

Harmful Algae Report

All data between 9/1/2016 and 9/29/2016

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							
RWPM: Dagsworthy, Dewey Beach							
	9/12/2016	12:25	Surfc	<i>Chaetoceros spp. (T)</i>		Rare	0.002
				<i>Karenia papilionacea (T)</i>		Rare	0.009
				<i>Prorocentrum sp. (T)</i>		Very Rare	
				<i>Prorocentrum triestinum (B)</i>		Very Rare	
				<i>Pseudo-nitzschia spp. (T)</i>		Rare	0.007
				<i>Rhizosolenia spp. (T)</i>		Rare	0.001
RWPM8: Cape Henlopen State Park Beach (2)							
	9/12/2016	10:00	Surfc	<i>Chaetoceros spp. (T)</i>		Present	0.010
				<i>Karenia papilionacea (T)</i>		Rare	0.002
				<i>Prorocentrum scutellum (B)</i>		Very Rare	
				<i>Pseudo-nitzschia spp. (T)</i>		Rare	0.001
RWPMII: Town of Bethany							
	9/19/2016	9:30	Surfc	<i>Chaetoceros spp. (T)</i>		Present	
				<i>Karenia papilionacea (T)</i>		Rare	0.008
				<i>Prorocentrum triestinum (B)</i>		Very Rare	
				<i>Pseudo-nitzschia spp. (T)</i>		Rare	0.005
				<i>Rhizosolenia spp. (T)</i>		Present	
Broadkill River							
<u>Broadkill River</u>							
BR01: Broadkill river @ PEL dock.							
	9/14/2016	8:45	Net	<i>Chaetoceros spp. (T)</i>			
				<i>Ditylum spp. (T)</i>			
				<i>Heterocapsa rotundata (B)</i>			
				<i>Rhizosolenia spp. (T)</i>			
			Surfc	<i>Chaetoceros spp. (T)</i>		Common	0.100
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Rhizosolenia spp. (T)</i>		Present	
	9/21/2016		Net	<i>Chaetoceros spp. (T)</i>			
				<i>Rhizosolenia spp. (T)</i>			
			Surfc		No HABs found		
	9/28/2016	8:55	Net	<i>Heterocapsa rotundata (B)</i>			
				<i>Karlodinium veneficum (T)</i>			
				<i>Prorocentrum scutellum (B)</i>			
				<i>Prorocentrum triestinum (B)</i>			
			Surfc	"Gymnodinioid" sp. (S)	25-40 um Grn	Present	
				<i>Heterocapsa rotundata (B)</i>		Present	
BR20: Broadkill River at Milton tidal pond							
	9/14/2016	6:45	Surfc	<i>Anabaena spp. (T)</i>		Many	2.750
				<i>Aphanizomenon spp. (T)</i>		Many	4.000
				<i>Kryptoperidinium foliaceum (B)</i>		Present	
				<i>Microcystis spp. (T)</i>		Abundant	10.000
<u>Diamond Pond</u>							
BR48: Diamond Pond at Spillway							
	9/14/2016	7:40	Surfc	<i>Anabaena spp. (T)</i>		Abundant	55.000

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.

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>Diamond Pond</u>							
BR48: Diamond Pond at Spillway							
	9/14/2016	7:40	Surfc	<i>Aphanizomenon spp. (T)</i>		Abundant	39.600
				<i>Microcystis spp. (T)</i>		Abundant	82.500
<u>Old Mill Creek</u>							
BR21: Old Mill Creek downstream from Red Mill Pond							
	9/14/2016	12:10	Surfc	<i>(Unknown) (B*)</i>	Thin cyano straight	Abundant	44.000
				<i>Microcystis spp. (T)</i>		Many	4.500
<u>Prime Hook Creek</u>							
BR03: Prime Hook Creek at Boat Ramp at Refuge Headquarters							
	9/14/2016	11:03	Surfc	<i>Akashiwo sanguinea (T)</i>		Present	
				<i>Chaetoceros spp. (T)</i>		Common	0.550
				<i>Gyrodinium instriatum (B)</i>		Common	0.413
				<i>Kryptoperidinium foliaceum (B)</i>		Present	
<u>Wagamon's Pond</u>							
BR44: Wagamon's Pond on Northern Shoreline, Milton							
	9/28/2016	9:30	Surfc	<i>Lyngbya (T)</i>		Present	
Delaware Bay							
<u>Delaware Bay</u>							
DB01: End of Cape Shores pier							
	9/7/2016	8:36	Surfc	<i>Chaetoceros spp. (T)</i>		Present	0.012
				<i>Prorocentrum scutellum (B)</i>		Rare	0.001
				<i>Prorocentrum triestinum (B)</i>		Present	
				<i>Pseudo-nitzschia spp. (T)</i>		Rare	0.004
				<i>Scrippsiella sp. (B)</i>		Rare	0.001
	9/20/2016	8:26		<i>Amphidinium spp. (T)</i>		Rare	0.001
				<i>Chaetoceros spp. (T)</i>		Present	
				<i>Karenia papilionacea (T)</i>		Rare	0.005
				<i>Prorocentrum sp. (T)</i>		Rare	0.002
				<i>Prorocentrum triestinum (B)</i>		Very Rare	
				<i>Rhizosolenia spp. (T)</i>		Present	
				<i>Scrippsiella sp. (B)</i>		Rare	0.001
Dirickson Pond							
<u>Dirickson Pond</u>							
LA38: The Hamlet at Dirickson Pond							
	9/13/2016	7:51	Surfc	<i>Anabaena spp. (T)</i>		Many	2.000
				<i>Cylindrospermopsis (T)</i>		Many	3.250
Indian River							
<u>Indian River</u>							
IR11: Pot Nets Seaside Pier							
	9/12/2016	9:49	Surfc	<i>Heterocapsa rotundata (B)</i>		Common	0.100
				<i>Karlodinium veneficum (T)</i>		Present	
IR24: Iron Branch - County road 331 at bridge							
	9/12/2016	9:08	Surfc	<i>Gyrodinium instriatum (B)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Heterosigma akashiwo (T)</i>		Present	
				<i>Navicula (small) (B*)</i>		Abundant	17.600
				<i>V. small, <5 um centrics (B*)</i>		Abundant	48.400

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Indian River							
<u>Indian River</u>							
IR36: James Farm, base of Pasture Point Knee deep 150 yds from shore							
	9/13/2016	7:43	Surfc	<i>Protoperdinium quinquecorne (B)</i>		Present	
IR39: North side of Inlet at Wheelchair fishing platform under new bridge.							
	9/15/2016	8:25	Surfc	<i>Chaetoceros spp. (T)</i>		Present	
				<i>Ditylum spp. (T)</i>		Very Rare	
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Heterosigma akashiwo (T)</i>		Present	
				<i>Karenia papilionacea (T)</i>		Present	0.052
				<i>Prorocentrum scutellum (B)</i>		Present	
				<i>Prorocentrum triestinum (B)</i>		Present	
				<i>Pseudo-nitzschia spp. (T)</i>		Present	0.025
				<i>Rhizosolenia spp. (T)</i>		Rare	0.007
	9/29/2016	9:05		<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Rhizosolenia spp. (T)</i>		Rare	0.003
<u>Pepper Creek</u>							
IR51: Pepper Creek, Creekside							
	9/13/2016	8:45	Surfc	<i>Heterosigma akashiwo (T)</i>		Common	0.175
				<i>V. small, <5 um centrics (B*)</i>		Abundant	15.400
<u>Vines Creek</u>							
IR38: Vines Lane							
	9/13/2016	8:00	Surfc	<i>Gyrodinium instriatum (B)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Heterosigma akashiwo (T)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
<u>White Creek</u>							
IR32: Holly Terrace Acres Canal Dead End, White Creek							
	9/16/2016	8:30	Surfc	<i>"Gymnodinoid" sp. (B)</i>	25-30 um Lt Grn flat	Common	0.113
				<i>Chattonella subsalsa (T)</i>		Common	0.438
				<i>Chloromorom toxicum (T)</i>		Present	
				<i>Gyrodinium instriatum (B)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
				<i>Kryptoperidinium foliaceum (B)</i>		Present	
				<i>Protoperdinium quinquecorne (B)</i>		Present	
				<i>Scrippsiella sp. (B)</i>		Common	0.138
	9/26/2016	8:38		<i>Chattonella subsalsa (T)</i>		Many	4.950
				<i>Chloromorom toxicum (T)</i>		Common	0.438
				<i>Heterosigma akashiwo (T)</i>		Common	0.113
Little Assawoman Bay							
<u>Dirickson Creek</u>							
LA03: Mulberry Landing							
	9/12/2016	8:05	Surfc	<i>Karlodinium veneficum (T)</i>		Present	
LA09: Dirickson Creek at Road 381 bridge.							
	9/13/2016	8:08	Surfc	<i>Chattonella subsalsa (T)</i>		Present	
				<i>Chloromorom toxicum (T)</i>		Present	
				<i>Gyrodinium instriatum (B)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Heterosigma akashiwo (T)</i>		Common	0.113

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Little Assawoman Bay							
<u>Dirickson Creek</u>							
LA09: Dirickson Creek at Road 381 bridge.							
	9/13/2016	8:08	Surfc	<i>Karlodinium veneficum (T)</i>		Common	0.113
<u>Jefferson Creek</u>							
SB10E: Russell Canal east dead end							
	9/13/2016	8:07	Surfc	<i>Akashiwo sanguinea (T)</i>		Present	
				<i>Chloromorom toxicum (T)</i>		Common	0.125
				<i>Fibrocapsa japonica (T)</i>		Common	0.175
				<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	
SB10W: Russell Canal west dead end							
	9/13/2016	8:22	Surfc	<i>Amphidinium spp. (T)</i>		Present	
				<i>Chloromorom toxicum (T)</i>		Present	
				<i>Fibrocapsa japonica (T)</i>		Present	
				<i>Gyrodinium instriatum (B)</i>		Common	0.175
				<i>Heterocapsa rotundata (B)</i>		Present	
<u>Little Assawoman Bay</u>							
LA46: Fenwick Island Tide Gauge							
	9/13/2016	9:00	Surfc	<i>Chloromorom toxicum (T)</i>		Common	0.100
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Kryptoperidinium foliaceum (B)</i>		Present	
<u>Miller Creek</u>							
LA31: Double Bridges road bridge at Plantation Park							
	9/27/2016	9:04	Surfc	<i>Anabaena spp. (T)</i>		Common	0.125
				<i>Chloromorom toxicum (T)</i>		Present	
<u>Williams Creek</u>							
LA21: Williams Creek tributary, bridge on Rd 364a							
	9/27/2016	8:54	Surfc	<i>Gyrodinium instriatum (B)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Present	
Rehoboth Bay							
<u>Bald Eagle Creek</u>							
RB64: Torquay Canal, west side of Land's End near UD Site #1							
	9/12/2016	9:58	Surfc	<i>Amphidinium spp. (T)</i>		Present	
				<i>Chattonella subsalsa (T)</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	
	9/22/2016	10:50			No HABs found		
	9/26/2016	9:12		<i>Amphidinium spp. (T)</i>		Present	
				<i>Chloromorom toxicum (T)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Common	0.138
<u>Guinea Creek</u>							
RB06: Guinea Creek (Winding Creek Village)							

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Rehoboth Bay							
<u>Guinea Creek</u>							
RB06: Guinea Creek (Winding Creek Village)							
	9/12/2016	7:32	Surfc	<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Heterosigma akashiwo (T)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Common	0.125
				<i>Navicula (small) (B*)</i>		Abundant	11.000
<u>Love Creek</u>							
RB34: Love Creek at Rt 24 Bridge							
	9/12/2016	11:28	Surfc	<i>Akashiwo sanguinea (T)</i>		Present	
				<i>Chloromorom toxicum (T)</i>		Many	4.400
				<i>Eutreptiella sp. (B)</i>		Many	3.300
				<i>Gyrodinium instriatum (B)</i>		Many	5.500
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
				<i>Kryptoperidinium foliaceum (B)</i>		Common	0.213

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