

IDEM 2018 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 Saxitoxin ug/l	⁴ Cylindrospermopsin ug/l
8/27	Salamonie Lake - Lost Bridge West SRA	470,000	<i>Pseudanabaena sp.</i>	<i>Aphanocapsa sp.</i>	<i>Merismopedia sp.</i>	ND	ND	ND	ND
8/27	Mississinewa Lake - Miami SRA	62,000	<i>Pseudanabaena sp.</i>	<i>Merismopedia sp.</i>	<i>Aphanocapsa sp.</i>	ND	ND	ND	ND
8/27	Worster Lake - Potato Creek SP	600,000	<i>Merismopedia sp.</i>	<i>Planktothrix agardhii</i>	<i>Planktolyngbya limnetica</i>	ND	ND	ND	ND
8/21	Brookville Lake - Mounds SRA	280,000	<i>Merismopedia sp.</i>	<i>Microcystis sp.</i>	<i>Raphidiopsis sp.</i>	ND	ND	ND	ND
8/21	Brookville Lake - Quakertown SRA	450,000	<i>Pseudanabaena sp.</i>	<i>Planktolyngbya limnetica</i>	<i>Merismopedia sp.</i>	ND	ND	ND	ND
8/20	Hardy Lake - Hardy Lake SRA	680,000	<i>Planktolyngbya limnetica</i>	<i>Microcystis sp.</i>	<i>Aphanizomenon sp.</i>	ND	ND	ND	ND
8/21	Whitewater Lake - Whitewater Memorial SP	900,000	<i>Raphidiopsis sp.</i>	<i>Pseudanabaena sp.</i>	<i>Planktolyngbya limnetica</i>	ND	ND	ND	ND
8/20	Monroe Lake - Fairfax SRA	330,000	<i>Planktolyngbya limnetica</i>	Picoplankton	<i>Aphanocapsa sp.</i>	ND	ND	ND	ND
8/20	Monroe Lake - Paynetown SRA	250,000	<i>Planktolyngbya limnetica</i>	<i>Cylindrospermopsis raciborskii</i>	<i>Aphanizomenon flos-aquae</i>	ND	ND	0.078	ND
8/20	Cecil M Harden Lake - Raccoon Lake SRA	1,050,000	<i>Pseudanabaena sp.</i>	<i>Planktolyngbya limnetica</i>	<i>Merismopedia sp.</i>	ND	ND	ND	ND
8/13	Kunkel Lake – Ouabache SP	38,000	<i>Aphanizomenon sp.</i>	<i>Aphanocapsa sp.</i>	<i>Aphanizomenon flos-aquae</i>	ND	ND	0.071	ND
8/13	Lake James - Pokagon SP	48,000	<i>Microcystis sp.</i>	<i>Aphanocapsa sp.</i>	<i>Chroococcus sp.</i>	ND	ND	ND	ND
8/13	Lake James - Pokagon SP Inn	33,000	<i>Aphanocapsa sp.</i>	<i>Microcystis sp.</i>	<i>Planktolyngbya limnetica</i>	0.335	0.420	ND	ND
8/14	Sand Lake - Chain O'Lakes SP	24,000	<i>Planktothrix isothrix</i>	<i>Aphanothece sp.</i>	<i>Microcystis sp.</i>	ND	0.418	ND	ND
8/13	Salamonie Lake - Lost Bridge West SRA	450,000	<i>Merismopedia sp.</i>	<i>Pseudanabaena sp.</i>	<i>Planktolyngbya limnetica</i>	ND	ND	ND	ND
8/13	Mississinewa Lake - Miami SRA	340,000	<i>Merismopedia sp.</i>	<i>Pseudanabaena sp.</i>	<i>Aphanocapsa sp.</i>	ND	ND	ND	ND
8/13	Worster Lake - Potato Creek SP	770,000	<i>Merismopedia sp.</i>	<i>Planktolyngbya limnetica</i>	<i>Cylindrospermopsis raciborskii</i>	ND	ND	ND	ND
8/7	Deam Lake - Deam Lake SRA	4,100	<i>Merismopedia sp.</i>	<i>Chroococcus sp.</i>		ND	ND	ND	ND
8/7	Brookville Lake - Mounds SRA	83,000	<i>Merismopedia sp.</i>	<i>Cylindrospermopsis raciborskii</i>	Picoplankton	ND	ND	ND	ND
8/7	Brookville Lake - Quakertown SRA	270,000	<i>Merismopedia sp.</i>	<i>Pseudanabaena sp.</i>	<i>Planktolyngbya limnetica</i>	ND	ND	ND	ND
8/7	Hardy Lake - Hardy Lake SRA	180,000	<i>Planktolyngbya limnetica</i>	<i>Aphanocapsa sp.</i>	<i>Microcystis sp.</i>	ND	ND	ND	ND
8/7	Whitewater Lake - Whitewater Memorial SP	190,000	<i>Planktolyngbya limnetica</i>	<i>Pseudanabaena sp.</i>	<i>Merismopedia sp.</i>	ND	ND	ND	ND
8/6	Monroe Lake - Fairfax SRA	190,000	<i>Planktolyngbya limnetica</i>	<i>Cylindrospermopsis raciborskii</i>	<i>Pseudanabaena sp.</i>	ND	ND	ND	ND
8/6	Monroe Lake - Paynetown SRA	190,000	<i>Planktolyngbya limnetica</i>	<i>Cylindrospermopsis raciborskii</i>	<i>Aphanizomenon sp.</i>	ND	0.554	0.070	ND
8/6	Cecil M Harden Lake - Raccoon Lake SRA	650,000	<i>Planktolyngbya limnetica</i>	<i>Pseudanabaena sp.</i>	<i>Cylindrospermopsis raciborskii</i>	0.3441	ND	ND	ND
8/6	Starve Hollow Lake - Starve Hollow SRA	40,000	<i>Woronichinia sp.</i>	<i>Dolichospermum sp.</i>	<i>Aphanothece sp.</i>	ND	0.551	ND	ND

7/30	Sand Lake - Chain O'Lakes SP	12,000	<i>Dolichospermum sp.</i>	<i>Aphanizomenon flos-aquae</i>	Picoplankton	0.345	ND	ND	ND
7/30	Salamonie Lake - Lost Bridge West SRA	130,000	<i>Merismopedia sp.</i>	<i>Pseudanabaena sp.</i>	<i>Aphanocapsa sp.</i>	ND	ND	ND	ND
7/30	Worster Lake - Potato Creek SP	565,000	<i>Merismopedia sp.</i>	<i>Planktothrix sp.</i>	<i>Planktolyngbya limnetica</i>	ND	ND	ND	ND
7/23	Brookville Lake - Quakertown SRA	150,000	<i>Merismopedia sp.</i>	<i>Pseudanabaena sp.</i>	Picoplankton	ND	ND	ND	ND
7/23	Whitewater Lake - Whitewater Memorial SP	130,000	<i>Planktolyngbya limnetica</i>	<i>Pseudanabaena sp.</i>	<i>Cylindrospermopsis raciborskii</i>	ND	ND	ND	ND
7/23	Monroe Lake - Fairfax SRA	260,000	<i>Planktolyngbya limnetica</i>	<i>Pseudanabaena sp.</i>	<i>Limnothrix sp.</i>	ND	ND	ND	ND
7/23	Monroe Lake - Paynetown SRA	240,000	<i>Planktolyngbya limnetica</i>	<i>Cylindrospermopsis raciborskii</i>	<i>Aphanizomenon sp.</i>	ND	ND	ND	ND
7/23	Starve Hollow Lake - Starve Hollow SRA	15,000	<i>Dolichospermum sp.</i>	<i>Aphanocapsa sp.</i>	<i>Chroococcus sp.</i>	ND	ND	0.156	ND
7/23	Hardy Lake - Hardy Lake SRA	550,000	<i>Planktolyngbya limnetica</i>	<i>Aphanizomenon sp.</i>	<i>Cylindrospermopsis raciborskii</i>	ND	0.657	ND	ND
7/23	Deam Lake - Deam Lake SRA	12,000	<i>Merismopedia sp.</i>	<i>Planktolyngbya limnetica</i>	<i>Chroococcus sp.</i>	ND	ND	ND	ND
7/23	Cecil M Harden Lake - Raccoon Lake SRA	645,000	<i>Planktolyngbya limnetica</i>	<i>Pseudanabaena sp.</i>	<i>Merismopedia sp.</i>	ND	ND	ND	ND
7/16	Kunkel Lake – Ouabache SP	21,000	<i>Chroococcus sp.</i>	<i>Dolichospermum sp.</i>	Picoplankton	ND	ND	ND	ND
7/16	Lake James - Pokagon SP	22,000	Picoplankton	<i>Chroococcus sp.</i>	<i>Cyanodictyon sp.</i>	ND	ND	ND	ND
7/16	Lake James - Pokagon SP Inn	22,500	<i>Aphanocapsa sp.</i>	<i>Microcystis sp.</i>	<i>Chroococcus sp.</i>	ND	ND	ND	ND
7/16	Sand Lake - Chain O'Lakes SP	93,000	<i>Planktothrix isothrix</i>	<i>Aphanothece sp.</i>	Picoplankton	ND	0.562	0.131	ND
7/16	Salamonie Lake - Lost Bridge West SRA	120,000	<i>Pseudanabaena sp.</i>	<i>Aphanocapsa sp.</i>	<i>Merismopedia sp.</i>	0.321	ND	0.118	ND
7/16	Mississinewa Lake - Miami SRA	35,000	<i>Aphanocapsa sp.</i>	<i>Chroococcus sp.</i>	<i>Merismopedia sp.</i>	ND	ND	ND	ND
7/16	Worster Lake - Potato Creek SP	410,000	<i>Planktolyngbya limnetica</i>	<i>Cylindrospermopsis raciborskii</i>	<i>Merismopedia sp.</i>	ND	0.412	0.065	ND
7/9	Cecil M Harden Lake - Raccoon Lake SRA	1,200,000	<i>Raphidiopsis sp.</i>	<i>Merismopedia sp.</i>	<i>Pseudanabaena sp.</i>	ND	ND	ND	NR
7/9	Brookville Lake - Mounds SRA	30,000	Picoplankton	<i>Chroococcus sp.</i>	<i>Aphanizomenon sp.</i>	ND	ND	ND	NR
7/9	Brookville Lake - Quakertown SRA	240,000	<i>Merismopedia sp.</i>	Picoplankton	<i>Chroococcus sp.</i>	ND	ND	0.076	NR
7/9	Whitewater Lake - Whitewater Memorial SP	380,000	<i>Raphidiopsis sp.</i>	<i>Aphanizomenon sp.</i>	<i>Merismopedia sp.</i>	ND	0.462	ND	NR
7/9	Monroe Lake - Fairfax SRA	110,000	<i>Planktolyngbya limnetica</i>	<i>Chroococcus sp.</i>	<i>Aphanizomenon sp.</i>	ND	ND	ND	NR
7/9	Monroe Lake - Paynetown SRA	140,000	Planktolyngbya limnetica	Microcystis sp.	Chroococcus sp.	ND	ND	0.077	NR
7/9	Starve Hollow Lake - Starve Hollow SRA	172,000	Microcystis sp.	Aphanocapsa sp.	Chroococcus sp.	ND	ND	0.073	NR
7/9	Deam Lake - Deam Lake SRA	93,000	Merismopedia sp.	Chroococcus sp.		0.305	ND	ND	NR
7/9	Hardy Lake - Hardy Lake SRA	440,000	Planktolyngbya limnetica	Microcystis sp.	Aphanizomenon sp.	ND	0.418	0.179	NR
6/25	Sand Lake - Chain O'Lakes SP	48,335	<i>Planktothrix isothrix</i>	Picoplankton	<i>Aphanizomenon sp.</i>	ND	ND	0.106	NR
6/25	Cecil M Harden Lake - Raccoon Lake SRA	2,038,000	<i>Pseudanabaena sp.</i>	<i>Raphidiopsis sp.</i>	<i>Planktolyngbya limnetica</i>	ND	ND	ND	NR
6/25	Whitewater Lake - Whitewater Memorial SP	554,000	<i>Planktolyngbya limnetica</i>	<i>Pseudanabaena sp.</i>	<i>Raphidiopsis sp.</i>	ND	ND	0.138	NR
6/19	Kunkel Lake – Ouabache SP	3,500	<i>Chroococcus sp.</i>			ND	ND	ND	NR
6/19	Lake James - Pokagon SP	1350	<i>Chroococcus sp.</i>			ND	ND	ND	NR
6/19	Lake James - Pokagon SP Inn	2,300	<i>Chroococcus sp.</i>	<i>Pseudanabaena sp.</i>		ND	ND	ND	NR

6/19	Sand Lake - Chain O'Lakes SP	99,000	<i>Aphanizomenon flos-aquae</i>	<i>Planktothrix isothrix</i>	<i>Planktothrix agardhii</i>	ND	ND	ND	NR
6/18	Salamonie Lake - Lost Bridge West SRA	11,000	<i>Dolichospermum sp.</i>	<i>Chroococcus sp.</i>	<i>Merismopedia sp.</i>	ND	ND	ND	NR
6/18	Mississinewa Lake - Miami SRA	57,000	<i>Aphanocapsa sp.</i>	<i>Aphanothece sp.</i>	<i>Merismopedia sp.</i>	ND	ND	ND	NR
6/18	Worster Lake - Potato Creek SP	14,000	<i>Aphanocapsa sp.</i>	<i>Chroococcus sp.</i>	<i>Pseudanabaena sp.</i>	ND	ND	ND	NR
6/11	Cecil M Harden Lake - Raccoon Lake SRA	150,000	<i>Pseudanabaena sp.</i>	<i>Aphanizomenon sp.</i>	<i>Chroococcus sp.</i>	ND	ND	ND	NR
6/11	Brookville Lake - Mounds SRA	19,000	<i>Aphanocapsa sp.</i>	<i>Aphanothece sp.</i>	<i>Chroococcus sp.</i>	ND	ND	ND	NR
6/11	Brookville Lake - Quakertown SRA	15,000	<i>Aphanocapsa sp.</i>	<i>Chroococcus sp.</i>	<i>Microcystis sp.</i>	ND	ND	ND	NR
6/11	Whitewater Lake - Whitewater Memorial SP	410,000	<i>Pseudanabaena sp.</i>	<i>Raphidiopsis sp.</i>	<i>Planktolyngbya limnetica</i>	ND	ND	ND	NR
6/11	Monroe Lake - Fairfax SRA	21,000	<i>Merismopedia sp.</i>	<i>Chroococcus sp.</i>		ND	ND	ND	NR
6/11	Monroe Lake - Paynetown SRA	14,000	<i>Chroococcus sp.</i>	<i>Merismopedia sp.</i>	<i>Aphanocapsa sp.</i>	ND	ND	ND	NR
6/11	Starve Hollow Lake - Starve Hollow SRA	20,000	<i>Chroococcus sp.</i>	<i>Microcystis sp.</i>	<i>Aphanocapsa sp.</i>	ND	ND	ND	NR
6/11	Deam Lake - Deam Lake SRA	87,000	<i>Merismopedia sp.</i>	<i>Aphanothece sp.</i>	<i>Chroococcus sp.</i>	ND	ND	ND	NR
6/11	Hardy Lake - Hardy Lake SRA	20,000	<i>Merismopedia sp.</i>	<i>Aphanocapsa sp.</i>	<i>Chroococcus sp.</i>	ND	ND	ND	NR
5/21	Kunkel Lake - Ouabache SP	10,000	<i>Aphanizomenon flos-aquae</i>	<i>Chroococcus sp.</i>	<i>Pseudanabaena sp.</i>	ND	ND	ND	NR
5/21	Lake James - Pokagon SP	2,600	<i>Aphanocapsa sp.</i>			ND	ND	ND	NR
5/21	Lake James - Pokagon SP Inn	290	<i>Chroococcus sp.</i>			ND	ND	ND	NR
5/21	Sand Lake - Chain O'Lakes SP	4,500	<i>Aphanizomenon flos-aquae</i>	<i>Chroococcus sp.</i>		ND	ND	ND	NR
5/21	Salamonie Lake - Lost Bridge West SRA	27,000	<i>Pseudanabaena sp.</i>	<i>Raphidiopsis sp.</i>	<i>Aphanocapsa sp.</i>	ND	ND	ND	NR
5/21	Mississinewa Lake - Miami SRA	9,200	<i>Chroococcus sp.</i>			ND	ND	ND	NR
5/21	Worster Lake - Potato Creek SP	2650	<i>Chroococcus sp.</i>	<i>Dolichospermum sp.</i>	<i>Aphanocapsa sp.</i>	ND	ND	ND	NR
5/14	Cecil M Harden Lake - Raccoon Lake SRA	32,000	<i>Aphanocapsa sp.</i>	<i>Raphidiopsis sp.</i>	<i>Pseudanabaena sp.</i>	ND	ND	ND	NR
5/14	Brookville Lake - Mounds SRA	580	<i>Chroococcus sp.</i>			ND	ND	ND	NR
5/14	Brookville Lake - Quakertown SRA	19,000	<i>Raphidiopsis sp.</i>	<i>Chroococcus sp.</i>		ND	ND	ND	NR
5/14	Whitewater Lake - Whitewater Memorial SP	40,000	<i>Pseudanabaena sp.</i>	<i>Chroococcus sp.</i>	<i>Raphidiopsis sp.</i>	ND	ND	ND	NR
5/14	Monroe Lake - Fairfax SRA	880	<i>Chroococcus sp.</i>			ND	ND	ND	NR
5/14	Monroe Lake - Paynetown SRA	580	<i>Chroococcus sp.</i>			ND	2.9	ND	NR
5/14	Starve Hollow Lake - Starve Hollow SRA	2,200	<i>Pseudanabaena sp.</i>	<i>Chroococcus sp.</i>		ND	ND	ND	NR
5/14	Deam Lake - Deam Lake SRA	1,340	<i>Chroococcus sp.</i>			ND	0.56	ND	NR
5/14	Hardy Lake - Hardy Lake SRA	4,200	<i>Phormidium sp.</i>	<i>Aphanizomenon flos-aquae</i>	<i>Chroococcus sp.</i>	ND	ND	ND	NR

¹Microcystin detection and reporting limit is 0.30 ug/l.

²Anatoxin-a detection and reporting limit is 0.40 ug/l.

³Saxitoxin reporting limit is 0.06 ug/l.

⁴Cylindrospermopsin 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.

NR-Not run

ND-Not detected