

Appendix 5-6: Water Year 2006 Diel Data for STA-1W

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Table 1. Statistical summary of diel parameters at STA-1W inflow (S5AU) and outflow stations (G251D and G310) for each deployment period during Water Year 2006.

Period	Location	Station	Water Temperature (°C)						Specific Conductivity (µS/cm)						Water pH						Dissolved Oxygen (mg/L)					
			No. of Samples	Mean	Minimum	Median	Maximum	Standard Deviation	No. of Samples	Mean	Minimum	Median	Maximum	Standard Deviation	No. of Samples	Mean	Minimum	Median	Maximum	Standard Deviation	No. of Samples	Mean	Minimum	Median	Maximum	Standard Deviation
06/06/2005 - 06/09/2005	Inflow	S5AU	135	28.09	26.41	28.24	29.14	0.64	135	1259.7	1137	1272	1322	49.5	135	7.17	7.13	7.17	7.21	0.03	135	1.37	1.13	1.33	1.78	0.16
	Outflow	G251D	138	27.52	26.35	27.60	28.37	0.57	138	993.5	957	994	1060	14.9	138	7.40	7.33	7.39	7.54	0.05	138	2.11	0.72	1.90	6.57	1.28
	Outflow	G310	138	27.83	26.33	27.85	28.66	0.48	137	1010.5	994	1008	1039	8.8	138	7.29	7.25	7.28	7.56	0.03	138	2.00	1.47	1.80	7.87	0.67
09/12/2005 - 09/15/2005	Inflow	S5AU	142	31.31	30.50	31.26	32.30	0.49	142	1092.1	1063	1097	1102	9.2	142	7.78	7.65	7.76	8.02	0.09	142	7.82	3.98	7.82	12.81	2.11
	Outflow	G251D	140	29.35	28.26	29.45	30.49	0.61	140	1103.9	949	1088.5	1198	65.5	140	7.54	7.37	7.51	7.79	0.10	140	3.38	0.91	3.31	6.60	1.43
	Outflow	G310	141	29.32	28.34	29.26	30.59	0.54	141	1088.5	1011	1102	1124	29.9	141	7.66	7.51	7.64	7.83	0.09	141	4.03	1.73	4.10	5.85	1.11
12/05/2005 - 12/08/2005	Inflow	S5AU	285	20.38	19.73	20.33	21.71	0.37	285	1680	1587	1625	1950	95.7	285	7.54	7.44	7.55	7.62	0.03	285	1.48	0.38	1.56	2.77	0.48
	Outflow	G251D	144	20.35	19.80	20.36	21.21	0.34	144	1376.7	1346	1377.5	1410	24.9	144	7.63	7.58	7.62	7.72	0.04	144	3.46	2.53	3.28	4.52	0.65
	Outflow	G310	144	20.52	20.02	20.54	21.22	0.24	144	1400.9	1381	1405.5	1421	11.3	144	9.33	8.37	9.43	9.68	0.31	144	4.45	3.65	4.44	5.14	0.40
03/06/2006 - 03/09/2006	Inflow	S5AU	141	21.84	20.71	21.92	22.96	0.64	141	1130	1118	1126	1145	8.7	141	7.78	7.72	7.77	7.87	0.04	141	6.46	5.72	6.33	7.73	0.52
	Outflow	G251D	142	20.63	19.13	20.58	22.57	0.73	142	1111.7	1097	1115	1121	7.9	142	7.84	7.67	7.82	8.18	0.11	142	7.64	5.86	7.41	11.20	1.27
	Outflow	G310	144	20.60	19.44	20.57	21.82	0.55	144	1137.2	1113	1131	1182	13.9	144	7.91	7.71	7.88	8.14	0.10	144	7.44	4.48	6.98	10.24	1.38

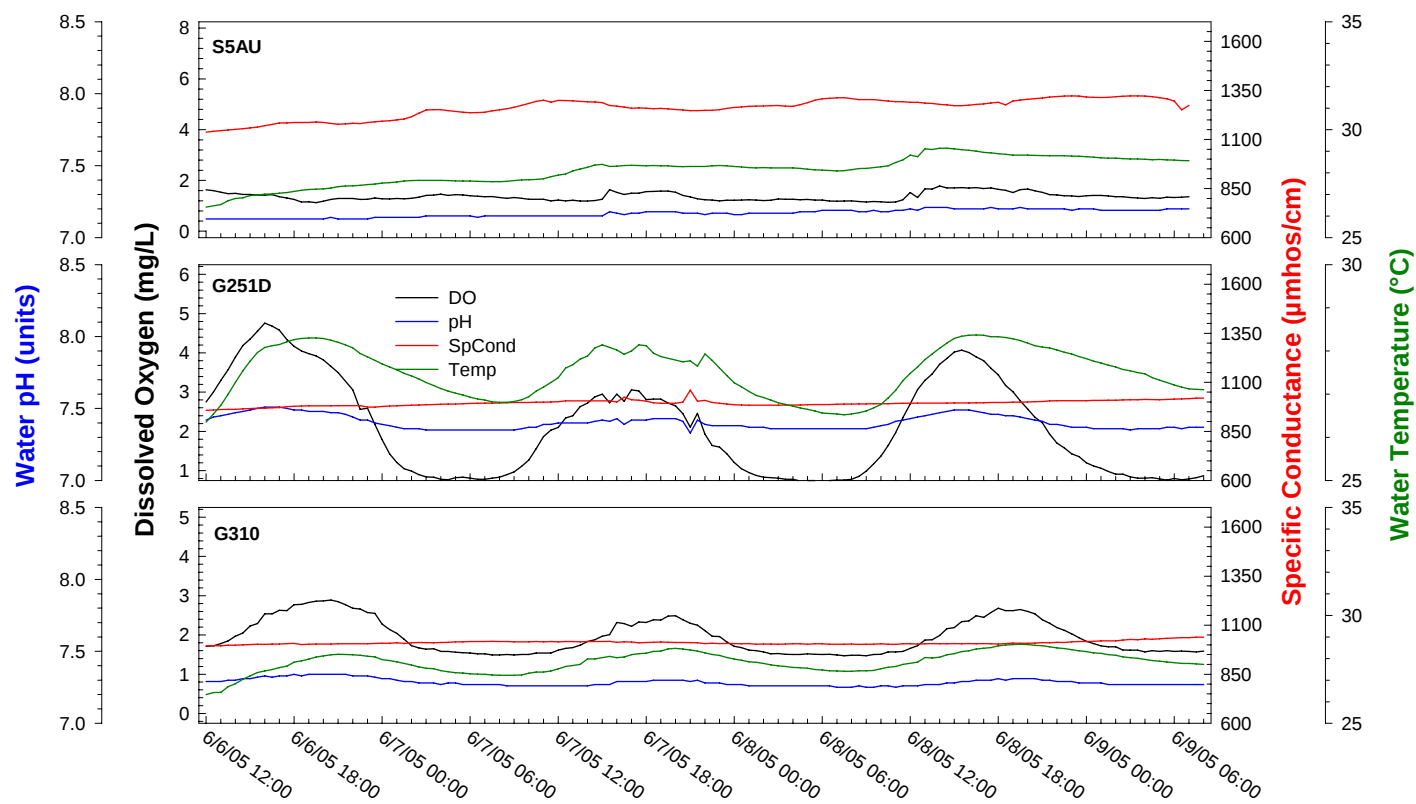


Figure 1. Diel measurements at S5AU, G251D, and G310 in STA-1W, June 6–9, 2005.

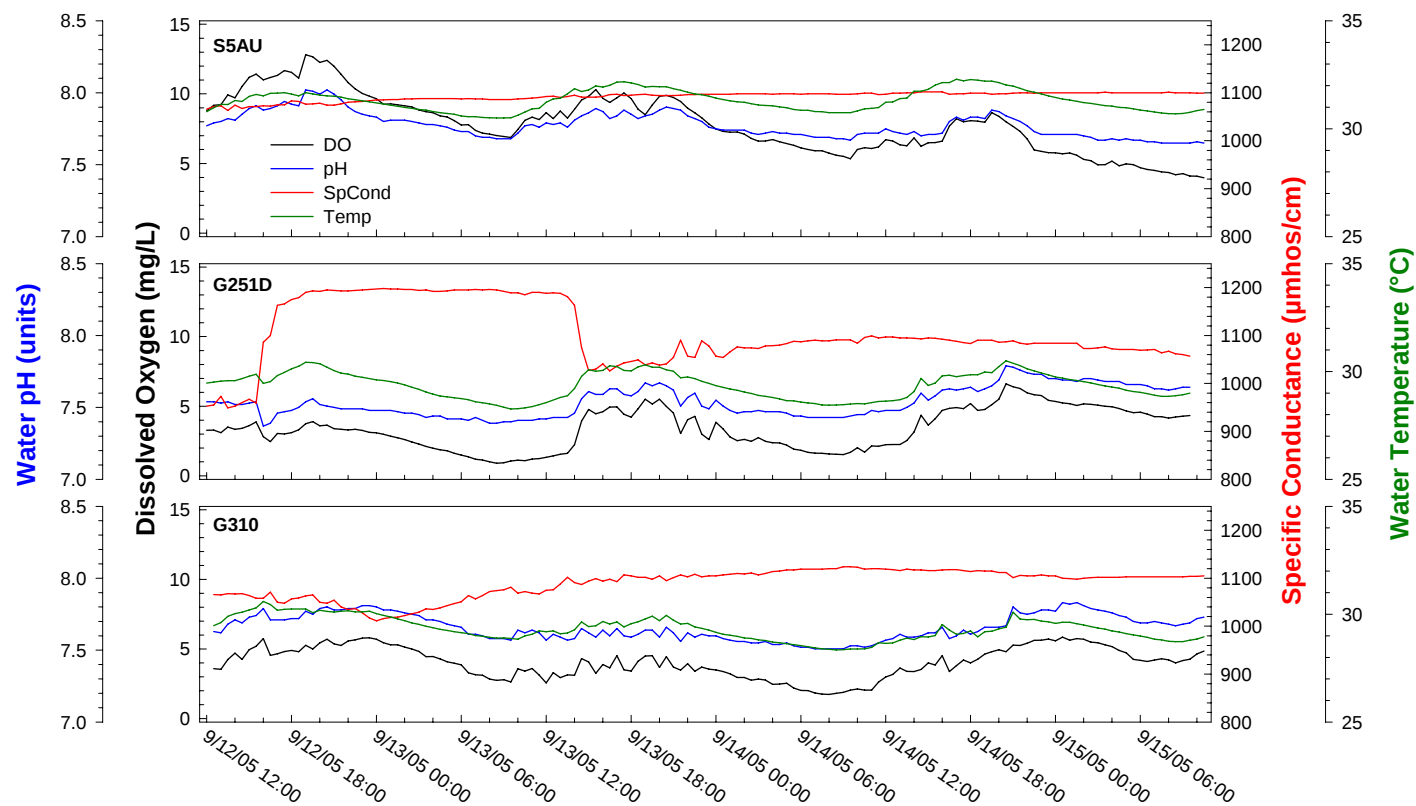


Figure 2. Diel measurements at S5AU, G251D, and G310 in STA-1W, September 12–15, 2005.

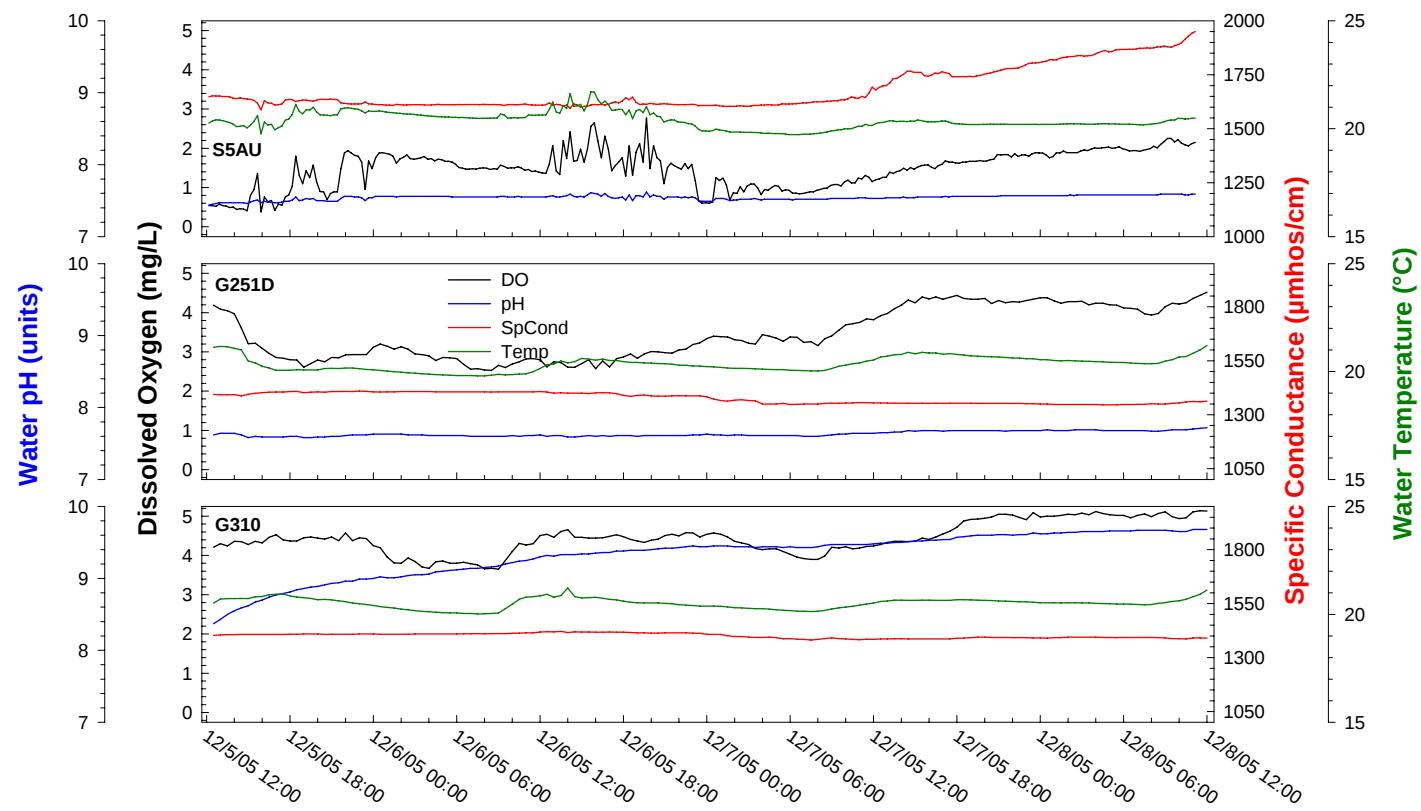


Figure 3. Diel measurements at S5AU, G251D, and G310 in STA-1W, December 5–8, 2005.

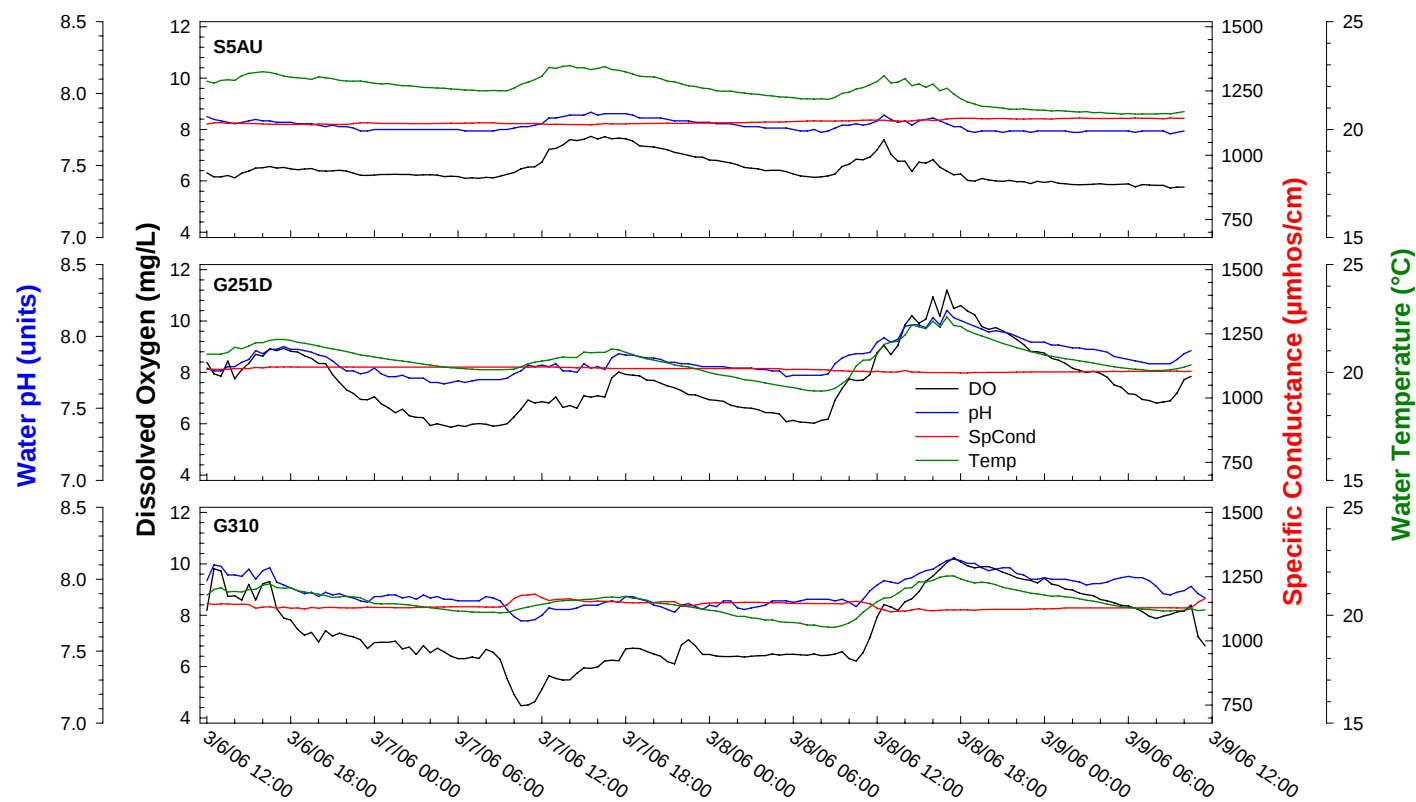


Figure 4. Diel measurements at S5AU, G251D, and G310 in STA-1W, March 6–9, 2006.

Table 2. Statistical summary of diel parameters for stations along Transect X in the Refuge during Water Year 2006 deployment periods.

Period	Station	Water Temperature (°C)						Specific Conductivity (µS/cm)						Water pH						Dissolved Oxygen (mg/L)					
		No. of Samples	Mean	Minimum	Median	Maximum	Standard Deviation	No. of Samples	Mean	Minimum	Median	Maximum	Standard Deviation	No. of Samples	Mean	Minimum	Median	Maximum	Standard Deviation	No. of Samples	Mean	Minimum	Median	Maximum	Standard Deviation
05/02/2005 - 05/06/2005	X1	178	22.83	21.41	22.71	24.57	0.84	178	442.8	427	438	505	14.0	178	6.63	6.56	6.63	6.70	0.03	178	0.64	0.08	0.48	2.27	0.51
	X2	178	24.41	21.76	23.97	29.67	1.83	178	319	301	319	342	9.8	178	6.73	6.64	6.73	6.80	0.03	178	1.29	0.14	0.74	4.84	1.21
	X3	178	23.48	21.40	22.92	28.76	1.73	178	230.8	217	232	245	6.7	178	6.58	6.44	6.59	6.71	0.04	178	1.16	0.13	1.12	2.94	0.46
	X4	178	25.60	21.81	25.06	33.11	2.79	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	
07/11/2005 - 07/15/2005	X1	181	26.75	25.55	26.70	28.01	0.65	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	181	6.56	6.54	6.56	6.61	0.01	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	X2	181	28.71	27.12	28.75	30.62	0.83	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	181	6.55	6.51	6.54	6.66	0.03	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	X3	181	27.22	26.26	27.15	28.14	0.46	181	104.3	98.8	106.1	109.8	3.5	181	6.42	6.38	6.42	6.51	0.01	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	X4	181	29.35	26.97	29.19	32.51	1.42	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	181	6.30	6.08	6.27	6.73	0.15	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
09/12/2005 - 09/16/2005	X1	180	25.97	25.13	26.03	26.93	0.41	180	716.9	673	713.5	757	26.0	180	6.91	6.82	6.89	7.16	0.08	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	X2	180	27.76	25.41	27.66	30.42	1.43	180	134.3	127	133	143	4.3	180	6.20	6.14	6.20	6.35	0.03	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	X3	180	27.47	25.96	27.62	29.09	0.82	180	102.7	98.9	102.9	107.5	1.9	180	6.09	5.97	6.11	6.21	0.07	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	X4	179	28.64	25.54	28.55	32.00	1.88	179	108.4	103.8	108.4	111.8	1.8	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	
01/09/2006 - 01/13/2006	X1	180	13.45	12.15	13.60	14.56	0.72	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	141	0.17	0.01	0.08	0.95	0.19
	X2	180	14.96	12.64	14.92	16.66	1.22	180	597.4	586	597	605	3.4	180	6.91	6.77	6.91	7.08	0.09	180	1.68	0.10	1.47	4.49	1.11
	X3	180	15.63	14.06	15.67	17.12	0.96	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	180	4.00	1.36	4.27	6.88	1.55
	X4	180	17.53	15.16	17.36	20.32	1.51	180	155.3	152.8	155.1	157.7	1.2	180	6.55	6.43	6.54	6.70	0.05	180	5.34	3.27	5.29	8.28	0.93
03/06/2006 - 03/10/2006	X1	178	16.25	14.75	16.40	17.77	0.69	178	1086.8	1076	1085	1103	5.6	178	7.22	7.15	7.21	7.33	0.04	178	1.09	0.10	0.78	3.65	0.86
	X2	179	18.49	14.89	18.15	21.86	1.84	179	663	638	656	697	15.9	179	7.03	6.94	7.02	7.20	0.04	179	3.08	1.26	2.68	5.82	1.34
	X3	179	18.61	15.35	18.20	22.64	1.91	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	179	6.60	6.53	6.57	6.85	0.06	179	5.36	3.33	5.11	8.08	1.46
	X4	179	20.12	15.15	19.61	25.64	2.61	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	179	6.72	6.51	6.69	7.28	0.16	179	6.11	3.06	5.84	9.67	1.86

ND – No data was available for this deployment period.

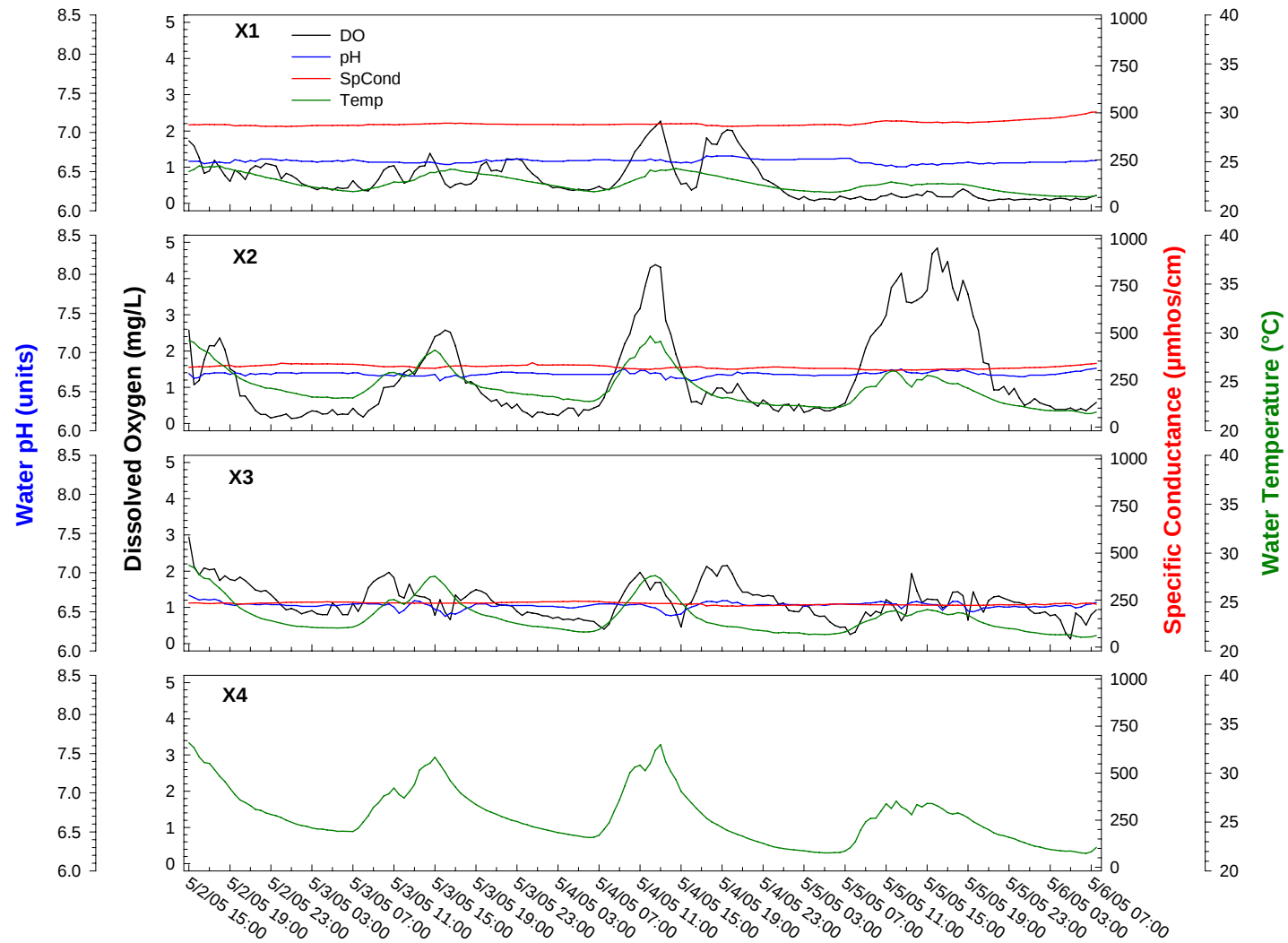


Figure 5. Diel measurements along Transect X in the Refuge, May 2–6, 2005.

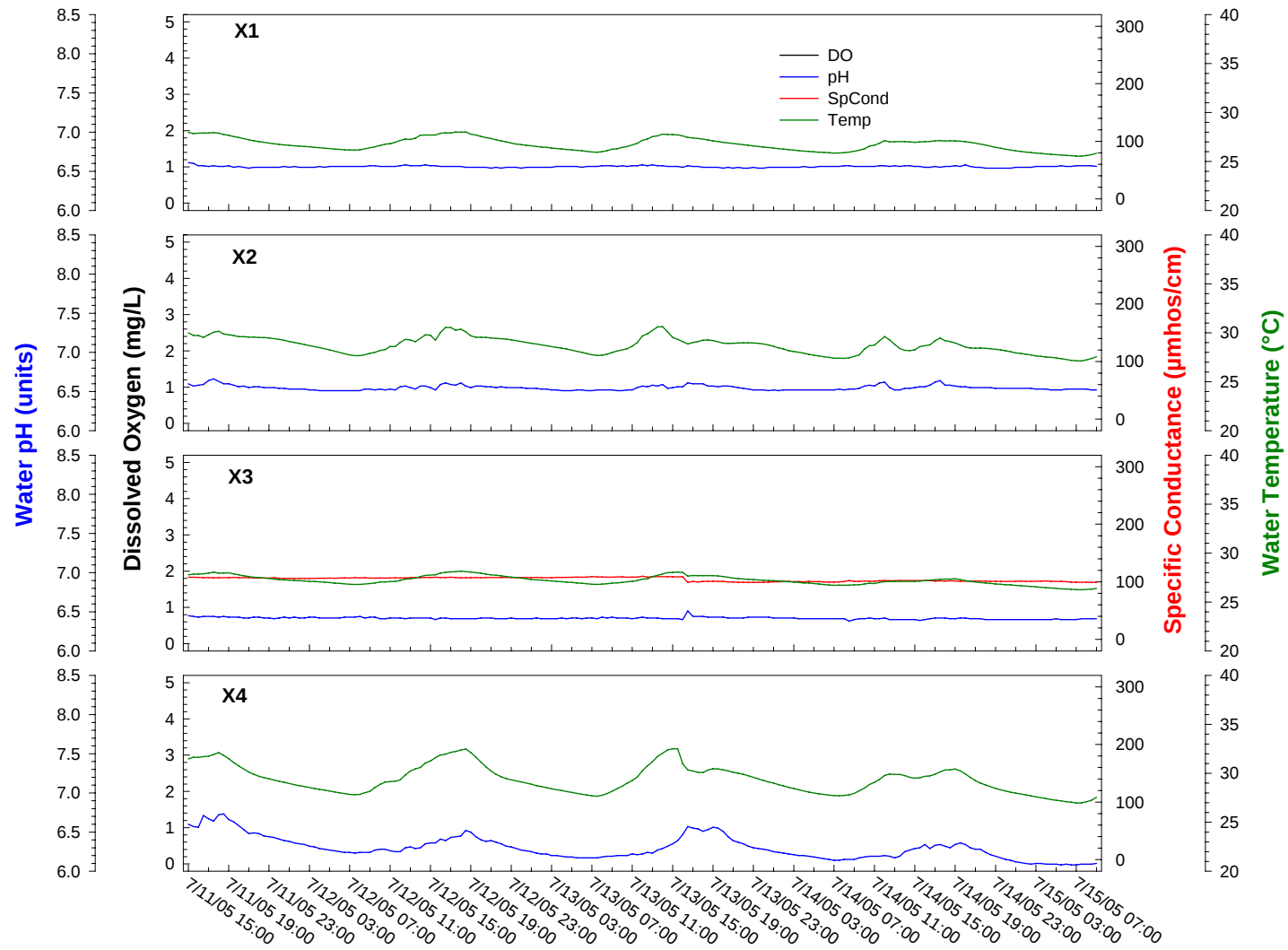


Figure 6. Diel measurements along Transect X in the Refuge, July 11–15, 2005.

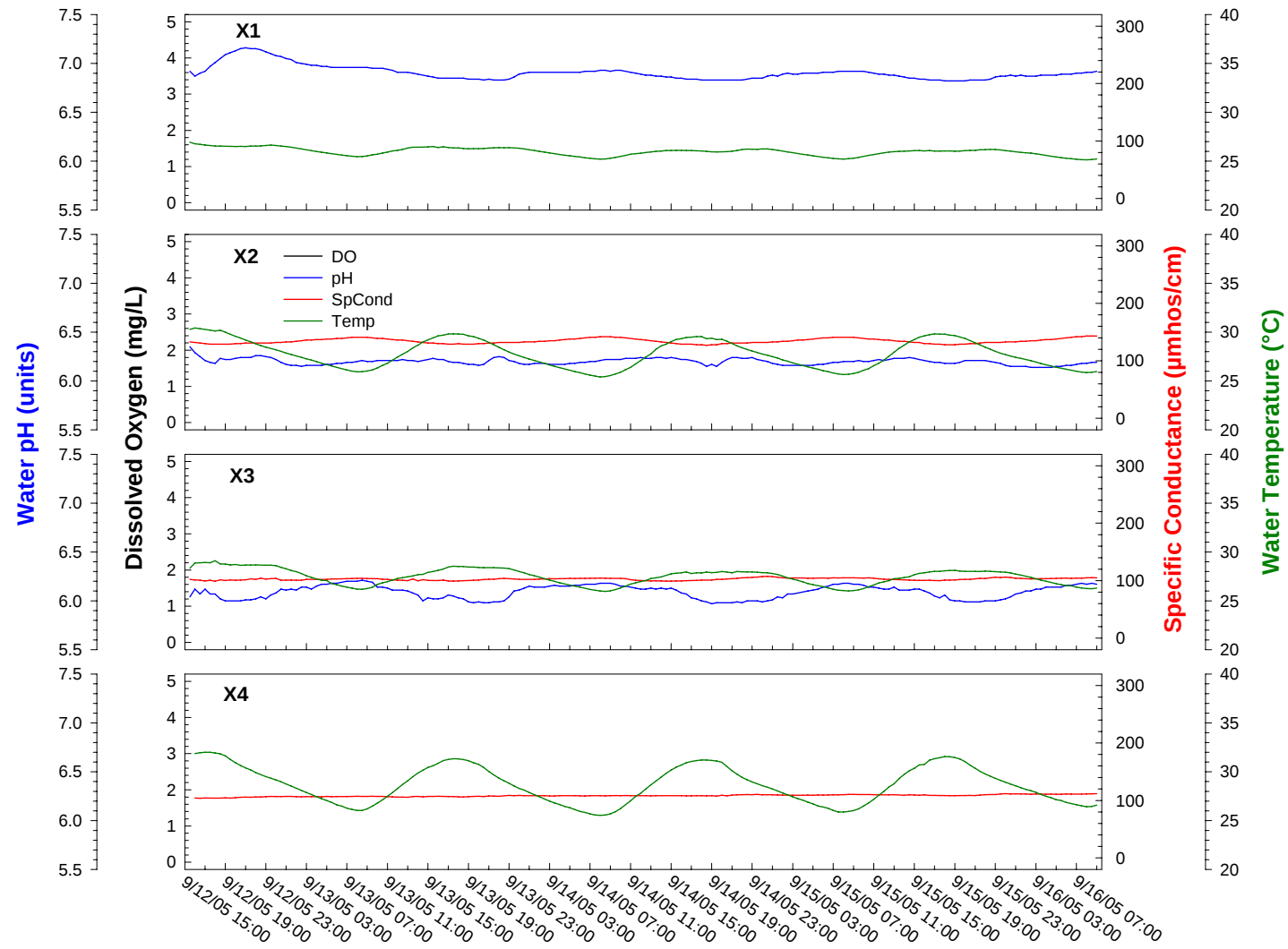


Figure 7. Diel measurements along Transect X in the Refuge, September 12–16, 2005.

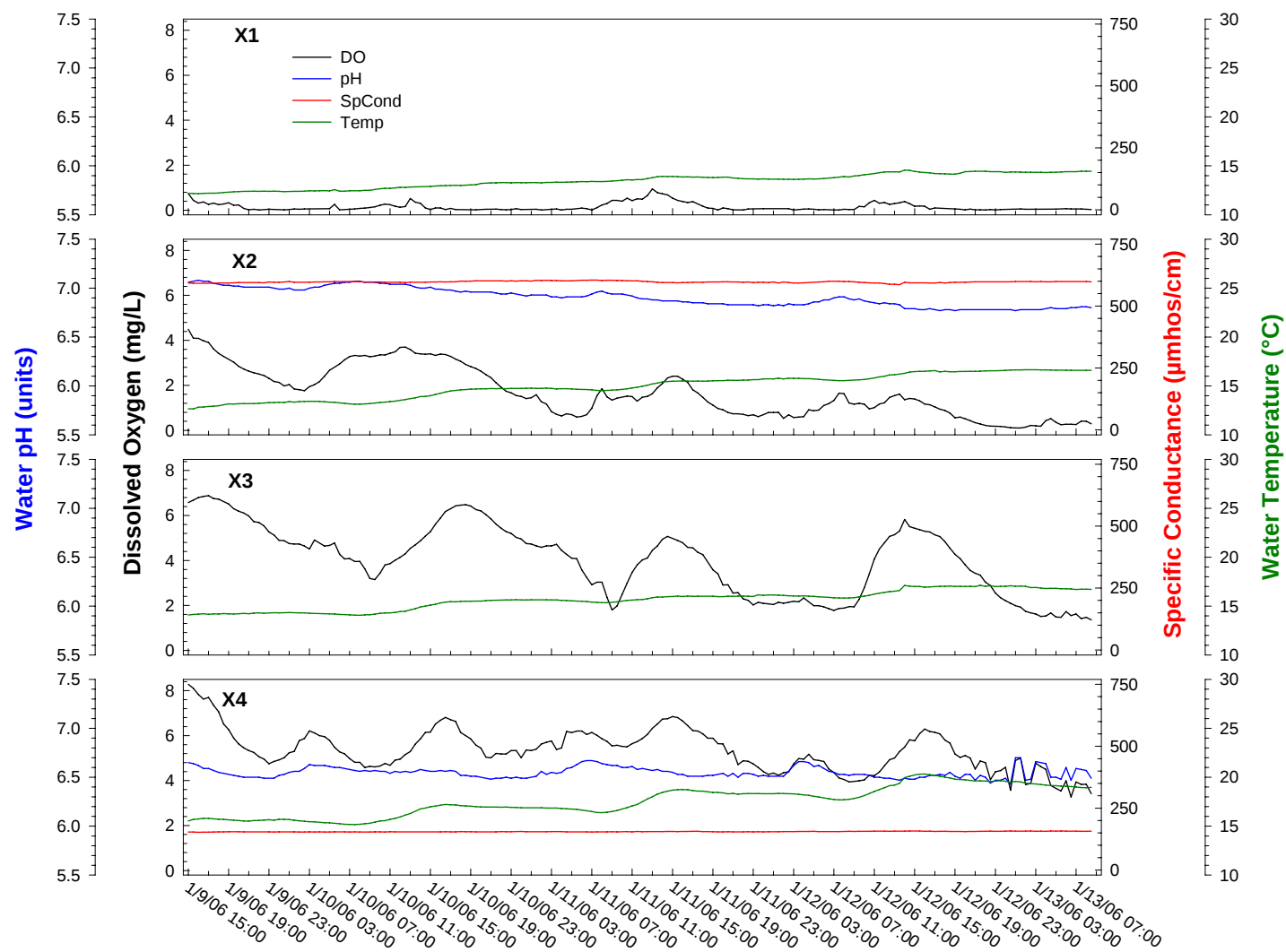


Figure 8. Diel measurements along Transect X in the Refuge, January 9–13, 2006.

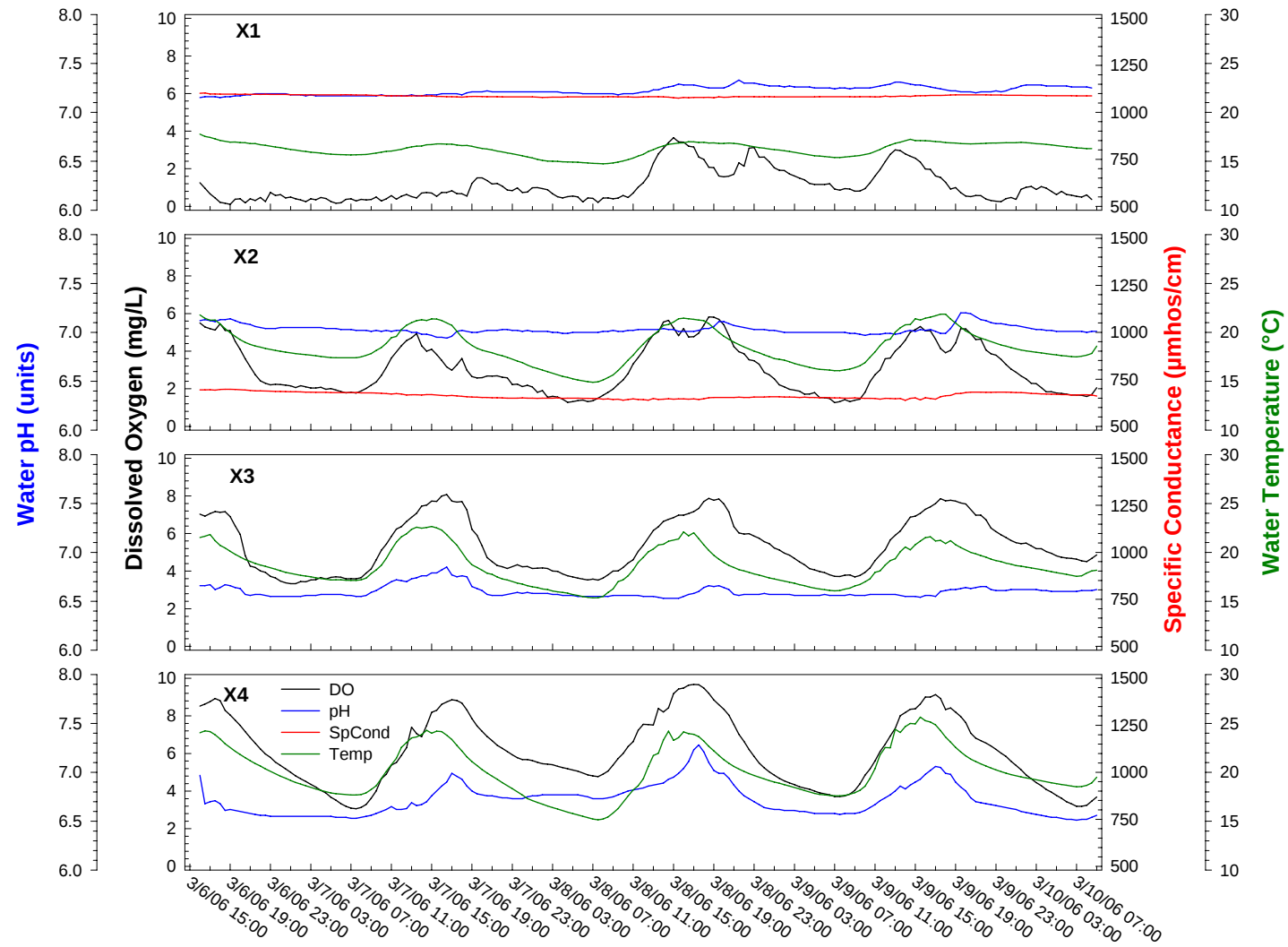


Figure 9. Diel measurements along Transect X in the Refuge, March 6–10, 2006.

Table 3. Statistical summary of diel parameters for Station Y4 in the Refuge during Water Year 2006 deployment periods.

Period	Station	Water Temperature (°C)						Specific Conductivity (µS/cm)						Water pH						Dissolved Oxygen (mg/L)					
		No. of Samples	Mean	Minimum	Median	Maximum	Standard Deviation	No. of Samples	Mean	Minimum	Median	Maximum	Standard Deviation	No. of Samples	Mean	Minimum	Median	Maximum	Standard Deviation	No. of Samples	Mean	Minimum	Median	Maximum	Standard Deviation
05/02/2005 - 05/06/2005	Y4	179	24.67	21.81	24.12	30.67	2.23	179	223.9	199.8	221	240	10.7	179	6.67	6.52	6.61	7.12	0.16	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
07/11/2005 - 07/15/2005	Y4	180	29.00	27.18	28.89	31.59	1.21	180	107.5	96.7	107.7	114.9	4.4	180	6.28	6.18	6.27	6.66	0.07	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
09/12/2005 - 09/16/2005	Y4	179	28.35	25.97	28.20	30.80	1.48	179	118.2	113.2	117.8	122.8	2.3	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	
01/09/2006 - 01/13/2006	Y4	181	17.69	15.37	17.71	20.35	1.42	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	181	5.59	3.97	5.54	7.39	0.82
03/06/2006 - 03/10/2006	Y4	180	20.27	15.31	20.17	25.15	2.40	180	207.7	202	208	210	1.5	180	6.83	6.62	6.81	7.14	0.11	180	6.07	3.25	5.89	9.45	1.71

ND – No data was available for this deployment period.

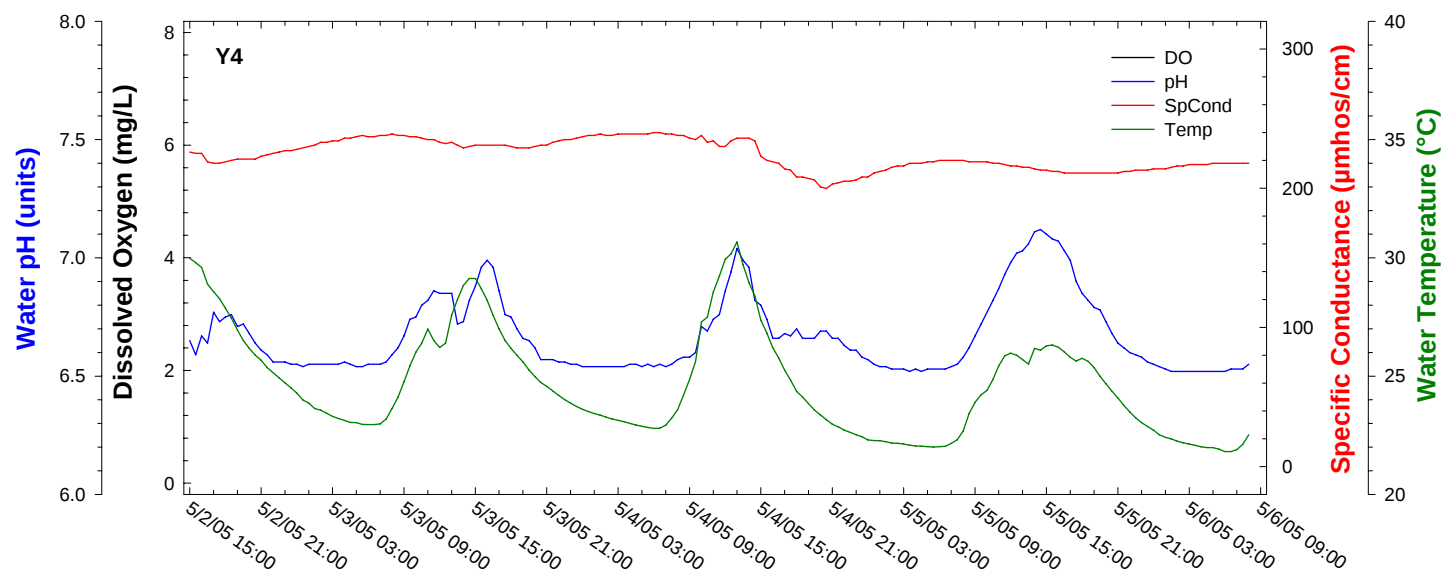


Figure 10. Diel measurements Station Y4 in the Refuge, May 2–6, 2005.

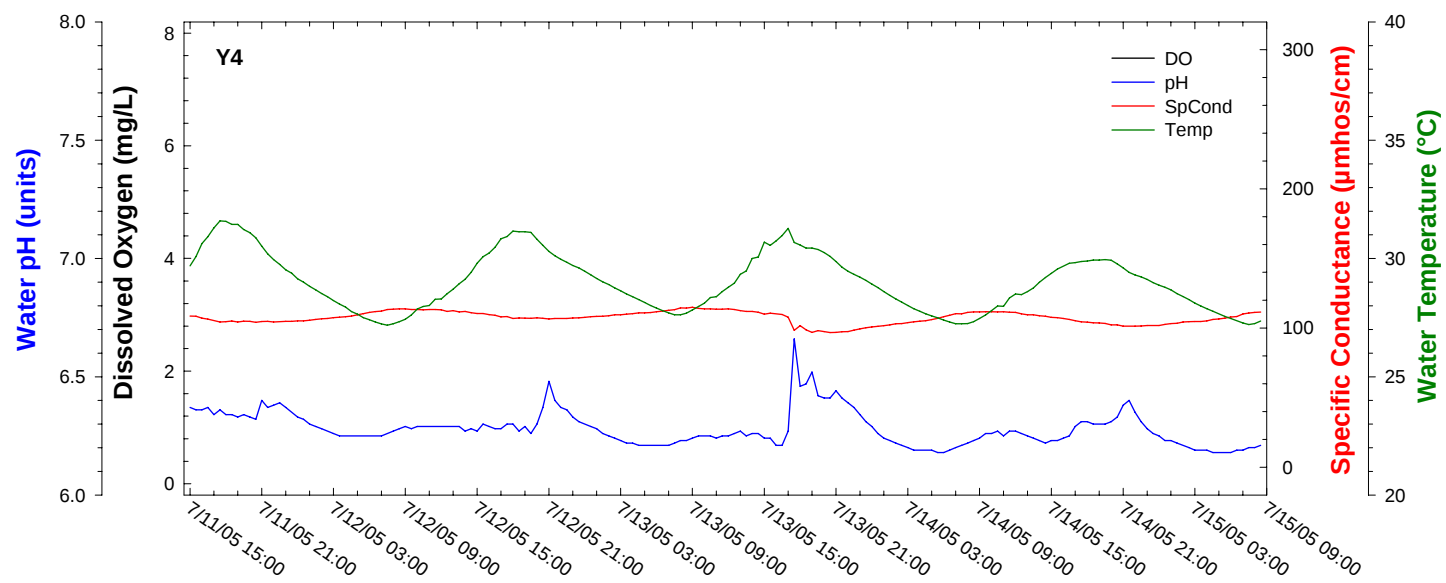


Figure 11. Diel measurements Station Y4 in the Refuge, July 11–15, 2005.

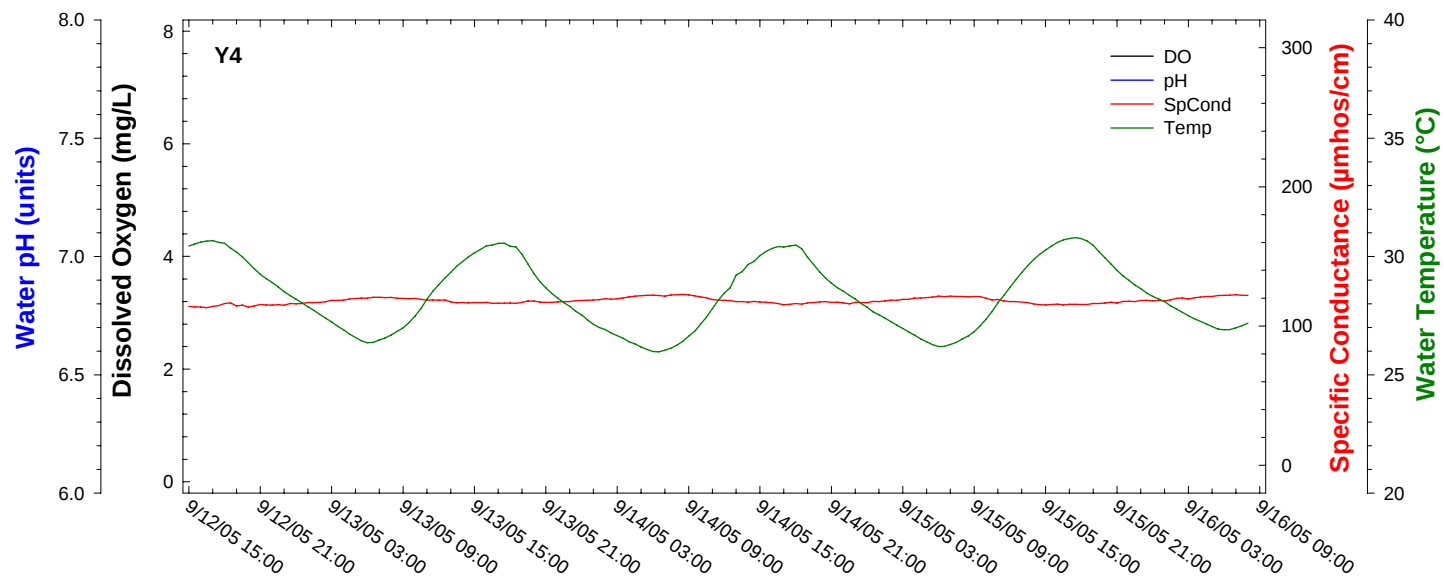


Figure 12. Diel measurements Station Y4 in the Refuge, September 12–16, 2005.

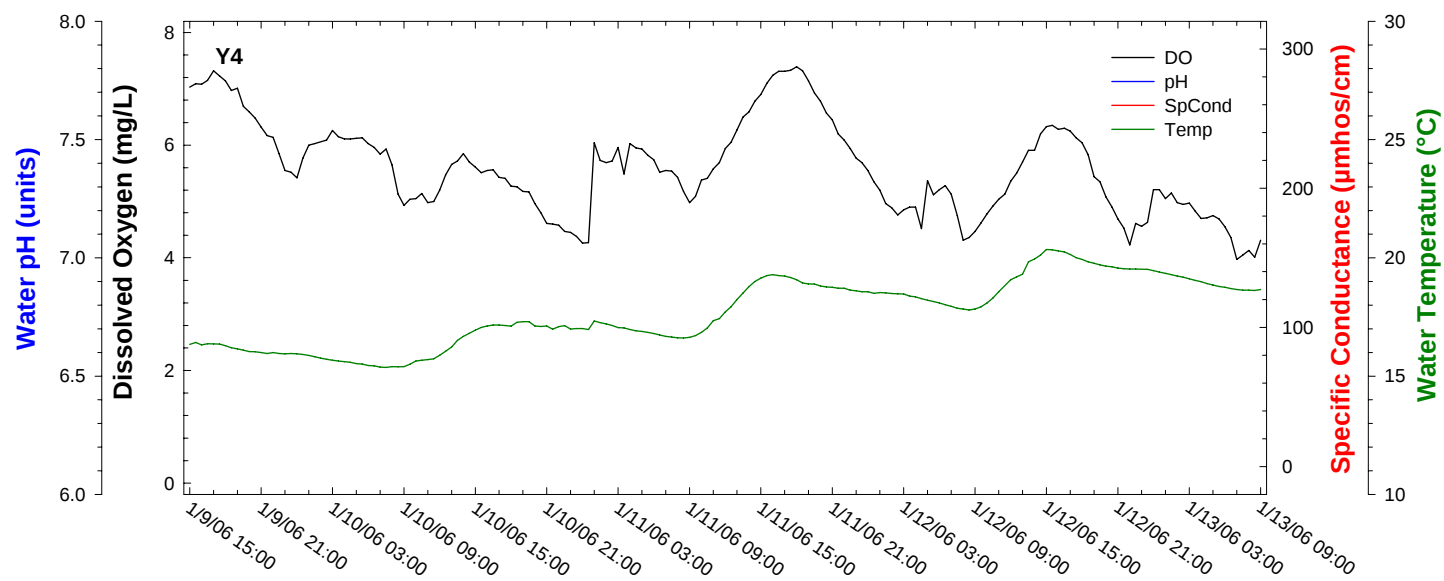


Figure 13. Diel measurements Station Y4 in the Refuge, January 9–13, 2006.

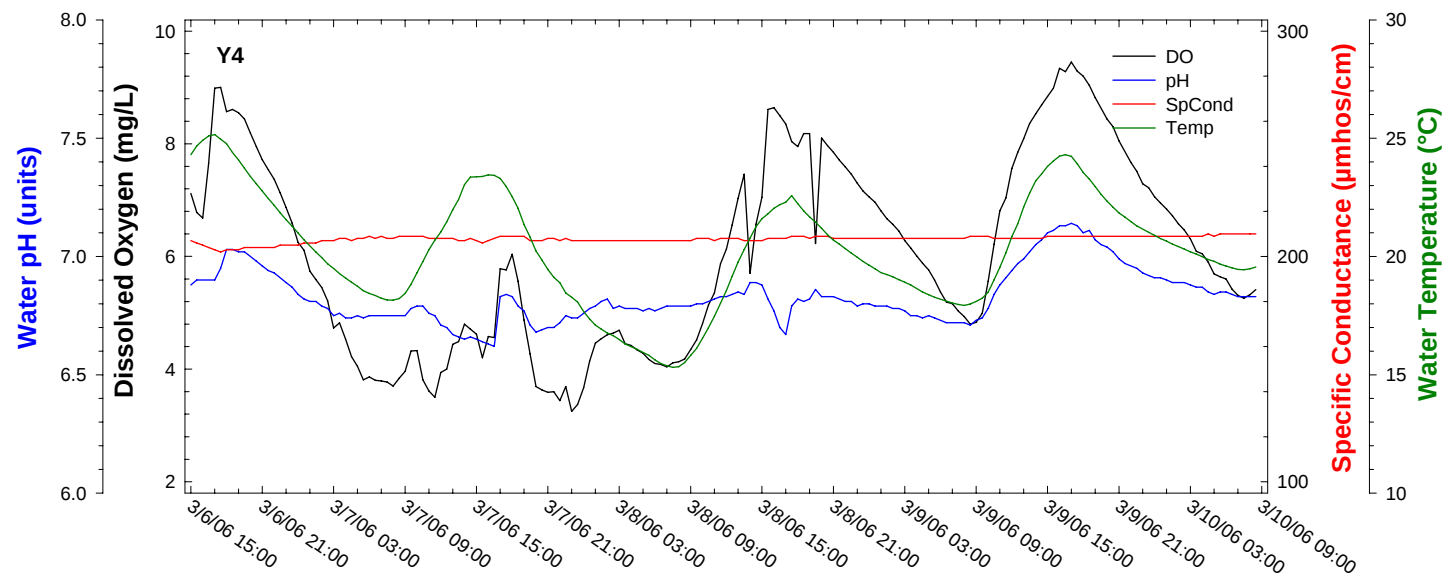


Figure 14. Diel measurements Station Y4 in the Refuge, March 6–10, 2006.

Table 3. Statistical summary of diel parameters for stations along Transect Z in the Refuge during Water Year 2006 deployment periods.

Period	Station	Water Temperature (°C)						Specific Conductivity (µS/cm)						Water pH						Dissolved Oxygen (mg/L)					
		No. of Samples	Mean	Minimum	Median	Maximum	Standard Deviation	No. of Samples	Mean	Minimum	Median	Maximum	Standard Deviation	No. of Samples	Mean	Minimum	Median	Maximum	Standard Deviation	No. of Samples	Mean	Minimum	Median	Maximum	Standard Deviation
05/02/2005 - 05/06/2005	Z1	179	24.80	22.65	24.74	27.61	1.03	179	680.6	661	681	706	10.7	179	7.01	6.85	7.03	7.19	0.06	179	0.98	0.06	0.97	2.54	0.62
	Z2	179	24.54	21.66	24.11	30.78	2.13	179	586.4	522	593	633	28.5	179	6.80	6.71	6.79	6.95	0.06	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	Z3	149	25.63	22.89	25.50	29.78	1.52	149	202.2	182.9	209	216	10.9	149	6.74	6.56	6.72	7.04	0.12	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	Z4	179	24.96	22.33	24.85	28.98	1.57	179	197.2	183.2	199.9	207	7.2	179	6.86	6.66	6.84	7.25	0.14	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
07/11/2005 - 07/15/2005	Z2	180	29.75	26.78	29.40	33.94	2.04	180	189	167.5	186.9	213	14.0	180	6.50	6.31	6.45	7.10	0.17	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	Z3	180	28.82	27.51	28.82	30.58	0.75	180	138	124.6	143.8	152.5	10.1	180	6.31	6.22	6.30	6.50	0.07	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	Z4	180	29.40	27.82	29.22	31.89	0.96	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	
09/12/2005 - 09/16/2005	Z1	178	27.19	25.92	27.24	28.84	0.78	178	613.9	589	611	650	17.0	178	6.88	6.83	6.88	7.01	0.03	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	Z2	178	29.39	25.83	29.24	33.17	2.12	178	170.5	147.7	169.1	197	11.7	178	6.38	6.21	6.36	6.75	0.09	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	Z3	178	28.69	26.09	28.30	32.18	1.73	178	116.7	111.3	116.9	120.6	2.4	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	
	Z4	178	29.45	26.73	29.03	33.17	1.86	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	178	6.55	6.36	6.43	7.21	0.22	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
01/09/2006 - 01/13/2006	Z2	181	17.32	14.51	17.02	21.28	1.75	181	730.7	712	731	746	6.3	181	7.07	6.93	7.08	7.16	0.06	181	2.00	0.08	1.94	4.50	0.91
	Z3	181	18.35	15.79	18.32	21.34	1.62	181	231.3	226	232	235	2.0	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	181	5.67	4.07	5.79	6.73	0.64
	Z4	181	19.34	16.17	19.27	23.17	1.81	181	183.6	177.4	183.6	185.4	0.9	181	6.85	6.72	6.85	6.97	0.07	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
03/06/2006 - 03/10/2006	Z1	180	16.85	15.32	16.95	18.20	0.67	180	1063.9	1045	1063	1082	9.1	180	7.11	6.92	7.12	7.19	0.04	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	Z2	180	19.25	14.44	19.01	24.34	2.37	180	782.2	758	782	815	14.8	180	7.04	6.88	7.02	7.29	0.07	180	2.20	0.40	1.84	6.11	1.47
	Z3	180	20.78	16.83	20.69	25.47	1.95	180	283.3	268	286	297	8.6	180	7.01	6.82	7.02	7.24	0.11	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	Z4	179	20.98	16.91	20.78	25.91	1.95	179	218.1	215	218	222	2.0	179	7.02	6.84	6.99	7.40	0.13	179	7.45	5.23	7.46	9.57	1.18

ND – No data was available for this deployment period.

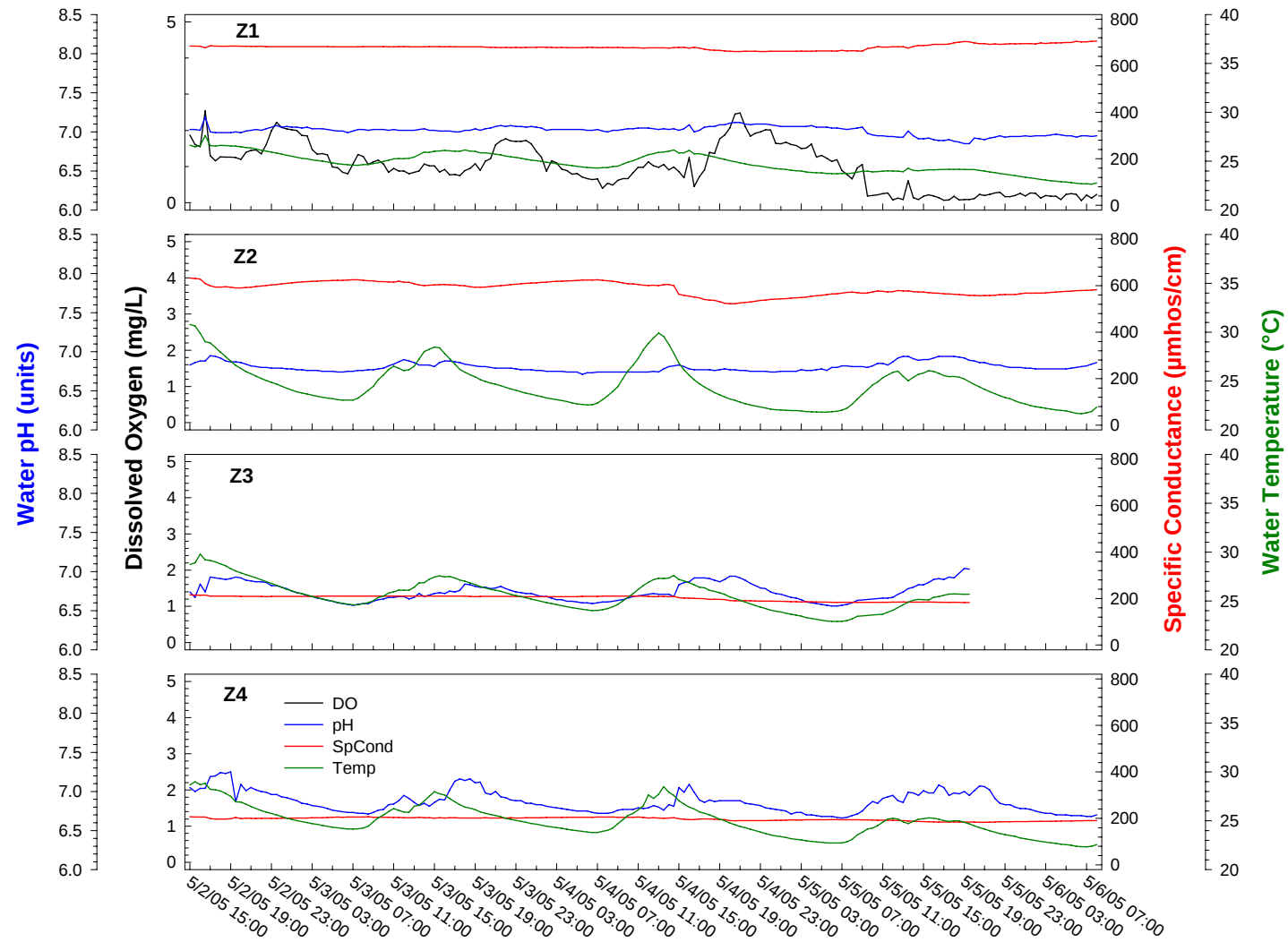


Figure 15. Diel measurements along Transect Z in the Refuge, May 2–6, 2005.

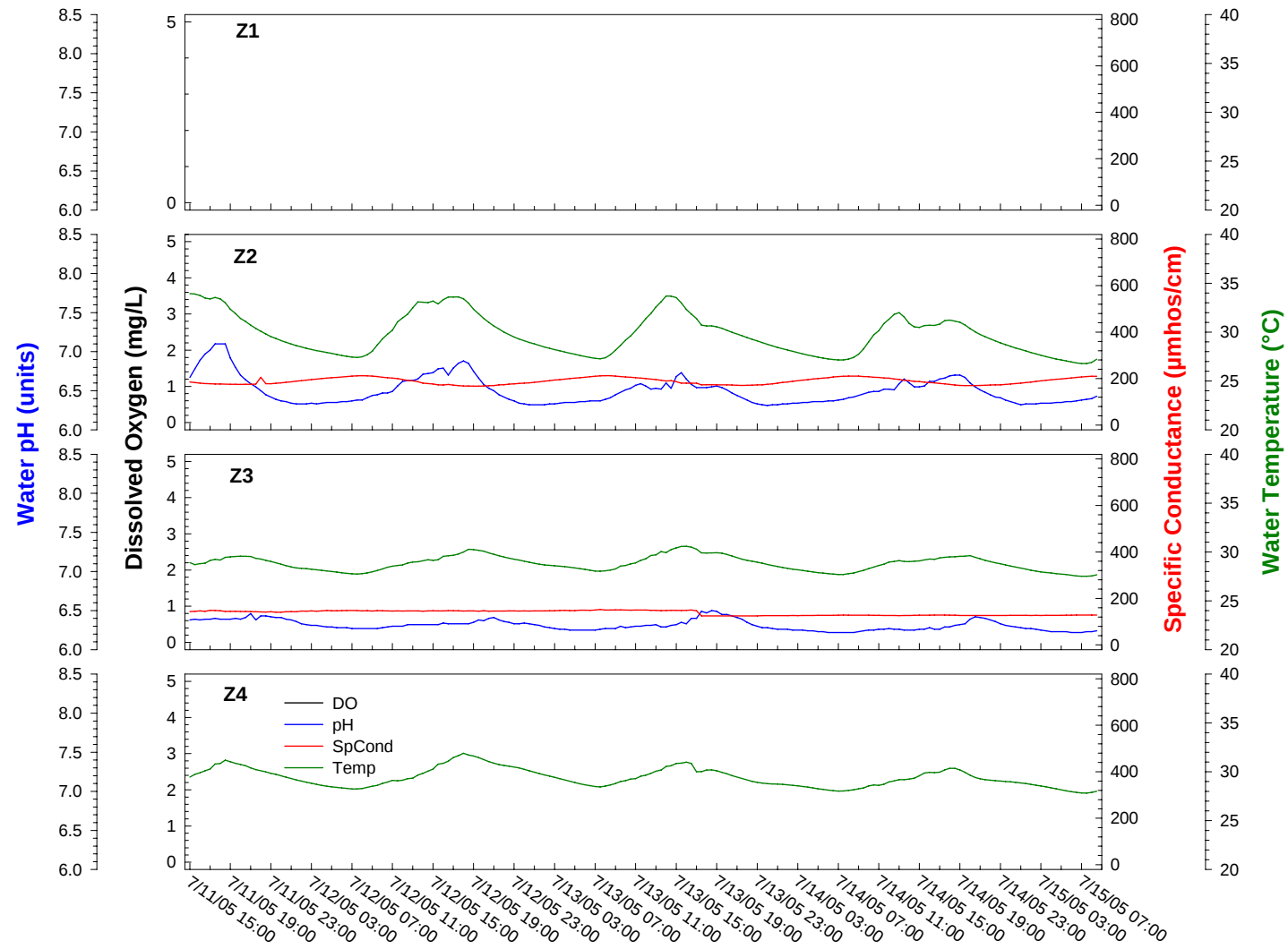


Figure 16. Diel measurements along Transect Z in the Refuge, July 11–15, 2005.

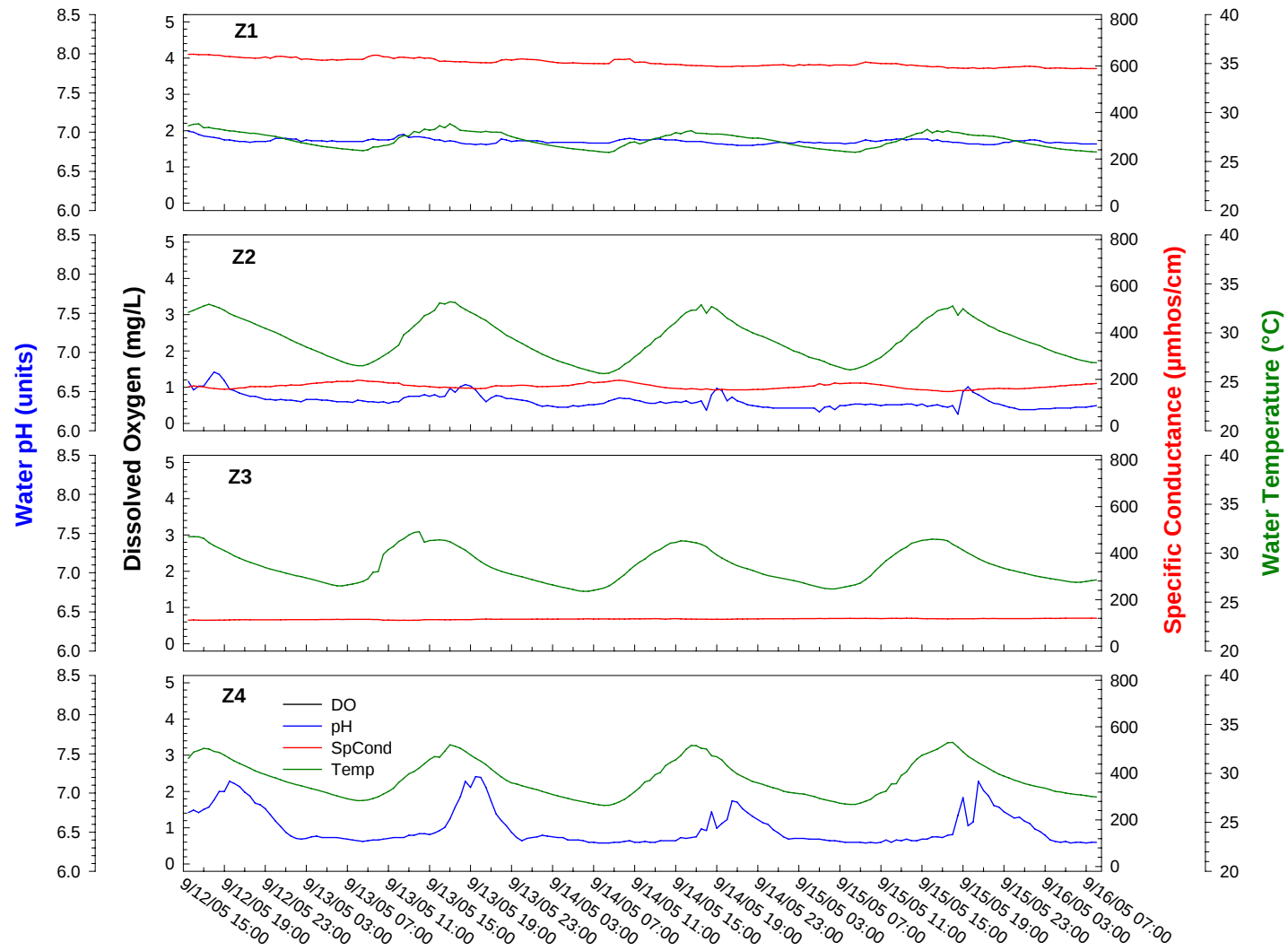


Figure 17. Diel measurements along Transect Z in the Refuge, September 12–16, 2005.

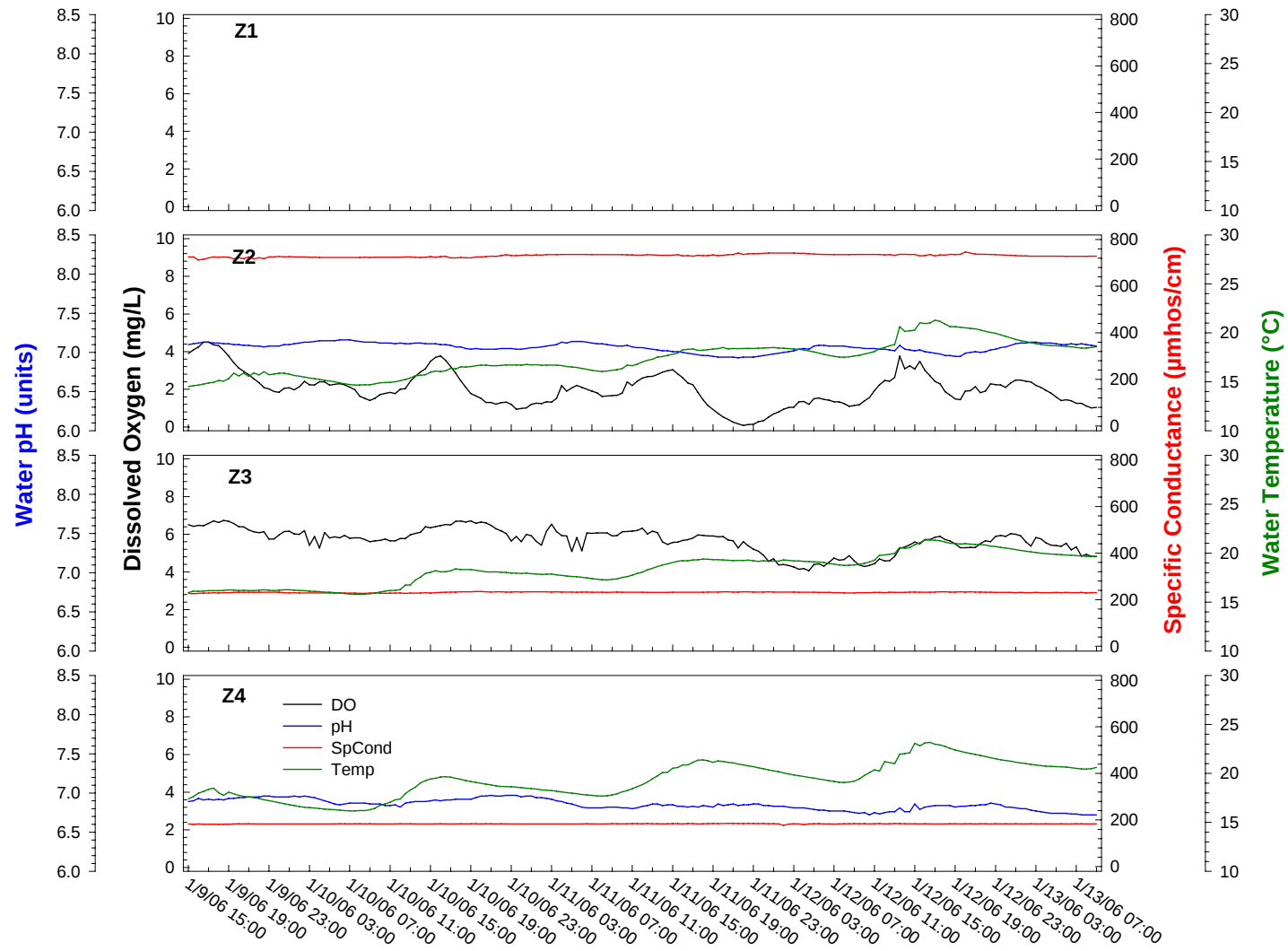


Figure 18. Diel measurements along Transect Z in the Refuge, January 9–13, 2006.

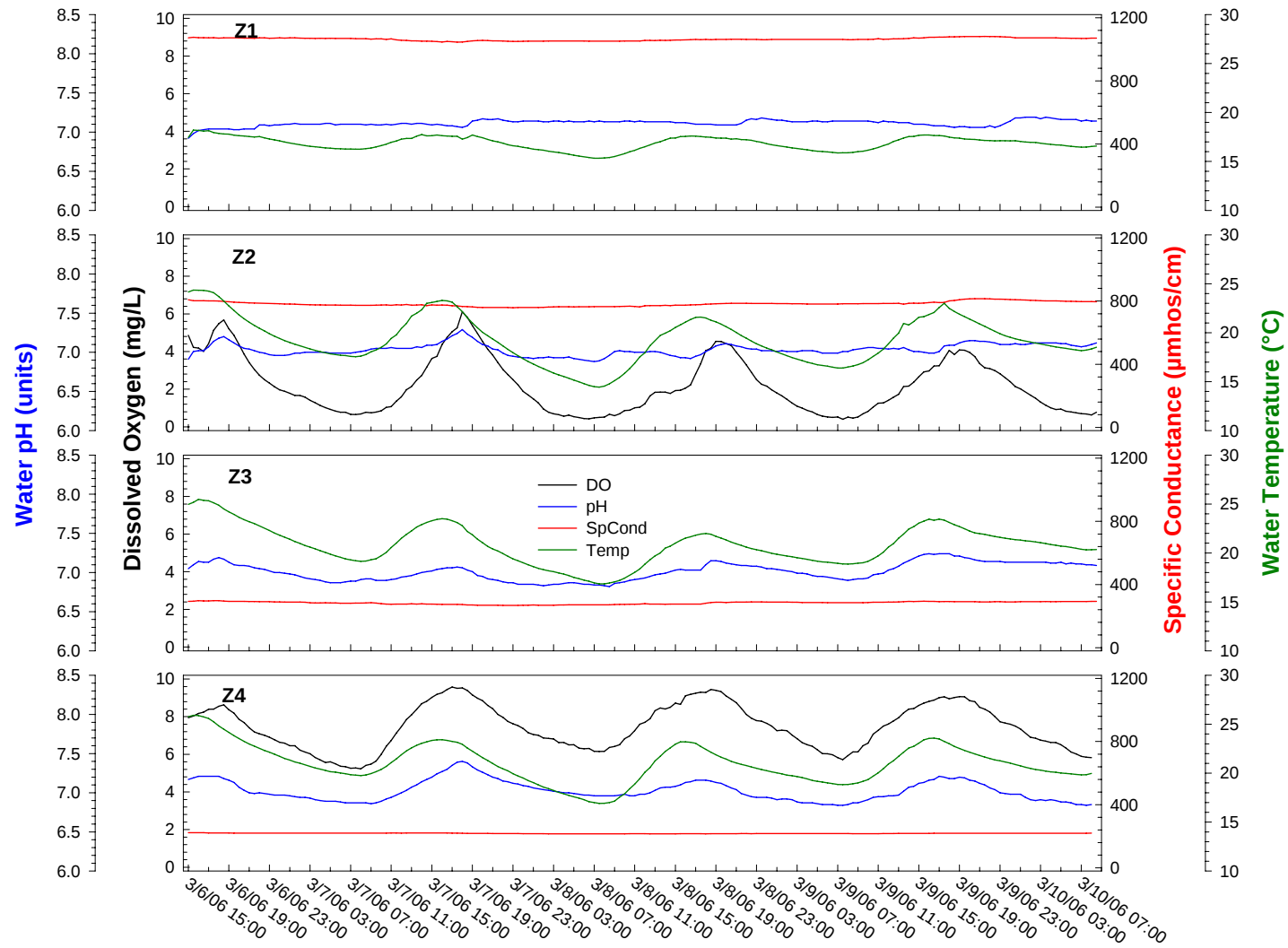


Figure 19. Diel measurements along Transect Z in the Refuge, March 6–10, 2006.