

Harmful Algae Report

All data between 7/14/2017 and 7/28/2017

University of Delaware Citizen Monitoring Program

Water Body Tributary Site	Date	Time	Sample Name Depth	Comment if ID uncertain	Abundance	MC/L
Atlantic Ocean						
RWPM14: Tower Rd Ocean, Delaware Seashore State Park						
	7/20/2017	10:00	Surfc	"Gymnodinioid" sp. (S)	25-40 um Grn	Rare
				<i>Amphidinium</i> spp. (T)		Present
				<i>Heterocapsa lanceolata</i> (B)		Present
				<i>Heterocapsa rotundata</i> (B)		Common 0.125
				<i>Karenia papilionacea</i> (T)		Rare 0.002
				<i>Karlodinium veneficum</i> (T)		Present
				<i>Prorocentrum micans</i> (B)		Rare
				<i>Prorocentrum triestinum</i> (B)		Present
				<i>Pseudo-nitzschia</i> spp. (T)		Present 0.012
	7/27/2017			"Gymnodinioid" sp. (S)	25-40 um Grn	Present
				<i>Chaetoceros</i> spp. (T)		Present
				<i>Heterocapsa rotundata</i> (B)		Present
				<i>Prorocentrum micans</i> (B)		Rare
				<i>Prorocentrum minimum</i> (T)		Rare
				<i>Prorocentrum triestinum</i> (B)		Present
				<i>Pseudo-nitzschia</i> spp. (T)		Rare
				<i>Scrippsiella</i> sp. (B)		Present
Broadkill River						
<u>Broadkill River</u>						
BR01: Broadkill river @ PEL dock.						
	7/19/2017	9:47	Surfc	<i>Heterocapsa lanceolata</i> (B)		Present
				<i>Heterocapsa rotundata</i> (B)		Present
		9:49	Net	<i>Chaetoceros</i> spp. (T)		
				<i>Scrippsiella</i> sp. (B)		
	7/26/2017	8:45		"Gymnodinioid" sp. (S)	25-40 um Grn	
				<i>Chaetoceros</i> spp. (T)		
				<i>Fibrocapsa japonica</i> (T)		
				<i>Karlodinium veneficum</i> (T)		
				<i>Protoperdinium quinquecorne</i> (B)		
				<i>Scrippsiella</i> sp. (B)		
			Surfc	<i>Prorocentrum triestinum</i> (B)		Present
BR20: Broadkill River at Milton tidal pond						
	7/26/2017	6:48	Surfc	(Unknown) (B*)	Thin cyano straight	Abundant 24.800
				<i>Anabaena</i> spp. (T)		Common 0.500
				<i>Aphanizomenon</i> spp. (T)		Common 0.250
				<i>Microcystis</i> spp. (T)		Many 4.375
<u>Diamond Pond</u>						
BR48: Diamond Pond at Spillway						
	7/26/2017	7:40	Surfc	(Unknown) (B*)	Thin cyano straight	Abundant 44.000
				<i>Anabaena</i> spp. (T)		Abundant 22.000
				<i>Aphanizomenon</i> spp. (T)		Many 4.400
				<i>Microcystis</i> spp. (T)		Abundant 55.000
<u>Old Mill Creek</u>						

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Abundance Levels: Not Found: Looked for, but no cells found; Very Rare: < 0.001 MC/L; Rare 0.001 - 0.01 MC/L; Present: 0.01 - 0.1 MC/L; Common: 0.1 - 1 MC/L; Many: 1 - 10 MC/L; Abundant: 10 - 100 MC/L; Very Abundant: > 100 MC/L.

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Broadkill River							
<u>Old Mill Creek</u>							
BR21: Old Mill Creek downstream from Red Mill Pond							
	7/26/2017	10:08	Surfc	<i>Heterosigma akashiwo</i> (T)		Abundant	13.420
				<i>Karodinium veneficum</i> (T)		Present	
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
				<i>Microcystis</i> spp. (T)		Many	5.000
<u>Red Mill Pond</u>							
BR54: Red Mill Pond outlet at Rt 1							
	7/26/2017	11:18	Surfc	(Unknown) (B*)	Thin cyano straight	Abundant	50.600
				(Unknown) (B*)	Thin cyano coiled	Abundant	33.000
				<i>Anabaena</i> spp. (T)		Many	1.250
				<i>Aphanizomenon</i> spp. (T)		Abundant	85.800
				<i>Microcystis</i> spp. (T)		Very Abundant	150.700
Delaware Bay							
<u>Canary Creek</u>							
BR19: Canary Creek at New Road							
	7/26/2017	10:07	Surfc	<i>Chloromorom toxicum</i> (T)		Present	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Heterosigma akashiwo</i> (T)		Many	6.600
BR40: Canary Creek at Pilottown Rd							
	7/25/2017	6:24	Surfc	<i>Chaetoceros</i> spp. (T)		Present	
				<i>Heterocapsa rotundata</i> (B)		Present	
<u>Delaware Bay</u>							
DB01: End of Cape Shores pier							
	7/19/2017	8:50	Surfc	<i>Fibrocapsa japonica</i> (T)		Present	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Karodinium veneficum</i> (T)		Present	
	7/25/2017	8:52		<i>Scrippsiella</i> sp. (B)		Present	
Indian River							
<u>Indian River</u>							
IR02a: Rosedale crabbing pier							
	7/24/2017	10:15	Surfc	<i>Akashiwo sanguinea</i> (T)		Present	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Karodinium veneficum</i> (T)		Present	
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
IR11: Pot Nets Seaside Pier							
	7/24/2017	10:50	Surfc	"Gymnodinioid" sp. (S)	25-40 um Grn	Present	
				<i>Chloromorom toxicum</i> (T)		Present	
				<i>Fibrocapsa japonica</i> (T)		Present	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Prorocentrum micans</i> (B)		Present	
				<i>Prorocentrum triestinum</i> (B)		Present	
				<i>Scrippsiella</i> sp. (B)		Present	
IR24: Iron Branch - County road 331 at bridge							
	7/25/2017	10:05	Surfc	<i>Chattonella subsalsa</i> (T)		Present	
				<i>Chloromorom toxicum</i> (T)		Present	
				<i>Gyrodinium instriatum</i> (B)		Many	5.720
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Kryptoperidinium foliaceum</i> (B)		Present	

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Indian River							
<u>Indian River</u>							
IR24: Iron Branch - County road 331 at bridge							
	7/25/2017	10:05	Surfc	<i>Peridinium sp. (B)</i>	25um flat green	Present	
				<i>Protoperidinium quinquecorne (B)</i>		Present	
IR36: James Farm, base of Pasture Point Knee deep 150 yds from shore							
	7/25/2017	7:45	Surfc	<i>Akashiwo sanguinea (T)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
				<i>Prorocentrum triestinum (B)</i>		Present	
<u>Pepper Creek</u>							
IR35: Pepper Creek at Rd 330.							
Fish kill 7/20	7/21/2017	7:45	Surfc	<i>Chloromorom toxicum (T)</i>		Common	0.660
				<i>Gyrodinium instriatum (B)</i>		Many	7.040
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
				<i>Kryptoperidinium foliaceum (B)</i>		Many	1.190
				<i>Peridinium sp. (B)</i>	25um flat green	Common	
				<i>Prorocentrum triestinum (B)</i>		Present	
				<i>Protoperidinium quinquecorne (B)</i>		Common	0.440
				<i>Scripsiella sp. (B)</i>		Common	0.660
IR51: Pepper Creek, Creekside							
Fish kill 7/20	7/21/2017	8:25	Surfc	<i>Akashiwo sanguinea (T)</i>		Present	
				<i>Chloromorom toxicum (T)</i>		Present	
				<i>Gyrodinium instriatum (B)</i>		Common	0.925
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Heterosigma akashiwo (T)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
				<i>Peridinium sp. (B)</i>	25um flat green	Common	
				<i>Prorocentrum triestinum (B)</i>		Present	
				<i>Scripsiella sp. (B)</i>		Present	
	7/25/2017	9:40		<i>Akashiwo sanguinea (T)</i>		Present	
				<i>Chloromorom toxicum (T)</i>		Common	0.175
				<i>Gyrodinium instriatum (B)</i>		Common	0.238
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Kryptoperidinium foliaceum (B)</i>		Common	0.100
<u>Vines Creek</u>							
IR38: Vines Lane							
	7/25/2017	8:30	Surfc	<i>Chloromorom toxicum (T)</i>		Present	
				<i>Gyrodinium instriatum (B)</i>		Present	
				<i>Kryptoperidinium foliaceum (B)</i>		Present	
<u>White Creek</u>							
IR32: Holly Terrace Acres Canal Dead End, White Creek							
	7/17/2017	8:35	Surfc	<i>"Gymnodinioid" sp. (S)</i>	10-15 um Grn	Present	
				<i>Chloromorom toxicum (T)</i>		Present	
				<i>Gyrodinium instriatum (B)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Heterosigma akashiwo (T)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
				<i>Kryptoperidinium foliaceum (B)</i>		Present	

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Indian River							
<u>White Creek</u>							
IR32: Holly Terrace Acres Canal Dead End, White Creek							
	7/17/2017	8:35	Surfc	<i>Proocentrum triestinum (B)</i>		Present	
	7/24/2017	9:15		<i>Akashiwo sanguinea (T)</i>		Present	
				<i>Chloromorom toxicum (T)</i>		Common	0.150
				<i>Gyrodinium instriatum (B)</i>		Common	0.138
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Common	0.138
				<i>Kryptoperidinium foliaceum (B)</i>		Common	0.150
				<i>Peridinium sp. (B)</i>	25um flat green	Present	
				<i>Protoperidinium quinquecorne (B)</i>		Present	
				<i>Scrippsiella sp. (B)</i>		Present	
Little Assawoman Bay							
<u>Dirickson Creek</u>							
LA03: Mulberry Landing							
	7/24/2017	7:13	Surfc	<i>Chattonella subsalsa (T)</i>		Present	
				<i>Chloromorom toxicum (T)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Common	0.313
				<i>Karlodinium veneficum (T)</i>		Present	
LA09: Dirickson Creek at Road 381 bridge.							
	7/24/2017	8:07	Surfc	<i>"Gymnodinioid" sp. (S)</i>	25-40 um Grn	Present	
				<i>Chattonella subsalsa (T)</i>		Present	
				<i>Chloromorom toxicum (T)</i>		Common	0.100
				<i>Gyrodinium instriatum (B)</i>		Common	0.175
				<i>Heterocapsa rotundata (B)</i>		Many	7.480
				<i>Karlodinium veneficum (T)</i>		Common	0.188
				<i>Kryptoperidinium foliaceum (B)</i>		Present	
				<i>Scrippsiella sp. (B)</i>		Present	
<u>Jefferson Creek</u>							
SB10E: Russell Canal east dead end							
	7/18/2017	8:00	Surfc	<i>Chattonella subsalsa (T)</i>		Common	0.180
				<i>Chloromorom toxicum (T)</i>		Common	0.100
				<i>Fibrocapsa japonica (T)</i>		Common	0.190
				<i>Gyrodinium instriatum (B)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Common	0.220
				<i>Heterosigma akashiwo (T)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Common	0.150
				<i>Kryptoperidinium foliaceum (B)</i>		Common	0.100
	7/25/2017	7:20		<i>Chattonella subsalsa (T)</i>		Present	
				<i>Fibrocapsa japonica (T)</i>		Present	
				<i>Gyrodinium instriatum (B)</i>		Common	0.100
				<i>Heterocapsa lanceolata (B)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Abundant	10.120
				<i>Karlodinium veneficum (T)</i>		Present	
				<i>Kryptoperidinium foliaceum (B)</i>		Present	
SB10W: Russell Canal west dead end							
	7/18/2017	8:15	Surfc	<i>Chattonella subsalsa (T)</i>		Present	
				<i>Chloromorom toxicum (T)</i>		Present	
				<i>Fibrocapsa japonica (T)</i>		Present	

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Little Assawoman Bay							
<u>Jefferson Creek</u>							
SB10W: Russell Canal west dead end							
	7/18/2017	8:15	Surfc	<i>Heterocapsa rotundata</i> (B)		Common	0.188
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Karlodinium veneficum</i> (T)		Common	0.113
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
	7/25/2017	7:14		<i>Chattonella subsalsa</i> (T)		Present	
				<i>Chloromorom toxicum</i> (T)		Present	
				<i>Heterocapsa lanceolata</i> (B)		Present	
				<i>Heterocapsa rotundata</i> (B)		Many	3.960
				<i>Karlodinium veneficum</i> (T)		Common	0.100
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
<u>Little Assawoman Bay</u>							
LA46: Fenwick Island Tide Gauge							
	7/25/2017	10:20	Surfc	<i>Gyrodinium instriatum</i> (B)		Present	
				<i>Heterocapsa rotundata</i> (B)		Common	0.225
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
Rehoboth Bay							
<u>Bald Eagle Creek</u>							
RB64: Torquay Canal, west side of Land's End near UD Site #1							
	7/17/2017	9:55	Surfc	<i>Akashiwo sanguinea</i> (T)		Present	
				<i>Chattonella subsalsa</i> (T)		Common	0.225
				<i>Chloromorom toxicum</i> (T)		Present	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	
	7/24/2017	13:05		<i>Chattonella subsalsa</i> (T)		Common	0.138
				<i>Chloromorom toxicum</i> (T)		Common	0.575
				<i>Gyrodinium instriatum</i> (B)		Present	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	
<u>Guinea Creek</u>							
RB06: Guinea Creek (Winding Creek Village)							
	7/24/2017	7:52	Surfc	(Unknown) (B*)	<10 um oval grn flag	Abundant	11.000
				<i>Akashiwo sanguinea</i> (T)		Present	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
<u>Love Creek</u>							
RB34: Love Creek at Rt 24 Bridge							
	7/24/2017	12:40	Surfc	<i>Chloromorom toxicum</i> (T)		Many	7.480
				<i>Gyrodinium instriatum</i> (B)		Common	0.275
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Kryptoperidinium foliaceum</i> (B)		Common	0.100

Rehoboth Beach

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Rehoboth Beach							
<u>Lake Gerar</u>							
RL10: Lake Gerar bridge	7/24/2017	7:30	Surfc	(Unknown) (B*)	Thin cyano straight	Abundant	13.200
				Anabaena spp. (T)		Many	8.500
				Aphanizomenon spp. (T)		Abundant	39.600
				Oscillatoria spp. (B)		Many	5.000
<u>Silver Lake</u>							
RL01: Silver Lake, Lake Drive Bridge	7/24/2017	8:00	Surfc	(Unknown) (B*)	Thin cyano straight	Abundant	17.600
				Anabaena spp. (T)		Many	8.800
				Aphanizomenon spp. (T)		Many	8.800

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