907	5.728	5.602	5.901	5.700	5.527	5.868	5.713	5.862	5.680					
2009/1/23	5.775	5.618	6.015	5.786	5.632	5.974	5.760	5.617	5.919	5.792	5.927	5.729					
2009/1/24	5.705	5.476	5.917	5.718	5.504	5.935	5.692	5.488	5.874	5.712	5.502	5.488					
2009/1/25	4.851	4.677	5.398	4.871	4.697	5.436	4.866	4.690	5.410	4.884	4.699	4.880					
2009/1/26	4.556	4.339	4.676	4.573	4.366	4.688	4.566	4.367	4.687	4.562	4.354	4.577					
2009/1/27	3.966	3.846	4.277	3.983	3.867	4.306	3.977	3.861	4.299	3.972	4.288	3.876					
2009/1/28	3.965	3.887	4.023	3.983	3.907	4.042	3.976	3.893	4.032	3.918	4.053	3.994					
2009/1/29	4.018	3.820	4.275	4.050	3.884	4.260	4.051	3.904	4.254	4.113	4.274	4.068					
2009/1/30	4.300	4.194	4.468	4.313	4.193	4.513	4.289	4.160	4.495	4.370	4.493	4.285					
2009/1/31	4.592	4.361	4.979	4.600	4.377	4.921	4.570	4.374	4.819	4.601	4.989	4.561					
Monthly	6.398	6.139	6.731	6.416	6.165	6.736	6.411	6.166	6.723	6.408	6.163	6.444					
													6.184	6.758	6.408	6.161	6.703

Table 2-3. Water temperature data (°C) at 6 depths in Naga Ike, March 2009.

Date	1.0 m		2.3 m		4.3 m		5.35 m		7.5 m		9.3 m							
	daily average minimum	maximum	daily average minimum	maximum	daily average minimum	maximum	daily average minimum	maximum	daily average minimum	maximum	daily average minimum	maximum						
2009/3/1	0.405	0.379	0.445	1.358	1.325	1.399	1.593	1.568	1.632	1.544	1.612	1.903	1.862	1.963	2.299	2.268	2.323	
2009/3/2	0.323	0.261	0.384	1.308	1.291	1.326	1.582	1.568	1.599	1.557	1.590	1.898	1.875	1.930	2.261	2.226	2.306	
2009/3/3	0.250	0.209	0.275	1.304	1.289	1.328	1.571	1.568	1.588	1.540	1.562	1.877	1.851	1.912	2.195	2.160	2.219	
2009/3/4	0.209	0.177	0.231	1.303	1.280	1.321	1.566	1.566	1.620	1.577	1.593	1.896	1.866	1.944	2.163	2.143	2.188	
2009/3/5	0.165	0.131	0.198	1.294	1.271	1.322	1.609	1.586	1.621	1.591	1.572	1.900	1.876	1.941	2.132	2.116	2.160	
2009/3/6	0.084	0.028	0.142	1.287	1.183	1.280	1.612	1.598	1.628	1.585	1.562	1.614	1.909	1.889	1.939	2.074	2.060	2.111
2009/3/7	0.000	-0.031	0.034	1.201	1.181	1.222	1.605	1.589	1.629	1.594	1.580	1.611	1.897	1.862	1.930	2.026	1.990	2.057
2009/3/8	-0.052	-0.086	-0.022	1.277	1.230	1.308	1.591	1.568	1.622	1.587	1.555	1.622	1.884	1.865	1.900	1.961	1.946	1.982
2009/3/9	-0.170	-0.278	-0.088	1.240	1.227	1.256	1.552	1.530	1.627	1.549	1.529	1.574	1.870	1.854	1.908	1.931	1.916	1.943
2009/3/10	-0.410	-0.466	-0.293	1.213	1.200	1.232	1.528	1.509	1.551	1.527	1.513	1.546	1.878	1.853	1.914	1.922	1.909	1.935
2009/3/11	-0.570	-0.651	-0.472	1.209	1.169	1.234	1.542	1.511	1.565	1.541	1.512	1.582	1.869	1.846	1.895	1.864	1.864	1.906
2009/3/12	-0.513	-0.513	-0.433	1.193	1.168	1.242	1.515	1.498	1.536	1.511	1.497	1.537	1.868	1.818	1.932	1.841	1.841	1.905
2009/3/13	-0.433	-0.540	-0.205	1.216	1.155	1.273	1.525	1.504	1.567	1.520	1.499	1.556	1.925	1.829	1.979	1.864	1.792	1.920
2009/3/14	-0.649	-0.859	-0.499	1.179	1.147	1.228	1.518	1.499	1.549	1.511	1.491	1.549	1.853	1.767	2.012	1.893	1.827	1.974
2009/3/15	-0.988	-0.838	-0.499	1.209	1.183	1.243	1.498	1.476	1.528	1.487	1.460	1.515	1.840	1.780	1.928	1.999	1.969	2.043
2009/3/16	-1.176	-0.946	-0.496	1.257	1.219	1.349	1.519	1.481	1.608	1.508	1.472	1.602	1.899	1.801	2.027	2.077	2.019	2.153
2009/3/17	-1.861	-2.067	-1.610	1.277	1.239	1.383	1.535	1.509	1.571	1.527	1.495	1.605	1.937	1.851	2.031	2.152	2.108	2.193
2009/3/18	-2.218	-2.279	-2.089	1.279	1.260	1.333	1.560	1.542	1.588	1.545	1.524	1.583	1.954	1.930	2.009	2.131	2.096	2.179
2009/3/19	-2.068	-2.231	-1.928	1.287	1.266	1.317	1.590	1.570	1.614	1.577	1.553	1.606	1.950	1.931	1.987	2.033	1.995	2.091
2009/3/20	-2.304	-2.647	-2.092	1.303	1.272	1.382	1.624	1.599	1.661	1.604	1.575	1.646	1.955	1.935	2.019	1.987	1.953	2.019
2009/3/21	-3.108	-3.736	-2.583	1.283	1.254	1.364	1.636	1.603	1.659	1.621	1.597	1.643	1.953	1.925	2.008	2.001	1.975	2.021
2009/3/22	-3.370	-3.860	-3.620	1.271	1.238	1.329	1.626	1.596	1.667	1.621	1.588	1.683	1.957	1.932	2.023	2.001	1.975	2.021
2009/3/23	-3.474	-3.862	-3.144	1.273	1.234	1.316	1.579	1.529	1.610	1.575	1.526	1.613	1.904	1.721	1.977	1.860	1.830	1.922
2009/3/24	-2.974	-3.109	-2.933	1.229	1.207	1.251	1.527	1.514	1.538	1.522	1.510	1.542	1.810	1.716	1.958	1.799	1.779	1.826
2009/3/25	-2.758	-2.919	-2.676	1.224	1.208	1.239	1.537	1.510	1.561	1.526	1.501	1.545	1.845	1.788	1.876	1.738	1.718	1.778
2009/3/26	-3.982	-3.072	-2.769	1.214	1.190	1.236	1.521	1.504	1.542	1.510	1.493	1.533	1.901	1.875	1.919	1.712	1.690	1.733
2009/3/27	-3.185	-3.808	-2.989	1.231	1.205	1.268	1.528	1.509	1.560	1.517	1.495	1.533	1.875	1.843	1.911	1.690	1.630	1.746
2009/3/28	-4.401	-5.671	-3.542	1.212	1.183	1.263	1.505	1.476	1.538	1.493	1.462	1.526	1.776	1.647	1.885	1.748	1.728	1.772
2009/3/29	-6.724	-7.085	-5.836	1.167	1.133	1.228	1.468	1.423	1.505	1.454	1.416	1.482	1.737	1.648	1.847	1.769	1.757	1.780
2009/3/30	-7.138	-7.278	-7.044	1.138	1.111	1.158	1.429	1.394	1.459	1.422	1.390	1.463	1.870	1.846	1.915	1.740	1.708	1.775
2009/3/31	0.405	0.379	0.445	1.358	1.325	1.399	1.593	1.568	1.632	1.544	1.612	1.903	1.862	1.963	2.299	2.268	2.323	
Monthly	-1.677	-1.870	-1.502	1.250	1.221	1.292	1.555	1.531	1.584	1.543	1.518	1.578	1.887	1.837	1.945	1.972	1.941	2.009

Table 2-4. Water temperature data (°C) at 6 depths in Naga Ike, April 2009.

Depth Date	1.0 m		2.3 m		4.3 m		6.35 m		7.5 m		9.3 m							
	daily average minimum	maximum	daily average minimum	maximum	daily average minimum	maximum	daily average minimum	maximum	daily average minimum	maximum	daily average minimum	maximum						
2009/4/1	0.405	0.379	0.445	1.358	1.325	1.399	1.593	1.568	1.632	1.575	1.544	1.612	1.903	1.862	1.963	2.299	2.288	2.323
2009/4/2	0.323	0.261	0.384	1.308	1.291	1.336	1.582	1.568	1.599	1.557	1.535	1.580	1.898	1.875	1.930	2.261	2.226	2.306
2009/4/3	0.250	0.209	0.275	1.304	1.289	1.328	1.571	1.555	1.588	1.540	1.521	1.562	1.877	1.851	1.912	2.195	2.180	2.219
2009/4/4	0.209	0.177	0.231	1.303	1.280	1.321	1.601	1.586	1.620	1.577	1.553	1.596	1.896	1.866	1.944	2.163	2.143	2.188
2009/4/5	0.165	0.131	0.198	1.294	1.271	1.322	1.591	1.572	1.621	1.591	1.572	1.608	1.900	1.876	1.941	2.132	2.116	2.160
2009/4/6	0.084	0.028	0.142	1.227	1.183	1.280	1.612	1.598	1.628	1.585	1.562	1.614	1.909	1.889	1.939	2.074	2.080	2.111
2009/4/7	0.000	-0.031	0.034	1.201	1.181	1.222	1.605	1.589	1.629	1.584	1.560	1.611	1.897	1.862	1.930	2.026	1.990	2.057
2009/4/8	-0.052	-0.066	-0.022	1.277	1.230	1.308	1.591	1.588	1.622	1.587	1.555	1.622	1.884	1.865	1.900	1.961	1.946	1.982
2009/4/9	-0.170	-0.278	-0.088	1.240	1.227	1.296	1.552	1.530	1.567	1.549	1.529	1.574	1.870	1.854	1.908	1.931	1.916	1.943
2009/4/10	-0.410	-0.466	-0.293	1.213	1.200	1.232	1.528	1.509	1.551	1.527	1.513	1.546	1.878	1.853	1.914	1.922	1.909	1.935
2009/4/11	-0.570	-0.657	-0.472	1.209	1.169	1.234	1.542	1.511	1.565	1.541	1.512	1.582	1.869	1.846	1.895	1.884	1.864	1.906
2009/4/12	-0.570	-0.651	-0.513	1.193	1.168	1.242	1.515	1.498	1.536	1.511	1.497	1.537	1.868	1.818	1.932	1.841	1.784	1.905
2009/4/13	-0.433	-0.540	-0.205	1.216	1.155	1.273	1.525	1.504	1.567	1.520	1.499	1.556	1.925	1.829	1.979	1.864	1.792	1.920
2009/4/14	-0.649	-0.859	-0.499	1.179	1.147	1.228	1.518	1.499	1.549	1.511	1.491	1.549	1.853	1.767	2.012	1.863	1.827	1.974
2009/4/15	-0.888	-0.885	-0.838	1.209	1.183	1.243	1.498	1.476	1.528	1.487	1.460	1.515	1.840	1.780	1.928	1.999	1.969	2.043
2009/4/16	-1.176	-1.561	-0.946	1.257	1.219	1.349	1.519	1.481	1.608	1.508	1.472	1.602	1.899	1.801	2.027	2.077	2.019	2.153
2009/4/17	-1.861	-2.067	-1.610	1.277	1.239	1.383	1.535	1.509	1.571	1.527	1.495	1.605	1.937	1.851	2.031	2.152	2.108	2.193
2009/4/18	-2.218	-2.279	-2.089	1.279	1.260	1.333	1.560	1.542	1.588	1.545	1.524	1.583	1.954	1.930	2.009	2.131	2.086	2.179
2009/4/19	-2.068	-2.231	-1.928	1.287	1.266	1.317	1.590	1.570	1.614	1.577	1.553	1.606	1.960	1.931	1.987	2.033	1.985	2.091
2009/4/20	-2.304	-2.647	-2.092	1.303	1.272	1.382	1.624	1.599	1.661	1.604	1.575	1.646	1.955	1.935	2.019	1.987	1.953	2.019
2009/4/21	-3.108	-3.736	-2.583	1.293	1.254	1.364	1.636	1.603	1.659	1.621	1.597	1.643	1.953	1.925	2.008	2.001	1.975	2.021
2009/4/22	-3.730	-3.860	-3.620	1.271	1.238	1.329	1.626	1.596	1.667	1.621	1.588	1.663	1.957	1.932	2.023	1.961	1.932	2.003
2009/4/23	-3.474	-3.662	-3.144	1.273	1.234	1.316	1.579	1.529	1.610	1.575	1.526	1.613	1.904	1.721	1.977	1.860	1.830	1.922
2009/4/24	-2.974	-3.109	-2.933	1.229	1.207	1.251	1.527	1.514	1.538	1.522	1.510	1.542	1.810	1.716	1.858	1.799	1.779	1.826
2009/4/25	-2.758	-2.919	-2.676	1.224	1.208	1.239	1.537	1.510	1.561	1.526	1.501	1.545	1.845	1.788	1.876	1.738	1.718	1.778
2009/4/26	-2.882	-3.072	-2.769	1.214	1.190	1.236	1.521	1.504	1.542	1.510	1.493	1.533	1.901	1.875	1.919	1.712	1.680	1.733
2009/4/27	-3.185	-3.808	-2.989	1.231	1.205	1.268	1.528	1.509	1.560	1.517	1.495	1.557	1.875	1.843	1.911	1.690	1.630	1.746
2009/4/28	-4.401	-5.671	-3.542	1.212	1.183	1.223	1.505	1.476	1.538	1.493	1.462	1.526	1.776	1.647	1.885	1.748	1.728	1.772
2009/4/29	-6.724	-7.085	-5.836	1.167	1.133	1.228	1.468	1.423	1.505	1.454	1.416	1.492	1.737	1.648	1.847	1.769	1.757	1.780
2009/4/30	-7.138	-7.278	-7.044	1.138	1.111	1.158	1.429	1.394	1.459	1.422	1.390	1.463	1.870	1.846	1.915	1.740	1.708	1.775
Monthly	-1.747	-1.945	-1.587	1.246	1.217	1.288	1.554	1.530	1.583	1.542	1.517	1.577	1.886	1.836	1.944	1.961	1.931	1.999

Table 2-5. Water temperature data (°C) at 6 depths in Naga Ike, May 2009.

Depth Date	1.0 m		2.3 m		4.3 m		5.35 m		7.5 m		9.3 m	
	daily average	minimum	maximum	daily average	minimum	maximum	daily average	minimum	maximum	daily average	minimum	maximum
2009/5/1	-	-	0.571	0.565	0.577	0.814	0.798	0.834	0.795	1.208	1.200	1.234
2009/5/2	-	-	0.565	0.556	0.576	0.797	0.758	0.823	0.790	1.212	1.203	1.217
2009/5/3	-11.086	-12.186	0.567	0.545	0.576	0.723	0.696	0.760	0.720	1.212	1.161	1.200
2009/5/4	-9.567	-9.951	0.563	0.593	0.606	0.683	0.652	0.711	0.677	1.183	1.170	1.201
2009/5/5	-9.740	-9.318	0.621	0.588	0.694	0.634	0.599	0.692	0.624	1.170	1.167	1.180
2009/5/6	-8.499	-9.681	0.591	0.585	0.604	0.616	0.574	0.673	0.596	1.158	1.127	1.174
2009/5/7	-6.516	-7.297	0.577	0.577	0.601	0.671	0.654	0.686	0.652	1.098	1.079	1.126
2009/5/8	-5.276	-5.764	0.576	0.565	0.595	0.605	0.583	0.646	0.590	1.082	1.078	1.084
2009/5/9	-4.466	-4.860	0.570	0.564	0.578	0.623	0.593	0.656	0.607	1.061	1.055	1.061
2009/5/10	-3.121	-4.044	0.563	0.539	0.574	0.667	0.658	0.676	0.647	1.059	1.054	1.062
2009/5/11	-3.137	-3.395	0.539	0.528	0.551	0.679	0.666	0.690	0.659	1.056	1.040	1.063
2009/5/12	-2.670	-2.877	0.458	0.417	0.535	0.685	0.677	0.682	0.665	1.031	1.025	1.037
2009/5/13	-2.369	-2.470	0.440	0.432	0.447	0.657	0.648	0.674	0.633	1.031	1.030	1.032
2009/5/14	-2.388	-2.420	0.423	0.418	0.439	0.655	0.652	0.663	0.630	1.023	1.015	1.031
2009/5/15	-2.486	-2.545	0.423	0.416	0.448	0.654	0.649	0.672	0.632	1.012	1.007	1.019
2009/5/16	-2.605	-2.841	0.422	0.406	0.439	0.675	0.659	0.684	0.660	1.009	1.002	1.015
2009/5/17	-3.260	-3.402	0.382	0.375	0.400	0.673	0.660	0.687	0.654	1.006	1.003	1.008
2009/5/18	-3.118	-3.246	0.388	0.374	0.419	0.673	0.662	0.683	0.656	1.008	1.001	1.014
2009/5/19	-3.745	-4.440	0.388	0.351	0.382	0.675	0.666	0.683	0.660	1.015	1.010	1.017
2009/5/20	-4.816	-5.511	0.331	0.323	0.348	0.645	0.631	0.667	0.632	1.013	1.007	1.016
2009/5/21	-6.975	-8.378	0.323	0.311	0.334	0.628	0.622	0.642	0.616	1.000	0.994	1.007
2009/5/22	-9.958	-10.795	0.315	0.303	0.326	0.650	0.641	0.658	0.629	1.000	0.995	1.007
2009/5/23	-10.997	-11.463	0.319	0.312	0.324	0.664	0.658	0.669	0.646	1.001	0.994	1.007
2009/5/24	-9.923	-12.137	0.324	0.310	0.339	0.673	0.666	0.680	0.655	0.984	0.984	0.992
2009/5/25	-5.738	-6.977	0.365	0.334	0.389	0.672	0.662	0.680	0.657	0.994	0.984	1.003
2009/5/26	-5.733	-6.860	0.375	0.363	0.388	0.676	0.668	0.681	0.660	0.985	0.980	1.002
2009/5/27	-4.353	-4.711	0.383	0.376	0.402	0.670	0.660	0.678	0.656	0.982	0.971	0.991
2009/5/28	-3.864	-3.963	0.398	0.393	0.405	0.643	0.625	0.657	0.635	0.958	0.941	0.969
2009/5/29	-4.633	-5.059	0.359	0.340	0.391	0.621	0.619	0.624	0.621	0.957	0.943	0.970
2009/5/30	-4.873	-5.028	0.357	0.344	0.368	0.633	0.619	0.647	0.626	0.976	0.971	0.979
2009/5/31	-	-	0.571	0.565	0.577	0.814	0.798	0.834	0.810	1.208	1.200	1.219
Monthly	-5.785	-6.325	-5.264	0.456	0.441	0.474	0.673	0.657	0.691	0.658	0.645	0.676
										1.050	1.042	1.058
												1.132
												1.120
												1.234
												1.226
												1.238

Table 2-6. Water temperature data (°C) at 6 depths in Naga Ike, June 2009.

Depth Date	1.0 m		2.3 m		4.3 m		5.35 m		7.5 m		9.3 m	
	daily average minimum	maximum	daily average minimum	maximum	daily average minimum	maximum	daily average minimum	maximum	daily average minimum	maximum	daily average minimum	maximum
2009/6/1	-	-	0.571	0.565	0.577	0.814	0.798	0.834	0.810	0.795	0.829	1.219
2009/6/2	-	-	0.567	0.565	0.576	0.797	0.758	0.823	0.790	0.757	0.816	1.212
2009/6/3	-11.086	-10.025	0.565	0.545	0.606	0.723	0.696	0.760	0.720	0.695	0.756	1.217
2009/6/4	-9.567	-9.301	0.567	0.563	0.593	0.683	0.652	0.711	0.677	0.649	0.705	1.200
2009/6/5	-9.740	-9.318	0.621	0.588	0.649	0.634	0.599	0.692	0.624	0.595	0.670	1.173
2009/6/6	-8.499	-9.681	0.591	0.585	0.604	0.616	0.574	0.673	0.596	0.570	0.649	1.174
2009/6/7	-6.516	-7.297	0.577	0.581	0.601	0.671	0.654	0.688	0.652	0.645	0.689	1.153
2009/6/8	-5.276	-5.764	0.576	0.565	0.595	0.605	0.593	0.648	0.590	0.568	0.635	1.084
2009/6/9	-4.466	-4.860	0.570	0.564	0.578	0.623	0.593	0.656	0.607	0.572	0.637	1.061
2009/6/10	-3.721	-4.044	0.563	0.539	0.574	0.667	0.658	0.676	0.647	0.639	0.655	1.067
2009/6/11	-3.137	-3.395	0.539	0.528	0.551	0.679	0.666	0.690	0.659	0.649	0.669	1.056
2009/6/12	-2.670	-2.877	0.458	0.417	0.535	0.685	0.677	0.692	0.665	0.657	0.673	1.031
2009/6/13	-2.369	-2.470	0.440	0.432	0.447	0.657	0.648	0.674	0.633	0.621	0.656	1.030
2009/6/14	-2.369	-2.420	0.432	0.418	0.439	0.655	0.652	0.663	0.630	0.627	0.636	1.031
2009/6/15	-2.486	-2.545	0.423	0.416	0.448	0.654	0.649	0.662	0.632	0.625	0.654	1.015
2009/6/16	-2.605	-2.941	0.422	0.406	0.439	0.675	0.659	0.684	0.672	0.654	0.667	1.019
2009/6/17	-3.260	-3.402	0.382	0.375	0.400	0.673	0.660	0.687	0.654	0.642	0.667	1.009
2009/6/18	-3.118	-3.403	0.388	0.374	0.419	0.673	0.662	0.683	0.656	0.644	0.668	1.003
2009/6/19	-3.745	-4.440	0.368	0.351	0.382	0.675	0.666	0.683	0.660	0.652	0.670	1.014
2009/6/20	-4.816	-5.511	0.331	0.323	0.348	0.645	0.631	0.667	0.632	0.618	0.653	1.010
2009/6/21	-6.975	-8.378	0.323	0.311	0.334	0.628	0.622	0.642	0.616	0.610	0.630	1.016
2009/6/22	-9.858	-10.795	0.315	0.303	0.326	0.650	0.641	0.658	0.636	0.629	0.644	1.000
2009/6/23	-10.997	-11.463	0.319	0.312	0.324	0.664	0.658	0.669	0.646	0.643	0.664	1.007
2009/6/24	-11.921	-12.137	0.324	0.310	0.339	0.673	0.666	0.680	0.655	0.644	0.664	1.001
2009/6/25	-9.233	-11.558	0.365	0.334	0.389	0.672	0.662	0.680	0.657	0.647	0.663	0.988
2009/6/26	-5.738	-6.860	0.375	0.363	0.388	0.676	0.668	0.681	0.660	0.651	0.669	0.994
2009/6/27	-4.353	-4.711	0.393	0.376	0.402	0.670	0.660	0.678	0.656	0.650	0.663	0.991
2009/6/28	-3.863	-3.863	0.398	0.383	0.405	0.643	0.625	0.657	0.635	0.620	0.648	0.989
2009/6/29	-4.633	-5.059	0.359	0.340	0.391	0.632	0.626	0.637	0.621	0.619	0.624	0.970
2009/6/30	-4.873	-5.028	0.357	0.344	0.368	0.633	0.619	0.647	0.626	0.613	0.644	0.979
Monthly	-5.785	-6.325	0.453	0.437	0.471	0.668	0.653	0.686	0.653	0.640	0.671	1.053
									1.045	1.036	1.053	1.128
												1.116

Table 2-7. Water temperature data (°C) at 6 depths in Naga Ike, July 2009.

Date	1.0 m		2.3 m		4.3 m		5.95 m		15 m		9.3 m	
	daily average	minimum	daily average	minimum	daily average	minimum	daily average	minimum	daily average	minimum	daily average	minimum
2009/7/1	-4.923	-4.840	0.353	0.364	0.625	0.608	0.647	0.599	0.960	0.935	0.976	0.963
2009/7/2	-4.873	-4.825	0.345	0.334	0.594	0.607	0.587	0.582	0.930	0.924	0.936	0.992
2009/7/3	-4.872	-4.865	0.329	0.312	0.598	0.589	0.590	0.581	0.920	0.912	0.931	0.952
2009/7/4	-4.584	-4.976	0.318	0.311	0.623	0.633	0.614	0.608	0.927	0.923	0.932	0.948
2009/7/5	-5.334	-5.491	0.315	0.308	0.627	0.623	0.615	0.611	0.923	0.920	0.927	0.884
2009/7/6	-4.710	-5.241	0.318	0.311	0.619	0.615	0.608	0.601	0.909	0.900	0.918	0.864
2009/7/7	-4.079	-4.297	0.302	0.279	0.618	0.605	0.634	0.609	0.866	0.841	0.874	0.851
2009/7/8	-4.646	-4.974	0.254	0.242	0.594	0.588	0.608	0.584	0.830	0.790	0.889	0.905
2009/7/9	-6.136	-7.899	0.242	0.232	0.589	0.597	0.582	0.580	0.890	0.884	0.893	0.910
2009/7/10	-8.919	-9.351	0.233	0.228	0.589	0.585	0.593	0.576	0.879	0.874	0.884	0.929
2009/7/11	-10.171	-11.375	0.226	0.219	0.582	0.577	0.584	0.568	0.871	0.863	0.878	0.947
2009/7/12	-	-	0.225	0.217	0.582	0.577	0.585	0.568	0.857	0.851	0.863	0.952
2009/7/13	-	-	0.248	0.227	0.570	0.559	0.582	0.559	0.843	0.830	0.849	0.955
2009/7/14	-10.471	-11.680	0.263	0.245	0.552	0.526	0.560	0.540	0.831	0.823	0.835	0.891
2009/7/15	-10.123	-10.777	0.228	0.218	0.495	0.478	0.528	0.481	0.833	0.824	0.839	0.868
2009/7/16	-11.474	-11.733	0.235	0.221	0.508	0.494	0.519	0.496	0.821	0.811	0.829	0.857
2009/7/17	-10.423	-11.732	0.229	0.213	0.507	0.494	0.520	0.498	0.813	0.806	0.824	0.802
2009/7/18	-7.550	-8.397	0.238	0.228	0.523	0.502	0.551	0.512	0.811	0.803	0.822	0.707
2009/7/19	-7.163	-7.247	0.231	0.206	0.545	0.524	0.532	0.515	0.811	0.801	0.819	0.736
2009/7/20	-7.372	-8.582	0.211	0.201	0.494	0.469	0.523	0.481	0.789	0.777	0.802	0.752
2009/7/21	-8.819	-10.262	0.212	0.204	0.461	0.440	0.481	0.454	0.770	0.750	0.780	0.728
2009/7/22	-10.232	-10.560	0.196	0.188	0.440	0.430	0.453	0.429	0.761	0.755	0.770	0.742
2009/7/23	-	-	0.181	0.165	0.450	0.431	0.468	0.439	0.748	0.736	0.764	0.786
2009/7/24	-	-	0.166	0.158	0.426	0.420	0.435	0.415	0.742	0.741	0.769	0.780
2009/7/25	-	-	0.188	0.177	0.399	0.345	0.431	0.387	0.729	0.700	0.752	0.779
2009/7/26	-	-	0.205	0.184	0.411	0.402	0.420	0.398	0.720	0.703	0.749	0.756
2009/7/27	-	-	0.243	0.221	0.377	0.355	0.402	0.367	0.703	0.695	0.716	0.708
2009/7/28	-	-	0.223	0.204	0.267	0.198	0.336	0.248	0.663	0.628	0.699	0.687
2009/7/29	-	-	0.207	0.168	0.298	0.220	0.354	0.252	0.613	0.548	0.669	0.713
2009/7/30	-	-	0.147	0.108	0.182	0.146	0.112	0.131	0.501	0.464	0.604	0.681
2009/7/31	-	-	0.130	0.118	0.097	0.072	0.120	0.088	0.569	0.548	0.596	0.668
Monthly	-7.384	-7.965	-6.849	0.240	0.226	0.255	0.491	0.471	0.511	0.478	0.460	0.497
									0.806	0.790	0.822	0.815
									0.828	0.815	0.842	

Table 2-8. Water temperature data (°C) at 6 depths in Naga Ike, August 2009.

Depth	1.0 m		2.3 m		4.3 m		5.35 m		7.5 m		9.3 m		
Date	daily average	minimum maximum	daily average	minimum maximum	daily average	minimum maximum	daily average	minimum maximum	daily average	minimum maximum	daily average	minimum maximum	
2009/8/1	-	-	0.11	0.081	0.143	0.117	0.053	0.256	0.089	0.046	0.203	0.0659	
2009/8/2	-	-	0.121	0.100	0.147	0.117	0.053	0.256	0.217	0.170	0.252	0.066	
2009/8/3	-	-	0.107	0.074	0.130	0.247	0.122	0.327	0.223	0.095	0.281	0.606	
2009/8/4	-	-	0.042	0.012	0.071	0.052	-0.001	0.131	0.030	-0.009	0.081	0.605	
2009/8/5	-	-	0.006	-0.002	0.017	0.002	-0.009	0.013	-0.004	-0.012	0.003	0.585	
2009/8/6	-	-	0.020	-0.003	0.072	0.144	-0.010	0.309	0.114	-0.011	0.287	0.528	
2009/8/7	-12.326	-10.521	0.023	-0.006	0.062	0.153	-0.023	0.313	0.116	-0.037	0.305	0.519	
2009/8/8	-10.179	-9.729	-0.007	-0.023	0.009	0.037	-0.024	0.097	0.078	-0.039	0.037	0.437	
2009/8/9	-9.346	-9.693	-0.001	-0.021	0.011	0.118	0.025	0.156	0.208	-0.039	0.136	0.444	
2009/8/10	-8.918	-9.009	0.010	0.003	0.024	0.215	0.202	0.221	0.158	0.126	0.202	0.451	
2009/8/11	-8.977	-9.063	-0.016	-0.042	0.001	0.155	0.127	0.200	0.208	0.198	0.216	0.442	
2009/8/12	-8.201	-9.535	-0.037	-0.046	0.027	0.118	0.083	0.142	0.149	0.120	0.195	0.449	
2009/8/13	-8.319	-10.236	-0.046	-0.050	-0.042	0.075	0.061	0.094	0.065	0.052	0.086	0.432	
2009/8/14	-10.493	-10.682	-0.032	-0.045	-0.019	0.097	0.064	0.125	0.092	0.057	0.121	0.382	
2009/8/15	-10.285	-10.674	-0.018	-0.026	-0.009	0.118	0.106	0.126	0.115	0.104	0.124	0.381	
2009/8/16	-8.703	-9.590	-0.023	-0.038	0.000	0.075	0.056	0.098	0.068	0.037	0.095	0.386	
2009/8/17	-7.453	-7.953	-0.010	-0.021	0.004	0.087	0.066	0.095	0.076	0.055	0.091	0.416	
2009/8/18	-7.869	-8.946	0.008	-0.008	0.026	0.110	0.083	0.135	0.110	0.085	0.152	0.445	
2009/8/19	-10.304	-11.624	0.023	-0.003	0.063	0.064	0.013	0.118	0.059	0.005	0.111	0.446	
2009/8/20	33.859	-12.427	0.007	-0.009	0.025	0.035	0.019	0.056	0.032	0.006	0.053	0.417	
2009/8/21	41.952	-12.404	0.015	0.002	0.029	0.016	0.001	0.027	0.014	0.000	0.027	0.383	
2009/8/22	-11.489	-11.857	0.034	0.012	0.072	0.035	0.014	0.071	0.035	0.004	0.096	0.426	
2009/8/23	-12.132	-12.356	0.038	-0.001	0.105	0.081	0.011	0.141	0.067	0.008	0.148	0.444	
2009/8/24	-	-	0.054	0.023	0.105	0.154	0.122	0.193	0.138	0.108	0.175	0.469	
2009/8/25	-	-	0.031	0.011	0.060	0.142	0.099	0.179	0.120	0.080	0.151	0.463	
2009/8/26	-	-	0.036	0.002	0.108	0.203	0.141	0.270	0.186	0.126	0.280	0.473	
2009/8/27	-	-	0.033	-0.001	0.097	0.267	0.227	0.328	0.235	0.128	0.318	0.528	
2009/8/28	-	-	0.029	-0.006	0.115	0.311	0.275	0.381	0.295	0.260	0.355	0.570	
2009/8/29	-	-	0.001	-0.027	0.042	0.317	0.307	0.327	0.300	0.289	0.310	0.581	
2009/8/30	-	-	-0.018	-0.038	0.005	0.338	0.324	0.351	0.327	0.314	0.336	0.552	
2009/8/31	-	-	-	-	-	0.338	0.324	0.351	0.327	0.314	0.336	0.552	
Monthly	-4.433	-10.445	-2.370	-0.017	-0.004	0.046	0.138	0.092	0.186	0.124	0.081	0.172	0.476
													0.450
													0.508
													0.629
													0.604
													0.657

Table 2-9. Water temperature data (°C) at 6 depths in Naga Ike, September 2009.

Depth Date	1.0 m		2.3 m		4.3 m		5.35 m		7.5 m		9.3 m	
	daily average minimum	maximum	daily average minimum	maximum	daily average minimum	maximum	daily average minimum	maximum	daily average minimum	maximum	daily average minimum	maximum
2009/9/1	-2.916	-3.449	-2.460	-0.006	2.769	2.978	2.863	2.754	2.949	3.923	3.490	4.207
2009/9/2	-3.305	-3.829	-2.761	-0.011	2.880	2.789	2.955	2.883	3.021	3.954	3.490	4.254
2009/9/3	-2.689	-2.883	-2.416	-0.019	2.968	2.896	3.025	2.955	3.051	4.056	3.954	4.354
2009/9/4	-2.299	-2.419	-2.111	-0.025	3.041	2.990	3.071	3.020	2.971	4.142	4.055	4.190
2009/9/5	-2.022	-2.112	-1.889	-0.043	3.108	3.076	3.128	3.078	3.047	4.208	4.058	4.213
2009/9/6	-2.177	-2.273	-1.949	-0.074	3.148	3.116	3.170	3.112	3.083	4.141	4.110	4.192
2009/9/7	-2.704	-2.666	-2.323	-0.213	3.215	3.168	3.247	3.168	3.122	4.156	4.107	4.211
2009/9/8	-3.355	-3.530	-2.926	-0.312	3.278	3.247	3.310	3.231	3.189	4.188	4.133	4.249
2009/9/9	-3.444	-3.634	-3.226	-0.349	3.270	3.158	3.330	3.246	3.147	4.218	4.150	4.289
2009/9/10	-2.998	-3.395	-2.736	-0.328	3.207	3.145	3.301	3.207	3.127	4.232	4.183	4.323
2009/9/11	-2.782	-2.841	-2.748	-0.394	3.513	3.192	4.187	3.502	3.162	4.345	4.078	4.761
2009/9/12	-2.765	-2.845	-2.716	-0.324	4.242	3.951	4.487	4.248	3.924	4.449	4.093	4.711
2009/9/13	-2.805	-2.862	-2.756	-0.332	4.358	4.127	4.560	4.351	4.107	4.606	4.427	4.779
2009/9/14	-3.013	-3.055	-2.882	-0.231	4.563	4.421	4.709	4.583	4.418	4.742	4.616	4.915
2009/9/15	-3.106	-3.168	-3.053	-0.034	4.754	4.590	4.919	4.767	4.582	4.963	4.865	5.110
2009/9/16	-3.444	-3.577	-3.191	-0.016	4.968	4.803	5.150	4.976	4.801	5.176	5.071	5.319
2009/9/17	-3.711	-3.821	-3.596	-0.003	5.205	5.046	5.359	5.208	5.043	5.371	5.320	5.624
2009/9/18	-3.362	-3.157	-3.157	0.038	5.429	5.276	5.591	5.433	5.275	5.624	5.540	5.779
2009/9/19	-3.237	-3.276	-3.160	-0.002	5.652	5.499	5.795	5.653	5.498	5.788	5.746	5.952
2009/9/20	-3.325	-3.444	-3.156	0.083	6.077	5.951	6.207	6.083	5.946	6.021	5.977	6.220
2009/9/21	-2.270	-3.137	-2.625	0.000	6.168	6.143	6.201	6.166	6.136	6.201	6.109	6.267
2009/9/22	-2.253	-1.913	-1.913	0.000	6.257	6.143	6.379	6.282	6.139	6.405	6.305	6.515
2009/9/23	-1.760	-1.889	-1.690	0.000	6.393	6.356	6.440	6.392	6.356	6.452	6.464	6.553
2009/9/24	-1.463	-1.706	-1.183	0.067	6.437	6.378	6.507	6.434	6.365	6.526	6.498	6.639
2009/9/25	-1.073	-1.217	-0.931	0.080	6.587	6.483	6.681	6.592	6.482	6.690	6.670	6.809
2009/9/26	-1.023	-1.099	-0.951	0.071	6.733	6.661	6.805	6.740	6.658	6.812	6.801	6.937
2009/9/27	-0.924	-1.034	-0.817	0.074	6.831	6.758	6.914	6.835	6.761	6.928	6.901	7.037
2009/9/28	-1.012	-1.145	-0.861	0.004	6.937	6.879	7.002	6.940	6.882	7.014	7.011	7.090
2009/9/29	-1.081	-1.146	-1.020	0.049	6.961	6.940	6.972	6.960	6.940	6.982	6.995	7.034
2009/9/30	-0.916	-1.065	-0.717	0.044	6.952	6.923	6.989	6.954	6.918	6.998	6.980	7.089
Monthly	-2.461	-2.631	-2.264	-0.033	4.966	4.861	5.081	4.961	4.848	5.085	5.188	5.521
												5.295
												5.188
												5.400

Table 2-10. Water temperature data (°C) at 6 depths in Naga Ike, October 2009.

Date	1.0 m		2.3 m		4.3 m		5.35 m		7.5 m		9.3 m	
	daily average minimum	daily average maximum	daily average minimum	daily average maximum	daily average minimum	daily average maximum	daily average minimum	daily average maximum	daily average minimum	daily average maximum	daily average minimum	daily average maximum
2009/10/1	-2.916	-2.449	-0.011	-0.017	-0.006	2.880	2.769	2.863	2.754	2.949	3.923	3.490
2009/10/2	-3.305	-2.829	-0.012	-0.015	-0.005	2.968	2.896	2.855	2.863	3.021	4.066	3.594
2009/10/3	-2.689	-2.416	-0.019	-0.025	-0.015	3.041	2.990	3.020	2.971	3.051	4.142	4.190
2009/10/4	-2.299	-2.111	-0.043	-0.070	-0.025	3.108	3.076	3.128	3.047	3.099	4.141	4.087
2009/10/5	-2.022	-1.889	-0.129	-0.205	-0.074	3.148	3.116	3.170	3.112	3.083	4.148	4.110
2009/10/6	-2.177	-1.949	-0.272	-0.326	-0.213	3.215	3.168	3.247	3.168	3.122	4.156	4.107
2009/10/7	-2.704	-2.866	-0.317	-0.352	-0.278	3.231	3.247	3.310	3.231	3.189	4.186	4.133
2009/10/8	-3.355	-3.530	-0.312	-0.328	-0.265	3.270	3.158	3.330	3.246	3.147	4.218	4.150
2009/10/9	-3.444	-3.634	-0.328	-0.364	-0.277	3.207	3.145	3.301	3.207	3.127	4.252	4.183
2009/10/10	-2.998	-3.395	-0.212	-0.394	-0.032	3.513	3.192	4.487	3.502	3.162	4.345	4.078
2009/10/11	-2.782	-2.841	-0.136	-0.324	-0.072	4.242	3.951	4.487	4.248	4.510	4.449	4.093
2009/10/12	-2.845	-2.716	-0.074	-0.218	-0.005	4.358	4.127	4.560	4.351	4.107	4.606	4.427
2009/10/13	-2.805	-2.962	-0.061	-0.231	0.005	4.563	4.421	4.709	4.583	4.418	4.742	4.616
2009/10/14	-3.013	-3.055	-0.034	-0.182	0.008	4.754	4.590	4.919	4.767	4.582	4.963	4.600
2009/10/15	-3.106	-3.168	0.001	-0.016	0.010	4.968	4.803	5.150	4.976	4.801	5.176	5.071
2009/10/16	-3.444	-3.577	0.010	-0.003	0.024	5.205	5.046	5.359	5.208	5.043	5.371	5.320
2009/10/17	-3.711	-3.821	0.038	-0.003	0.086	5.429	5.276	5.591	5.433	5.275	5.624	5.540
2009/10/18	-3.362	-3.603	0.080	-0.002	0.163	5.652	5.499	5.795	5.653	5.498	5.788	5.748
2009/10/19	-3.237	-3.276	0.093	-0.001	0.200	5.864	5.735	6.010	5.866	5.730	6.021	5.977
2009/10/20	-3.325	-3.444	0.101	0.000	0.219	6.077	5.951	6.207	6.083	5.946	6.216	6.177
2009/10/21	-2.870	-3.137	0.049	0.000	0.092	6.168	6.143	6.201	6.166	6.136	6.201	6.199
2009/10/22	-2.253	-2.610	0.084	0.000	0.200	6.257	6.143	6.379	6.262	6.139	6.405	6.305
2009/10/23	-1.760	-1.889	0.053	0.000	0.091	6.393	6.356	6.440	6.392	6.356	6.452	6.340
2009/10/24	-1.463	-1.706	0.067	0.000	0.163	6.437	6.378	6.507	6.434	6.365	6.484	6.379
2009/10/25	-1.073	-1.217	0.080	0.003	0.162	6.587	6.483	6.681	6.592	6.482	6.690	6.653
2009/10/26	-1.023	-1.099	0.071	0.005	0.142	6.733	6.661	6.805	6.740	6.658	6.812	6.813
2009/10/27	-0.924	-1.034	0.074	0.004	0.148	6.831	6.758	6.914	6.835	6.761	6.928	6.901
2009/10/28	-1.012	-1.145	0.065	0.007	0.138	6.937	6.879	7.002	6.940	6.882	7.014	7.011
2009/10/29	-1.081	-1.146	0.049	0.004	0.114	6.961	6.940	6.972	6.960	6.933	6.981	6.985
2009/10/30	-0.916	-1.065	0.044	0.002	0.095	6.952	6.923	6.989	6.954	6.918	6.998	6.980
2009/10/31	-2.916	-3.449	-0.011	-0.017	-0.006	2.880	2.769	2.978	2.863	2.754	2.949	3.923
Monthly	-2.476	-2.270	-0.033	-0.100	0.025	4.899	4.793	5.013	4.893	4.780	5.016	5.307
												5.133
												5.479
												5.261
												5.155
												5.366

Table 2-11. Water temperature data (°C) at 6 depths in Naga Ike, November 2009.

Depth Date	1.0 m		2.3 m		4.3 m		5.35 m		7.5 m		9.3 m	
	daily average minimum	maximum	daily average minimum	maximum	daily average minimum	maximum	daily average minimum	maximum	daily average minimum	maximum	daily average minimum	maximum
2009/11/1	-3.449	-2.460	-0.011	-0.006	2.880	2.978	2.754	2.949	3.923	3.490	4.207	4.169
2009/11/2	-3.305	-2.761	-0.012	-0.015	2.968	2.896	2.883	3.021	3.954	4.190	4.190	4.432
2009/11/3	-2.689	-2.416	-0.019	-0.015	3.041	2.990	3.020	2.971	4.142	4.055	4.207	4.354
2009/11/4	-2.929	-2.111	-0.043	-0.070	3.108	3.076	3.078	3.047	4.141	4.087	4.208	4.258
2009/11/5	-2.022	-2.112	-0.129	-0.205	3.148	3.170	3.112	3.083	4.148	4.110	4.192	4.176
2009/11/6	-2.177	-2.273	-0.272	-0.328	3.215	3.168	3.166	3.122	4.156	4.107	4.211	4.153
2009/11/7	-2.704	-2.666	-0.317	-0.352	3.278	3.247	3.231	3.189	4.186	4.133	4.249	4.175
2009/11/8	-3.355	-3.350	-0.312	-0.349	3.270	3.198	3.246	3.147	4.218	4.150	4.289	4.235
2009/11/9	-3.444	-3.226	-0.328	-0.277	3.270	3.145	3.207	3.127	4.292	4.183	4.323	4.301
2009/11/10	-2.998	-2.736	-0.212	-0.394	3.513	3.192	3.502	3.162	4.345	4.078	4.761	4.460
2009/11/11	-2.782	-2.748	-0.136	-0.324	4.242	3.951	4.248	3.924	4.449	4.093	4.711	4.466
2009/11/12	-2.845	-2.716	-0.074	-0.032	4.358	4.127	4.351	4.107	4.449	4.427	4.181	4.478
2009/11/13	-2.805	-2.862	-0.061	-0.074	4.563	4.421	4.563	4.418	4.742	4.616	4.174	4.490
2009/11/14	-3.013	-3.055	-0.034	-0.182	4.754	4.590	4.767	4.582	4.963	4.865	4.600	4.730
2009/11/15	-3.168	-3.053	-0.001	-0.016	4.968	4.803	4.976	4.801	5.176	5.071	4.957	4.792
2009/11/16	-3.444	-3.577	-0.100	-0.003	5.205	5.046	5.208	5.043	5.371	5.320	5.066	5.546
2009/11/17	-3.711	-3.821	-0.038	-0.003	5.429	5.276	5.433	5.275	5.624	5.540	5.296	5.779
2009/11/18	-3.362	-3.157	0.080	-0.002	5.652	5.499	5.653	5.498	5.788	5.746	5.520	5.952
2009/11/19	-3.237	-3.276	0.093	-0.001	5.864	5.735	5.866	5.730	6.021	5.977	5.751	6.220
2009/11/20	-3.325	-3.444	0.101	0.000	6.077	5.951	6.083	5.946	6.216	6.177	5.975	6.381
2009/11/21	-2.870	-3.137	0.049	0.000	6.168	6.143	6.166	6.136	6.201	6.144	6.267	6.072
2009/11/22	-2.253	-2.610	0.084	0.000	6.257	6.143	6.262	6.139	6.405	6.189	6.144	6.072
2009/11/23	-1.760	-1.889	0.053	0.000	6.393	6.356	6.392	6.356	6.452	6.464	6.379	6.553
2009/11/24	-1.463	-1.706	0.060	0.000	6.437	6.378	6.434	6.365	6.526	6.488	6.380	6.665
2009/11/25	-1.073	-1.217	0.080	0.003	6.587	6.483	6.592	6.482	6.690	6.670	6.509	6.827
2009/11/26	-0.951	-0.951	0.071	0.005	6.733	6.661	6.740	6.658	6.812	6.813	6.690	6.893
2009/11/27	-0.924	-1.034	0.074	0.004	6.831	6.758	6.835	6.761	6.928	6.901	6.778	7.037
2009/11/28	-1.012	-0.861	0.065	0.007	6.937	6.879	6.940	6.882	7.014	7.011	6.900	7.100
2009/11/29	-1.081	-1.146	0.049	0.004	6.961	6.940	6.960	6.933	6.981	6.985	6.962	7.034
2009/11/30	-0.916	-1.065	0.044	0.002	6.952	6.923	6.989	6.918	6.998	6.980	6.935	7.089
Monthly	-2.461	-2.631	-0.033	-0.102	4.966	4.861	4.961	4.848	5.085	5.353	5.188	5.295
												5.188
												5.400

Table 2-12. Water temperature data (°C) at 6 depths in Naga Ike, December 2009.

Depth Date	1.0 m		2.3 m		4.3 m		5.35 m		7.5 m		9.3 m		
	daily average	minimum maximum	daily average	minimum maximum	daily average	minimum maximum	daily average	minimum maximum	daily average	minimum maximum	daily average	minimum maximum	
2009/12/1	0.135	0.001	5.668	3.387	6.417	9.848	9.795	9.926	9.841	9.788	9.937	9.719	9.648
2009/12/2	0.083	0.022	6.127	5.742	6.527	9.895	9.843	9.935	9.897	9.839	9.950	9.741	9.673
2009/12/3	0.051	0.004	6.246	6.068	6.495	9.929	9.872	9.993	9.930	9.873	9.999	9.764	9.693
2009/12/4	0.075	0.011	6.271	5.152	7.108	10.068	9.947	10.182	10.077	9.944	10.194	9.888	9.742
2009/12/5	0.073	0.019	6.738	6.440	7.064	10.247	10.151	10.357	10.255	10.147	10.364	10.041	9.897
2009/12/6	0.031	0.001	6.089	7.234	6.685	7.876	10.341	10.373	10.343	10.375	10.368	10.308	10.041
2009/12/7	0.027	-0.008	7.057	6.469	7.563	10.314	10.296	10.341	10.313	10.298	10.358	10.421	10.130
2009/12/8	0.086	0.003	6.256	4.802	7.230	10.415	10.319	10.546	10.415	10.315	10.554	10.468	10.227
2009/12/9	0.170	0.013	5.198	4.128	7.085	10.394	10.271	10.475	10.385	10.208	10.474	10.319	10.224
2009/12/10	0.205	0.002	5.260	4.076	6.060	10.422	10.317	10.480	10.422	10.312	10.525	10.499	10.215
2009/12/11	0.079	0.003	5.640	4.240	6.951	10.427	10.359	10.478	10.428	10.364	10.490	10.521	10.268
2009/12/12	0.059	0.004	4.703	6.309	6.309	10.380	10.321	10.434	10.375	10.297	10.432	10.439	10.280
2009/12/13	0.081	0.013	5.111	4.325	5.932	10.239	10.069	10.332	10.234	10.068	10.359	10.314	10.182
2009/12/14	0.106	0.005	5.289	4.631	5.828	10.012	9.911	10.181	10.015	9.916	10.188	10.091	9.989
2009/12/15	0.145	-0.006	5.700	5.805	5.017	9.424	6.951	9.901	9.423	6.922	9.899	9.573	9.920
2009/12/16	0.064	-0.008	1.678	2.089	0.780	2.068	0.848	6.271	2.064	0.806	6.198	2.113	0.827
2009/12/17	0.647	0.471	0.707	0.593	0.790	0.726	0.657	0.845	0.712	0.616	0.798	0.751	0.702
2009/12/18	0.919	0.597	1.276	0.968	0.686	1.383	0.959	0.679	1.497	0.972	0.678	1.482	0.791
2009/12/19	1.465	0.836	2.022	1.557	1.059	1.644	1.095	2.175	1.657	1.088	2.216	1.931	1.771
2009/12/20	2.168	1.622	2.730	2.241	1.701	2.800	2.241	2.858	2.306	1.821	2.835	2.602	3.423
2009/12/21	2.563	2.186	2.890	2.583	2.199	2.974	2.603	3.020	2.595	2.226	3.022	2.735	3.235
2009/12/22	2.855	2.611	3.265	2.665	3.274	2.897	2.710	3.254	2.902	2.714	3.248	2.990	3.367
2009/12/23	0.135	0.001	5.668	3.387	6.417	9.848	9.795	9.926	9.841	9.788	9.937	9.719	9.648
2009/12/24	0.083	0.022	6.127	5.742	6.527	9.895	9.843	9.935	9.897	9.839	9.950	9.741	9.673
2009/12/25	0.051	0.004	6.246	6.068	6.495	9.929	9.872	9.993	9.930	9.873	9.999	9.764	9.693
2009/12/26	0.075	0.011	6.271	5.152	7.108	10.068	9.947	10.182	10.077	9.944	10.194	9.888	9.742
2009/12/27	0.073	0.019	6.738	6.440	7.064	10.247	10.151	10.357	10.235	10.147	10.364	10.041	9.897
2009/12/28	0.031	0.001	6.089	7.234	6.685	7.876	10.341	10.373	10.343	10.375	10.368	10.308	10.041
2009/12/29	0.027	-0.008	7.057	6.469	7.563	10.314	10.296	10.341	10.313	10.298	10.358	10.353	10.130
2009/12/30	0.086	0.003	6.256	4.802	7.230	10.415	10.319	10.546	10.415	10.315	10.554	10.468	10.227
2009/12/31	0.170	0.013	5.198	4.128	7.085	10.394	10.271	10.475	10.385	10.208	10.474	10.319	10.224
Monthlv	0.433	0.276	0.677	5.135	4.336	5.997	8.291	8.051	8.580	8.291	8.042	8.583	8.373
												8.704	8.393
												8.092	7.969
												8.704	8.829

Table 2-13. Water temperature data (°C) at 6 depths in Naga Ike, January 2010.

Date	1.0 m		2.3 m		4.3 m		5.35 m		7.5 m		9.3 m	
	daily average	minimum maximum	daily average	minimum maximum	daily average	minimum maximum	daily average	minimum maximum	daily average	minimum maximum	daily average	minimum maximum
2010/1/1	0.135	0.001 0.391	5.168	3.387 6.417	9.848	9.795 9.926	9.841	9.788 9.937	9.903	9.812 10.032	9.719	9.646 9.823
2010/1/2	0.083	0.022 0.299	6.127	5.742 6.527	9.895	9.843 9.935	9.897	9.839 9.950	9.944	9.870 10.057	9.741	9.673 9.823
2010/1/3	0.051	0.004 0.128	6.246	6.068 6.495	9.929	9.872 9.993	9.930	9.873 9.999	9.985	9.887 10.107	9.764	9.693 9.864
2010/1/4	0.075	0.011 0.177	6.271	5.152 7.108	10.068	9.947 10.182	10.077	9.944 10.194	10.130	9.983 10.244	9.888	9.742 10.003
2010/1/5	0.073	0.019 0.180	6.738	6.440 7.064	10.247	10.151 10.357	10.255	10.147 10.364	10.299	10.136 10.463	10.041	9.897 10.178
2010/1/6	0.031	0.001 0.069	7.234	6.685 7.876	10.341	10.319 10.373	10.343	10.317 10.375	10.368	10.308 10.441	10.082	10.036 10.120
2010/1/7	0.027	-0.008 0.083	7.057	6.469 7.563	10.314	10.296 10.341	10.313	10.298 10.358	10.353	10.321 10.421	10.061	10.010 10.130
2010/1/8	0.086	0.003 0.192	6.256	4.802 7.230	10.415	10.319 10.546	10.415	10.315 10.554	10.468	10.326 10.596	10.227	10.082 10.365
2010/1/9	0.170	0.013 0.676	5.198	4.128 7.085	10.394	10.271 10.475	10.385	10.208 10.474	10.484	10.386 10.574	10.319	10.224 10.402
2010/1/10	0.205	0.002 0.733	5.260	4.076 6.060	10.422	10.317 10.480	10.422	10.312 10.525	10.499	10.349 10.645	10.329	10.215 10.427
2010/1/11	0.079	0.003 0.218	5.640	4.240 6.951	10.427	10.359 10.478	10.428	10.364 10.490	10.521	10.438 10.610	10.369	10.268 10.453
2010/1/12	0.059	0.004 0.110	5.468	4.703 6.309	10.380	10.321 10.434	10.375	10.297 10.432	10.439	10.351 10.548	10.333	10.280 10.386
2010/1/13	0.081	0.013 0.159	5.111	4.325 5.932	10.239	10.069 10.332	10.234	10.088 10.339	10.314	10.126 10.454	10.261	10.182 10.332
2010/1/14	0.106	0.005 0.210	5.289	4.631 5.928	10.012	9.911 10.181	10.015	9.916 10.188	10.091	9.930 10.206	10.098	9.989 10.191
2010/1/15	0.145	-0.006 0.370	5.803	5.017 8.496	9.424	6.951 9.901	9.423	6.922 9.899	9.573	6.853 9.920	9.676	6.566 9.966
2010/1/16	0.664	-0.008 1.678	2.089	0.780 6.524	2.068	0.848 6.271	2.064	0.806 6.198	2.113	0.860 6.142	2.190	0.827 6.447
2010/1/17	0.847	0.471 0.733	0.707	0.593 0.790	0.726	0.657 0.845	0.712	0.616 0.798	0.751	0.674 0.874	0.791	0.702 1.015
2010/1/18	0.919	0.597 1.276	0.968	0.686 1.383	0.959	0.679 1.497	0.972	0.678 1.482	1.120	0.691 1.771	2.208	0.739 3.532
2010/1/19	1.465	0.936 2.022	1.557	1.059 2.057	1.644	1.095 2.175	1.657	1.088 2.216	1.931	1.319 2.560	3.423	1.832 4.856
2010/1/20	2.168	1.622 2.730	2.241	1.701 2.800	2.310	1.747 2.858	2.306	1.821 2.835	2.602	1.949 3.627	4.093	2.202 5.618
2010/1/21	2.563	2.186 2.890	2.583	2.199 2.974	2.603	2.284 3.020	2.595	2.226 3.022	2.735	2.360 3.235	3.331	2.393 4.602
2010/1/22	2.855	2.611 3.265	2.887	2.665 3.274	2.897	2.710 3.254	2.902	2.714 3.248	2.990	2.779 3.367	3.380	2.842 4.458
Monthly	0.577	0.386 0.854	4.654	3.889 5.570	7.525	7.217 7.902	7.525	7.208 7.904	7.619	7.264 8.041	7.742	7.184 8.318

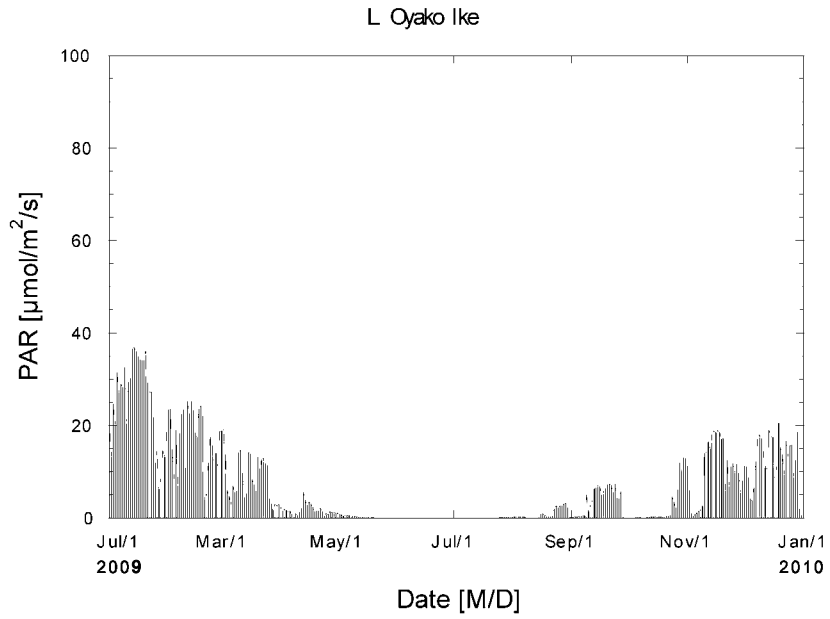


Fig. 5. Seasonal changes of photosynthetically active radiation (PAR) at 6.1 m depth in Oyako Ike (2009–2010). Daily average data.

Table 3-1. Photosynthetic active radiation data ($\mu\text{mol}/\text{m}^2/\text{s}$) at 6.1 m depth in Oyako Ike, January 2009.

Depth	6.1 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/1/1	20	1	69
2009/1/2	13	0	35
2009/1/3	25	1	65
2009/1/4	20	1	46
2009/1/5	32	1	75
2009/1/6	27	1	67
2009/1/7	29	1	71
2009/1/8	28	1	79
2009/1/9	33	1	95
2009/1/10	21	1	45
2009/1/11	29	0	74
2009/1/12	30	0	83
2009/1/13	37	1	89
2009/1/14	37	1	85
2009/1/15	36	1	104
2009/1/16	35	1	84
2009/1/17	34	1	83
2009/1/18	34	1	81
2009/1/19	34	1	82
2009/1/20	36	0	88
2009/1/21	29	0	87
2009/1/22	27	0	70
2009/1/23	27	0	66
2009/1/24	22	0	73
2009/1/25	12	0	45
2009/1/26	14	0	42
2009/1/27	6	0	31
2009/1/28	9	0	38
2009/1/29	15	0	43
2009/1/30	13	0	41
2009/1/31	19	0	64
<i>Monthly</i>	25	1	68

Table 3-2. Photosynthetic active radiation data ($\mu\text{mol}/\text{m}^2/\text{s}$) at 6.1 m depth in Oyako Ike, February 2009.

Depth	6.1 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/2/1	11	0	27
2009/2/2	11	0	27
2009/2/3	9	0	23
2009/2/4	4	0	14
2009/2/5	4	0	12
2009/2/6	7	0	17
2009/2/7	12	0	29
2009/2/8	17	0	40
2009/2/9	18	1	41
2009/2/10	17	0	40
2009/2/11	15	0	46
2009/2/12	11	0	33
2009/2/13	11	0	25
2009/2/14	19	1	43
2009/2/15	18	1	40
2009/2/16	18	1	42
2009/2/17	8	0	27
2009/2/18	11	1	32
2009/2/19	21	1	50
2009/2/20	15	1	45
2009/2/21	14	0	32
2009/2/22	9	0	27
2009/2/23	17	0	39
2009/2/24	13	0	37
2009/2/25	16	0	48
2009/2/26	16	0	54
2009/2/27	9	0	23
2009/2/28	12	0	40
<i>Monthly</i>	13	0	34

Table 3-3. Photosynthetic active radiation data ($\mu\text{mol}/\text{m}^2/\text{s}$) at 6.1 m depth in Oyako Ike, March 2009.

Depth	6.1 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/3/1	11	0	27
2009/3/2	11	0	27
2009/3/3	9	0	23
2009/3/4	4	0	14
2009/3/5	4	0	12
2009/3/6	7	0	17
2009/3/7	12	0	29
2009/3/8	17	0	40
2009/3/9	18	1	41
2009/3/10	17	0	40
2009/3/11	15	0	46
2009/3/12	11	0	33
2009/3/13	11	0	25
2009/3/14	19	1	43
2009/3/15	18	1	40
2009/3/16	18	1	42
2009/3/17	8	0	27
2009/3/18	11	1	32
2009/3/19	21	1	50
2009/3/20	15	1	45
2009/3/21	14	0	32
2009/3/22	9	0	27
2009/3/23	17	0	39
2009/3/24	13	0	37
2009/3/25	16	0	48
2009/3/26	16	0	54
2009/3/27	9	0	23
2009/3/28	12	0	40
2009/3/29	19	0	43
2009/3/30	2	0	7
2009/3/31	1	0	1
<i>Monthly</i>	12	0	32

Table 3-4. Photosynthetic active radiation data ($\mu\text{mol}/\text{m}^2/\text{s}$) at 6.1 m depth in Oyako Ike, April 2009.

Depth	6.1 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/4/1	11	0	27
2009/4/2	11	0	27
2009/4/3	9	0	23
2009/4/4	4	0	14
2009/4/5	4	0	12
2009/4/6	7	0	17
2009/4/7	12	0	29
2009/4/8	17	0	40
2009/4/9	18	1	41
2009/4/10	17	0	40
2009/4/11	15	0	46
2009/4/12	11	0	33
2009/4/13	11	0	25
2009/4/14	19	1	43
2009/4/15	18	1	40
2009/4/16	18	1	42
2009/4/17	8	0	27
2009/4/18	11	1	32
2009/4/19	21	1	50
2009/4/20	15	1	45
2009/4/21	14	0	32
2009/4/22	9	0	27
2009/4/23	17	0	39
2009/4/24	13	0	37
2009/4/25	16	0	48
2009/4/26	16	0	54
2009/4/27	9	0	23
2009/4/28	12	0	40
2009/4/29	19	0	43
2009/4/30	2	0	7
<i>Monthly</i>	13	0	33

Table 3-5. Photosynthetic active radiation data ($\mu\text{mol}/\text{m}^2/\text{s}$) at 6.1 m depth in Oyako Ike, May 2009.

Depth	6.1 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/5/1	11	0	27
2009/5/2	11	0	27
2009/5/3	9	0	23
2009/5/4	4	0	14
2009/5/5	4	0	12
2009/5/6	7	0	17
2009/5/7	12	0	29
2009/5/8	17	0	40
2009/5/9	18	1	41
2009/5/10	17	0	40
2009/5/11	15	0	46
2009/5/12	11	0	33
2009/5/13	11	0	25
2009/5/14	19	1	43
2009/5/15	18	1	40
2009/5/16	18	1	42
2009/5/17	8	0	27
2009/5/18	11	1	32
2009/5/19	21	1	50
2009/5/20	15	1	45
2009/5/21	14	0	32
2009/5/22	9	0	27
2009/5/23	17	0	39
2009/5/24	13	0	37
2009/5/25	16	0	48
2009/5/26	16	0	54
2009/5/27	9	0	23
2009/5/28	12	0	40
2009/5/29	19	0	43
2009/5/30	2	0	7
2009/5/31	1	0	1
<i>Monthly</i>	12	0	32

Table 3-6. Photosynthetic active radiation data ($\mu\text{mol}/\text{m}^2/\text{s}$) at 6.1 m depth in Oyako Ike, June 2009.

Depth	6.1 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/6/1	11	0	27
2009/6/2	11	0	27
2009/6/3	9	0	23
2009/6/4	4	0	14
2009/6/5	4	0	12
2009/6/6	7	0	17
2009/6/7	12	0	29
2009/6/8	17	0	40
2009/6/9	18	1	41
2009/6/10	17	0	40
2009/6/11	15	0	46
2009/6/12	11	0	33
2009/6/13	11	0	25
2009/6/14	19	1	43
2009/6/15	18	1	40
2009/6/16	18	1	42
2009/6/17	8	0	27
2009/6/18	11	1	32
2009/6/19	21	1	50
2009/6/20	15	1	45
2009/6/21	14	0	32
2009/6/22	9	0	27
2009/6/23	17	0	39
2009/6/24	13	0	37
2009/6/25	16	0	48
2009/6/26	16	0	54
2009/6/27	9	0	23
2009/6/28	12	0	40
2009/6/29	19	0	43
2009/6/30	2	0	7
<i>Monthly</i>	13	0	33

Table 3-7. Photosynthetic active radiation data ($\mu\text{mol}/\text{m}^2/\text{s}$) at 6.1 m depth in Oyako Ike, July 2009.

Depth	6.1 m		
	daily average	minimum	maximum
Date			
2009/7/1	11	0	27
2009/7/2	11	0	27
2009/7/3	9	0	23
2009/7/4	4	0	14
2009/7/5	4	0	12
2009/7/6	7	0	17
2009/7/7	12	0	29
2009/7/8	17	0	40
2009/7/9	18	1	41
2009/7/10	17	0	40
2009/7/11	15	0	46
2009/7/12	11	0	33
2009/7/13	11	0	25
2009/7/14	19	1	43
2009/7/15	18	1	40
2009/7/16	18	1	42
2009/7/17	8	0	27
2009/7/18	11	1	32
2009/7/19	21	1	50
2009/7/20	15	1	45
2009/7/21	14	0	32
2009/7/22	9	0	27
2009/7/23	17	0	39
2009/7/24	13	0	37
2009/7/25	16	0	48
2009/7/26	16	0	54
2009/7/27	9	0	23
2009/7/28	12	0	40
2009/7/29	19	0	43
2009/7/30	2	0	7
2009/7/31	1	0	1
<i>Monthly</i>	12	0	32

Table 3-8. Photosynthetic active radiation data ($\mu\text{mol}/\text{m}^2/\text{s}$) at 6.1 m depth in Oyako Ike, August 2009.

Depth	6.1 m		
	daily average	minimum	maximum
Date			
2009/8/1	11	0	27
2009/8/2	11	0	27
2009/8/3	9	0	23
2009/8/4	4	0	14
2009/8/5	4	0	12
2009/8/6	7	0	17
2009/8/7	12	0	29
2009/8/8	17	0	40
2009/8/9	18	1	41
2009/8/10	17	0	40
2009/8/11	15	0	46
2009/8/12	11	0	33
2009/8/13	11	0	25
2009/8/14	19	1	43
2009/8/15	18	1	40
2009/8/16	18	1	42
2009/8/17	8	0	27
2009/8/18	11	1	32
2009/8/19	21	1	50
2009/8/20	15	1	45
2009/8/21	14	0	32
2009/8/22	9	0	27
2009/8/23	17	0	39
2009/8/24	13	0	37
2009/8/25	16	0	48
2009/8/26	16	0	54
2009/8/27	9	0	23
2009/8/28	12	0	40
2009/8/29	19	0	43
2009/8/30	2	0	7
2009/8/31	1	0	1
<i>Monthly</i>	12	0	32

Table 3-9. Photosynthetic active radiation data ($\mu\text{mol}/\text{m}^2/\text{s}$) at 6.1 m depth in Oyako Ike, September 2009.

Depth	6.1 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/9/1	11	0	27
2009/9/2	11	0	27
2009/9/3	9	0	23
2009/9/4	4	0	14
2009/9/5	4	0	12
2009/9/6	7	0	17
2009/9/7	12	0	29
2009/9/8	17	0	40
2009/9/9	18	1	41
2009/9/10	17	0	40
2009/9/11	15	0	46
2009/9/12	11	0	33
2009/9/13	11	0	25
2009/9/14	19	1	43
2009/9/15	18	1	40
2009/9/16	18	1	42
2009/9/17	8	0	27
2009/9/18	11	1	32
2009/9/19	21	1	50
2009/9/20	15	1	45
2009/9/21	14	0	32
2009/9/22	9	0	27
2009/9/23	17	0	39
2009/9/24	13	0	37
2009/9/25	16	0	48
2009/9/26	16	0	54
2009/9/27	9	0	23
2009/9/28	12	0	40
2009/9/29	19	0	43
2009/9/30	2	0	7
<i>Monthly</i>	13	0	33

Table 3-10. Photosynthetic active radiation data ($\mu\text{mol}/\text{m}^2/\text{s}$) at 6.1 m depth in Oyako Ike, October 2009.

Depth	6.1 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/10/1	11	0	27
2009/10/2	11	0	27
2009/10/3	9	0	23
2009/10/4	4	0	14
2009/10/5	4	0	12
2009/10/6	7	0	17
2009/10/7	12	0	29
2009/10/8	17	0	40
2009/10/9	18	1	41
2009/10/10	17	0	40
2009/10/11	15	0	46
2009/10/12	11	0	33
2009/10/13	11	0	25
2009/10/14	19	1	43
2009/10/15	18	1	40
2009/10/16	18	1	42
2009/10/17	8	0	27
2009/10/18	11	1	32
2009/10/19	21	1	50
2009/10/20	15	1	45
2009/10/21	14	0	32
2009/10/22	9	0	27
2009/10/23	17	0	39
2009/10/24	13	0	37
2009/10/25	16	0	48
2009/10/26	16	0	54
2009/10/27	9	0	23
2009/10/28	12	0	40
2009/10/29	19	0	43
2009/10/30	2	0	7
2009/10/31	1	0	1
<i>Monthly</i>	12	0	32

Table 3-11. Photosynthetic active radiation data ($\mu\text{mol}/\text{m}^2/\text{s}$) at 6.1 m depth in Oyako Ike, November 2009.

Depth	6.1 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/11/1	11	0	27
2009/11/2	11	0	27
2009/11/3	9	0	23
2009/11/4	4	0	14
2009/11/5	4	0	12
2009/11/6	7	0	17
2009/11/7	12	0	29
2009/11/8	17	0	40
2009/11/9	18	1	41
2009/11/10	17	0	40
2009/11/11	15	0	46
2009/11/12	11	0	33
2009/11/13	11	0	25
2009/11/14	19	1	43
2009/11/15	18	1	40
2009/11/16	18	1	42
2009/11/17	8	0	27
2009/11/18	11	1	32
2009/11/19	21	1	50
2009/11/20	15	1	45
2009/11/21	14	0	32
2009/11/22	9	0	27
2009/11/23	17	0	39
2009/11/24	13	0	37
2009/11/25	16	0	48
2009/11/26	16	0	54
2009/11/27	9	0	23
2009/11/28	12	0	40
2009/11/29	19	0	43
2009/11/30	2	0	7
<i>Monthly</i>	13	0	33

Table 3-12. Photosynthetic active radiation data ($\mu\text{mol}/\text{m}^2/\text{s}$) at 6.1 m depth in Oyako Ike, December 2009.

Depth	6.1 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/12/1	11	0	27
2009/12/2	11	0	27
2009/12/3	9	0	23
2009/12/4	4	0	14
2009/12/5	4	0	12
2009/12/6	7	0	17
2009/12/7	12	0	29
2009/12/8	17	0	40
2009/12/9	18	1	41
2009/12/10	17	0	40
2009/12/11	15	0	46
2009/12/12	11	0	33
2009/12/13	11	0	25
2009/12/14	19	1	43
2009/12/15	18	1	40
2009/12/16	18	1	42
2009/12/17	8	0	27
2009/12/18	11	1	32
2009/12/19	21	1	50
2009/12/20	15	1	45
2009/12/21	14	0	32
2009/12/22	9	0	27
2009/12/23	17	0	39
2009/12/24	13	0	37
2009/12/25	16	0	48
2009/12/26	16	0	54
2009/12/27	9	0	23
2009/12/28	12	0	40
2009/12/29	19	0	43
2009/12/30	2	0	7
2009/12/31	1	0	1
<i>Monthly</i>	12	0	32

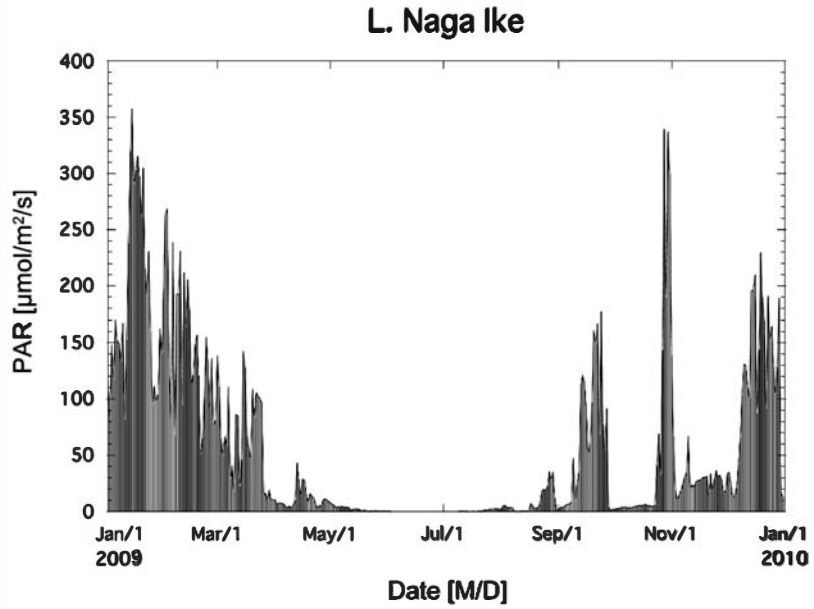


Fig. 6. Seasonal changes of photosynthetically active radiation (PAR) at 1.5 m depth in Naga Ike (2009–2010). Daily average data.

Table 4-1. Photosynthetic active radiation data ($\mu\text{mol}/\text{m}^2/\text{s}$) at 1.5 m depth in Naga Ike, January 2009.

Depth	1.5 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/1/1	116	8	387
2009/1/2	83	4	209
2009/1/3	148	9	417
2009/1/4	118	9	255
2009/1/5	170	9	388
2009/1/6	152	9	340
2009/1/7	149	8	392
2009/1/8	133	6	374
2009/1/9	168	7	445
2009/1/10	82	5	172
2009/1/11	153	3	366
2009/1/12	238	5	651
2009/1/13	320	13	802
2009/1/14	358	12	999
2009/1/15	291	8	845
2009/1/16	303	11	725
2009/1/17	315	10	966
2009/1/18	297	10	671
2009/1/19	262	8	667
2009/1/20	305	5	805
2009/1/21	215	7	718
2009/1/22	191	6	455
2009/1/23	231	3	735
2009/1/24	160	4	551
2009/1/25	95	2	310
2009/1/26	112	0	299
2009/1/27	98	0	410
2009/1/28	104	1	361
2009/1/29	163	0	522
2009/1/30	141	0	451
2009/1/31	197	0	713
<i>Monthly</i>	189	6	529

Table 4-2. Photosynthetic active radiation data ($\mu\text{mol}/\text{m}^2/\text{s}$) at 1.5 m depth in Naga Ike, February 2009.

Depth	1.5 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/2/1	2	0	12
2009/2/2	3	0	18
2009/2/3	4	0	21
2009/2/4	4	0	21
2009/2/5	6	0	29
2009/2/6	6	0	31
2009/2/7	7	0	32
2009/2/8	8	0	34
2009/2/9	48	0	232
2009/2/10	9	0	38
2009/2/11	26	0	132
2009/2/12	36	0	159
2009/2/13	111	0	669
2009/2/14	122	0	759
2009/2/15	115	0	654
2009/2/16	93	0	414
2009/2/17	51	0	318
2009/2/18	61	0	227
2009/2/19	97	0	385
2009/2/20	161	0	864
2009/2/21	149	0	745
2009/2/22	167	0	775
2009/2/23	68	0	241
2009/2/24	177	0	839
2009/2/25	77	0	488
2009/2/26	54	0	199
2009/2/27	92	0	371
2009/2/28	4	0	23
<i>Monthly</i>	63	0	312

Table 4-3. Photosynthetic active radiation data ($\mu\text{mol}/\text{m}^2/\text{s}$) at 1.5 m depth in Naga Ike, March 2009.

Depth	1.5 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/3/1	2	0	12
2009/3/2	3	0	18
2009/3/3	4	0	21
2009/3/4	4	0	21
2009/3/5	6	0	29
2009/3/6	6	0	31
2009/3/7	7	0	32
2009/3/8	8	0	34
2009/3/9	48	0	232
2009/3/10	9	0	38
2009/3/11	26	0	132
2009/3/12	36	0	159
2009/3/13	111	0	669
2009/3/14	122	0	759
2009/3/15	115	0	654
2009/3/16	93	0	414
2009/3/17	51	0	318
2009/3/18	61	0	227
2009/3/19	97	0	385
2009/3/20	161	0	864
2009/3/21	149	0	745
2009/3/22	167	0	775
2009/3/23	68	0	241
2009/3/24	177	0	839
2009/3/25	77	0	488
2009/3/26	54	0	199
2009/3/27	92	0	371
2009/3/28	4	0	23
2009/3/29	1	0	5
2009/3/30	2	0	8
2009/3/31	2	0	12
<i>Monthly</i>	57	0	282

Table 4-4. Photosynthetic active radiation data ($\mu\text{mol}/\text{m}^2/\text{s}$) at 1.5 m depth in Naga Ike, April 2009.

Depth	1.5 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/4/1	2	0	12
2009/4/2	3	0	18
2009/4/3	4	0	21
2009/4/4	4	0	21
2009/4/5	6	0	29
2009/4/6	6	0	31
2009/4/7	7	0	32
2009/4/8	8	0	34
2009/4/9	48	0	232
2009/4/10	9	0	38
2009/4/11	26	0	132
2009/4/12	36	0	159
2009/4/13	111	0	669
2009/4/14	122	0	759
2009/4/15	115	0	654
2009/4/16	93	0	414
2009/4/17	51	0	318
2009/4/18	61	0	227
2009/4/19	97	0	385
2009/4/20	161	0	864
2009/4/21	149	0	745
2009/4/22	167	0	775
2009/4/23	68	0	241
2009/4/24	177	0	839
2009/4/25	77	0	488
2009/4/26	54	0	199
2009/4/27	92	0	371
2009/4/28	4	0	23
2009/4/29	1	0	5
2009/4/30	2	0	8
<i>Monthly</i>	59	0	291

Table 4-5. Photosynthetic active radiation data ($\mu\text{mol}/\text{m}^2/\text{s}$) at 1.5 m depth in Naga Ike, May 2009.

Depth	1.5 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/5/1	2	0	12
2009/5/2	3	0	18
2009/5/3	4	0	21
2009/5/4	4	0	21
2009/5/5	6	0	29
2009/5/6	6	0	31
2009/5/7	7	0	32
2009/5/8	8	0	34
2009/5/9	48	0	232
2009/5/10	9	0	38
2009/5/11	26	0	132
2009/5/12	36	0	159
2009/5/13	111	0	669
2009/5/14	122	0	759
2009/5/15	115	0	654
2009/5/16	93	0	414
2009/5/17	51	0	318
2009/5/18	61	0	227
2009/5/19	97	0	385
2009/5/20	161	0	864
2009/5/21	149	0	745
2009/5/22	167	0	775
2009/5/23	68	0	241
2009/5/24	177	0	839
2009/5/25	77	0	488
2009/5/26	54	0	199
2009/5/27	92	0	371
2009/5/28	4	0	23
2009/5/29	1	0	5
2009/5/30	2	0	8
2009/5/31	2	0	12
<i>Monthly</i>	57	0	282

Table 4-6. Photosynthetic active radiation data ($\mu\text{mol}/\text{m}^2/\text{s}$) at 1.5 m depth in Naga Ike, June 2009.

Depth	1.5 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/6/1	2	0	12
2009/6/2	3	0	18
2009/6/3	4	0	21
2009/6/4	4	0	21
2009/6/5	6	0	29
2009/6/6	6	0	31
2009/6/7	7	0	32
2009/6/8	8	0	34
2009/6/9	48	0	232
2009/6/10	9	0	38
2009/6/11	26	0	132
2009/6/12	36	0	159
2009/6/13	111	0	669
2009/6/14	122	0	759
2009/6/15	115	0	654
2009/6/16	93	0	414
2009/6/17	51	0	318
2009/6/18	61	0	227
2009/6/19	97	0	385
2009/6/20	161	0	864
2009/6/21	149	0	745
2009/6/22	167	0	775
2009/6/23	68	0	241
2009/6/24	177	0	839
2009/6/25	77	0	488
2009/6/26	54	0	199
2009/6/27	92	0	371
2009/6/28	4	0	23
2009/6/29	1	0	5
2009/6/30	2	0	8
<i>Monthly</i>	59	0	291

Table 4-7. Photosynthetic active radiation data ($\mu\text{mol}/\text{m}^2/\text{s}$) at 1.5 m depth in Naga Ike, July 2009.

Depth	1.5 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/7/1	2	0	12
2009/7/2	3	0	18
2009/7/3	4	0	21
2009/7/4	4	0	21
2009/7/5	6	0	29
2009/7/6	6	0	31
2009/7/7	7	0	32
2009/7/8	8	0	34
2009/7/9	48	0	232
2009/7/10	9	0	38
2009/7/11	26	0	132
2009/7/12	36	0	159
2009/7/13	111	0	669
2009/7/14	122	0	759
2009/7/15	115	0	654
2009/7/16	93	0	414
2009/7/17	51	0	318
2009/7/18	61	0	227
2009/7/19	97	0	385
2009/7/20	161	0	864
2009/7/21	149	0	745
2009/7/22	167	0	775
2009/7/23	68	0	241
2009/7/24	177	0	839
2009/7/25	77	0	488
2009/7/26	54	0	199
2009/7/27	92	0	371
2009/7/28	4	0	23
2009/7/29	1	0	5
2009/7/30	2	0	8
2009/7/31	2	0	12
<i>Monthly</i>	57	0	282

Table 4-8. Photosynthetic active radiation data ($\mu\text{mol}/\text{m}^2/\text{s}$) at 1.5 m depth in Naga Ike, August 2009.

Depth	1.5 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/8/1	2	0	12
2009/8/2	3	0	18
2009/8/3	4	0	21
2009/8/4	4	0	21
2009/8/5	6	0	29
2009/8/6	6	0	31
2009/8/7	7	0	32
2009/8/8	8	0	34
2009/8/9	48	0	232
2009/8/10	9	0	38
2009/8/11	26	0	132
2009/8/12	36	0	159
2009/8/13	111	0	669
2009/8/14	122	0	759
2009/8/15	115	0	654
2009/8/16	93	0	414
2009/8/17	51	0	318
2009/8/18	61	0	227
2009/8/19	97	0	385
2009/8/20	161	0	864
2009/8/21	149	0	745
2009/8/22	167	0	775
2009/8/23	68	0	241
2009/8/24	177	0	839
2009/8/25	77	0	488
2009/8/26	54	0	199
2009/8/27	92	0	371
2009/8/28	4	0	23
2009/8/29	1	0	5
2009/8/30	2	0	8
2009/8/31	2	0	12
<i>Monthly</i>	57	0	282

Table 4-9. Photosynthetic active radiation data ($\mu\text{mol}/\text{m}^2/\text{s}$) at 1.5 m depth in Naga Ike, September 2009.

Depth	1.5 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/9/1	2	0	12
2009/9/2	3	0	18
2009/9/3	4	0	21
2009/9/4	4	0	21
2009/9/5	6	0	29
2009/9/6	6	0	31
2009/9/7	7	0	32
2009/9/8	8	0	34
2009/9/9	48	0	232
2009/9/10	9	0	38
2009/9/11	26	0	132
2009/9/12	36	0	159
2009/9/13	111	0	669
2009/9/14	122	0	759
2009/9/15	115	0	654
2009/9/16	93	0	414
2009/9/17	51	0	318
2009/9/18	61	0	227
2009/9/19	97	0	385
2009/9/20	161	0	864
2009/9/21	149	0	745
2009/9/22	167	0	775
2009/9/23	68	0	241
2009/9/24	177	0	839
2009/9/25	77	0	488
2009/9/26	54	0	199
2009/9/27	92	0	371
2009/9/28	4	0	23
2009/9/29	1	0	5
2009/9/30	2	0	8
<i>Monthly</i>	59	0	291

Table 4-10. Photosynthetic active radiation data ($\mu\text{mol}/\text{m}^2/\text{s}$) at 1.5 m depth in Naga Ike, October 2009.

Depth	1.5 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/10/1	34	1	75
2009/10/2	35	1	82
2009/10/3	25	1	65
2009/10/4	13	0	37
2009/10/5	14	0	35
2009/10/6	22	1	51
2009/10/7	42	1	89
2009/10/8	66	2	148
2009/10/9	103	4	256
2009/10/10	131	6	326
2009/10/11	130	5	386
2009/10/12	111	6	428
2009/10/13	101	5	244
2009/10/14	195	10	443
2009/10/15	197	10	443
2009/10/16	210	11	555
2009/10/17	87	6	229
2009/10/18	144	11	450
2009/10/19	230	14	606
2009/10/20	190	12	511
2009/10/21	170	9	448
2009/10/22	92	2	295
2009/10/23	191	10	473
2009/10/24	152	6	434
2009/10/25	165	10	413
2009/10/26	129	8	409
2009/10/27	104	6	265
2009/10/28	128	9	308
2009/10/29	189	8	430
2009/10/30	18	1	41
2009/10/31	13	0	26
<i>Monthly</i>	111	6	290

Table 4-11. Photosynthetic active radiation data ($\mu\text{mol}/\text{m}^2/\text{s}$) at 1.5 m depth in Naga Ike, November 2009.

Depth	1.5 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/11/1	34	1	75
2009/11/2	35	1	82
2009/11/3	25	1	65
2009/11/4	13	0	37
2009/11/5	14	0	35
2009/11/6	22	1	51
2009/11/7	42	1	89
2009/11/8	66	2	148
2009/11/9	103	4	256
2009/11/10	131	6	326
2009/11/11	130	5	386
2009/11/12	111	6	428
2009/11/13	101	5	244
2009/11/14	195	10	443
2009/11/15	197	10	443
2009/11/16	210	11	555
2009/11/17	87	6	229
2009/11/18	144	11	450
2009/11/19	230	14	606
2009/11/20	190	12	511
2009/11/21	170	9	448
2009/11/22	92	2	295
2009/11/23	191	10	473
2009/11/24	152	6	434
2009/11/25	165	10	413
2009/11/26	129	8	409
2009/11/27	104	6	265
2009/11/28	128	9	308
2009/11/29	189	8	430
2009/11/30	18	1	41
<i>Monthly</i>	114	6	299

Table 4-12. Photosynthetic active radiation data ($\mu\text{mol}/\text{m}^2/\text{s}$) at 1.5 m depth in Naga Ike, December 2009.

Depth	1.5 m		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/12/1	34	1	75
2009/12/2	35	1	82
2009/12/3	25	1	65
2009/12/4	13	0	37
2009/12/5	14	0	35
2009/12/6	22	1	51
2009/12/7	42	1	89
2009/12/8	66	2	148
2009/12/9	103	4	256
2009/12/10	131	6	326
2009/12/11	130	5	386
2009/12/12	111	6	428
2009/12/13	101	5	244
2009/12/14	195	10	443
2009/12/15	197	10	443
2009/12/16	210	11	555
2009/12/17	87	6	229
2009/12/18	144	11	450
2009/12/19	230	14	606
2009/12/20	190	12	511
2009/12/21	170	9	448
2009/12/22	92	2	295
2009/12/23	191	10	473
2009/12/24	152	6	434
2009/12/25	165	10	413
2009/12/26	129	8	409
2009/12/27	104	6	265
2009/12/28	128	9	308
2009/12/29	189	8	430
2009/12/30	18	1	41
2009/12/31	13	0	26
<i>Monthly</i>	111	6	290

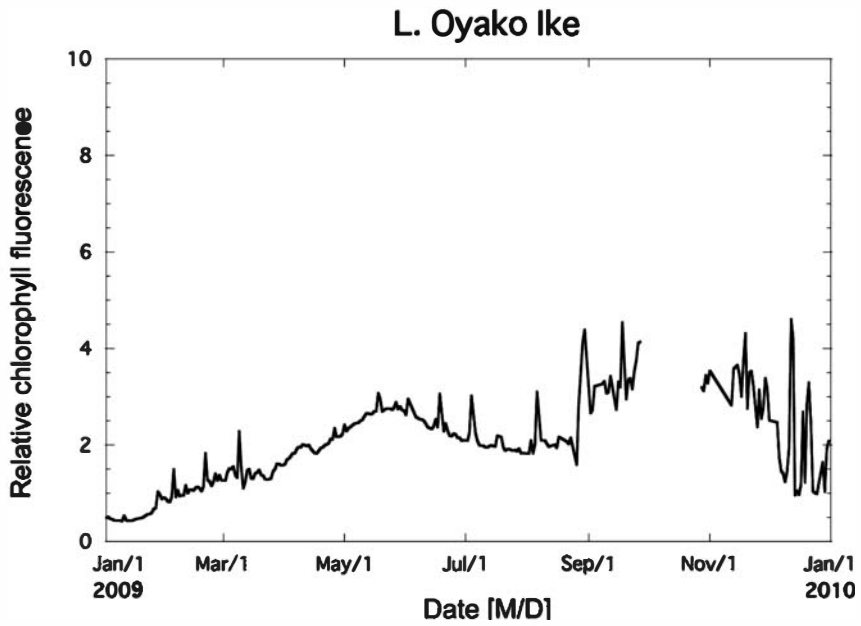


Fig. 7. Seasonal changes of chlorophyll fluorescence and turbidity at 1.8 m depth in Oyako Ike (2009–2010). Daily average data.

Table 5-1. Chlorophyll *a* fluorescence and turbidity data at 1.8 m depth in Oyako Ike, January 2009.

Date	Chlorophyll (relative)			Turbidity (FTU)		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/1/1	0.49	0.35	0.64	-	-	-
2009/1/2	0.51	0.39	0.66	-	-	-
2009/1/3	0.47	0.34	0.64	-	-	-
2009/1/4	0.46	0.35	0.63	-	-	-
2009/1/5	0.44	0.31	0.61	-	-	-
2009/1/6	0.44	0.34	0.59	-	-	-
2009/1/7	0.44	0.31	0.57	-	-	-
2009/1/8	0.44	0.31	0.59	-	-	-
2009/1/9	0.42	0.31	0.57	-	-	-
2009/1/10	0.54	0.37	2.21	-	-	-
2009/1/11	0.44	0.32	0.64	-	-	-
2009/1/12	0.42	0.31	0.56	-	-	-
2009/1/13	0.44	0.31	0.62	-	-	-
2009/1/14	0.43	0.31	0.57	-	-	-
2009/1/15	0.45	0.32	0.60	-	-	-
2009/1/16	0.47	0.34	0.62	-	-	-
2009/1/17	0.48	0.34	0.63	-	-	-
2009/1/18	0.48	0.31	0.64	-	-	-
2009/1/19	0.49	0.32	0.68	-	-	-
2009/1/20	0.51	0.34	0.72	-	-	-
2009/1/21	0.54	0.33	0.73	-	-	-
2009/1/22	0.57	0.37	0.77	-	-	-
2009/1/23	0.57	0.39	0.78	-	-	-
2009/1/24	0.61	0.42	0.78	-	-	-
2009/1/25	0.68	0.48	0.84	-	-	-
2009/1/26	0.69	0.51	0.94	-	-	-
2009/1/27	1.03	0.64	1.47	-	-	-
2009/1/28	0.97	0.61	1.26	-	-	-
2009/1/29	0.88	0.57	1.23	-	-	-
2009/1/30	0.92	0.61	1.20	-	-	-
2009/1/31	0.89	0.53	1.24	-	-	-
<i>Monthly</i>	0.57	0.31	2.21	-	-	-

Table 5-2. Chlorophyll *a* fluorescence and turbidity data at 1.8 m depth in Oyako Ike, February 2009.

Date	Chlorophyll (relative)			Turbidity (FTU)		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/2/1	0.83	0.51	1.17	-	-	-
2009/2/2	0.81	0.48	1.20	-	-	-
2009/2/3	0.92	0.57	1.15	-	-	-
2009/2/4	1.50	0.88	4.69	-	-	-
2009/2/5	0.92	0.53	1.38	-	-	-
2009/2/6	1.06	0.79	1.30	-	-	-
2009/2/7	0.94	0.57	1.38	-	-	-
2009/2/8	0.96	0.61	1.52	-	-	-
2009/2/9	0.95	0.54	1.57	-	-	-
2009/2/10	1.17	0.81	1.48	-	-	-
2009/2/11	1.00	0.56	1.57	-	-	-
2009/2/12	1.08	0.60	1.66	-	-	-
2009/2/13	1.08	0.59	1.68	-	-	-
2009/2/14	1.05	0.52	1.61	-	-	-
2009/2/15	1.11	0.68	1.64	-	-	-
2009/2/16	1.13	0.56	1.66	-	-	-
2009/2/17	1.10	0.52	1.72	-	-	-
2009/2/18	1.04	0.53	2.08	-	-	-
2009/2/19	1.14	0.48	1.94	-	-	-
2009/2/20	1.83	0.70	3.30	-	-	-
2009/2/21	1.27	0.78	1.77	-	-	-
2009/2/22	1.25	0.64	1.88	-	-	-
2009/2/23	1.15	0.60	1.83	-	-	-
2009/2/24	1.24	0.57	1.82	-	-	-
2009/2/25	1.41	0.70	2.16	-	-	-
2009/2/26	1.26	0.68	1.89	-	-	-
2009/2/27	1.38	0.85	1.79	-	-	-
2009/2/28	1.27	0.66	1.85	-	-	-
<i>Monthly</i>	1.14	0.48	4.69	-	-	-

Table 5-3. Chlorophyll *a* fluorescence and turbidity data at 1.8 m depth in Oyako Ike, March 2009.

Date	Chlorophyll (relative)			Turbidity (FTU)		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/3/1	1.27	0.64	1.86	-	-	-
2009/3/2	1.26	0.71	1.79	-	-	-
2009/3/3	1.43	0.73	2.17	-	-	-
2009/3/4	1.52	0.98	1.84	-	-	-
2009/3/5	1.50	1.07	1.83	-	-	-
2009/3/6	1.56	1.33	1.89	-	-	-
2009/3/7	1.38	0.98	1.74	-	-	-
2009/3/8	1.32	0.83	2.10	-	-	-
2009/3/9	2.29	1.13	6.63	-	-	-
2009/3/10	1.54	0.65	2.52	-	-	-
2009/3/11	1.10	0.51	1.65	-	-	-
2009/3/12	1.24	0.62	1.70	-	-	-
2009/3/13	1.47	0.98	1.82	-	-	-
2009/3/14	1.50	0.95	1.83	-	-	-
2009/3/15	1.31	0.61	1.86	-	-	-
2009/3/16	1.30	0.63	1.85	-	-	-
2009/3/17	1.41	0.79	1.79	-	-	-
2009/3/18	1.43	0.85	1.75	-	-	-
2009/3/19	1.49	0.90	1.83	-	-	-
2009/3/20	1.38	0.72	1.85	-	-	-
2009/3/21	1.37	0.76	1.83	-	-	-
2009/3/22	1.29	0.64	1.74	-	-	-
2009/3/23	1.29	0.69	1.64	-	-	-
2009/3/24	1.29	0.72	1.63	-	-	-
2009/3/25	1.31	0.76	1.64	-	-	-
2009/3/26	1.45	1.03	1.71	-	-	-
2009/3/27	1.50	1.20	1.70	-	-	-
2009/3/28	1.61	1.42	1.79	-	-	-
2009/3/29	1.61	1.27	1.80	-	-	-
2009/3/30	1.58	1.24	1.75	-	-	-
2009/3/31	1.58	1.26	1.76	-	-	-
<i>Monthly</i>	1.44	0.51	6.63	-	-	-

Table 5-4. Chlorophyll *a* fluorescence and turbidity data at 1.8 m depth in Oyako Ike, April 2009.

Date	Chlorophyll (relative)			Turbidity (FTU)		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/4/1	1.60	1.25	1.78	-	-	-
2009/4/2	1.70	1.48	1.82	-	-	-
2009/4/3	1.72	1.50	1.85	-	-	-
2009/4/4	1.77	1.53	1.91	-	-	-
2009/4/5	1.83	1.60	1.97	-	-	-
2009/4/6	1.83	1.54	1.99	-	-	-
2009/4/7	1.92	1.75	2.05	-	-	-
2009/4/8	1.97	1.83	2.11	-	-	-
2009/4/9	1.95	1.72	2.08	-	-	-
2009/4/10	2.01	1.82	2.11	-	-	-
2009/4/11	2.00	1.80	2.18	-	-	-
2009/4/12	1.98	1.63	2.52	-	-	-
2009/4/13	2.00	1.08	3.06	-	-	-
2009/4/14	1.92	1.38	2.58	-	-	-
2009/4/15	1.88	1.60	2.02	-	-	-
2009/4/16	1.83	1.41	2.01	-	-	-
2009/4/17	1.83	1.48	1.99	-	-	-
2009/4/18	1.88	1.63	2.01	-	-	-
2009/4/19	1.94	1.71	2.12	-	-	-
2009/4/20	1.95	1.71	2.10	-	-	-
2009/4/21	1.99	1.75	2.12	-	-	-
2009/4/22	2.01	1.76	2.17	-	-	-
2009/4/23	2.03	1.77	2.19	-	-	-
2009/4/24	2.13	1.95	2.34	-	-	-
2009/4/25	2.11	1.85	2.41	-	-	-
2009/4/26	2.35	1.86	3.53	-	-	-
2009/4/27	2.17	1.89	2.35	-	-	-
2009/4/28	2.17	1.90	2.37	-	-	-
2009/4/29	2.18	1.86	2.35	-	-	-
2009/4/30	2.23	1.96	2.39	-	-	-
<i>Monthly</i>	1.96	1.08	3.53	-	-	-

Table 5-5. Chlorophyll *a* fluorescence and turbidity data at 1.8 m depth in Oyako Ike, May 2009.

Date	Chlorophyll (relative)			Turbidity (FTU)		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/5/1	2.42	1.98	3.17	-	-	-
2009/5/2	2.29	1.98	2.52	-	-	-
2009/5/3	2.35	2.04	2.49	-	-	-
2009/5/4	2.37	2.11	2.56	-	-	-
2009/5/5	2.41	2.11	2.56	-	-	-
2009/5/6	2.44	2.16	2.58	-	-	-
2009/5/7	2.45	2.13	2.59	-	-	-
2009/5/8	2.46	2.10	2.64	-	-	-
2009/5/9	2.50	2.16	2.64	-	-	-
2009/5/10	2.52	2.17	2.65	-	-	-
2009/5/11	2.59	2.27	3.11	-	-	-
2009/5/12	2.65	2.38	2.89	-	-	-
2009/5/13	2.66	2.33	3.05	-	-	-
2009/5/14	2.63	2.34	2.79	-	-	-
2009/5/15	2.65	2.30	2.87	-	-	-
2009/5/16	2.70	2.34	2.81	-	-	-
2009/5/17	2.70	2.38	2.84	-	-	-
2009/5/18	3.07	2.60	4.79	-	-	-
2009/5/19	2.95	2.38	5.50	-	-	-
2009/5/20	2.69	2.34	2.99	-	-	-
2009/5/21	2.73	2.46	2.87	-	-	-
2009/5/22	2.75	2.55	2.89	-	-	-
2009/5/23	2.76	2.56	2.89	-	-	-
2009/5/24	2.76	2.53	2.85	-	-	-
2009/5/25	2.73	2.46	2.86	-	-	-
2009/5/26	2.78	2.56	2.90	-	-	-
2009/5/27	2.89	2.64	3.14	-	-	-
2009/5/28	2.75	2.47	2.86	-	-	-
2009/5/29	2.80	2.48	3.17	-	-	-
2009/5/30	2.72	2.46	2.82	-	-	-
2009/5/31	2.71	2.42	3.08	-	-	-
<i>Monthly</i>	2.64	1.98	5.50	-	-	-

Table 5-6. Chlorophyll *a* fluorescence and turbidity data at 1.8 m depth in Oyako Ike, June 2009.

Date	Chlorophyll (relative)			Turbidity (FTU)		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/6/1	2.62	2.40	2.74	-	-	-
2009/6/2	2.96	2.64	3.81	-	-	-
2009/6/3	-	-	-	-	-	-
2009/6/4	-	-	-	-	-	-
2009/6/5	-	-	-	-	-	-
2009/6/6	2.58	2.49	2.65	-	-	-
2009/6/7	2.56	2.51	2.71	-	-	-
2009/6/8	2.53	2.48	2.57	-	-	-
2009/6/9	2.53	2.45	2.82	-	-	-
2009/6/10	2.51	2.43	2.64	-	-	-
2009/6/11	2.44	2.36	2.57	-	-	-
2009/6/12	2.37	2.32	2.45	-	-	-
2009/6/13	2.35	2.30	2.40	-	-	-
2009/6/14	2.33	2.27	2.40	-	-	-
2009/6/15	2.39	2.25	3.05	-	-	-
2009/6/16	2.54	2.24	3.66	-	-	-
2009/6/17	2.37	2.17	2.59	-	-	-
2009/6/18	3.06	2.86	3.26	-	-	-
2009/6/19	-	-	-	-	-	-
2009/6/20	2.28	2.22	2.37	-	-	-
2009/6/21	2.45	2.23	2.89	-	-	-
2009/6/22	2.30	2.15	2.76	-	-	-
2009/6/23	2.19	2.12	2.24	-	-	-
2009/6/24	2.18	2.12	2.30	-	-	-
2009/6/25	2.24	2.13	2.66	-	-	-
2009/6/26	2.22	2.03	2.67	-	-	-
2009/6/27	2.15	2.07	2.19	-	-	-
2009/6/28	2.16	2.08	2.24	-	-	-
2009/6/29	2.09	1.95	2.15	-	-	-
2009/6/30	2.10	1.99	2.19	-	-	-
<i>Monthly</i>	2.40	1.95	3.81	-	-	-

Table 5-7. Chlorophyll *a* fluorescence and turbidity data at 1.8 m depth in Oyako Ike, July 2009.

Date	Chlorophyll (relative)			Turbidity (FTU)		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/7/1	2.09	2.04	2.15	-	-	-
2009/7/2	2.09	2.01	2.18	-	-	-
2009/7/3	2.25	1.86	3.60	-	-	-
2009/7/4	3.02	2.72	3.49	-	-	-
2009/7/5	-	-	-	-	-	-
2009/7/6	2.25	1.97	4.27	-	-	-
2009/7/7	2.08	1.94	2.54	-	-	-
2009/7/8	1.99	1.89	2.05	-	-	-
2009/7/9	1.99	1.86	2.07	-	-	-
2009/7/10	1.99	1.85	2.12	-	-	-
2009/7/11	1.95	1.77	2.04	-	-	-
2009/7/12	1.95	1.75	2.05	-	-	-
2009/7/13	1.98	1.80	2.10	-	-	-
2009/7/14	2.00	1.82	2.08	-	-	-
2009/7/15	1.98	1.71	2.04	-	-	-
2009/7/16	1.97	1.83	2.03	-	-	-
2009/7/17	2.19	1.79	3.38	-	-	-
2009/7/18	-	-	-	-	-	-
2009/7/19	2.17	2.00	2.33	-	-	-
2009/7/20	1.95	1.71	2.92	-	-	-
2009/7/21	1.88	1.71	1.96	-	-	-
2009/7/22	1.91	1.74	1.99	-	-	-
2009/7/23	1.92	1.70	2.05	-	-	-
2009/7/24	1.89	1.69	1.97	-	-	-
2009/7/25	1.88	1.66	2.03	-	-	-
2009/7/26	1.90	1.67	2.02	-	-	-
2009/7/27	1.87	1.60	2.00	-	-	-
2009/7/28	1.92	1.70	2.09	-	-	-
2009/7/29	1.83	1.63	1.93	-	-	-
2009/7/30	1.83	1.60	1.95	-	-	-
2009/7/31	1.83	1.60	1.97	-	-	-
<i>Monthly</i>	2.02	1.60	4.27	-	-	-

Table 5-8. Chlorophyll *a* fluorescence and turbidity data at 1.8 m depth in Oyako Ike, August 2009.

Date	Chlorophyll (relative)			Turbidity (FTU)		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/8/1	1.82	1.61	1.97	-	-	-
2009/8/2	1.82	1.54	1.94	-	-	-
2009/8/3	2.09	1.71	3.34	-	-	-
2009/8/4	1.83	1.57	1.95	-	-	-
2009/8/5	2.02	1.75	2.52	-	-	-
2009/8/6	3.10	2.83	3.31	-	-	-
2009/8/7	-	-	-	-	-	-
2009/8/8	2.10	2.03	2.16	-	-	-
2009/8/9	2.10	1.98	2.23	-	-	-
2009/8/10	2.10	1.90	2.24	-	-	-
2009/8/11	2.02	1.82	2.21	-	-	-
2009/8/12	1.97	1.68	2.15	-	-	-
2009/8/13	1.98	1.79	2.17	-	-	-
2009/8/14	1.99	1.75	2.19	-	-	-
2009/8/15	2.01	1.76	2.23	-	-	-
2009/8/16	1.94	1.57	2.19	-	-	-
2009/8/17	2.17	1.67	3.60	-	-	-
2009/8/18	-	-	-	-	-	-
2009/8/19	-	-	-	-	-	-
2009/8/20	-	-	-	-	-	-
2009/8/21	2.08	2.07	2.08	-	-	-
2009/8/22	2.02	1.65	3.53	-	-	-
2009/8/23	2.15	2.07	2.21	-	-	-
2009/8/24	-	-	-	-	-	-
2009/8/25	-	-	-	-	-	-
2009/8/26	1.59	1.29	1.97	-	-	-
2009/8/27	2.81	1.78	3.78	-	-	-
2009/8/28	-	-	-	-	-	-
2009/8/29	4.11	3.49	4.52	-	-	-
2009/8/30	4.39	4.12	4.88	-	-	-
2009/8/31	-	-	-	-	-	-
<i>Monthly</i>	2.27	1.29	4.88	-	-	-

Table 5-9. Chlorophyll *a* fluorescence and turbidity data at 1.8 m depth in Oyako Ike, September 2009.

Date	Chlorophyll (relative)			Turbidity (FTU)		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/9/1	-	-	-	-	-	-
2009/9/2	2.66	2.32	2.98	-	-	-
2009/9/3	2.73	2.14	3.26	-	-	-
2009/9/4	3.22	2.60	4.37	-	-	-
2009/9/5	-	-	-	-	-	-
2009/9/6	-	-	-	-	-	-
2009/9/7	-	-	-	-	-	-
2009/9/8	3.27	2.72	3.86	-	-	-
2009/9/9	3.32	2.49	7.34	-	-	-
2009/9/10	3.07	2.73	3.90	-	-	-
2009/9/11	3.09	2.38	3.89	-	-	-
2009/9/12	3.43	2.98	4.55	-	-	-
2009/9/13	-	-	-	-	-	-
2009/9/14	-	-	-	-	-	-
2009/9/15	2.73	1.58	3.43	-	-	-
2009/9/16	3.32	1.64	5.55	-	-	-
2009/9/17	3.20	1.90	4.51	-	-	-
2009/9/18	4.54	4.17	4.89	-	-	-
2009/9/19	3.66	3.22	4.10	-	-	-
2009/9/20	2.95	1.72	3.81	-	-	-
2009/9/21	3.35	1.89	5.35	-	-	-
2009/9/22	3.38	1.98	4.50	-	-	-
2009/9/23	3.16	2.02	4.37	-	-	-
2009/9/24	3.53	1.95	4.97	-	-	-
2009/9/25	3.75	2.33	5.54	-	-	-
2009/9/26	4.11	2.86	8.72	-	-	-
2009/9/27	4.14	2.71	5.11	-	-	-
2009/9/28	5.68	5.22	6.99	-	-	-
2009/9/29	-	-	-	-	-	-
2009/9/30	-	-	-	-	-	-
<i>Monthly</i>	3.47	1.58	8.72	-	-	-

Table 5-10. Chlorophyll *a* fluorescence and turbidity data at 1.8 m depth in Oyako Ike, October 2009.

Date	Chlorophyll (relative)			Turbidity (FTU)		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/10/1	-	-	-	-	-	-
2009/10/2	-	-	-	-	-	-
2009/10/3	-	-	-	-	-	-
2009/10/4	-	-	-	-	-	-
2009/10/5	-	-	-	-	-	-
2009/10/6	-	-	-	-	-	-
2009/10/7	-	-	-	-	-	-
2009/10/8	-	-	-	-	-	-
2009/10/9	-	-	-	-	-	-
2009/10/10	-	-	-	-	-	-
2009/10/11	-	-	-	-	-	-
2009/10/12	-	-	-	-	-	-
2009/10/13	-	-	-	-	-	-
2009/10/14	-	-	-	-	-	-
2009/10/15	-	-	-	-	-	-
2009/10/16	-	-	-	-	-	-
2009/10/17	-	-	-	-	-	-
2009/10/18	-	-	-	-	-	-
2009/10/19	-	-	-	-	-	-
2009/10/20	-	-	-	-	-	-
2009/10/21	-	-	-	-	-	-
2009/10/22	-	-	-	-	-	-
2009/10/23	-	-	-	-	-	-
2009/10/24	-	-	-	-	-	-
2009/10/25	5.95	4.27	7.68	-	-	-
2009/10/26	-	-	-	-	-	-
2009/10/27	-	-	-	-	-	-
2009/10/28	3.20	2.16	4.78	-	-	-
2009/10/29	3.12	1.74	5.22	-	-	-
2009/10/30	3.45	1.98	5.37	-	-	-
2009/10/31	3.28	1.52	6.48	-	-	-
<i>Monthly</i>	3.80	1.52	7.68	-	-	-

Table 5-11. Chlorophyll *a* fluorescence and turbidity data at 1.8 m depth in Oyako Ike, November 2009.

Date	Chlorophyll (relative)			Turbidity (FTU)		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/11/1	3.54	2.18	4.76	-	-	-
2009/11/2	-	-	-	-	-	-
2009/11/3	-	-	-	-	-	-
2009/11/4	-	-	-	-	-	-
2009/11/5	-	-	-	-	-	-
2009/11/6	-	-	-	-	-	-
2009/11/7	-	-	-	-	-	-
2009/11/8	-	-	-	-	-	-
2009/11/9	-	-	-	-	-	-
2009/11/10	-	-	-	-	-	-
2009/11/11	-	-	-	-	-	-
2009/11/12	2.83	1.90	3.89	-	-	-
2009/11/13	3.58	1.95	5.28	-	-	-
2009/11/14	-	-	-	-	-	-
2009/11/15	3.66	1.85	5.95	-	-	-
2009/11/16	3.46	1.54	5.95	-	-	-
2009/11/17	3.01	1.46	4.86	-	-	-
2009/11/18	3.75	3.24	4.17	-	-	-
2009/11/19	4.31	2.41	8.94	-	-	-
2009/11/20	2.75	1.45	4.75	-	-	-
2009/11/21	3.50	2.34	4.85	-	-	-
2009/11/22	3.53	1.67	6.92	-	-	-
2009/11/23	3.23	1.93	4.88	-	-	-
2009/11/24	2.80	1.57	4.18	-	-	-
2009/11/25	2.37	1.52	3.98	-	-	-
2009/11/26	3.15	2.12	4.90	-	-	-
2009/11/27	2.55	1.90	3.15	-	-	-
2009/11/28	2.76	1.49	4.70	-	-	-
2009/11/29	3.39	1.55	5.61	-	-	-
2009/11/30	3.16	2.23	8.57	-	-	-
<i>Monthly</i>	3.23	1.45	8.94	-	-	-

Table 5-12. Chlorophyll *a* fluorescence and turbidity data at 1.8 m depth in Oyako Ike, December 2009.

Date	Chlorophyll (relative)			Turbidity (FTU)		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/12/1	2.51	1.41	4.67	-	-	-
2009/12/2	-	-	-	-	-	-
2009/12/3	-	-	-	-	-	-
2009/12/4	-	-	-	-	-	-
2009/12/5	2.47	1.82	3.13	-	-	-
2009/12/6	1.75	1.00	3.58	-	-	-
2009/12/7	1.46	0.90	2.10	-	-	-
2009/12/8	1.42	0.76	2.67	-	-	-
2009/12/9	1.24	0.75	2.33	-	-	-
2009/12/10	1.45	0.79	2.80	-	-	-
2009/12/11	1.95	1.50	2.30	-	-	-
2009/12/12	4.60	3.64	5.53	-	-	-
2009/12/13	4.21	4.00	4.53	-	-	-
2009/12/14	0.96	0.75	1.27	-	-	-
2009/12/15	1.05	0.70	1.51	-	-	-
2009/12/16	0.97	0.69	1.27	-	-	-
2009/12/17	1.18	0.87	1.48	-	-	-
2009/12/18	2.69	1.19	5.43	-	-	-
2009/12/19	1.22	0.64	7.65	-	-	-
2009/12/20	2.85	2.02	4.37	-	-	-
2009/12/21	3.29	2.57	4.00	-	-	-
2009/12/22	2.46	2.46	2.46	-	-	-
2009/12/23	1.04	0.77	1.36	-	-	-
2009/12/24	1.01	0.76	1.23	-	-	-
2009/12/25	0.99	0.76	1.20	-	-	-
2009/12/26	1.20	0.72	1.97	-	-	-
2009/12/27	-	-	-	-	-	-
2009/12/28	1.65	1.60	1.69	-	-	-
2009/12/29	1.03	0.81	1.30	-	-	-
2009/12/30	1.92	1.36	3.19	-	-	-
2009/12/31	2.08	1.59	3.42	-	-	-
<i>Monthly</i>	1.88	0.64	7.65	-	-	-

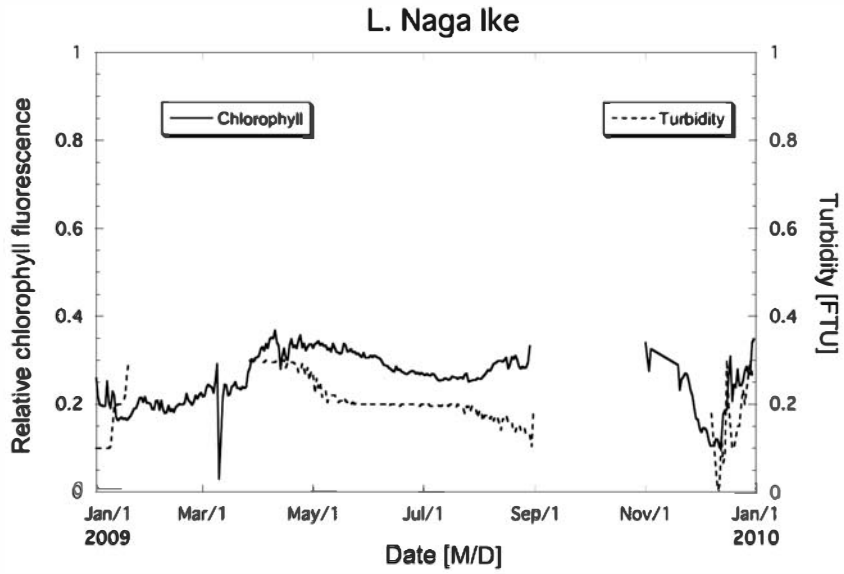


Fig. 8. Seasonal changes of chlorophyll fluorescence and turbidity at 2.3 m depth in Naga Ike (2009–2010). Daily average data.

Table 6-1 Chlorophyll *a* fluorescence and turbidity data at 2.3 m depth in Naga Ike, January 2009.

Depth	Chlorophyll (relative)			Turbidity (FTU)		
	daily average	minimum	maximum	daily average	minimum	maximum
2009/1/1	0.26	0.17	0.87	0.10	0.10	0.10
2009/1/2	0.22	0.15	0.51	0.10	0.10	0.10
2009/1/3	0.20	0.13	0.47	0.10	0.10	0.10
2009/1/4	0.20	0.14	0.28	0.10	0.10	0.10
2009/1/5	0.20	0.13	0.28	0.10	0.10	0.10
2009/1/6	0.20	0.13	0.28	0.10	0.10	0.20
2009/1/7	0.25	0.14	0.37	0.10	0.10	0.10
2009/1/8	0.20	0.13	0.29	0.10	0.10	0.10
2009/1/9	0.19	0.12	0.28	0.10	0.10	0.20
2009/1/10	0.23	0.15	0.33	0.15	0.10	0.20
2009/1/11	0.22	0.14	0.34	0.20	0.20	0.20
2009/1/12	0.17	0.12	0.30	0.20	0.10	0.20
2009/1/13	0.16	0.10	0.29	0.20	0.20	0.20
2009/1/14	0.17	0.11	0.28	0.20	0.20	0.20
2009/1/15	0.17	0.12	0.28	0.20	0.20	0.20
2009/1/16	0.17	0.12	0.28	0.20	0.20	0.30
2009/1/17	0.17	0.12	0.27	0.22	0.20	0.30
2009/1/18	0.16	0.10	0.27	0.27	0.20	0.30
2009/1/19	0.17	0.10	0.26	0.30	0.20	0.30
2009/1/20	0.17	0.12	0.27	0.30	0.20	0.30
2009/1/21	0.18	0.12	0.28	0.30	0.30	0.30
2009/1/22	0.19	0.12	0.30	0.30	0.30	0.30
2009/1/23	0.19	0.12	0.32	0.30	0.30	0.30
2009/1/24	0.20	0.13	0.30	0.30	0.30	0.30
2009/1/25	0.21	0.13	0.32	0.30	0.20	0.30
2009/1/26	0.22	0.15	0.32	0.30	0.30	0.30
2009/1/27	0.21	0.13	0.31	0.30	0.30	0.30
2009/1/28	0.22	0.14	0.30	0.30	0.30	0.30
2009/1/29	0.20	0.12	0.30	0.30	0.30	0.30
2009/1/30	0.20	0.12	0.30	0.30	0.30	0.30
2009/1/31	0.20	0.12	0.30	0.30	0.30	0.30
<i>Monthly</i>	0.20	0.10	0.87	0.21	0.10	0.30

Table 6-2 Chlorophyll *a* fluorescence and turbidity data at 2.3 m depth in Naga Ike, February 2009.

Date	Chlorophyll (relative)			Turbidity (FTU)		
	daily average	minimum	maximum	daily average	minimum	maximum
2009/2/1	0.19	0.10	0.29	0.30	0.30	0.30
2009/2/2	0.19	0.12	0.28	0.30	0.30	0.30
2009/2/3	0.21	0.12	0.28	0.30	0.30	0.30
2009/2/4	0.21	0.15	0.28	0.30	0.30	0.30
2009/2/5	0.19	0.12	0.28	0.30	0.30	0.30
2009/2/6	0.21	0.15	0.27	0.30	0.30	0.30
2009/2/7	0.19	0.12	0.28	0.30	0.30	0.30
2009/2/8	0.18	0.12	0.27	0.30	0.30	0.30
2009/2/9	0.18	0.12	0.27	0.30	0.30	0.30
2009/2/10	0.20	0.14	0.26	0.30	0.30	0.30
2009/2/11	0.18	0.12	0.27	0.30	0.30	0.30
2009/2/12	0.19	0.13	0.27	0.30	0.30	0.30
2009/2/13	0.18	0.12	0.27	0.30	0.30	0.30
2009/2/14	0.19	0.12	0.27	0.30	0.30	0.30
2009/2/15	0.20	0.13	0.27	0.30	0.30	0.30
2009/2/16	0.20	0.12	0.27	0.30	0.30	0.30
2009/2/17	0.20	0.12	0.28	0.30	0.30	0.30
2009/2/18	0.20	0.13	0.28	0.30	0.30	0.30
2009/2/19	0.20	0.12	0.29	0.30	0.30	0.30
2009/2/20	0.22	0.12	0.30	0.30	0.30	0.30
2009/2/21	0.21	0.14	0.27	0.30	0.30	0.30
2009/2/22	0.21	0.12	0.30	0.30	0.30	0.30
2009/2/23	0.20	0.12	0.29	0.30	0.30	0.30
2009/2/24	0.21	0.14	0.28	0.30	0.30	0.30
2009/2/25	0.22	0.13	0.28	0.30	0.30	0.30
2009/2/26	0.21	0.14	0.30	0.30	0.30	0.30
2009/2/27	0.22	0.15	0.29	0.30	0.30	0.30
2009/2/28	0.23	0.14	0.30	0.30	0.30	0.30
<i>Monthly</i>	0.21	0.12	0.30	0.30	0.30	0.30

Table 6-3 Chlorophyll *a* fluorescence and turbidity data at 2.3 m depth in Naga Ike, March 2009.

Depth	Chlorophyll (relative)			Turbidity (FTU)		
	daily average	minimum	maximum	daily average	minimum	maximum
2009/3/1	0.22	0.13	0.30	0.30	0.30	0.30
2009/3/2	0.22	0.14	0.31	0.30	0.30	0.30
2009/3/3	0.24	0.15	0.32	0.30	0.30	0.30
2009/3/4	0.25	0.14	0.32	0.30	0.30	0.30
2009/3/5	0.24	0.15	0.32	0.30	0.30	0.30
2009/3/6	0.24	0.15	0.33	0.30	0.30	0.30
2009/3/7	0.23	0.13	0.32	0.30	0.30	0.30
2009/3/8	0.26	0.17	0.33	0.30	0.30	0.30
2009/3/9	0.29	0.25	0.97	0.30	0.30	0.30
2009/3/10	0.03	-	0.35	0.30	0.30	0.30
2009/3/11	0.12	-	0.28	0.30	0.30	0.30
2009/3/12	0.21	0.15	0.29	0.30	0.30	0.30
2009/3/13	0.25	0.14	0.30	0.30	0.30	0.30
2009/3/14	0.24	0.15	0.30	0.30	0.30	0.30
2009/3/15	0.22	0.12	0.32	0.30	0.30	0.30
2009/3/16	0.22	0.12	0.30	0.30	0.30	0.30
2009/3/17	0.24	0.14	0.30	0.30	0.30	0.30
2009/3/18	0.24	0.15	0.32	0.30	0.30	0.30
2009/3/19	0.25	0.17	0.30	0.30	0.30	0.30
2009/3/20	0.24	0.13	0.31	0.30	0.30	0.30
2009/3/21	0.24	0.13	0.32	0.30	0.30	0.30
2009/3/22	0.23	0.12	0.32	0.30	0.30	0.30
2009/3/23	0.24	0.14	0.32	0.30	0.30	0.30
2009/3/24	0.24	0.13	0.30	0.30	0.30	0.30
2009/3/25	0.24	0.14	0.32	0.30	0.30	0.30
2009/3/26	0.27	0.19	0.32	0.30	0.30	0.30
2009/3/27	0.28	0.19	0.34	0.30	0.30	0.30
2009/3/28	0.30	0.22	0.35	0.29	0.20	0.30
2009/3/29	0.30	0.19	0.36	0.30	0.30	0.30
2009/3/30	0.31	0.22	0.35	0.30	0.30	0.30
2009/3/31	0.31	0.22	0.36	0.30	0.20	0.30
<i>Monthly</i>	0.24	0.12	0.97	0.30	0.20	0.30

Table 6-4 Chlorophyll *a* fluorescence and turbidity data at 2.3 m depth in Naga Ike, April 2009.

Depth	Chlorophyll (relative)			Turbidity (FTU)		
	daily average	minimum	maximum	daily average	minimum	maximum
2009/4/1	0.31	0.22	0.35	0.30	0.20	0.30
2009/4/2	0.33	0.27	0.37	0.30	0.20	0.30
2009/4/3	0.33	0.25	0.37	0.30	0.20	0.30
2009/4/4	0.32	0.24	0.37	0.30	0.20	0.30
2009/4/5	0.34	0.25	0.38	0.30	0.30	0.30
2009/4/6	0.33	0.25	0.38	0.30	0.30	0.30
2009/4/7	0.35	0.30	0.40	0.30	0.30	0.30
2009/4/8	0.35	0.29	0.41	0.30	0.20	0.30
2009/4/9	0.35	0.26	0.39	0.30	0.20	0.30
2009/4/10	0.37	0.34	0.43	0.30	0.20	0.30
2009/4/11	0.34	0.27	0.41	0.30	0.30	0.30
2009/4/12	0.33	0.22	0.44	0.30	0.30	0.30
2009/4/13	0.28	0.17	0.42	0.30	0.20	0.30
2009/4/14	0.31	0.18	0.41	0.30	0.30	0.30
2009/4/15	0.33	0.22	0.42	0.30	0.30	0.30
2009/4/16	0.30	0.17	0.43	0.28	0.20	0.30
2009/4/17	0.30	0.20	0.42	0.30	0.20	0.30
2009/4/18	0.33	0.23	0.42	0.30	0.30	0.30
2009/4/19	0.35	0.29	0.42	0.30	0.20	0.30
2009/4/20	0.33	0.19	0.41	0.30	0.20	0.30
2009/4/21	0.33	0.23	0.43	0.29	0.20	0.30
2009/4/22	0.33	0.23	0.42	0.29	0.20	0.30
2009/4/23	0.35	0.25	0.43	0.27	0.20	0.30
2009/4/24	0.36	0.32	0.45	0.28	0.20	0.30
2009/4/25	0.33	0.25	0.44	0.29	0.20	0.30
2009/4/26	0.34	0.25	0.42	0.28	0.20	0.30
2009/4/27	0.32	0.22	0.41	0.27	0.20	0.30
2009/4/28	0.33	0.20	0.40	0.28	0.20	0.30
2009/4/29	0.34	0.22	0.40	0.25	0.20	0.30
2009/4/30	0.34	0.22	0.40	0.28	0.20	0.30
<i>Monthly</i>	0.33	0.17	0.45	0.29	0.20	0.30

Table 6-5 Chlorophyll *a* fluorescence and turbidity data at 2.3 m depth in Naga Ike, May 2009.

Depth	Chlorophyll (relative)			Turbidity (FTU)		
	daily average	minimum	maximum	daily average	minimum	maximum
2009/5/1	0.33	0.20	0.41	0.27	0.20	0.30
2009/5/2	0.34	0.22	0.40	0.23	0.20	0.30
2009/5/3	0.34	0.24	0.42	0.26	0.20	0.30
2009/5/4	0.34	0.25	0.40	0.24	0.20	0.30
2009/5/5	0.33	0.23	0.38	0.25	0.20	0.30
2009/5/6	0.34	0.24	0.38	0.22	0.20	0.30
2009/5/7	0.33	0.22	0.38	0.23	0.20	0.30
2009/5/8	0.33	0.24	0.38	0.23	0.20	0.30
2009/5/9	0.32	0.24	0.37	0.20	0.20	0.30
2009/5/10	0.33	0.24	0.37	0.22	0.20	0.30
2009/5/11	0.32	0.23	0.37	0.22	0.20	0.30
2009/5/12	0.34	0.25	0.38	0.22	0.20	0.30
2009/5/13	0.33	0.27	0.37	0.22	0.20	0.30
2009/5/14	0.32	0.24	0.36	0.21	0.20	0.30
2009/5/15	0.32	0.24	0.36	0.20	0.20	0.30
2009/5/16	0.31	0.24	0.35	0.21	0.20	0.30
2009/5/17	0.32	0.25	0.37	0.21	0.10	0.30
2009/5/18	0.34	0.32	0.37	0.22	0.20	0.30
2009/5/19	0.33	0.28	0.37	0.21	0.20	0.30
2009/5/20	0.32	0.27	0.36	0.20	0.20	0.30
2009/5/21	0.32	0.28	0.35	0.21	0.20	0.30
2009/5/22	0.33	0.30	0.35	0.20	0.20	0.20
2009/5/23	0.32	0.30	0.34	0.20	0.20	0.30
2009/5/24	0.32	0.28	0.35	0.20	0.20	0.20
2009/5/25	0.31	0.28	0.34	0.20	0.20	0.30
2009/5/26	0.32	0.29	0.35	0.20	0.20	0.30
2009/5/27	0.31	0.28	0.33	0.20	0.20	0.20
2009/5/28	0.31	0.28	0.33	0.20	0.20	0.20
2009/5/29	0.32	0.29	0.34	0.20	0.20	0.20
2009/5/30	0.31	0.28	0.34	0.20	0.20	0.20
2009/5/31	0.31	0.27	0.33	0.20	0.20	0.20
<i>Monthly</i>	0.32	0.20	0.42	0.22	0.10	0.30

Table 6-6 Chlorophyll *a* fluorescence and turbidity data at 2.3 m depth in Naga Ike, June 2009.

Depth	Chlorophyll (relative)			Turbidity (FTU)		
	daily average	minimum	maximum	daily average	minimum	maximum
2009/6/1	0.31	0.27	0.34	0.20	0.20	0.20
2009/6/2	0.31	0.27	0.34	0.20	0.20	0.20
2009/6/3	0.31	0.29	0.33	0.20	0.20	0.20
2009/6/4	0.31	0.28	0.35	0.20	0.20	0.20
2009/6/5	0.31	0.27	0.35	0.20	0.20	0.20
2009/6/6	0.31	0.28	0.33	0.20	0.20	0.20
2009/6/7	0.30	0.27	0.35	0.20	0.20	0.20
2009/6/8	0.30	0.28	0.32	0.20	0.20	0.20
2009/6/9	0.29	0.27	0.32	0.20	0.20	0.20
2009/6/10	0.29	0.27	0.32	0.20	0.20	0.20
2009/6/11	0.29	0.27	0.32	0.20	0.20	0.20
2009/6/12	0.28	0.27	0.30	0.20	0.10	0.20
2009/6/13	0.28	0.27	0.30	0.20	0.20	0.20
2009/6/14	0.28	0.25	0.30	0.20	0.20	0.20
2009/6/15	0.27	0.26	0.30	0.20	0.20	0.20
2009/6/16	0.29	0.25	0.32	0.20	0.20	0.30
2009/6/17	0.28	0.25	0.30	0.20	0.20	0.20
2009/6/18	0.28	0.26	0.31	0.20	0.10	0.20
2009/6/19	0.27	0.26	0.28	0.20	0.20	0.20
2009/6/20	0.27	0.25	0.30	0.20	0.20	0.20
2009/6/21	0.27	0.25	0.30	0.20	0.20	0.20
2009/6/22	0.27	0.24	0.30	0.20	0.20	0.20
2009/6/23	0.27	0.25	0.30	0.20	0.20	0.20
2009/6/24	0.27	0.25	0.30	0.20	0.20	0.20
2009/6/25	0.28	0.25	0.32	0.20	0.20	0.20
2009/6/26	0.27	0.26	0.29	0.20	0.20	0.20
2009/6/27	0.27	0.25	0.29	0.20	0.20	0.20
2009/6/28	0.27	0.25	0.29	0.20	0.20	0.20
2009/6/29	0.27	0.24	0.30	0.20	0.10	0.20
2009/6/30	0.27	0.25	0.30	0.20	0.20	0.20
<i>Monthly</i>	0.28	0.24	0.35	0.20	0.10	0.30

Table 6-7 Chlorophyll *a* fluorescence and turbidity data at 2.3 m depth in Naga Ike, July 2009.

Depth	Chlorophyll (relative)			Turbidity (FTU)		
	daily average	minimum	maximum	daily average	minimum	maximum
2009/7/1	0.27	0.25	0.28	0.20	0.20	0.20
2009/7/2	0.27	0.24	0.29	0.20	0.20	0.20
2009/7/3	0.27	0.25	0.30	0.20	0.10	0.30
2009/7/4	0.27	0.25	0.30	0.20	0.20	0.20
2009/7/5	0.27	0.25	0.28	0.20	0.10	0.20
2009/7/6	0.27	0.24	0.29	0.20	0.10	0.20
2009/7/7	0.27	0.25	0.28	0.20	0.20	0.20
2009/7/8	0.26	0.24	0.28	0.20	0.20	0.20
2009/7/9	0.26	0.24	0.27	0.20	0.20	0.20
2009/7/10	0.25	0.22	0.27	0.20	0.10	0.20
2009/7/11	0.26	0.24	0.28	0.20	0.10	0.20
2009/7/12	0.26	0.23	0.28	0.20	0.20	0.20
2009/7/13	0.26	0.25	0.28	0.20	0.20	0.20
2009/7/14	0.26	0.24	0.29	0.20	0.20	0.20
2009/7/15	0.26	0.24	0.27	0.20	0.10	0.20
2009/7/16	0.26	0.24	0.27	0.20	0.20	0.20
2009/7/17	0.26	0.25	0.28	0.20	0.20	0.20
2009/7/18	0.26	0.24	0.29	0.20	0.10	0.20
2009/7/19	0.26	0.25	0.28	0.19	0.10	0.20
2009/7/20	0.26	0.24	0.27	0.20	0.20	0.20
2009/7/21	0.26	0.24	0.28	0.20	0.10	0.20
2009/7/22	0.26	0.24	0.28	0.19	0.10	0.20
2009/7/23	0.26	0.24	0.28	0.19	0.10	0.20
2009/7/24	0.27	0.24	0.30	0.18	0.10	0.20
2009/7/25	0.27	0.23	0.33	0.20	0.10	0.20
2009/7/26	0.25	0.20	0.32	0.20	0.10	0.20
2009/7/27	0.25	0.20	0.30	0.18	0.10	0.20
2009/7/28	0.25	0.22	0.28	0.20	0.10	0.20
2009/7/29	0.26	0.23	0.28	0.19	0.10	0.20
2009/7/30	0.26	0.24	0.28	0.19	0.10	0.20
2009/7/31	0.26	0.22	0.29	0.17	0.10	0.20
<i>Monthly</i>	0.26	0.20	0.33	0.20	0.10	0.30

Table 6-8 Chlorophyll *a* fluorescence and turbidity data at 2.3 m depth in Naga Ike, August 2009.

Depth	Chlorophyll (relative)			Turbidity (FTU)		
	daily average	minimum	maximum	daily average	minimum	maximum
2009/8/1	0.26	0.24	0.27	0.18	0.10	0.20
2009/8/2	0.26	0.22	0.29	0.19	0.10	0.20
2009/8/3	0.26	0.23	0.28	0.16	0.10	0.20
2009/8/4	0.27	0.22	0.29	0.18	0.10	0.20
2009/8/5	0.27	0.23	0.30	0.18	0.10	0.20
2009/8/6	0.28	0.25	0.32	0.18	0.10	0.20
2009/8/7	0.28	0.22	0.32	0.17	0.10	0.20
2009/8/8	0.28	0.25	0.32	0.18	0.10	0.20
2009/8/9	0.29	0.27	0.32	0.16	0.10	0.20
2009/8/10	0.29	0.25	0.33	0.18	0.10	0.20
2009/8/11	0.30	0.28	0.33	0.17	0.10	0.20
2009/8/12	0.30	0.27	0.33	0.16	0.10	0.20
2009/8/13	0.30	0.25	0.33	0.14	0.10	0.20
2009/8/14	0.30	0.27	0.32	0.17	0.10	0.20
2009/8/15	0.30	0.28	0.33	0.17	0.10	0.20
2009/8/16	0.31	0.28	0.33	0.18	0.10	0.20
2009/8/17	0.28	0.21	0.33	0.16	0.10	0.20
2009/8/18	0.29	0.27	0.33	0.16	0.10	0.20
2009/8/19	0.31	0.28	0.33	0.16	0.10	0.20
2009/8/20	0.30	0.27	0.35	0.14	0.10	0.20
2009/8/21	0.31	0.28	0.35	0.14	0.10	0.20
2009/8/22	0.30	0.23	0.33	0.15	0.10	0.20
2009/8/23	0.29	0.20	0.33	0.15	0.10	0.20
2009/8/24	0.28	0.17	0.35	0.14	0.10	0.20
2009/8/25	0.29	0.19	0.33	0.14	0.10	0.20
2009/8/26	0.28	0.19	0.33	0.15	0.10	0.20
2009/8/27	0.28	0.18	0.33	0.13	0.10	0.20
2009/8/28	0.30	0.19	0.35	0.13	0.10	0.20
2009/8/29	0.33	0.30	0.81	0.13	0.10	0.20
2009/8/30	-	-	-	0.10	0.10	0.20
2009/8/31	-	-	-	0.19	0.10	0.30
<i>Monthly</i>	0.29	0.17	0.81	0.16	0.10	0.30

Table 6-9 Chlorophyll *a* fluorescence and turbidity data at 2.3 m depth in Naga Ike, September 2009.

Depth	Chlorophyll (relative)			Turbidity (FTU)		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/9/1	-	-	-	-	-	-
2009/9/2	-	-	-	-	-	-
2009/9/3	-	-	-	-	-	-
2009/9/4	-	-	-	-	-	-
2009/9/5	-	-	-	-	-	-
2009/9/6	-	-	-	-	-	-
2009/9/7	-	-	-	-	-	-
2009/9/8	-	-	-	-	-	-
2009/9/9	-	-	-	-	-	-
2009/9/10	-	-	-	-	-	-
2009/9/11	-	-	-	-	-	-
2009/9/12	-	-	-	-	-	-
2009/9/13	-	-	-	-	-	-
2009/9/14	-	-	-	-	-	-
2009/9/15	-	-	-	-	-	-
2009/9/16	-	-	-	-	-	-
2009/9/17	-	-	-	-	-	-
2009/9/18	-	-	-	-	-	-
2009/9/19	-	-	-	-	-	-
2009/9/20	-	-	-	-	-	-
2009/9/21	-	-	-	-	-	-
2009/9/22	-	-	-	-	-	-
2009/9/23	-	-	-	-	-	-
2009/9/24	-	-	-	-	-	-
2009/9/25	-	-	-	-	-	-
2009/9/26	-	-	-	-	-	-
2009/9/27	-	-	-	-	-	-
2009/9/28	-	-	-	-	-	-
2009/9/29	-	-	-	-	-	-
2009/9/30	-	-	-	-	-	-
<i>Monthly</i>	-	-	-	-	-	-

Table 6-10 Chlorophyll *a* fluorescence and turbidity data at 2.3 m depth in Naga Ike, October 2009.

Depth	Chlorophyll (relative)			Turbidity (FTU)		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/10/1	-	-	-	-	-	-
2009/10/2	-	-	-	-	-	-
2009/10/3	-	-	-	-	-	-
2009/10/4	-	-	-	-	-	-
2009/10/5	-	-	-	-	-	-
2009/10/6	-	-	-	-	-	-
2009/10/7	-	-	-	-	-	-
2009/10/8	-	-	-	-	-	-
2009/10/9	-	-	-	-	-	-
2009/10/10	-	-	-	-	-	-
2009/10/11	-	-	-	-	-	-
2009/10/12	-	-	-	-	-	-
2009/10/13	-	-	-	-	-	-
2009/10/14	-	-	-	-	-	-
2009/10/15	-	-	-	-	-	-
2009/10/16	-	-	-	-	-	-
2009/10/17	-	-	-	-	-	-
2009/10/18	-	-	-	-	-	-
2009/10/19	-	-	-	-	-	-
2009/10/20	-	-	-	-	-	-
2009/10/21	-	-	-	-	-	-
2009/10/22	-	-	-	-	-	-
2009/10/23	-	-	-	-	-	-
2009/10/24	-	-	-	-	-	-
2009/10/25	-	-	-	-	-	-
2009/10/26	-	-	-	-	-	-
2009/10/27	-	-	-	-	-	-
2009/10/28	-	-	-	-	-	-
2009/10/29	-	-	-	-	-	-
2009/10/30	-	-	-	-	-	-
2009/10/31	-	-	-	-	-	-
<i>Monthly</i>	-	-	-	-	-	-

Table 6-11 Chlorophyll *a* fluorescence and turbidity data at 2.3 m depth in Naga Ike, November 2009.

Depth	Chlorophyll (relative)			Turbidity (FTU)		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/11/1	0.34	0.27	0.41	-	-	-
2009/11/2	0.31	0.25	0.37	-	-	-
2009/11/3	0.28	0.25	0.32	-	-	-
2009/11/4	0.33	0.26	0.46	-	-	-
2009/11/5	-	-	-	-	-	-
2009/11/6	-	-	-	-	-	-
2009/11/7	-	-	-	-	-	-
2009/11/8	-	-	-	-	-	-
2009/11/9	-	-	-	-	-	-
2009/11/10	-	-	-	-	-	-
2009/11/11	-	-	-	-	-	-
2009/11/12	-	-	-	-	-	-
2009/11/13	-	-	-	-	-	-
2009/11/14	-	-	-	-	-	-
2009/11/15	-	-	-	-	-	-
2009/11/16	-	-	-	-	-	-
2009/11/17	-	-	-	-	-	-
2009/11/18	-	-	-	-	-	-
2009/11/19	0.29	0.24	0.37	-	-	-
2009/11/20	0.23	0.19	0.28	-	-	-
2009/11/21	0.26	0.23	0.31	-	-	-
2009/11/22	0.26	0.18	0.33	-	-	-
2009/11/23	0.27	0.24	0.33	-	-	-
2009/11/24	0.27	0.22	0.32	-	-	-
2009/11/25	0.25	0.22	0.31	-	-	-
2009/11/26	0.23	0.20	0.28	-	-	-
2009/11/27	0.22	0.19	0.26	-	-	-
2009/11/28	0.19	0.17	0.24	-	-	-
2009/11/29	0.17	0.15	0.20	-	-	-
2009/11/30	0.17	0.14	0.21	-	-	-
<i>Monthly</i>	0.25	0.14	0.46	-	-	-

Table 6-12 Chlorophyll *a* fluorescence and turbidity data at 2.3 m depth in Naga Ike, December 2009.

Depth	Chlorophyll (relative)			Turbidity (FTU)		
	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>	<i>daily average</i>	<i>minimum</i>	<i>maximum</i>
2009/12/1	0.15	0.11	0.20	-	-	-
2009/12/2	0.14	0.10	0.20	-	-	-
2009/12/3	0.15	0.10	0.19	-	-	-
2009/12/4	0.15	0.11	0.17	-	-	-
2009/12/5	0.14	0.11	0.17	-	-	-
2009/12/6	0.12	0.07	0.15	-	-	-
2009/12/7	0.11	0.07	0.14	0.20	0	0.30
2009/12/8	0.11	0.07	0.14	-	-	-
2009/12/9	0.11	0.08	0.15	-	-	-
2009/12/10	0.12	0.08	0.20	-	-	-
2009/12/11	0.12	0.08	0.27	0.00	0	0.10
2009/12/12	0.10	0.08	0.15	0.02	0	0.10
2009/12/13	0.12	0.07	0.19	0.13	0	0.30
2009/12/14	0.18	0.12	0.22	0.07	0	0.10
2009/12/15	0.19	0.11	0.23	0.08	0	0.20
2009/12/16	0.19	0.11	0.24	0.30	0.30	0.30
2009/12/17	0.26	0.17	0.35	0.20	0.10	0.30
2009/12/18	0.31	0.24	0.43	-	-	-
2009/12/19	0.21	0.12	0.30	0.10	0	0.30
2009/12/20	0.25	0.15	0.38	0.10	0.10	0.10
2009/12/21	0.24	0.18	0.34	-	-	-
2009/12/22	0.28	0.19	0.41	0.15	0.10	0.20
2009/12/23	0.24	0.18	0.40	0.15	0.10	0.20
2009/12/24	0.24	0.17	0.43	0.20	0.10	0.30
2009/12/25	0.25	0.19	0.41	0.23	0.20	0.30
2009/12/26	0.28	0.20	0.40	0.20	0.20	0.20
2009/12/27	0.29	0.22	0.41	-	-	-
2009/12/28	0.27	0.22	0.34	-	-	-
2009/12/29	0.27	0.21	0.35	0.30	0.30	0.30
2009/12/30	0.34	0.30	0.57	0.27	0.20	0.30
2009/12/31	0.35	0.27	0.39	-	-	-
<i>Monthly</i>	0.20	0.07	0.57	0.16	0.00	0.30