

Harmful Algae Report

All data between 9/30/2016 and 10/31/2016

University of Delaware Citizen Monitoring Program

Water Body Tributary Site	Date	Time	Sample Depth	Name	Comment if ID uncertain	Abundance	MC/L
Broadkill River							
<u>Broadkill River</u>							
BR01: Broadkill river @ PEL dock.							
	10/13/2016	8:45	Net	<i>Pseudo-nitzschia</i> spp. (T)			
			Surfc	<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	
	10/19/2016		Net	<i>Ditylum</i> spp. (T)			
				<i>Heterocapsa rotundata</i> (B)			
				<i>Karlodinium veneficum</i> (T)			
				<i>Pseudo-nitzschia</i> spp. (T)			
			Surfc	<i>Amphidinium</i> spp. (T)		Present	
				<i>Chaetoceros</i> spp. (T)		Present	0.013
				<i>Ditylum</i> spp. (T)		Rare	0.003
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Prorocentrum triestinum</i> (B)		Rare	0.001
				<i>Pseudo-nitzschia</i> spp. (T)		Rare	0.005
	BR20: Broadkill River at Milton tidal pond						
	10/12/2016	7:50	Surfc		No HABs found		
<u>Diamond Pond</u>							
BR48: Diamond Pond at Spillway							
	10/12/2016	7:45	Surfc		No HABs found		
<u>Old Mill Creek</u>							
BR21: Old Mill Creek downstream from Red Mill Pond							
	10/12/2016	11:25	Surfc	(Unknown) (B*)	Thin cyano straight	Abundant	24.500
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
				<i>Microcystis</i> spp. (T)		Abundant	37.500
<u>Prime Hook Creek</u>							
BR03: Prime Hook Creek at Boat Ramp at Refuge Headquarters							
	10/12/2016	10:55	Surfc	<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
<u>Wagamon's Pond</u>							
BR44: Wagamon's Pond on Northern Shoreline, Milton							
	10/13/2016	9:30	Surfc	<i>Microcystis</i> spp. (T)		Present	
Delaware Bay							
<u>Canary Creek</u>							
BR40: Canary Creek at Pilottown Rd							
	10/13/2016	7:05	Surfc	<i>Karlodinium veneficum</i> (T)		Present	
<u>Delaware Bay</u>							
DB01: End of Cape Shores pier							
	10/11/2016	9:01	Surfc	<i>Anabaena</i> spp. (T)		Present	0.040
				<i>Heterocapsa rotundata</i> (B)		Present	
	10/26/2016	8:37		"Gymnodinioid" sp. (S)	25-40 um Grn	Present	
				"Gymnodinioid" sp. (S)	10-15 um Grn	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.

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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Delaware Bay							
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DB01: End of Cape Shores pier							
	10/26/2016	8:37	Surfc	<i>Chaetoceros spp. (T)</i>		Rare	0.005
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Pseudo-nitzschia spp. (T)</i>		Rare	0.002
Indian River							
<u>Indian River</u>							
IR11: Pot Nets Seaside Pier							
	10/10/2016	10:25	Surfc	<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
IR24: Iron Branch - County road 331 at bridge							
	10/10/2016	9:45	Surfc		No HABs found		
IR36: James Farm, base of Pasture Point Knee deep 150 yds from shore							
	10/11/2016	8:35	Surfc	<i>Karlodinium veneficum (T)</i>		Present	
IR39: North side of Inlet at Wheelchair fishing platform under new bridge.							
	10/17/2016	9:25	Surfc	<i>"Gymnodinioid" sp. (S)</i>	10-15 um Grn	Present	
				<i>Chaetoceros spp. (B)</i>		Common	0.023
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Prorocentrum scutellum (B)</i>		Very Rare	
				<i>Prorocentrum triestinum (B)</i>		Very Rare	
				<i>Pseudo-nitzschia spp. (T)</i>		Present	0.029
				<i>Rhizosolenia spp. (T)</i>		Rare	0.005
	10/31/2016	9:17		<i>"Gymnodinioid" sp. (S)</i>	25-40 um Grn	Very Rare	
				<i>Chaetoceros spp. (T)</i>		Present	0.013
				<i>Karlodinium veneficum (T)</i>		Present	
				<i>Prorocentrum scutellum (B)</i>		Present	
				<i>Prorocentrum triestinum (B)</i>		Very Rare	
				<i>Pseudo-nitzschia spp. (T)</i>		Rare	0.007
				<i>Rhizosolenia spp. (T)</i>		Present	0.019
<u>Vines Creek</u>							
IR38: Vines Lane							
	10/11/2016	10:32	Surfc	<i>Aphanizomenon spp. (T)</i>		Common	0.175
				<i>Microcystis spp. (T)</i>		Many	1.250
<u>White Creek</u>							
IR32: Holly Terrace Acres Canal Dead End, White Creek							
	10/5/2016	17:10	Surfc	<i>Heterocapsa rotundata (B)</i>		Present	
	10/17/2016	9:00		<i>Akashiwo sanguinea (T)</i>		Present	
				<i>Cryptomonad (an Order) spp. (B*)</i>		Abundant	24.640
				<i>Gyrodinium instriatum (B)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Heterosigma akashiwo (T)</i>		Many	2.860
				<i>Karlodinium veneficum (T)</i>		Present	
	10/20/2016	8:52		<i>"Gymnodinioid" sp. (S)</i>	10-15 um Grn	Present	
				<i>Gyrodinium instriatum (B)</i>		Common	0.100
				<i>Heterosigma akashiwo (T)</i>		Abundant	69.520
				<i>Karlodinium veneficum (T)</i>		Present	
				<i>Kryptoperidinium foliaceum (B)</i>		Present	
Little Assawoman Bay							

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Little Assawoman Bay							
<u>Dirickson Creek</u>							
LA03: Mulberry Landing	10/10/2016	7:27	Surfc	<i>Heterocapsa rotundata (B)</i>		Present	
LA09: Dirickson Creek at Road 381 bridge.	10/10/2016	8:24	Surfc	<i>Anabaena spp. (T)</i>		Common	0.500
<u>Jefferson Creek</u>							
SB10E: Russell Canal east dead end	10/11/2016	7:58	Surfc	<i>Kryptoperidinium foliaceum (B)</i>		Present	
	10/26/2016	8:43		<i>Heterosigma akashiwo (T)</i>		Common	0.375
				<i>Oxyrrhis marina (B)</i>		Many	1.875
SB10W: Russell Canal west dead end	10/11/2016	8:11	Surfc	<i>Anabaena spp. (T)</i>		Common	0.625
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
<u>Little Assawoman Bay</u>							
LA46: Fenwick Island Tide Gauge	10/11/2016	9:05	Surfc	<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	10/10/2016	9:54	Surfc	<i>Heterosigma akashiwo (T)</i>		Common	0.525
	10/13/2016	10:20		<i>Akashiwo sanguinea (T)</i>		Present	
				<i>Gyrodinium instriatum (B)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Heterosigma akashiwo (T)</i>		Very Abundant	286.000
				<i>Karlodinium veneficum (T)</i>		Common	0.100
				<i>Kryptoperidinium foliaceum (B)</i>		Present	
<u>Guinea Creek</u>							
RB06: Guinea Creek (Winding Creek Village)	10/11/2016	7:25	Surfc	<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
<u>Love Creek</u>							
RB34: Love Creek at Rt 24 Bridge	10/10/2016	11:10	Surfc	<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	

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