

# Harmful Algae Report

All data between 7/6/2018 and 7/19/2018

University of Delaware Citizen Monitoring Program

Water Body Tributary Site	Date	Time	Sample Depth	Name	Comment if ID uncertain	Abundance	MC/L
<b>Atlantic Ocean</b>							
RWPM14: Tower Rd Ocean, Delaware Seashore State Park							
	7/12/2018	9:35	Surfc	"Gymnodinioid" sp. (S)	25-40 um Grn	Present	
				<i>Chaetoceros</i> spp. (T)		Present	
				<i>Heterocapsa lanceolata</i> (B)		Present	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Heterocapsa triquetra</i> (B)		Rare	
				<i>Karenia</i> sp. (T)		Rare	0.005
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Prorocentrum minimum</i> (T)		Rare	
				<i>Prorocentrum scutellum</i> (B)		Rare	
				<i>Prorocentrum triestinum</i> (B)		Present	
				<i>Scrippsiella</i> sp. (B)		Present	
	7/19/2018	9:45		"Gymnodinioid" sp. (S)	25-40 um Grn	Rare	
				<i>Chaetoceros</i> spp. (T)		Present	
				<i>Dinophysis acuminata</i> (T)		Rare	0.001
				<i>Gonyaulax scrippsae</i> (B)		Rare	
				<i>Heterocapsa lanceolata</i> (B)		Present	
				<i>Heterocapsa rotundata</i> (B)		Rare	
				<i>Karenia</i> sp. (T)		Rare	0.007
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Prorocentrum scutellum</i> (B)		Rare	
				<i>Prorocentrum triestinum</i> (B)		Present	
				<i>Scrippsiella</i> sp. (B)		Present	
<b>Broadkill River</b>							
<u>Broadkill River</u>							
BR01: Broadkill river @ PEL dock.							
	7/11/2018	9:19	Net	<i>Dinophysis acuminata</i> (T)			
				<i>Heterocapsa rotundata</i> (B)			
				<i>Prorocentrum scutellum</i> (B)			
				<i>Prorocentrum triestinum</i> (B)			
			Surfc	"Gymnodinioid" sp. (S)	25-40 um Grn	Rare	
				<i>Chaetoceros</i> spp. (T)		Rare	
				<i>Dinophysis acuminata</i> (T)		Rare	0.001
				<i>Heterocapsa lanceolata</i> (B)		Rare	
				<i>Heterocapsa rotundata</i> (B)		Rare	
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Karenia</i> sp. (T)		Rare	0.002
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Prorocentrum minimum</i> (T)		Present	
				<i>Prorocentrum scutellum</i> (B)		Present	
				<i>Prorocentrum triestinum</i> (B)		Present	
				<i>Scrippsiella</i> sp. (B)		Rare	
	7/19/2018	14:00	Net	<i>Fibrocapsa japonica</i> (T)			
				<i>Heterocapsa lanceolata</i> (B)			
				<i>Karlodinium veneficum</i> (T)			

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<b>Broadkill River</b>							
<u>Broadkill River</u>							
BR01: Broadkill river @ PEL dock.							
	7/19/2018	14:00	Net	<i>Prorocentrum scutellum</i> (B)			
				<i>Prorocentrum triestinum</i> (B)			
BR20: Broadkill River at Milton tidal pond							
	7/11/2018	7:10	Surfc	<i>Kryptoperidinium foliaceum</i> (B)		Present	
				<i>Microcystis</i> spp. (T)		Many	5.000
<u>Canary Creek</u>							
BR19: Canary Creek at New Road							
	7/11/2018	12:01	Surfc	<i>Microcystis</i> spp. (T)		Many	2.500
BR40: Canary Creek at Pilottown Rd							
	7/11/2018	6:46	Surfc	<i>Heterocapsa lanceolata</i> (B)		Present	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Karlodinium veneticum</i> (T)		Present	
				<i>Prorocentrum minimum</i> (T)		Present	
				<i>Prorocentrum scutellum</i> (B)		Present	
<u>Diamond Pond</u>							
BR48: Diamond Pond at Spillway							
	7/11/2018	6:50	Surfc		No HABs found		
<u>Old Mill Creek</u>							
BR21: Old Mill Creek downstream from Red Mill Pond							
	7/11/2018	10:20	Surfc	<i>Microcystis</i> spp. (T)		Abundant	15.600
				<i>Various centric</i> spp. (B*)		Abundant	22.000
<u>Red Mill Pond</u>							
BR54: Red Mill Pond outlet at Rt 1							
	7/11/2018	11:30	Surfc	(Unknown) (B*)	Thin cyano coiled	Abundant	2.750
				<i>Aphanizomenon</i> spp. (T)		Many	1.750
				<i>Microcystis</i> spp. (T)		Very Abundant	215.000
<b>Delaware Bay</b>							
<u>Delaware Bay</u>							
DB01: End of Cape Shores pier							
	7/17/2018	7:08	Surfc	<i>Fibrocapsa japonica</i> (T)		Present	
				<i>Heterocapsa lanceolata</i> (B)		Present	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Karlodinium veneticum</i> (T)		Present	
				<i>Prorocentrum minimum</i> (T)		Present	
				<i>Prorocentrum triestinum</i> (B)		Present	
				<i>Scrippsiella</i> sp. (B)		Present	
<b>Indian River</b>							
<u>Indian River</u>							
IR02a: Rosedale crabbing pier							
	7/10/2018	11:48	Surfc	<i>Akashiwo sanguinea</i> (T)		Present	
				<i>Gyrodinium instriatum</i> (B)		Present	
				<i>Heterocapsa lanceolata</i> (B)		Present	
				<i>Heterocapsa rotundata</i> (B)		Common	0.113
				<i>Scrippsiella</i> sp. (B)		Present	
IR11: Pot Nets Seaside Pier							

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<b>Indian River</b>							
<u>Indian River</u>							
IR11: Pot Nets Seaside Pier	7/10/2018	12:20	Surfc	<i>Karlodinium veneficum</i> (T)		Present	
IR24: Iron Branch - County road 331 at bridge	7/10/2018	11:30	Surfc	<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Viridilobus marinus</i> (B)		Common	
	7/18/2018	8:26		<i>Amphidinium</i> spp. (T)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Viridilobus marinus</i> (B)		Common	0.100
IR26: Possum Point	7/18/2018	8:50	Surfc	<i>Gyrodinium instriatum</i> (B)		Present	
				<i>Heterocapsa lanceolata</i> (B)		Present	
				<i>Heterocapsa rotundata</i> (B)		Common	0.125
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Viridilobus marinus</i> (B)		Common	0.100
IR27: Whartons Bluff-pier	7/18/2018	8:03	Surfc	<i>Gyrodinium instriatum</i> (B)		Many	1.250
				<i>Heterocapsa lanceolata</i> (B)		Present	
				<i>Heterocapsa rotundata</i> (B)		Common	0.125
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
				<i>Viridilobus marinus</i> (B)		Common	0.200
IR36: James Farm, base of Pasture Point Knee deep 150 yds from shore	7/10/2018	7:25	Surfc	<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Prorocentrum triestinum</i> (B)		Present	
				<i>Protoperidinium quinquecorne</i> (B)		Present	
<u>Pepper Creek</u>							
IR51: Pepper Creek, Creekside	7/10/2018	11:00	Surfc	<i>Akashiwo sanguinea</i> (T)		Present	
				<i>Gyrodinium instriatum</i> (B)		Many	4.840
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Scrippsiella</i> sp. (B)		Common	0.113
<u>Vines Creek</u>							
IR38: Vines Lane	7/10/2018	8:00	Surfc	<i>Gyrodinium instriatum</i> (B)		Many	3.520
				<i>Scrippsiella</i> sp. (B)		Present	
<u>White Creek</u>							
IR32: Holly Terrace Acres Canal Dead End, White Creek	7/9/2018	8:42	Surfc	<i>Akashiwo sanguinea</i> (T)		Present	
				<i>Chattonella subsalsa</i> (T)		Present	
				<i>Gyrodinium instriatum</i> (B)		Common	0.500
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Karlodinium veneficum</i> (T)		Common	0.438
				<i>Kryptoperidinium foliaceum</i> (B)		Common	0.175
				<i>Peridinium</i> sp. (B)	25um flat green	Present	
				<i>Protoperidinium quinquecorne</i> (B)		Present	
				<i>Scrippsiella</i> sp. (B)		Present	

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<b>Indian River</b>							
<u>White Creek</u>							
IR32: Holly Terrace Acres Canal Dead End, White Creek							
	7/16/2018	8:27	Surfc	<i>Chattonella subsalsa</i> (T)		Common	0.875
				<i>Cochlodinium sp.</i> (T)		Present	
				<i>Fibrocapsa japonica</i> (T)		Present	
				<i>Gyrodinium instriatum</i> (B)		Common	0.208
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Karlodinium veneficum</i> (T)		Common	0.158
				<i>Kryptoperidinium foliaceum</i> (B)		Common	0.167
				<i>Prorocentrum minimum</i> (T)		Present	
				<i>Prorocentrum triestinum</i> (B)		Present	
				<i>Protoperidinium quinquecorne</i> (B)		Common	0.267
				<i>Scrippsiella sp.</i> (B)		Common	0.500
<b>Little Assawoman Bay</b>							
<u>Dirickson Creek</u>							
LA03: Mulberry Landing							
	7/9/2018	7:04	Surfc	<i>Chloromorom toxicum</i> (T)		Present	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Protoperidinium quinquecorne</i> (B)		Present	
LA09: Dirickson Creek at Road 381 bridge.							
	7/9/2018	7:50	Surfc	<i>Centric diatom 5-10 um</i> (B*)		Abundant	22.000
				<i>Chloromorom toxicum</i> (T)		Present	
				<i>Gyrodinium instriatum</i> (B)		Many	4.840
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Heterosigma akashiwo</i> (T)		Many	2.420
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
				<i>Scrippsiella sp.</i> (B)		Present	
<u>Jefferson Creek</u>							
SB10E: Russell Canal east dead end							
	7/10/2018	7:35	Surfc	<i>Chattonella subsalsa</i> (T)		Common	0.163
				<i>Chloromorom toxicum</i> (T)		Common	0.100
				<i>Heterocapsa rotundata</i> (B)		Common	0.125
				<i>Heterosigma akashiwo</i> (T)		Very Abundant	242.000
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Kryptoperidinium foliaceum</i> (B)		Common	0.100
				<i>Protoperidinium quinquecorne</i> (B)		Present	
	7/17/2018	7:15		<i>Chattonella subsalsa</i> (T)		Many	2.200
				<i>Chloromorom toxicum</i> (T)		Present	
				<i>Gyrodinium instriatum</i> (B)		Present	
				<i>Heterocapsa rotundata</i> (B)		Many	4.400
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
				<i>Protoperidinium quinquecorne</i> (B)		Present	
SB10W: Russell Canal west dead end							
	7/10/2018	7:30	Surfc	<i>Heterocapsa rotundata</i> (B)		Common	0.375
				<i>Heterosigma akashiwo</i> (T)		Many	2.860

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<b>Little Assawoman Bay</b>							
<u>Jefferson Creek</u>							
SB10W: Russell Canal west dead end							
	7/10/2018	7:30	Surfc	<i>Karlodinium veneficum</i> (T)		Common	0.125
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
	7/17/2018	7:10		<i>Akashiwo sanguinea</i> (T)		Present	
				<i>Chattonella subsalsa</i> (T)		Present	
				<i>Chloromorum toxicum</i> (T)		Present	
				<i>Gyrodinium instriatum</i> (B)		Present	
				<i>Heterocapsa rotundata</i> (B)		Common	0.750
				<i>Karlodinium veneficum</i> (T)		Common	0.425
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
				<i>Scrippsiella sp.</i> (B)		Present	
<u>Little Assawoman Bay</u>							
LA46: Fenwick Island Tide Gauge							
	7/10/2018	8:00	Surfc	<i>Akashiwo sanguinea</i> (T)		Present	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Scrippsiella sp.</i> (B)		Present	
<b>Rehoboth Bay</b>							
<u>Bald Eagle Creek</u>							
RB64: Torquay Canal, west side of Land's End near UD Site #1							
	7/9/2018	8:09	Surfc	<i>Akashiwo sanguinea</i> (T)		Present	
				<i>Chattonella subsalsa</i> (T)		Common	0.225
				<i>Chloromorum toxicum</i> (T)		Common	0.538
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
				<i>Prorocentrum minimum</i> (T)		Present	
				<i>Prorocentrum triestinum</i> (B)		Present	
				<i>Scrippsiella sp.</i> (B)		Present	
	7/16/2018	9:02		<i>Gyrodinium instriatum</i> (B)		Present	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	
<u>Guinea Creek</u>							
RB06: Guinea Creek (Winding Creek Village)							
	7/10/2018	9:00	Surfc	<i>Gyrodinium instriatum</i> (B)		Present	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	
<u>Love Creek</u>							
RB34: Love Creek at Rt 24 Bridge							
	7/9/2018	8:34	Surfc	<i>Gyrodinium instriatum</i> (B)		Common	0.775
				<i>Heterosigma akashiwo</i> (T)		Common	0.250
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Scrippsiella sp.</i> (B)		Present	
<b>Rehoboth Beach</b>							
<u>Lake Gerar</u>							
RL10: Lake Gerar bridge							
	7/11/2018	5:55	Surfc	<i>Anabaena spp.</i> (T)		Very Abundant	304.000

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<b>Rehoboth Beach</b>							
<u>Lake Gerar</u>							
RL10: Lake Gerar bridge							
	7/11/2018	5:55	Surfc	<i>Aphanizomenon spp. (T)</i>		Very Abundant	172.000
				<i>Snowella spp. (T)</i>		Common	
	7/18/2018	6:00		<i>Anabaena spp. (T)</i>		Many	1.250
				<i>Aphanizomenon spp. (T)</i>		Very Abundant	268.400
<u>Silver Lake</u>							
RL01: Silver Lake, Lake Drive Bridge							
	7/11/2018	6:20	Surfc	<i>(Unknown) (B*)</i>	Thin cyano straight	Abundant	61.600
				<i>(Unknown) (B*)</i>	Thin cyano coiled	Abundant	39.600
				<i>Anabaena spp. (T)</i>		Many	3.500
				<i>Aphanizomenon spp. (T)</i>		Abundant	74.800
	7/18/2018	6:30		<i>(Unknown) (B*)</i>	Thin cyano straight	Very Abundant	187.000
				<i>(Unknown) (B*)</i>	Thin cyano coiled	Abundant	55.000
				<i>Aphanizomenon spp. (T)</i>		Abundant	44.000

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