

IDEM 2016 SAMPLING RESULTS
Cyanobacteria Cell Counts, Identification, and Cyanotoxin Results

Date	Location	Cells/ml	Dominant Species 1	Dominant Species 2	Dominant Species 3	¹ Microcystin ug/l	² Anatoxin-a ug/l	³ Cylindrospermopsin ug/l
8/30	Lake James - Pokagon State Park Inn	43,000	<i>Aphanocapsa sp.</i>	Picoplankton	<i>Aphanothece sp.</i>	Not detected	0.176	Not detected
8/30	Lake James - Pokagon State Park	77,000	<i>Aphanocapsa sp.</i>	Picoplankton	<i>Chroococcus sp.</i>	0.16	Not detected	0.069
8/30	Sand Lake - Chain O'Lakes SP	20,000	<i>Pseudanabaena sp.</i>	<i>Aphanothece sp.</i>	<i>Aphanizomenon flos-aquae</i>	Not detected	0.287	Not detected
8/30	Salamonie Lake - Lost Bridge West SRA	660,000	<i>Pseudanabaena sp.</i>	<i>Aphanocapsa sp.</i>	<i>Merismopedia sp.</i>	0.70	0.426	Not detected
8/29	Mississinewa Lake - Miami SRA	815,000	<i>Pseudanabaena sp.</i>	<i>Raphidiopsis sp.</i>	<i>Aphanocapsa sp.</i>	Not detected	0.266	0.223
8/29	Worster Lake - Potato Creek State Park	900,000	<i>Pseudanabaena sp.</i>	<i>Planktothrix agardhii</i>	<i>Cylindrospermopsis raciborskii</i>	1.2	Not detected	Not detected
8/29	Ferdinand Lake - Ferdinand State Forest	260,000	<i>Aphanocapsa sp.</i>	<i>Pseudanabaena sp.</i>	<i>Chroococcus sp.</i>	0.18	Not detected	0.084
8/29	Lincoln Lake - Lincoln State Park	39,000	<i>Aphanocapsa sp.</i>	<i>Merismopedia sp.</i>	<i>Chroococcus sp.</i>	Not detected	Not detected	3.4
8/23	Cecil M Harden Lake - Raccoon Lake SRA	1,500,000	<i>Pseudanabaena sp.</i>	<i>Raphidiopsis sp.</i>	<i>Merismopedia sp.</i>	Not detected	0.176	Not detected
8/23	Brookville Lake - Mounds SRA	730,000	<i>Pseudanabaena sp.</i>	<i>Raphidiopsis sp.</i>	<i>Cylindrospermopsis raciborskii</i>	Not detected	Not detected	Not detected
8/23	Brookville Lake - Quakertown SRA	670,000	<i>Pseudanabaena sp.</i>	<i>Raphidiopsis sp.</i>	<i>Merismopedia sp.</i>	Not detected	0.240	Not detected
8/23	Whitewater Lake - Whitewater Memorial SP	110,000	Picoplankton	<i>Cylindrospermopsis raciborskii</i>	<i>Aphanizomenon flos-aquae</i>	Not detected	Not detected	Not detected
8/22	Monroe Lake - Fairfax SRA	250,000	<i>Planktolyngbya limnetica</i>	<i>Pseudanabaena sp.</i>	<i>Aphanocapsa sp.</i>	Not detected	Not detected	Not detected
8/22	Monroe Lake - Paynetown SRA	390,000	<i>Pseudanabaena sp.</i>	<i>Planktolyngbya limnetica</i>	<i>Aphanocapsa sp.</i>	Not detected	Not detected	Not detected
8/22	Starve Hollow Lake - Starve Hollow SRA	65,000	<i>Aphanocapsa sp.</i>	<i>Pseudanabaena sp.</i>	<i>Merismopedia sp.</i>	Not detected	Not detected	Not detected
8/22	Deam Lake - Deam Lake SRA	18,000	<i>Microcystis sp.</i>	<i>Chroococcus sp.</i>	<i>Dolichospermum sp.</i>	Not detected	Not detected	Not detected
8/22	Hardy Lake - Hardy Lake SRA	520,000	<i>Planktolyngbya limnetica</i>	<i>Pseudanabaena sp.</i>	<i>Aphanocapsa sp.</i>	Not detected	0.616	Not detected
8/16	Salamonie Lake - Lost Bridge West SRA	210,000	<i>Pseudanabaena sp.</i>	<i>Microcystis sp.</i>	<i>Aphanizomenon flos-aquae</i>	0.44	Not detected	Not detected
8/15	Mississinewa Lake - Miami SRA	560,000	<i>Pseudanabaena sp.</i>	<i>Raphidiopsis sp.</i>	<i>Merismopedia sp.</i>	Not detected	0.191	Not detected
8/15	Worster Lake - Potato Creek State Park	910,000	<i>Cylindrospermopsis raciborskii</i>	<i>Raphidiopsis sp.</i>	<i>Pseudanabaena sp.</i>	0.63	Not detected	Not detected
8/9	Hardy Lake - Hardy Lake SRA	460,000	<i>Planktolyngbya limnetica</i>	<i>Pseudanabaena sp.</i>	<i>Aphanocapsa sp.</i>	Not detected	0.429	Not detected
8/9	Brookville Lake - Mounds SRA	610,000	<i>Pseudanabaena sp.</i>	<i>Cylindrospermopsis raciborskii</i>	<i>Planktolyngbya limnetica</i>	0.26	Not detected	0.101
8/9	Brookville Lake - Quakertown SRA	720,000	<i>Merismopedia sp.</i>	<i>Pseudanabaena sp.</i>	<i>Raphidiopsis sp.</i>	0.23	Not detected	0.101
8/9	Whitewater Lake - Whitewater Memorial SP	34,000	<i>Aphanocapsa sp.</i>	Picoplankton	<i>Chroococcus sp.</i>	Not detected	Not detected	0.068
8/8	Cecil M Harden Lake - Raccoon Lake SRA	1,800,000	<i>Raphidiopsis sp.</i>	<i>Pseudanabaena sp.</i>	<i>Microcystis sp.</i>	Not detected	Not detected	Not detected
8/8	Monroe Lake - Paynetown SRA	400,000	<i>Planktolyngbya limnetica</i>	<i>Pseudanabaena sp.</i>	<i>Cylindrospermopsis raciborskii</i>	0.15	Not detected	Not detected
8/2	Lake James - Pokagon State Park Inn	23,000	<i>Aphanocapsa sp.</i>	<i>Chroococcus sp.</i>	Picoplankton	Not detected	Not detected	Not detected
8/2	Lake James - Pokagon State Park	38,000	<i>Aphanocapsa sp.</i>	<i>Microcystis sp.</i>	<i>Chroococcus sp.</i>	Not detected	Not detected	Not detected

8/2	Sand Lake - Chain O'Lakes SP	18,000	<i>Aphanocapsa sp.</i>	<i>Aphanizomenon sp.</i>	<i>Chroococcus sp.</i>	Not detected	Not detected	Not detected
8/2	Salamonie Lake - Lost Bridge West SRA	300,000	<i>Pseudanabaena sp.</i>	<i>Microcystis sp.</i>	<i>Aphanocapsa sp.</i>	0.37	0.223	Not detected
8/1	Mississinewa Lake - Miami SRA	430,000	<i>Pseudanabaena sp.</i>	<i>Aphanocapsa sp.</i>	<i>Aphanothece sp.</i>	Not detected	Not detected	Not detected
8/1	Worster Lake - Potato Creek State Park	1,100,000	<i>Pseudanabaena sp.</i>	<i>Raphidiopsis sp.</i>	<i>Cylindrospermopsis raciborskii</i>	0.71	Not detected	Not detected
8/1	Lincoln Lake - Lincoln State Park	77,000	<i>Aphanocapsa sp.</i>	<i>Chroococcus sp.</i>	<i>Aphanothece sp.</i>	Not detected	Not detected	1.67
7/31	Ferdinand Lake - Ferdinand State Forest	85,000	<i>Aphanizomenon flos-aquae</i>	<i>Pseudanabaena sp.</i>	Picoplankton	Not detected	Not detected	Not detected
7/26	Cecil M Harden Lake - Raccoon Lake SRA	1,300,000	<i>Pseudanabaena sp.</i>	<i>Aphanocapsa sp.</i>	<i>Raphidiopsis sp.</i>	Not detected	Not detected	Not analyzed
7/26	Brookville Lake - Mounds SRA	570,000	<i>Pseudanabaena sp.</i>	<i>Aphanocapsa sp.</i>	<i>Planktolyngbya limnetica</i>	1.04	Not detected	Not analyzed
7/26	Brookville Lake - Quakertown SRA	520,000	<i>Pseudanabaena sp.</i>	Picoplankton	<i>Planktolyngbya limnetica</i>	0.30	Not detected	Not analyzed
7/26	Whitewater Lake - Whitewater Memorial SP	900,000	<i>Aphanocapsa sp.</i>	<i>Chroococcus sp.</i>	Picoplankton	Not detected	Not detected	Not analyzed
7/25	Monroe Lake - Fairfax SRA	31,000	<i>Planktolyngbya limnetica</i>	<i>Chroococcus sp.</i>	<i>Merismopedia sp.</i>	Not detected	Not detected	Not analyzed
7/25	Monroe Lake - Paynetown SRA	120,000	<i>Planktolyngbya limnetica</i>	<i>Pseudanabaena sp.</i>	Picoplankton	Not detected	Not detected	Not analyzed
7/25	Starve Hollow Lake - Starve Hollow SRA	50,000	<i>Aphanocapsa sp.</i>	<i>Chroococcus sp.</i>	<i>Aphanothece sp.</i>	Not detected	Not detected	Not analyzed
7/25	Deam Lake - Deam Lake SRA	18,000	<i>Merismopedia sp.</i>	<i>Chroococcus sp.</i>	<i>Aphanothece sp.</i>	Not detected	Not detected	Not analyzed
7/25	Hardy Lake - Hardy Lake SRA	87,500	<i>Aphanizomenon flos-aquae</i>	<i>Planktolyngbya limnetica</i>	<i>Aphanocapsa sp.</i>	0.23	Not detected	Not analyzed
7/18	Sand Lake - Chain O'Lakes SP	28,000	<i>Pseudanabaena sp.</i>	<i>Aphanothece sp.</i>	<i>Microcystis sp.</i>	Not detected	Not detected	Not analyzed
7/18	Worster Lake - Potato Creek State Park	500,000	<i>Pseudanabaena sp.</i>	<i>Raphidiopsis sp.</i>	<i>Planktolyngbya limnetica</i>	0.53	Not detected	Not analyzed
7/12	Cecil M Harden Lake - Raccoon Lake SRA	515,000	<i>Pseudanabaena sp.</i>	<i>Raphidiopsis sp.</i>	<i>Planktolyngbya limnetica</i>	Not detected	0.618	Not analyzed
7/11	Hardy Lake - Hardy Lake SRA	60,000	<i>Aphanizomenon flos-aquae</i>	<i>Planktolyngbya limnetica</i>	<i>Aphanocapsa sp.</i>	0.35	Not detected	Not analyzed
7/11	Brookville Lake - Quakertown SRA	470,000	Picoplankton	<i>Pseudanabaena sp.</i>	<i>Microcystis sp.</i>	0.28	0.433	Not analyzed
7/11	Brookville Lake - Mounds SRA	460,000	Picoplankton	<i>Pseudanabaena sp.</i>	<i>Aphanizomenon flos-aquae</i>	0.51	Not detected	Not analyzed
7/6	Lake James - Pokagon State Park Inn	22,000	<i>Aphanocapsa sp.</i>	Picoplankton	<i>Microcystis sp.</i>	Not detected	Not detected	Not analyzed
7/6	Lake James - Pokagon State Park	48,000	<i>Aphanothece sp.</i>	<i>Aphanocapsa sp.</i>	<i>Microcystis sp.</i>	Not detected	Not detected	Not analyzed
7/6	Sand Lake - Chain O'Lakes SP	92,000	<i>Aphanocapsa sp.</i>	<i>Microcystis sp.</i>	<i>Aphanizomenon flos-aquae</i>	Not detected	Not detected	Not analyzed
7/6	Salamonie Lake - Lost Bridge West SRA	29,000	<i>Dolichospermum sp.</i>	<i>Aphanocapsa sp.</i>	<i>Merismopedia sp.</i>	Not detected	0.213	Not analyzed
7/5	Ferdinand Lake - Ferdinand State Forest	38,000	<i>Aphanizomenon flos-aquae</i>	<i>Aphanocapsa sp.</i>	<i>Dolichospermum sp.</i>	Not detected	Not detected	Not analyzed
7/5	Lincoln Lake - Lincoln State Park	12,000	<i>Aphanizomenon flos-aquae</i>	Picoplankton		Not detected	Not detected	Not analyzed
7/6	Mississinewa Lake - Miami SRA	42,000	<i>Microcystis sp.</i>	<i>Aphanocapsa sp.</i>	<i>Merismopedia sp.</i>	Not detected	Not detected	Not analyzed
7/5	Worster Lake - Potato Creek State Park	1,300,000	<i>Planktothrix agardhii</i>	<i>Aphanocapsa sp.</i>	<i>Aphanizomenon sp.</i>	4.15	Not detected	Not analyzed
6/28	Monroe Lake - Fairfax SRA	26,000	<i>Aphanocapsa sp.</i>	Picoplankton	<i>Aphanizomenon sp.</i>	Not detected	Not detected	Not analyzed
6/28	Monroe Lake - Paynetown SRA	22,000	<i>Aphanocapsa sp.</i>	<i>Dolichospermum sp.</i>	<i>Aphanothece sp.</i>	Not detected	Not detected	Not analyzed
6/28	Starve Hollow Lake - Starve Hollow SRA	64,000	<i>Aphanocapsa sp.</i>	<i>Aphanothece sp.</i>	<i>Merismopedia sp.</i>	Not detected	Not detected	Not analyzed
6/28	Deam Lake - Deam Lake SRA	5,900	<i>Aphanocapsa sp.</i>	<i>Chroococcus sp.</i>	Picoplankton	Not detected	Not detected	Not analyzed
6/28	Hardy Lake - Hardy Lake SRA	130,000	<i>Planktolyngbya limnetica</i>	<i>Microcystis sp.</i>	<i>Aphanocapsa sp.</i>	0.57	Not detected	Not analyzed
6/27	Brookville Lake - Quakertown SRA	120,000	<i>Planktolyngbya limnetica</i>	<i>Aphanizomenon sp.</i>	<i>Aphanocapsa sp.</i>	Not detected	Not detected	Not analyzed
6/27	Brookville Lake - Mounds SRA	270,000	<i>Planktothrix sp.</i>	<i>Aphanizomenon sp.</i>	<i>Planktolyngbya limnetica</i>	Not detected	Not detected	Not analyzed

6/27	Whitewater Lake - Whitewater Memorial SP	23,000	<i>Aphanocapsa sp.</i>	Picoplankton	<i>Dolichospermum sp.</i>	Not detected	Not detected	Not analyzed
6/27	Cecil M Harden Lake - Raccoon Lake SRA	1,200,000	<i>Pseudanabaena sp.</i>	<i>Planktolyngbya limnetica</i>	Picoplankton	Not detected	Not detected	Not analyzed
6/20	Worster Lake - Potato Creek State Park	625,000	<i>Planktothrix agardhii</i>	<i>Aphanizomenon sp.</i>	<i>Aphanizomenon flos-aquae</i>	1.89	Not detected	Not analyzed
6/20	Sand Lake - Chain O'Lakes SP	140,000	<i>Aphanocapsa sp.</i>	<i>Aphanizomenon flos-aquae</i>	<i>Planktolyngbya limnetica</i>	Not detected	Not detected	Not analyzed
6/13	Cecil M Harden Lake - Raccoon Lake SRA	170,000	<i>Aphanizomenon sp.</i>	<i>Aphanocapsa sp.</i>	<i>Microcystis sp.</i>	Not detected	Not detected	Not analyzed
6/13	Brookville Lake - Quakertown SRA	6,200	<i>Aphanizomenon sp.</i>	<i>Aphanizomenon sp.</i>	<i>Snowella sp.</i>	Not detected	Not detected	Not analyzed
6/07	Lake James - Pokagon State Park	11,500	<i>Microcystis sp.</i>	<i>Aphanocapsa sp.</i>	<i>Chroococcus sp.</i>	Not detected	Not detected	Not analyzed
6/07	Sand Lake - Chain O'Lakes SP	260,000	<i>Aphanizomenon flos-aquae</i>	<i>Aphanizomenon sp.</i>	<i>Microcystis sp.</i>	Not detected	Not detected	Not analyzed
6/07	Salamonie Lake - Lost Bridge West SRA	790	<i>Dolichospermum sp.</i>	Picoplankton		Not detected	Not detected	Not analyzed
6/06	Mississinewa Lake - Miami SRA	13,000	<i>Merismopedia sp.</i>	<i>Aphanocapsa sp.</i>	Picoplankton	Not detected	Not detected	Not analyzed
6/06	Worster Lake - Potato Creek State Park	400,000	<i>Aphanizomenon sp.</i>	<i>Aphanizomenon flos-aquae</i>	<i>Planktothrix sp.</i>	Not detected	Not detected	Not analyzed
6/06	Ferdinand Lake - Ferdinand State Forest	72,000	<i>Dolichospermum sp.</i>	<i>Aphanizomenon flos-aquae</i>	<i>Phormidium sp.</i>	Not detected	Not detected	Not analyzed
6/05	Lincoln Lake - Lincoln State Park	NONE				Not detected	Not detected	Not analyzed
6/01	Cecil M Harden Lake - Raccoon Lake SRA	110,000	<i>Aphanizomenon sp.</i>	<i>Aphanocapsa sp.</i>	<i>Pseudanabaena sp.</i>	Not detected	Not detected	Not analyzed
6/01	Brookville Lake - Mounds SRA	65,000	<i>Aphanizomenon flos-aquae</i>	<i>Aphanocapsa sp.</i>	Picoplankton	1.00	Not detected	Not analyzed
6/01	Brookville Lake - Quakertown SRA	100,000	<i>Aphanizomenon sp.</i>	<i>Pseudanabaena sp.</i>	<i>Aphanizomenon flos-aquae</i>	0.57	Not detected	Not analyzed
6/01	Whitewater Lake - Whitewater Memorial SP	600	Unknown trichome	Picoplankton		Not detected	Not detected	Not analyzed
5/31	Monroe Lake - Fairfax SRA	5,700	<i>Aphanocapsa sp.</i>	<i>Merismopedia sp.</i>	Picoplankton	Not detected	Not detected	Not analyzed
5/31	Monroe Lake - Paynetown SRA	26,000	<i>Merismopedia sp.</i>	<i>Microcystis sp.</i>	<i>Aphanothece sp.</i>	Not detected	Not detected	Not analyzed
5/31	Starve Hollow Lake - Starve Hollow SRA	11,000	<i>Aphanothece sp.</i>	<i>Microcystis sp.</i>	Picoplankton	Not detected	Not detected	Not analyzed
5/31	Deam Lake - Deam Lake SRA	4,900	<i>Aphanothece sp.</i>	Picoplankton		Not detected	Not detected	Not analyzed
5/31	Hardy Lake - Hardy Lake SRA	34,500	<i>Microcystis sp.</i>	<i>Planktolyngbya limnetica</i>	<i>Aphanocapsa sp.</i>	0.23	Not detected	Not analyzed
5/24	Lake James - Pokagon State Park	290	Picoplankton			Not detected	Not detected	Not analyzed
5/24	Sand Lake - Chain O'Lakes SP	29,000	<i>Merismopedia sp.</i>	<i>Aphanizomenon flos-aquae</i>	<i>Pseudanabaena sp.</i>	Not detected	Not detected	Not analyzed
5/24	Salamonie Lake - Lost Bridge West SRA	NONE				Not detected	Not detected	Not analyzed
5/23	Mississinewa Lake - Miami SRA	20,000	<i>Planktolyngbya limnetica</i>	<i>Raphidiopsis sp.</i>	<i>Merismopedia sp.</i>	Not detected	Not detected	Not analyzed
5/23	Worster Lake - Potato Creek State Park	350,000	<i>Planktolyngbya limnetica</i>	<i>Aphanizomenon sp.</i>	<i>Aphanocapsa sp.</i>	Not detected	Not detected	Not analyzed
5/17	Cecil M Harden Lake - Raccoon Lake SRA	6,200	<i>Pseudanabaena sp.</i>	<i>Chroococcus sp.</i>	Picoplankton	Not detected	Not detected	Not analyzed
5/17	Brookville Lake - Mounds SRA	68,000	<i>Aphanizomenon flos-aquae</i>	<i>Planktothrix isothrix</i>	<i>Planktolyngbya limnetica</i>	2.80	Not detected	Not analyzed
5/17	Brookville Lake - Quakertown SRA	17,000	<i>Planktolyngbya limnetica</i>	<i>Snowella sp.</i>	Picoplankton	0.22	Not detected	Not analyzed
5/17	Whitewater Lake - Whitewater Memorial SP	5,700	<i>Planktolyngbya limnetica</i>	Picoplankton		Not detected	Not detected	Not analyzed
5/16	Monroe Lake - Fairfax SRA	870	Picoplankton			Not detected	Not detected	Not analyzed
5/16	Monroe Lake - Paynetown SRA	2,500	<i>Pseudanabaena sp.</i>	Picoplankton		Not detected	Not detected	Not analyzed
5/16	Starve Hollow Lake - Starve Hollow SRA	3,000	<i>Microcystis sp.</i>	Picoplankton		Not detected	0.16	Not analyzed
5/16	Deam Lake - Deam Lake SRA	870	Picoplankton			Not detected	Not detected	Not analyzed
5/16	Hardy Lake - Hardy Lake SRA	130,000	<i>Aphanizomenon flos-aquae</i>	<i>Aphanocapsa sp.</i>	<i>Dolichospermum sp.</i>	Not detected	0.27	Not analyzed

¹Microcystin detection and reporting limit is 0.15 ug/l.

²Anatoxin-a detection and reporting limit is 0.15 ug/l.

³Cylindrospermopsin detection and reporting limit is 0.05 ug/l. Will be run on samples that contain the toxin producing species, generally later in the summer.