

Harmful Algae Report

All data between 8/21/2015 and 9/3/2015

University of Delaware Citizen Monitoring Program

Water Body <u>Tributary</u> Site	Date	Time	Sample Depth	Name	Comment if ID uncertain	Abundance	MC/L
Atlantic Ocean							
RWPM14: Tower Rd Ocean, Delaware Seashore State Park							
	9/3/2015	8:45	Surfc	<i>Akashiwo sanguinea</i> (T)		Very Rare	
				<i>Dinophysis acuminata</i> (T)		Very Rare	
				<i>Ditylum spp.</i> (T)		Very Rare	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Prorocentrum triestinum</i> (B)		Present	
				<i>Scrippsiella sp.</i> (B)		Present	
RWPM8: Cape Henlopen State Park Beach (2)							
	8/27/2015	10:00	Surfc	"Gymnodinoid" sp. (S)	25-40 um Grn	Present	
				<i>Akashiwo sanguinea</i> (T)		Very Rare	
				<i>Chaetoceros spp.</i> (B)		Rare	0.002
				<i>Dinophysis acuminata</i> (T)		Very Rare	
				<i>Ditylum spp.</i> (T)		Very Rare	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Heterocapsa triquetra</i> (B)		Present	
				<i>Prorocentrum micans</i> (B)		Very Rare	
				<i>Prorocentrum triestinum</i> (B)		Very Rare	
				<i>Rhizosolenia spp.</i> (T)		Very Rare	
				<i>Scrippsiella sp.</i> (B)		Very Rare	
RWPMVIII: Town of Fenwick							
	9/3/2015	8:25	Surfc	<i>Akashiwo sanguinea</i> (T)		Very Rare	
				<i>Dinophysis acuminata</i> (T)		Very Rare	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Karenia papilionacea</i> (T)		Very Rare	
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Prorocentrum triestinum</i> (B)		Present	
				<i>Scrippsiella sp.</i> (B)		Very Rare	
Broadkill River							
<u>Broadkill River</u>							
BR01: Broadkill river @ PEL dock.							
	8/26/2015	8:50	Net	<i>Akashiwo sanguinea</i> (T)			
				<i>Chaetoceros spp.</i> (B)			
				<i>Gyrodinium instriatum</i> (B)			
				<i>Heterocapsa rotundata</i> (B)			
				<i>Karlodinium veneficum</i> (T)			
				<i>Prorocentrum triestinum</i> (B)			
				<i>Rhizosolenia spp.</i> (T)			
				<i>Scrippsiella sp.</i> (B)			
			Surfc	"Gymnodinoid" sp. (S)	25-40 um Grn	Present	
				<i>Akashiwo sanguinea</i> (T)		Present	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Prorocentrum triestinum</i> (B)		Present	
				<i>Scrippsiella sp.</i> (B)		Present	

Name subsripts: (B) - nontoxic bloom former; (B*) - nontoxic bloom former reported only at levels > 10 MC/L; (S) - cell similar to a known toxic cell; (T) - potentially toxic cell. MC/L - Million Cells per Liter.

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Broadkill River							
<u>Broadkill River</u>							
BR01: Broadkill river @ PEL dock.							
	9/2/2015	8:45	Net	<i>Heterocapsa rotundata</i> (B)			
				<i>Prorocentrum triestinum</i> (B)			
				<i>Rhizosolenia</i> spp. (T)			
			Surfc	<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	
BR20: Broadkill River at Milton tidal pond							
	8/26/2015	6:15	Surfc	<i>Aphanizomenon</i> spp. (T)		Abundant	59.400
				<i>Microcystis</i> spp. (T)		Abundant	32.500
<u>Diamond Pond</u>							
BR48: Diamond Pond at Spillway							
	8/26/2015	7:00	Surfc	(Unknown) (B*)	Thin cyano straight	Abundant	10.400
				<i>Aphanizomenon</i> spp. (T)		Abundant	40.830
				<i>Microcystis</i> spp. (T)		Very Abundant	109.900
<u>Old Mill Creek</u>							
BR21: Old Mill Creek downstream from Red Mill Pond							
	8/26/2015	11:50	Surfc	<i>Aphanizomenon</i> spp. (T)		Many	7.000
				<i>Heterosigma akashiwo</i> (T)		Abundant	13.640
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
				<i>Microcystis</i> spp. (T)		Many	2.000
<u>Prime Hook Creek</u>							
BR03: Prime Hook Creek at Boat Ramp at Refuge Headquarters							
	8/26/2015	11:15	Surfc	(Unknown) (B*)	<10 um oval grn flag	Abundant	44.000
				(Unknown) (B*)	Thin cyano straight	Abundant	38.500
				<i>Anabaena</i> spp. (T)		Abundant	92.320
				<i>Chaetoceros</i> spp. (B)		Many	7.160
				<i>Gyrodinium instriatum</i> (B)		Common	
				<i>Kryptoperidinium foliaceum</i> (B)		Common	
				<i>Peridinium</i> sp. (B)	40 um olive green	Abundant	12.100
<u>Red Mill Pond</u>							
BR54: Red Mill Pond outlet at Rt 1							
	8/26/2015	8:45	Surfc	(Unknown) (B*)	Thin cyano coiled	Abundant	99.000
				(Unknown) (B*)	Thin cyano straight	Very Abundant	123.200
				<i>Anabaena</i> spp. (T)		Present	
				<i>Aphanizomenon</i> spp. (T)		Very Abundant	151.800
				<i>Aphanocapsa</i> sp. (B*)		Abundant	20.000
				<i>Microcystis</i> spp. (T)		Abundant	41.800
<u>Wagamon's Pond</u>							
BR44: Wagamon's Pond on Northern Shoreline, Milton							
	9/1/2015	10:00	Surfc	<i>Aphanizomenon</i> spp. (T)		Abundant	34.580
				<i>Lyngbya</i> (T)		Present	
				<i>Microcystis</i> spp. (T)		Very Abundant	106.100
Delaware Bay							
<u>Canary Creek</u>							
BR40: Canary Creek at Pilottown Rd							
	8/25/2015	7:16	Surfc	"Gymnodinioid" sp. (S)	25-40 um Grn	Present	
				<i>Heterocapsa rotundata</i> (B)		Present	

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Delaware Bay							
<u>Canary Creek</u>							
BR40: Canary Creek at Pilottown Rd							
	8/25/2015	7:16	Surfc	<i>Karodinium veneficum</i> (T)		Present	
				<i>Prorocentrum triestinum</i> (B)		Present	
				<i>Scrippsiella sp.</i> (B)		Present	
<u>Delaware Bay</u>							
DB01: End of Cape Shores pier							
	8/26/2015	8:53	Surfc	<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Karodinium veneficum</i> (T)		Present	
				<i>Scrippsiella sp.</i> (B)		Present	
	9/1/2015	8:14		<i>Karodinium veneficum</i> (T)		Present	
				<i>Rhizosolenia spp.</i> (T)		Present	
Indian River							
<u>Indian River</u>							
IR04: Warwick Cove							
	8/24/2015	9:54	Surfc	<i>Akashiwo sanguinea</i> (T)		Present	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Prorocentrum triestinum</i> (B)		Present	
IR11: Pot Nets Seaside Pier							
	8/24/2015	10:23	Surfc	<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Heterosigma akashiwo</i> (T)		Present	
IR24: Iron Branch - County road 331 at bridge							
	8/24/2015	9:25	Surfc	<i>Gyrodinium instriatum</i> (B)		Common	0.425
IR36: James Farm, base of Pasture Point Knee deep 150 yds from shore							
	8/25/2015	8:25	Surfc	<i>Chloromorium toxicum</i> (T)		Present	
				<i>Karodinium veneficum</i> (T)		Present	
				<i>Kryptoperidinium foliaceum</i> (B)		Common	0.288
				<i>Prorocentrum triestinum</i> (B)		Present	
				<i>Protoperidinium quinquecorne</i> (B)		Present	
IR39: North side of Inlet at Wheelchair fishing platform under new bridge.							
	8/27/2015	8:45	Surfc	<i>Akashiwo sanguinea</i> (T)		Rare	0.001
				<i>Amphidinium spp.</i> (T)		Present	
				<i>Chaetoceros spp.</i> (B)		Rare	0.002
				<i>Dinophysis acuminata</i> (T)		Very Rare	
				<i>Ditylum spp.</i> (T)		Rare	0.002
				<i>Fibrocapsa japonica</i> (T)		Present	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Karenia papilionacea</i> (T)		Very Rare	
				<i>Karodinium veneficum</i> (T)		Present	
				<i>Prorocentrum scutellum</i> (B)		Rare	0.002
				<i>Prorocentrum triestinum</i> (B)		Rare	
				<i>Scrippsiella sp.</i> (B)		Present	
<u>Vines Creek</u>							
IR38: Vines Lane							
	8/25/2015	8:00	Surfc	<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Heterosigma akashiwo</i> (T)		Present	

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Indian River							
<u>White Creek</u>							
IR32: Holly Terrace Acres Canal Dead End, White Creek							
	8/24/2015	6:30	Surfc	<i>Chattonella subsalsa</i> (T)		Present	
				<i>Chloromorom toxicum</i> (T)		Present	
				<i>Heterocapsa rotundata</i> (B)		Common	0.113
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Karlodinium veneficum</i> (T)		Common	0.113
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
				<i>Peridinium sp.</i> (B)	25um flat green	Common	0.113
	8/31/2015			" <i>Gymnodinioid</i> " <i>sp.</i> (S)	25-40 um Grn	Present	
				<i>Chattonella subsalsa</i> (T)		Common	0.963
				<i>Chloromorom toxicum</i> (T)		Common	0.700
				<i>Gyrodinium instriatum</i> (B)		Present	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Karlodinium veneficum</i> (T)		Common	0.263
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
				<i>Peridinium sp.</i> (B)	25um flat green	Present	
Little Assawoman Bay							
<u>Dirickson Creek</u>							
LA03: Mulberry Landing							
	8/24/2015	6:59	Surfc	<i>Chattonella subsalsa</i> (T)		Present	
				<i>Gyrodinium instriatum</i> (B)		Present	
				<i>Heterocapsa rotundata</i> (B)		Common	0.100
				<i>Karlodinium veneficum</i> (T)		Common	0.288
				<i>Prorocentrum triestinum</i> (B)		Present	
				<i>Scripsiella sp.</i> (B)		Present	
LA09: Dirickson Creek at Road 381 bridge.							
	8/24/2015	7:54	Surfc	<i>Chloromorom toxicum</i> (T)		Common	0.113
				<i>Gyrodinium instriatum</i> (B)		Present	
				<i>Heterocapsa rotundata</i> (B)		Common	0.213
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Karlodinium veneficum</i> (T)		Common	0.213
<u>Jefferson Creek</u>							
SB10E: Russell Canal east dead end							
	8/25/2015	7:57	Surfc	<i>Chattonella subsalsa</i> (T)		Present	
				<i>Chloromorom toxicum</i> (T)		Common	0.125
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Karlodinium veneficum</i> (T)		Common	0.100
				<i>Protoperidinium quinquecorne</i> (B)		Present	
	9/1/2015	7:14		<i>Chattonella subsalsa</i> (T)		Present	
				<i>Chloromorom toxicum</i> (T)		Common	0.163
				<i>Fibrocapsa japonica</i> (T)		Present	
				<i>Gyrodinium instriatum</i> (B)		Present	
				<i>Heterocapsa rotundata</i> (B)		Common	0.200
				<i>Karlodinium veneficum</i> (T)		Present	
SB10W: Russell Canal west dead end							
	8/25/2015	8:12	Surfc	<i>Chattonella subsalsa</i> (T)		Present	
				<i>Chloromorom toxicum</i> (T)		Present	

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Little Assawoman Bay							
<u>Jefferson Creek</u>							
SB10W: Russell Canal west dead end							
	8/25/2015	8:12	Surfc	<i>Fibrocapsa japonica</i> (T)		Present	
				<i>Heterocapsa rotundata</i> (B)		Common	0.150
				<i>Karlodinium veneficum</i> (T)		Common	0.100
	9/1/2015	7:07		<i>Chattonella subsalsa</i> (T)		Present	
				<i>Chloromorom toxicum</i> (T)		Present	
				<i>Fibrocapsa japonica</i> (T)		Present	
				<i>Gyrodinium instriatum</i> (B)		Present	
				<i>Heterocapsa rotundata</i> (B)		Common	0.288
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
<u>Little Assawoman Bay</u>							
LA46: Fenwick Island Tide Gauge							
	8/25/2015	9:13	Surfc	<i>Chloromorom toxicum</i> (T)		Present	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Protoperidinium quinquecorne</i> (B)		Present	
				<i>Scrippsiella sp.</i> (B)		Present	
Rehoboth Bay							
ML: Massey's Landing							
	8/26/2015	9:10	Surfc	<i>Chaetoceros spp.</i> (B)		Present	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Prorocentrum triestinum</i> (B)		Present	
<u>Bald Eagle Creek</u>							
RB64: Torquay Canal, west side of Land's End near UD Site #1							
	8/24/2015	9:30	Surfc	<i>Chloromorom toxicum</i> (T)		Common	0.175
				<i>Fibrocapsa japonica</i> (T)		Present	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Prorocentrum triestinum</i> (B)		Present	
				<i>Scrippsiella sp.</i> (B)		Present	
	8/31/2015			<i>Chattonella subsalsa</i> (T)		Common	0.138
				<i>Chloromorom toxicum</i> (T)		Common	0.288
				<i>Fibrocapsa japonica</i> (T)		Present	
				<i>Gyrodinium instriatum</i> (B)		Common	0.163
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
				<i>Scrippsiella sp.</i> (B)		Common	0.188
<u>Guinea Creek</u>							
RB06: Guinea Creek (Winding Creek Village)							
	8/24/2015	8:30	Surfc	<i>Heterocapsa rotundata</i> (B)		Common	0.100
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Prorocentrum triestinum</i> (B)		Present	
				<i>Scrippsiella sp.</i> (B)		Present	

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Water Body	Date	Time	Sample	Name	Comment if	Abundance	MC/L
<u>Tributary</u>			Depth		ID uncertain		
<u>Site</u>							
Rehoboth Bay							
<u>Love Creek</u>							
RB34: Love Creek at Rt 24 Bridge							
	8/25/2015	11:13	Surfc	<i>Cylindrotheca closterium (B*)</i>		Abundant	11.000
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Prorocentrum triestinum (B)</i>		Present	

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