

IDEM 2014 SAMPLING RESULTS
Cyanobacteria Cell Counts, Identification and Cyanotoxin Results

Date	Location	Cells/ml	Dominant Species 1	Dominant Species 2	Dominant Species 3	¹ Microcystin	² Cylindrospermopsin	Anatoxin-a
8/25	Potato Creek State Park: Worster Lake	300,000	<i>Pseudanabaena sp.</i>	<i>Cylindrospermopsis raciborskii</i>	<i>Aphanizomenon flos-aquae</i>	Not Detected	Not Detected	Not Detected
8/25	Chain O'Lakes State Park: Sand Lake	47,500	<i>Planktothrix sp.</i>	<i>Cylindrospermopsis raciborskii</i>	<i>Aphanizomenon flos-aquae</i>	Not Detected	Not Detected	Not Detected
8/19	Brookville Lake: Mounds SRA	650,000	<i>Planktolyngbya limnetica</i>	<i>Pseudanabaena sp.</i>	*Picoplankton	0.774ug/l	Not Detected	Not Detected
8/19	Brookville Lake: Quakertown SRA	655,000	<i>Pseudanabaena sp.</i>	<i>Planktolyngbya limnetica</i>	*Picoplankton	0.265ug/l	Not Detected	Not Detected
8/19	Whitewater Memorial State Park Whitewater Lake	110,000	<i>Merismopedia sp.</i>	*Picoplankton	<i>Aphanocapsa sp.</i>	0.696 ug/l	Not Detected	Not Detected
8/19	Hardy Lake SRA	170,000	<i>Planktolyngbya limnetica</i>	<i>Aphanizomenon flos-aquae</i>	<i>Pseudanabaena sp</i>	0.259 ug/l	Not Detected	Not Detected
8/18	Lake Monroe: Fairfax SRA	170,000	<i>Planktolyngbya limnetica</i>	<i>Aphanizomenon flos-aquae</i>	<i>Cylindrospermopsis raciborskii</i>	Not Detected	Not Detected	Not Detected
8/18	Lake Monroe: Paynetown SRA	390,000	<i>Planktolyngbya limnetica</i>	<i>Pseudanabaena sp.</i>	<i>Cylindrospermopsis raciborskii</i>	Not Detected	Not Detected	Not Detected
8/18	Cecil M. Harden Lake: Raccoon SRA	570,000	<i>Pseudanabaena sp.</i>	<i>Merismopedia sp.</i>	<i>Planktolyngbya limnetica</i>	0.223ug/l	Not Detected	Not Detected
8/12	Pokagon State Park: Lake James	52,000	<i>Aphanocapsa sp.</i>	<i>Microcystis sp.</i>	*Picoplankton	Not Detected	Not Detected	Not Detected
8/12	Chain O'Lakes State Park: Sand Lake	200,000	<i>Pseudanabaena sp.</i>	<i>Planktothrix isothrix</i>	<i>Aphanocapsa sp.</i>	0.169 ug/l	Not Detected	Not Detected
8/12	Salamonie Lake: Lost Bridge West SRA	48,000	<i>Planktothrix isothrix</i>	** <i>Dolichospermum sp.</i>	<i>Microcystis sp.</i>	0.965 ug/l	Not Detected	Not Detected
8/11	Ferdinand State Forest: Ferdinand Lake	270	*Picoplankton			Not Detected	Not Detected	Not Detected
8/11	Lincoln State Park: Lake Lincoln	3,800	** <i>Dolichospermum sp.</i>	*Picoplankton		0.212 ug/l	1.174ug/l	Not Detected
8/11	Mississinewa Lake: Miami SRA	27,000	<i>Pseudanabaena sp.</i>	*Picoplankton		1.804 ug/l	Not Detected	Not Detected
8/11	Potato Creek State Park: Worster Lake	370,000	<i>Pseudanabaena sp.</i>	<i>Cylindrospermopsis raciborskii</i>	<i>Planktolyngbya limnetica</i>	0.171 ug/l	Not Detected	Not Detected
8/5	Cecil M. Harden Lake: Raccoon SRA	350,000	<i>Merismopedia sp.</i>	*Picoplankton	<i>Pseudanabaena sp.</i>	Not Detected	Not Detected	Not Detected
8/5	Brookville Lake: Mounds SRA	470,000	<i>Planktolyngbya limnetica</i>	<i>Pseudanabaena sp.</i>	<i>Merismopedia sp.</i>	0.303 ug/l	Not Detected	Not Detected
8/5	Brookville Lake: Quakertown SRA	935,000	<i>Pseudanabaena sp.</i>	<i>Merismopedia sp.</i>	<i>Aphanocapsa sp.</i>	0.242 ug/l	Not Detected	Not Detected
8/5	Whitewater Memorial State Park Whitewater Lake	170,000	<i>Merismopedia sp.</i>	<i>Aphanizomenon sp.</i>	*Picoplankton	Not Detected	Not Detected	Not Detected
8/5	Summit Lake State Park: Summit Lake	17,000	<i>Aphanocapsa sp.</i>	<i>Merismopedia sp.</i>	*Picoplankton	1.795 ug/l	Not Detected	Not Detected
8/4	Lake Monroe: Fairfax SRA	160,000	<i>Planktolyngbya limnetica</i>	<i>Aphanizomenon sp.</i>	** <i>Dolichospermum sp.</i>	Not Detected	Not Detected	Not Detected
8/4	Lake Monroe: Paynetown SRA	190,000	<i>Planktolyngbya limnetica</i>	<i>Aphanizomenon sp.</i>	<i>Microcystis sp.</i>	Not Detected	Not Detected	Not Detected
8/4	Starve Hollow Lake SRA	62,000	<i>Aphanizomenon sp.</i>	<i>Merismopedia sp.</i>	<i>Pseudanabaena sp.</i>	Not Detected	Not Detected	Not Detected
8/4	Deam Lake SRA	25,000	<i>Merismopedia sp.</i>	*Picoplankton		Not Detected	.058ug/l	Not Detected
8/4	Hardy Lake SRA	580,000	<i>Planktolyngbya limnetica</i>	<i>Pseudanabaena sp.</i>	<i>Aphanizomenon sp.</i>	0.173 ug/l	Not Detected	Not Detected
7/28	Potato Creek State Park: Worster Lake	840,000	<i>Planktothrix sp.</i>	<i>Planktolyngbya limnetica</i>	<i>Microcystis sp.</i>	0.317 ug/l	Toxin producer not present	Not Detected
7/28	Chain O'Lakes State Park: Sand Lake	280,000	<i>Planktothrix isothrix</i>	<i>Pseudanabaena sp.</i>	<i>Aphanocapsa sp.</i>	0.201 ug/l	Toxin producer not present	Not Detected
7/28	Salamonie Lake: Lost Bridge West SRA	87,000	<i>Planktothrix isothrix</i>	<i>Microcystis sp.</i>	** <i>Dolichospermum</i>	0.981 ug/l	Toxin producer not present	Not Detected
7/21	Brookville Lake: Mounds SRA	410,000	*Picoplankton	<i>Pseudanabaena sp.</i>	<i>Aphanocapsa sp.</i>	0.813 ug/l	Toxin producer not present	Not Detected

7/21	Brookville Lake: Quakertown SRA	340,000	<i>Pseudanabaena sp.</i>	<i>Microcystis sp.</i>	<i>Picoplankton</i>	0.179 ug/l	Toxin producer not present	Not Detected
7/21	Hardy Lake SRA	250,000	<i>Planktolyngbya limnetica</i>	<i>Microcystis sp.</i>	<i>Pseudanabaena sp.</i>	Not Detected	Toxin producer not present	Not Detected
7/15	Pokagon State Park: Lake James	65,000	<i>Aphanocapsa sp.</i>	<i>Picoplankton</i>	<i>Microcystis sp.</i>	0.205 ug/l	Toxin producer not present	Not Detected
7/15	Chain O'Lakes State Park: Sand Lake	490,000	<i>Planktothrix sp.</i>	<i>Aphanizomenon sp.</i>	<i>Pseudanabaena sp.</i>	0.282 ug/l	Toxin producer not present	Not Detected
7/15	Salamonie Lake: Lost Bridge West SRA	160,000	** <i>Dolichospermum sp.</i>	<i>Planktothrix sp.</i>		0.698 ug/l	Toxin producer not present	Not Detected
7/14	Ferdinand State Forest: Ferdinand Lake	77,000	** <i>Dolichospermum sp.</i>			Not Detected	Toxin producer not present	Not Detected
7/14	Lincoln State Park: Lake Lincoln	39,000	<i>Merismopedia sp.</i>	<i>Microcystis sp.</i>	<i>Coelosphaerium sp.</i>	Not Detected	Toxin producer not present	Not Detected
7/14	Mississinewa Lake: Miami SRA	47,000	<i>Aphanocapsa sp.</i>	<i>Merismopedia sp.</i>	<i>Microcystis sp.</i>	1.618 ug/l	Toxin producer not present	Not Detected
7/14	Potato Creek State Park: Worster Lake	380,000	<i>Planktothrix sp.</i>	<i>Planktolyngbya limnetica</i>	<i>Merismopedia sp.</i>	0.425 ug/l	Toxin producer not present	Not Detected
7/8	Cecil M. Harden Lake: Raccoon SRA	37,000	<i>Merismopedia sp.</i>	<i>Aphanocapsa sp.</i>	<i>Microcystis sp.</i>	Not Detected	Toxin producer not present	Not Detected
7/8	Brookville Lake: Mounds SRA	140,000	<i>Pseudanabaena sp.</i>	<i>Aphanocapsa sp.</i>	<i>Aphanizomenon flos-aquae</i>	Not Detected	Toxin producer not present	Not Detected
7/8	Brookville Lake: Quakertown SRA	150,000	<i>Pseudanabaena sp.</i>	<i>Snowella sp.</i>	<i>Aphanocapsa sp.</i>	Not Detected	Toxin producer not present	Not Detected
7/8	Whitewater Memorial State Park Whitewater Lake	7,200	*Picoplankton	<i>Microcystis sp.</i>	** <i>Dolichospermum sp.</i>	Not Detected	Toxin producer not present	Not Detected
7/7	Lake Monroe: Fairfax SRA	40,000	<i>Planktolyngbya limnetica</i>	*Picoplankton	<i>Microcystis sp.</i>	Not Detected	Toxin producer not present	Not Detected
7/7	Lake Monroe: Paynetown SRA	78,000	<i>Aphanocapsa sp.</i>	<i>Planktolyngbya limnetica</i>	<i>Planktothrix sp.</i>	Not Detected	Toxin producer not present	Not Detected
7/7	Starve Hollow Lake SRA	58,000	<i>Aphanocapsa sp.</i>	<i>Aphanizomenon sp.</i>	*Picoplankton	Not Detected	Toxin producer not present	Not Detected
7/7	Deam Lake SRA	50,000	<i>Merismopedia sp.</i>	*Picoplankton	<i>Aphanothece sp.</i>	Not Detected	Toxin producer not present	Not Detected
7/7	Hardy Lake SRA	88,000	<i>Planktolyngbya limnetica</i>	<i>Aphanocapsa sp.</i>	<i>Planktothrix sp.</i>	Not Detected	Toxin producer not present	Not Detected
6/30	Mississinewa Lake: Miami SRA	410,000	<i>Merismopedia sp.</i>	<i>Microcystis sp.</i>	<i>Aphanocapsa sp.</i>	Not Detected	Toxin producer not present	Not Detected
6/30	Chain O'Lakes State Park: Sand Lake	110,000	<i>Planktothrix sp.</i>	<i>Aphanizomenon sp.</i>	<i>Aphanocapsa sp.</i>	0.213 ug/l	Toxin producer not present	Not Detected
6/17	Pokagon State Park: Lake James	2,300	*Picoplankton			Not Detected	Toxin producer not present	Not Detected
6/17	Chain O'Lakes State Park: Sand Lake	80,000	<i>Planktothrix isothrix</i>	<i>Pseudanabaena sp.</i>	<i>Aphanizomenon sp.</i>	Not Detected	Toxin producer not present	Not Detected
6/17	Salamonie Lake: Lost Bridge West SRA	270	*Picoplankton			Not Detected	Toxin producer not present	Not Detected
6/16	Ferdinand State Forest: Ferdinand Lake	6,600	<i>Microcystis sp.</i>	** <i>Dolichospermum sp.</i>	*Picoplankton	Not Detected	Toxin producer not present	Not Detected
6/16	Lincoln State Park: Lake Lincoln	78,000	<i>Merismopedia sp.</i>	<i>Microcystis sp.</i>	<i>Chroococcus sp.</i>	Not Detected	Toxin producer not present	Not Detected
6/16	Mississinewa Lake: Miami SRA	840,000	<i>Merismopedia sp.</i>	<i>Microcystis sp.</i>	*Picoplankton	Not Detected	Toxin producer not present	Not Detected
6/16	Potato Creek State Park: Worster Lake	34,000	<i>Planktothrix isothrix</i>	<i>Microcystis sp.</i>	** <i>Dolichospermum sp.</i>	0.222ug/l	Toxin producer not present	Not Detected
6/10	Cecil M. Harden Lake: Raccoon SRA	4,700	<i>Microcystis sp.</i>	*Picoplankton		Not Detected	Toxin producer not present	Not Detected
6/10	Brookville Lake: Mounds SRA	24,000	<i>Planktothrix isothrix</i>	<i>Aphanizomenon sp.</i>	Picoplankton	Not Detected	Toxin producer not present	Not Detected
6/10	Brookville Lake: Quakertown SRA	1,800	*Picoplankton	<i>Pseudanabaena sp.</i>		Not Detected	Toxin producer not present	Not Detected
6/10	Whitewater Memorial State Park Whitewater Lake	11,000	<i>Microcystis sp.</i>	*Picoplankton		Not Detected	Toxin producer not present	Not Detected
6/9	Lake Monroe: Fairfax SRA	10,000	<i>Merismopedia sp.</i>	*Picoplankton		Not Detected	Toxin producer not present	Not Detected
6/9	Lake Monroe: Paynetown SRA	16,000	<i>Planktothrix sp.</i>	<i>Merismopedia sp.</i>	*Picoplankton	Not Detected	Toxin producer not present	Not Detected
6/9	Starve Hollow Lake SRA	4,500	*Picoplankton	<i>Microcystis sp.</i>		Not Detected	Toxin producer not present	Not Detected
6/9	Deam Lake SRA	7,900	<i>Planktothrix sp.</i>	<i>Merismopedia sp.</i>	*Picoplankton	Not Detected	Toxin producer not present	Not Detected
6/9	Hardy Lake SRA	9,000	<i>Microcystis sp.</i>	<i>Planktolyngbya limnetica</i>	<i>Pseudanabaena sp.</i>	0.389ug/l	Toxin producer not present	Not Detected

5/20	Pokagon State Park: Lake James	500	*Picoplankton			Not Detected	Toxin producer not present	Not Detected
5/20	Chain O'Lakes State Park: Sand Lake	1,300	<i>Pseudanabaena sp.</i>	*Picoplankton		Not Detected	Toxin producer not present	Not Detected
5/20	Salamonie Lake: Lost Bridge West SRA	3,400	*Picoplankton			Not Detected	Toxin producer not present	Not Detected
5/20	Ferdinand State Forest: Ferdinand Lake	1,400	*Picoplankton			Not Detected	Toxin producer not present	Not Detected
5/20	Lincoln State Park: Lake Lincoln	870	*Picoplankton			Not Detected	Toxin producer not present	Not Detected
5/19	Mississinewa Lake: Miami SRA	15,000	<i>Pseudanabaena sp.</i>	*Picoplankton		Not Detected	Toxin producer not present	Not Detected
5/19	Potato Creek State Park: Worster Lake	70,000	<i>Planktolyngbya limnetica</i>	<i>Planktothrix sp.</i>	*Picoplankton	Not Detected	Toxin producer not present	Not Detected
5/13	Cecil M. Harden Lake: Raccoon SRA	5,800	*Picoplankton			Not Detected	Toxin producer not present	Not Detected
5/13	Brookville Lake: Mounds SRA	1,100	*Picoplankton			Not Detected	Toxin producer not present	Not Detected
5/13	Brookville Lake: Quakertown SRA	52,000	<i>Planktolyngbya limnetica</i>	<i>Planktothrix sp.</i>	<i>Microcystis sp.</i>	Not Detected	Toxin producer not present	Not Detected
5/13	Whitewater Memorial State Park Whitewater Lake	1,400	*Picoplankton			Not Detected	Toxin producer not present	Not Detected
5/12	Lake Monroe: Fairfax SRA	3,100	*Picoplankton	<i>Microcystis sp.</i>		Not Detected	Toxin producer not present	Not Detected
5/12	Lake Monroe: Paynetown SRA	7,400	*Picoplankton	<i>Planktolyngbya limnetica</i>	<i>Pseudanabaena sp.</i>	Not Detected	Toxin producer not present	Not Detected
5/12	Starve Hollow Lake SRA	13,000	<i>Microcystis sp.</i>	*Picoplankton	<i>Chroococcus sp.</i>	Not Detected	Toxin producer not present	Not Detected
5/12	Deam Lake SRA	4,400	*Picoplankton	<i>Microcystis sp.</i>		Not Detected	Toxin producer not present	Not Detected
5/12	Hardy Lake SRA	20,000	<i>Planktothrix sp.</i>	*Picoplankton	<i>Microcystis sp.</i>	Not Detected	Toxin producer not present	Not Detected

*=All solitary picoplankton were enumerated under epifluorescence green excitation for phycocyanin. Only emitting cells were counted.

**= Planktonic *Anabaena* have been officially moved into the genus *Dolichospermum*.

¹Microcystin detection and reporting limit is 0.150 ug/l.

²Cylindrospermopsin detection and reporting limit is 0.050 ug/l