

Memory Lake 2014 Data Summary

Memory Lake Snapshot

Years Monitored: 16
 Total # of Events: 163
 2014 Events: 8
 Total Hours Monitored: 320

Observations

Wildlife Observed:

Dragonflies
 Frogs
 Goldeneyes
 Jumping fish
 Loons
 Mallards
 Raven
 Salmonids
 Scaups
 Song birds

Water Level:

Medium to high

Water Color:

Light green

Algae:

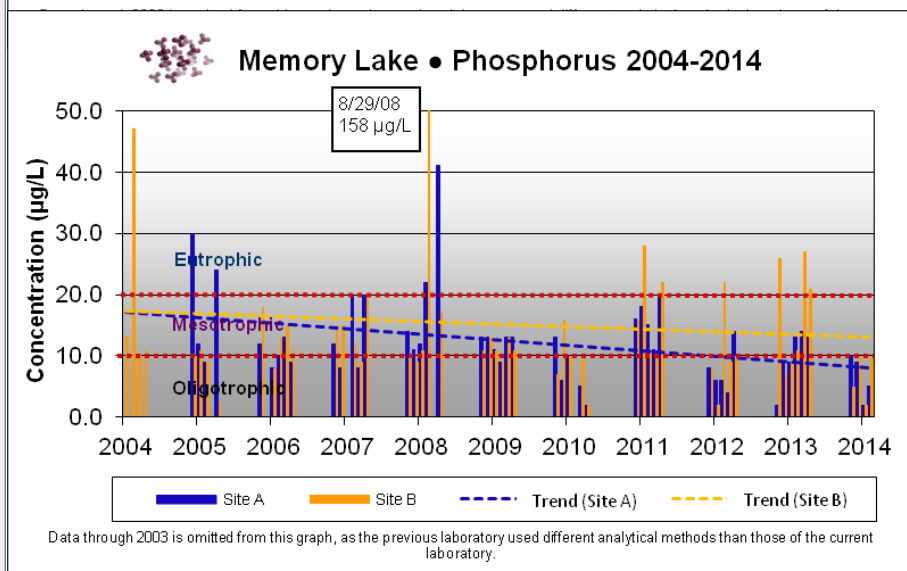
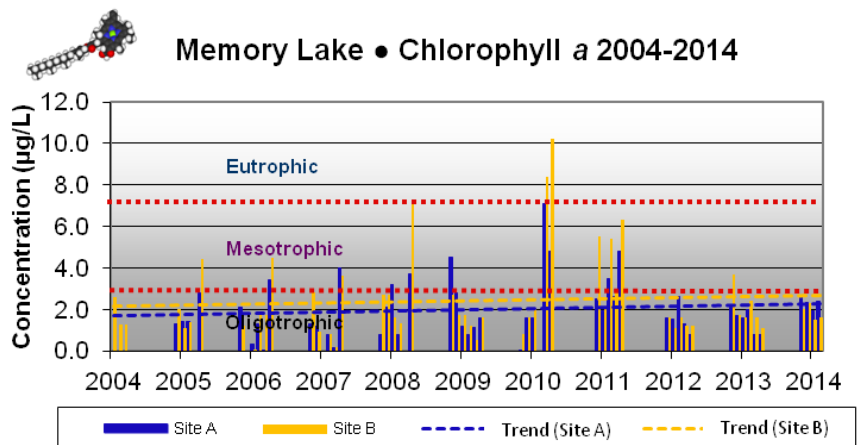
Moderate, some floating clumps observed in July

Aquatic Plants:

Moderate to heavy; lily pads in shallow and submerged weeds in deeper water.

Additional Comments:

Gradual increase in weeds over 23 years. Lots of particulate in the water observed in May, including Styrofoam particles.



Memory Lake Site A Profile Measurements

Memory Lake Site A		Depth (m)	Temperature (oC)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH (SU)	Secchi Depth mean (m)	
Date	08/23/14	0.0	18.40	0.080	9.40	8.05	3.55	
		1.0	18.00	0.080	9.36	8.06		
Site Depth (m)	5.60	2.0	17.87	0.080	9.38	8.06		
		3.0	16.70	0.080	8.95	7.91		
Phosphorus (µg/L)	5.0	4.0	16.32	0.081	8.09	7.76		
Chlorophyll a (µg/L)	2.4	5.0	16.02	0.082	7.64	7.50		
Date	07/19/14	0.0	19.79	0.081	8.61	7.86	4.15	
		1.0	19.80	0.081	8.62	7.83		
Site Depth (m)	6.10	2.0	19.79	0.081	8.59	7.80		
		3.0	19.74	0.081	8.61	7.78		
Phosphorus (µg/L)	2.0	4.0	19.17	0.082	7.85	7.64		
		5.0	17.28	0.084	3.90	7.45		
Chlorophyll a (µg/L)	1.9	6.0	16.06	0.090	0.34	7.26		
Date	06/22/14	0.0	17.42	0.081	9.78	8.03	3.85	
		1.0	16.82	0.080	9.78	8.01		
Site Depth (m)	5.75	2.0	16.62	0.080	9.73	8.00		
		3.0	16.18	0.081	9.50	7.92		
Phosphorus (µg/L)	9.0	4.0	15.74	0.081	9.58	7.89		
Chlorophyll a (µg/L)	2.3	5.0	14.85	0.082	8.04	7.64		
Date	05/18/14	0.0	17.07	0.078	11.74	8.85	2.65	
		1.0	17.05	0.078	11.61	8.87		
Site Depth (m)	6.20	2.0	17.02	0.079	11.67	8.86		
		3.0	14.59	0.078	12.74	8.64		
Phosphorus (µg/L)	10.0	4.0	11.46	0.078	10.83	8.08		
		5.0	10.14	0.079	8.09	7.76		
Chlorophyll a (µg/L)	2.7	6.0	9.65	0.079	6.43	7.60		
ChIA	TP	Depth	T°	Cond	DO	pH	Secchi	
2.7	10.0	6.20	19.80	0.090	12.74	8.87	4.15	Max
1.9	2.0		9.65	0.078	0.34	7.26	2.65	Min
2.4	7.0		16.92	0.081	9.16	7.90	3.70	Med
2.3	6.5		16.52	0.081	8.80	7.97	3.55	Ave
0.3	3.7		2.69	0.002	2.49	0.42	0.65	StDev

Highlighted data does not meet Alaska Water Quality Standards (WQS)



Treeline emerald dragonfly



Mallards

Memory Lake Site B Profile Measurements

Memory Lake Site B		Depth (m)	Temperature (oC)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH (SU)	Secchi Depth mean (m)	
Date	08/23/14	0.0	18.57	0.081	8.88	8.03	4.10	
		1.0	18.03	0.081	8.97	7.96		
Site Depth (m)	5.80	2.0	17.90	0.081	8.89	7.91		
		3.0	17.39	0.082	8.61	7.85		
Phosphorus (µg/L)	10.0	4.0	16.93	0.081	8.46	7.81		
Chlorophyll a (µg/L)	1.6	5.0	16.52	0.082	6.86	7.61		
Date	07/19/14	0.0	19.78	0.081	8.88	7.79	4.00	
		1.0	19.77	0.081	8.67	7.77		
Site Depth (m)	6.00	2.0	19.74	0.082	8.69	7.77		
		3.0	19.70	0.081	8.58	7.76		
Phosphorus (µg/L)	2.0	4.0	19.38	0.082	7.90	7.68		
Chlorophyll a (µg/L)	1.5	5.0	18.35	0.084	6.15	7.54		
Date	06/22/14	0.0	17.35	0.082	9.56	8.07	4.05	
		1.0	16.77	0.081	9.54	8.04		
Site Depth (m)	6.10	2.0	16.58	0.081	9.50	8.02		
		3.0	16.46	0.081	9.50	8.00		
Phosphorus (µg/L)	10.0	4.0	16.17	0.082	9.27	7.92		
Chlorophyll a (µg/L)	2.3	5.0	15.39	0.083	7.71	7.62		
Date	05/18/14	0.0	17.04	0.080	12.17	8.95	2.85	
		1.0	17.12	0.081	12.63	8.94		
Site Depth (m)	6.00	2.0	17.08	0.081	12.92	8.98		
		3.0	15.38	0.080	13.98	8.90		
Phosphorus (µg/L)	5.0	4.0	13.64	0.080	14.28	8.60		
Chlorophyll a (µg/L)	2.0	5.0	11.08	0.083	9.33	8.10		
ChIA	TP	Depth	T°	Cond	DO	pH	Secchi	
2.3	10.0	6.10	19.78	0.084	14.28	8.98	4.10	Max
1.5	2.0		11.08	0.080	6.15	7.54	2.85	Min
1.8	7.5		17.10	0.081	8.93	7.94	4.03	Med
1.9	6.8		17.17	0.081	9.58	8.07	3.75	Ave
0.4	3.9		2.03	0.001	2.09	0.45	0.60	StDev

Highlighted data does not meet Alaska Water Quality Standards (WQS)

The Alaska Water Quality Standards do not apply absolutely to lakes without taking multiple factors into account. For more information on WQS, please see <http://www.dec.state.ak.us/water/wqsar/wqs/>.



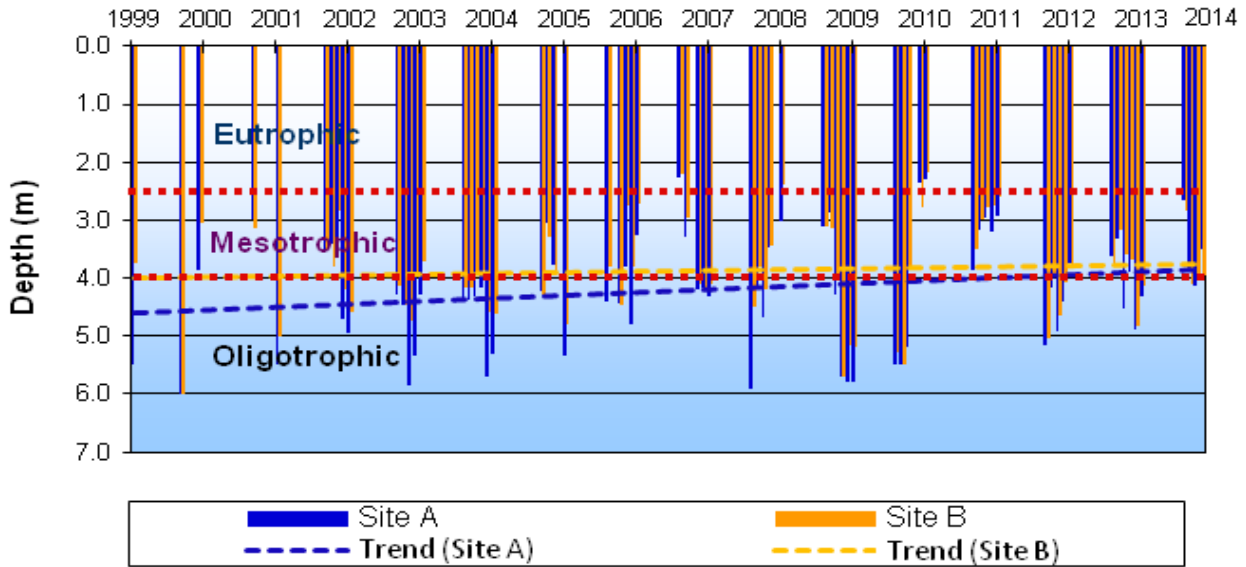
Common goldeneye



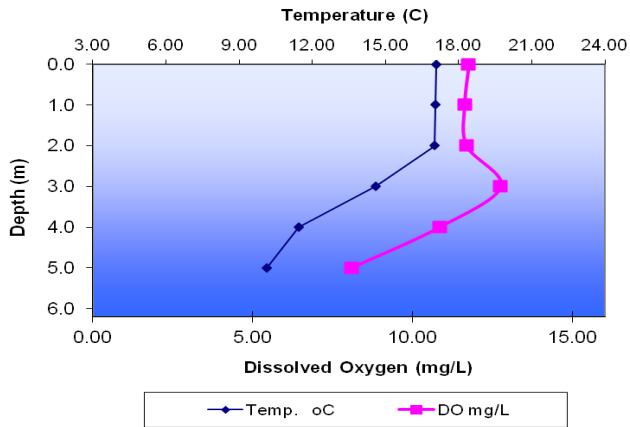
Columbia spotted frog



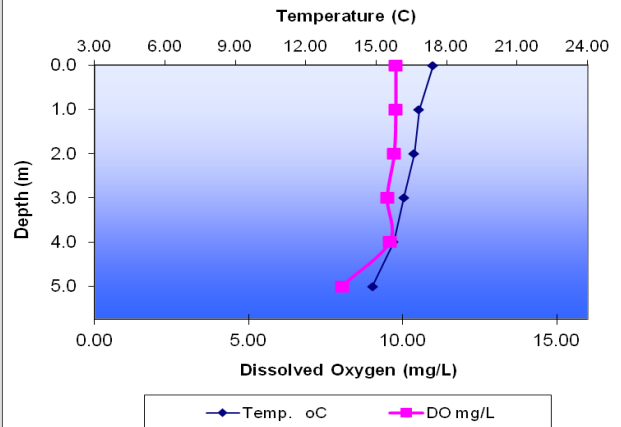
Memory Lake Sites A & B Secchi Data 1999-2014



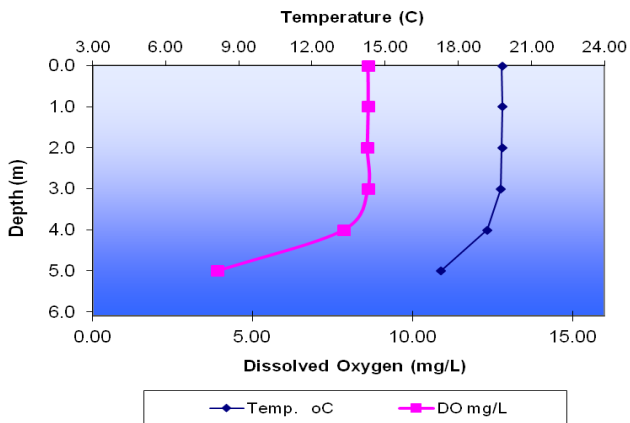
Temperature and Dissolved Oxygen Profile Memory
Lake Site A -- May 2014



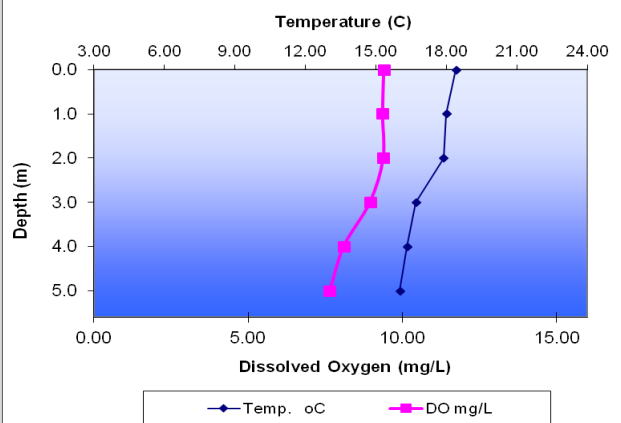
Temperature and Dissolved Oxygen Profile Memory
Lake Site A -- June 2014



Temperature and Dissolved Oxygen Profile Memory
Lake Site A -- July 2014



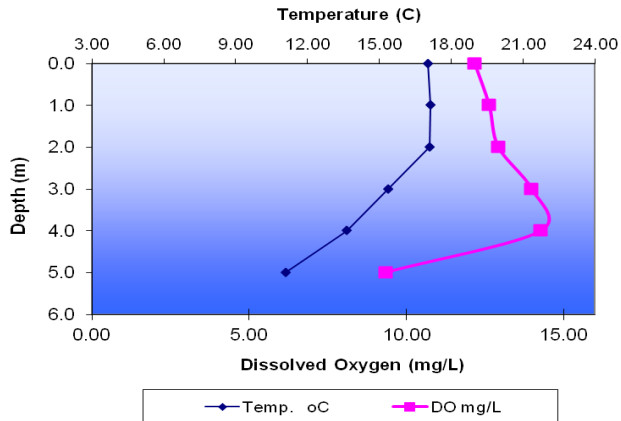
Temperature and Dissolved Oxygen Profile Memory
Lake Site A -- August 2014



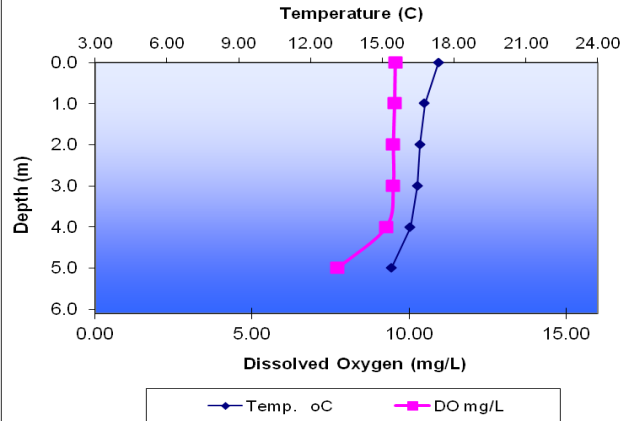
Matanuska-Susitna Borough Volunteer Lake Monitoring Program



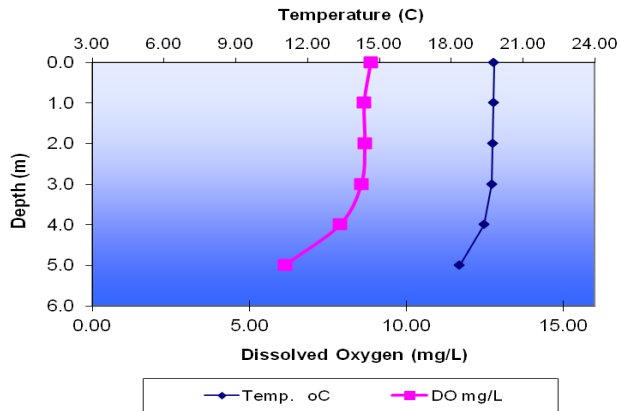
Temperature and Dissolved Oxygen Profile Memory
Lake Site B -- May 2014



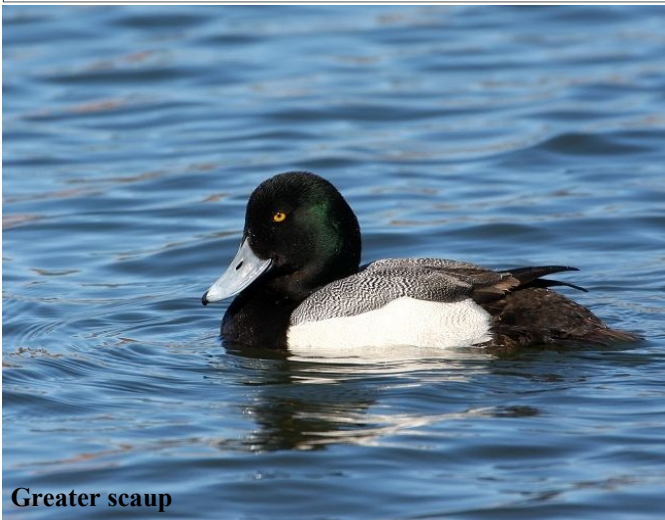
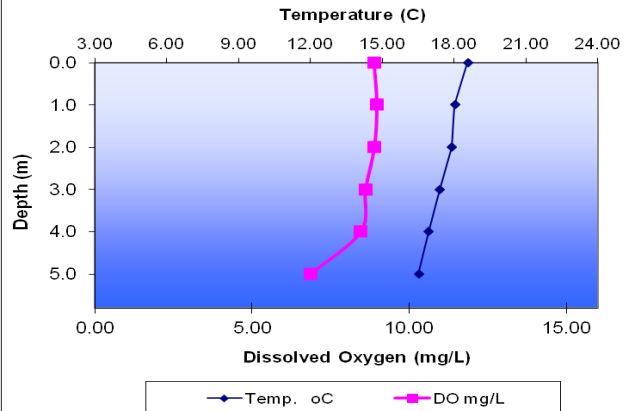
Temperature and Dissolved Oxygen Profile Memory
Lake Site B -- June 2014



Temperature and Dissolved Oxygen Profile Memory
Lake Site B -- July 2014



Temperature and Dissolved Oxygen Profile
Memory Lake Site B -- August 2014



Greater scaup



Common loon