



VERSAR

Final Report

Chesapeake Bay Water Quality Monitoring Program

Long-term Benthic Monitoring and Assessment Component Level 1 Comprehensive Report

July 1984 – December 2013
(Volume 2)

Prepared for

**Maryland Department of Natural Resources
Resource Assessment Service
Tidewater Ecosystem Assessments
Annapolis, Maryland**

Prepared by

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September 2014

**CHESAPEAKE BAY WATER QUALITY
MONITORING PROGRAM**

**LONG-TERM BENTHIC MONITORING
AND ASSESSMENT COMPONENT
LEVEL I COMPREHENSIVE REPORT**

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DATA SUMMARY A

**BENTHIC ENVIRONMENT AND COMMUNITY
COMPOSITION AT FIXED SITES:
SUMMER 2013**



BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Mainstem		Station: 001		Rep: 01	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 12SEP13	
		Sampled Area: 0.025 sq.m		Time: 11:16:32	
BOTTOM ENVIRONMENT					
Depth (m): 2.1		Salinity (ppt): 15.31		Temperature (C): 25.82	
Dissolved Oxygen (mg/l): 4.3		Sediment Silt-Clay (%): 1.41		Total Carbon (%): 0.11	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.33		Condition: Degraded		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.24	1	Pollution Indicative Species Abundance (%)	14.29	3
Abundance (#/m2)	280	1	Pollution Indicative Species Biomass (%)	42.86	
Biomass (g/m2)	0.03	1	Pollution Sensitive Species Abundance (%)	28.57	3
Carnivore-Omnivore Abundance (%)	42.86	5	Pollution Sensitive Species Biomass (%)	14.29	
Deep Deposit Feeder Abundance (%)	14.29				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Ameroculodes species complex		80		0.00800	
Eteone heteropoda		40		0.01200	
Glycinde solitaria		80		0.00400	
Paraonis fulgens		40		0.00200	
Tubificoides spp.		40		0.00200	
Total Abundance w/ Epi.		280			
Total Abundance w/o Epi.		280			
Number of Taxa w/ Epi.		5			
Number of Taxa w/o Epi.		5			
Total Biomass w/ Epi.				0.02800	
Total Biomass w/o Epi.				0.02800	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Mainstem		Station: 001		Rep: 02	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 12SEP13	
		Sampled Area: 0.025 sq.m		Time: 11:16:32	
BOTTOM ENVIRONMENT					
Depth (m): 2.1		Salinity (ppt): 15.31		Temperature (C): 25.82	
Dissolved Oxygen (mg/l): 4.3		Sediment Silt-Clay (%): 1.41		Total Carbon (%): 0.11	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.67		Condition: Marginal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	0.99	1	Pollution Indicative Species Abundance (%)	0.00	5
Abundance (#/m2)	360	1	Pollution Indicative Species Biomass (%)	0.00	
Biomass (g/m2)	0.10	1	Pollution Sensitive Species Abundance (%)	77.78	3
Carnivore-Omnivore Abundance (%)	88.89	5	Pollution Sensitive Species Biomass (%)	30.77	
Deep Deposit Feeder Abundance (%)	11.11				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Glycinde solitaria		280		0.03200	
Heteromastus filiformis		40		0.01600	
Micrura leidy		40		0.05600	
Total Abundance w/ Epi.		360			
Total Abundance w/o Epi.		360			
Number of Taxa w/ Epi.		3			
Number of Taxa w/o Epi.		3			
Total Biomass w/ Epi.				0.10400	
Total Biomass w/o Epi.				0.10400	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Mainstem		Station: 001		Rep: 03	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 12SEP13	
		Sampled Area: 0.025 sq.m		Time: 11:16:32	
BOTTOM ENVIRONMENT					
Depth (m): 2.1		Salinity (ppt): 15.31		Temperature (C): 25.82	
Dissolved Oxygen (mg/l): 4.3		Sediment Silt-Clay (%): 1.41		Total Carbon (%): 0.11	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.67		Condition: Marginal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.85	3	Pollution Indicative Species Abundance (%)	25.00	3
Abundance (#/m2)	640	1	Pollution Indicative Species Biomass (%)	28.39	
Biomass (g/m2)	0.63	1	Pollution Sensitive Species Abundance (%)	37.50	3
Carnivore-Omnivore Abundance (%)	50.00	5	Pollution Sensitive Species Biomass (%)	13.25	
Deep Deposit Feeder Abundance (%)	6.25				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Eteone foliosa	40		0.16800		
Glycinde solitaria	200		0.02400		
Leitoscoloplos spp.	40		0.00400		
Macoma mitchelli	120		0.20000		
Marenzelleria viridis	40		0.06000		
Micrura leidyi	80		0.00200		
Mulinia lateralis	40		0.15600		
Paraprionospio pinnata	40		0.01600		
Streblospio benedicti	40		0.00400		
Total Abundance w/ Epi.	640				
Total Abundance w/o Epi.	640				
Number of Taxa w/ Epi.	9				
Number of Taxa w/o Epi.	9				
Total Biomass w/ Epi.			0.63400		
Total Biomass w/o Epi.			0.63400		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Calvert Cliffs Discharge		Station: 006		Rep: 01	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 12SEP13	
		Sampled Area: 0.025 sq.m		Time: 9:20:41	
BOTTOM ENVIRONMENT					
Depth (m): 1.7		Salinity (ppt): 15.30		Temperature (C): 25.91	
Dissolved Oxygen (mg/l): 3.7		Sediment Silt-Clay (%): 0.99		Total Carbon (%): 0.03	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.33		Condition: Meets Goal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.90	3	Pollution Indicative Species Abundance (%)	8.33	5
Abundance (#/m2)	960	1	Pollution Indicative Species Biomass (%)	0.47	
Biomass (g/m2)	1.71	3	Pollution Sensitive Species Abundance (%)	16.67	3
Carnivore-Omnivore Abundance (%)	54.17	5	Pollution Sensitive Species Biomass (%)	0.23	
Deep Deposit Feeder Abundance (%)	8.33				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Ameroculodes species complex	40		0.01600		
Carinoma tremaphoros	40		0.02000		
Gemma gemma	80		0.00200		
Glycinde solitaria	160		0.00400		
Heteromastus filiformis	80		0.00800		
Lepidactylus dytiscus	120		0.09600		
Micrura leidyi	40		1.42800		
Neanthes succinea	280		0.11200		
Paraonis fulgens	40		0.02000		
Streblospio benedicti	80		0.00800		
Total Abundance w/ Epi.	960				
Total Abundance w/o Epi.	960				
Number of Taxa w/ Epi.	10				
Number of Taxa w/o Epi.	10				
Total Biomass w/ Epi.			1.71400		
Total Biomass w/o Epi.			1.71400		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Calvert Cliffs Discharge		Station: 006		Rep: 02	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 12SEP13	
		Sampled Area: 0.025 sq.m		Time: 9:20:41	
BOTTOM ENVIRONMENT					
Depth (m): 1.7		Salinity (ppt): 15.30		Temperature (C): 25.91	
Dissolved Oxygen (mg/l): 3.7		Sediment Silt-Clay (%): 0.99		Total Carbon (%): 0.03	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.00		Condition: Meets Goal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.38	1	Pollution Indicative Species Abundance (%)	5.26	5
Abundance (#/m2)	760	1	Pollution Indicative Species Biomass (%)	0.16	
Biomass (g/m2)	2.46	3	Pollution Sensitive Species Abundance (%)	21.05	3
Carnivore-Omnivore Abundance (%)	52.63	5	Pollution Sensitive Species Biomass (%)	1.14	
Deep Deposit Feeder Abundance (%)	31.58				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Gemma gemma	80		0.02000		
Glycinde solitaria	160		0.02800		
Heteromastus filiformis	240		0.04000		
Micrura leidy	80		2.32000		
Neanthes succinea	160		0.05200		
Streblospio benedicti	40		0.00400		
Total Abundance w/ Epi.	760				
Total Abundance w/o Epi.	760				
Number of Taxa w/ Epi.	6				
Number of Taxa w/o Epi.	6				
Total Biomass w/ Epi.			2.46400		
Total Biomass w/o Epi.			2.46400		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Calvert Cliffs Discharge		Station: 006		Rep: 03	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 12SEP13	
		Sampled Area: 0.025 sq.m		Time: 9:20:41	
BOTTOM ENVIRONMENT					
Depth (m): 1.7		Salinity (ppt): 15.30		Temperature (C): 25.91	
Dissolved Oxygen (mg/l): 3.7		Sediment Silt-Clay (%): 0.99		Total Carbon (%): 0.03	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.67		Condition: Marginal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.95	3	Pollution Indicative Species Abundance (%)	18.75	3
Abundance (#/m2)	640	1	Pollution Indicative Species Biomass (%)	74.34	
Biomass (g/m2)	0.90	1	Pollution Sensitive Species Abundance (%)	18.75	3
Carnivore-Omnivore Abundance (%)	43.75	5	Pollution Sensitive Species Biomass (%)	0.44	
Deep Deposit Feeder Abundance (%)	31.25				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Eteone foliosa	40		0.01600		
Glycinde solitaria	120		0.00400		
Heteromastus filiformis	160		0.01600		
Leitoscoloplos fragilis	40		0.66800		
Lepidactylus dytiscus	40		0.04800		
Micrura leidyi	40		0.13600		
Neanthes succinea	80		0.00800		
Paraonis fulgens	40		0.00400		
Streblospio benedicti	80		0.00400		
Total Abundance w/ Epi.	640				
Total Abundance w/o Epi.	640				
Number of Taxa w/ Epi.	9				
Number of Taxa w/o Epi.	9				
Total Biomass w/ Epi.			0.90400		
Total Biomass w/o Epi.			0.90400		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Mainstem		Station: 015		Rep: 01	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 26SEP13	
		Sampled Area: 0.025 sq.m		Time: 9:31:44	
BOTTOM ENVIRONMENT					
Depth (m): 2.1		Salinity (ppt): 14.10		Temperature (C): 21.31	
Dissolved Oxygen (mg/l): 6.5		Sediment Silt-Clay (%): 5.31		Total Carbon (%): 0.18	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.67		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.23	1	Pollution Indicative Species Abundance (%)	52.94	1
Abundance (#/m2)	680	1	Pollution Indicative Species Biomass (%)	90.91	
Biomass (g/m2)	1.32	3	Pollution Sensitive Species Abundance (%)	11.76	3
Carnivore-Omnivore Abundance (%)	11.76	1	Pollution Sensitive Species Biomass (%)	2.42	
Deep Deposit Feeder Abundance (%)	52.94				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Glycinde solitaria	80		0.03200		
Heteromastus filiformis	160		0.08400		
Leitoscoloplos fragilis	200		0.77200		
Macoma mitchelli	80		0.00400		
Mulinia lateralis	160		0.42800		
Total Abundance w/ Epi.	680				
Total Abundance w/o Epi.	680				
Number of Taxa w/ Epi.	5				
Number of Taxa w/o Epi.	5				
Total Biomass w/ Epi.			1.32000		
Total Biomass w/o Epi.			1.32000		



BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Mainstem		Station: 015		Rep: 03	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 26SEP13	
		Sampled Area: 0.025 sq.m		Time: 9:31:44	
BOTTOM ENVIRONMENT					
Depth (m): 2.1		Salinity (ppt): 14.10		Temperature (C): 21.31	
Dissolved Oxygen (mg/l): 6.5		Sediment Silt-Clay (%): 5.31		Total Carbon (%): 0.18	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.67		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.64	3	Pollution Indicative Species Abundance (%)	38.89	1
Abundance (#/m2)	720	1	Pollution Indicative Species Biomass (%)	63.43	
Biomass (g/m2)	0.70	1	Pollution Sensitive Species Abundance (%)	11.11	3
Carnivore-Omnivore Abundance (%)	11.11	1	Pollution Sensitive Species Biomass (%)	16.00	
Deep Deposit Feeder Abundance (%)	22.22				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	40		0.02400		
Heteromastus filiformis	80		0.03600		
Leitoscoloplos fragilis	80		0.33200		
Macoma mitchelli	200		0.05600		
Marenzelleria viridis	80		0.11200		
Micrura leidyi	40		0.02800		
Mulinia lateralis	160		0.09200		
Streblospio benedicti	40		0.02000		
Total Abundance w/ Epi.	720				
Total Abundance w/o Epi.	720				
Number of Taxa w/ Epi.	8				
Number of Taxa w/o Epi.	8				
Total Biomass w/ Epi.			0.70000		
Total Biomass w/o Epi.			0.70000		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Station: 022		Rep: 01
Watershed: Patapsco & Back Rivers	Habitat: Low Mesohaline	Date: 26AUG13
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 8:49:53
BOTTOM ENVIRONMENT		
Depth (m): 5.9	Salinity (ppt): 9.33	Temperature (C): 25.43
Dissolved Oxygen (mg/l): 3.9	Sediment Silt-Clay (%): 77.73	Total Carbon (%): 3.38
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 1.40	Condition: Severely Degr.	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	0.00 1	Pollution Indicative Species Abundance (%) 100.00 1
Abundance (#/m2)	720 3	Pollution Indicative Species Biomass (%) 100.00
Biomass (g/m2)	0.03 1	Pollution Sensitive Species Abundance (%) 0.00
Carnivore-Omnivore Abundance (%)	0.00	Pollution Sensitive Species Biomass (%) 0.00 1
Deep Deposit Feeder Abundance (%)	0.00	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Streblospio benedicti	720	0.02700
Total Abundance w/ Epi.	720	
Total Abundance w/o Epi.	720	
Number of Taxa w/ Epi.	1	
Number of Taxa w/o Epi.	1	
Total Biomass w/ Epi.		0.02700
Total Biomass w/o Epi.		0.02700

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Station: 022		Rep: 02
Watershed: Patapsco & Back Rivers	Habitat: Low Mesohaline	Date: 26AUG13
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 8:49:53
BOTTOM ENVIRONMENT		
Depth (m): 5.9	Salinity (ppt): 9.33	Temperature (C): 25.43
Dissolved Oxygen (mg/l): 3.9	Sediment Silt-Clay (%): 77.73	Total Carbon (%): 3.38
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 1.00	Condition: Severely Degr.	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	0.44 1	Pollution Indicative Species Abundance (%) 90.91 1
Abundance (#/m2)	495 1	Pollution Indicative Species Biomass (%) 61.54
Biomass (g/m2)	0.06 1	Pollution Sensitive Species Abundance (%) 0.00
Carnivore-Omnivore Abundance (%)	0.00	Pollution Sensitive Species Biomass (%) 0.00 1
Deep Deposit Feeder Abundance (%)	9.09	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Heteromastus filiformis	45	0.02250
Streblospio benedicti	450	0.03600
Total Abundance w/ Epi.	495	
Total Abundance w/o Epi.	495	
Number of Taxa w/ Epi.	2	
Number of Taxa w/o Epi.	2	
Total Biomass w/ Epi.		0.05850
Total Biomass w/o Epi.		0.05850

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 022		Rep: 03	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 26AUG13	
		Sampled Area: 0.022 sq.m		Time: 8:49:53	
BOTTOM ENVIRONMENT					
Depth (m): 5.9		Salinity (ppt): 9.33		Temperature (C): 25.43	
Dissolved Oxygen (mg/l): 3.9		Sediment Silt-Clay (%): 77.73		Total Carbon (%): 3.38	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.00		Condition: Severely Degr.		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	1.06	1	Pollution Indicative Species Abundance (%)	75.00	1
Abundance (#/m2)	360	1	Pollution Indicative Species Biomass (%)	25.00	
Biomass (g/m2)	0.02	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	12.50		Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	12.50				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Heteromastus filiformis	45		0.00450		
Micrura leidyi	45		0.00900		
Streblospio benedicti	270		0.00450		
Total Abundance w/ Epi.	360				
Total Abundance w/o Epi.	360				
Number of Taxa w/ Epi.	3				
Number of Taxa w/o Epi.	3				
Total Biomass w/ Epi.			0.01800		
Total Biomass w/o Epi.			0.01800		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 023		Rep: 01	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 26AUG13	
		Sampled Area: 0.022 sq.m		Time: 11:02:13	
BOTTOM ENVIRONMENT					
Depth (m): 6.7		Salinity (ppt): 10.25		Temperature (C): 25.30	
Dissolved Oxygen (mg/l): 2.8		Sediment Silt-Clay (%): 94.73		Total Carbon (%): 2.47	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.00		Condition: Severely Degr.		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	0.00	1	Pollution Indicative Species Abundance (%)	100.00	1
Abundance (#/m2)	45	1	Pollution Indicative Species Biomass (%)	100.00	
Biomass (g/m2)	0.01	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	0.00		Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Hydrobia truncata (Epi)	45		0.01800		
Streblospio benedicti	45		0.00900		
Total Abundance w/ Epi.	90				
Total Abundance w/o Epi.	45				
Number of Taxa w/ Epi.	2				
Number of Taxa w/o Epi.	1				
Total Biomass w/ Epi.			0.02700		
Total Biomass w/o Epi.			0.00900		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 023		Rep: 02	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 26AUG13	
		Sampled Area: 0.022 sq.m		Time: 11:02:13	
BOTTOM ENVIRONMENT					
Depth (m): 6.7		Salinity (ppt): 10.25		Temperature (C): 25.30	
Dissolved Oxygen (mg/l): 2.8		Sediment Silt-Clay (%): 94.73		Total Carbon (%): 2.47	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.80		Condition: Severely Degr.		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	0.00	1	Pollution Indicative Species Abundance (%)	0.00	5
Abundance (#/m2)	45	1	Pollution Indicative Species Biomass (%)	0.00	
Biomass (g/m2)	0.29	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	0.00		Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	100.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Heteromastus filiformis		45		0.28800	
Total Abundance w/ Epi.		45			
Total Abundance w/o Epi.		45			
Number of Taxa w/ Epi.		1			
Number of Taxa w/o Epi.		1			
Total Biomass w/ Epi.				0.28800	
Total Biomass w/o Epi.				0.28800	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 023		Rep: 03	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 26AUG13	
		Sampled Area: 0.022 sq.m		Time: 11:02:13	
BOTTOM ENVIRONMENT					
Depth (m): 6.7		Salinity (ppt): 10.25		Temperature (C): 25.30	
Dissolved Oxygen (mg/l): 2.8		Sediment Silt-Clay (%): 94.73		Total Carbon (%): 2.47	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.00		Condition: Severely Degr.		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	0.00	1	Pollution Indicative Species Abundance (%)	100.00	1
Abundance (#/m2)	0	1	Pollution Indicative Species Biomass (%)	100.00	
Biomass (g/m2)	0.00	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	0.00		Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Hydrobia truncata (Epi)		45		0.01350	
Total Abundance w/ Epi.		45			
Total Abundance w/o Epi.					
Number of Taxa w/ Epi.		1			
Number of Taxa w/o Epi.					
Total Biomass w/ Epi.				0.01350	
Total Biomass w/o Epi.					

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Mainstem		Station: 024		Rep: 03	
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud		Date: 22AUG13	
		Sampled Area: 0.022 sq.m		Time: 11:33:20	
BOTTOM ENVIRONMENT					
Depth (m): 6.8		Salinity (ppt): 9.85		Temperature (C): 24.93	
Dissolved Oxygen (mg/l): 4.9		Sediment Silt-Clay (%): 90.03		Total Carbon (%): 3.36	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 4.00		Condition: Meets Goal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	1.90	1	Pollution Indicative Species Abundance (%)	0.00	
Abundance (#/m2)	1035	3	Pollution Indicative Species Biomass (%)	0.00	5
Biomass (g/m2)	3.80	5	Pollution Sensitive Species Abundance (%)	47.83	
Carnivore-Omnivore Abundance (%)	34.78	5	Pollution Sensitive Species Biomass (%)	82.44	5
Deep Deposit Feeder Abundance (%)	13.04				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	90		0.01800		
Gemma gemma	45		0.00225		
Heteromastus filiformis	135		0.08100		
Macoma balthica	495		3.13650		
Neanthes succinea	270		0.56700		
Total Abundance w/ Epi.	1035				
Total Abundance w/o Epi.	1035				
Number of Taxa w/ Epi.	5				
Number of Taxa w/o Epi.	5				
Total Biomass w/ Epi.			3.80475		
Total Biomass w/o Epi.			3.80475		



BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Upper Western Shore		Station: 026		Rep: 01	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 21AUG13	
		Sampled Area: 0.022 sq.m		Time: 15:05:20	
BOTTOM ENVIRONMENT					
Depth (m): 3.8		Salinity (ppt): 5.33		Temperature (C): 25.06	
Dissolved Oxygen (mg/l): 6.1		Sediment Silt-Clay (%): 90.25		Total Carbon (%): 2.68	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.80		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.16	3	Pollution Indicative Species Abundance (%)	0.00	5
Abundance (#/m2)	1620	5	Pollution Indicative Species Biomass (%)	0.00	
Biomass (g/m2)	47.35	1	Pollution Sensitive Species Abundance (%)	25.00	
Carnivore-Omnivore Abundance (%)	11.11		Pollution Sensitive Species Biomass (%)	97.47	5
Deep Deposit Feeder Abundance (%)	11.11				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Cyathura polita	135		0.04500		
Heteromastus filiformis	45		0.00900		
Leptocheirus plumulosus	945		0.25200		
Macoma balthica	45		3.41100		
Macoma mitchelli	45		0.76950		
Marenzelleria viridis	135		0.14850		
Neanthes succinea	45		0.16200		
Rangia cuneata	90		42.55200		
Tubificoides spp.	135		0.00450		
Total Abundance w/ Epi.	1620				
Total Abundance w/o Epi.	1620				
Number of Taxa w/ Epi.	9				
Number of Taxa w/o Epi.	9				
Total Biomass w/ Epi.			47.35350		
Total Biomass w/o Epi.			47.35350		



BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Upper Western Shore		Station: 026		Rep: 02	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 21AUG13	
		Sampled Area: 0.022 sq.m		Time: 15:05:20	
BOTTOM ENVIRONMENT					
Depth (m): 3.8		Salinity (ppt): 5.33		Temperature (C): 25.06	
Dissolved Oxygen (mg/l): 6.1		Sediment Silt-Clay (%): 90.25		Total Carbon (%): 2.68	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.80		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.47	3	Pollution Indicative Species Abundance (%)	8.57	5
Abundance (#/m2)	1575	5	Pollution Indicative Species Biomass (%)	0.01	
Biomass (g/m2)	38.74	1	Pollution Sensitive Species Abundance (%)	28.57	
Carnivore-Omnivore Abundance (%)	11.43		Pollution Sensitive Species Biomass (%)	99.40	5
Deep Deposit Feeder Abundance (%)	14.29				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	45		0.03600		
Cyathura polita	135		0.05400		
Heteromastus filiformis	90		0.04950		
Leptocheirus plumulosus	720		0.13950		
Marenzelleria viridis	180		0.19800		
Melita nitida (Epi)	45		0.00225		
Rangia cuneata	135		38.25900		
Streblospio benedicti	135		0.00450		
Tubificoides spp.	135		0.00225		
Total Abundance w/ Epi.	1620				
Total Abundance w/o Epi.	1575				
Number of Taxa w/ Epi.	9				
Number of Taxa w/o Epi.	8				
Total Biomass w/ Epi.			38.74500		
Total Biomass w/o Epi.			38.74275		



BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Upper Western Shore		Station: 026		Rep: 03	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 21AUG13	
		Sampled Area: 0.022 sq.m		Time: 15:05:20	
BOTTOM ENVIRONMENT					
Depth (m): 3.8		Salinity (ppt): 5.33		Temperature (C): 25.06	
Dissolved Oxygen (mg/l): 6.1		Sediment Silt-Clay (%): 90.25		Total Carbon (%): 2.68	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 4.20		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.01	3	Pollution Indicative Species Abundance (%)	2.78	5
Abundance (#/m2)	1620	5	Pollution Indicative Species Biomass (%)	0.17	
Biomass (g/m2)	1.34	3	Pollution Sensitive Species Abundance (%)	47.22	
Carnivore-Omnivore Abundance (%)	16.67		Pollution Sensitive Species Biomass (%)	82.75	5
Deep Deposit Feeder Abundance (%)	2.78				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Americamysis bigelowi	(Epi)	45		0.00450	
Cyathura polita		270		0.27450	
Heteromastus filiformis		45		0.11250	
Leptocheirus plumulosus		765		0.11700	
Marenzelleria viridis		135		0.02700	
Melita nitida	(Epi)	45		0.00225	
Rangia cuneata		360		0.81000	
Streblospio benedicti		45		0.00225	
Total Abundance w/ Epi.		1710			
Total Abundance w/o Epi.		1620			
Number of Taxa w/ Epi.		8			
Number of Taxa w/o Epi.		6			
Total Biomass w/ Epi.				1.35000	
Total Biomass w/o Epi.				1.34325	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Upper Eastern Shore		Station: 029		Rep: 01	
Gear: Wildco Box Corer		Habitat: Oligohaline		Date: 21AUG13	
		Sampled Area: 0.022 sq.m		Time: 11:38:50	
BOTTOM ENVIRONMENT					
Depth (m): 5.5		Salinity (ppt): 0.40		Temperature (C): 25.35	
Dissolved Oxygen (mg/l): 6.3		Sediment Silt-Clay (%): 52.26		Total Carbon (%): 1.85	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 4.00		Condition: Meets Goal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.57		Oligohaline Pollution Indicative Spp. Abund.	37.78	3
Abundance (#/m2)	2025	5	Tolerance Score	8.48	3
Deep Deposit Feeder Abundance (%)	33.33		Oligohaline Pollution Sensitive Spp. Abund.	28.89	5
Carnivore-Omnivore Abundance (%)	17.78	3	Tanypodinae/Chironomidae Abundance Ratio	0.00	5
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Cryptochironomus spp.	90		0.00225		
Cyathura polita	270		0.10350		
Gammarus daiberi (Epi)	45		0.00900		
Leptocheirus plumulosus	90		0.01800		
Limnodrilus hoffmeisteri	405		0.00225		
Marenzelleria viridis	585		0.62550		
Oligochaeta			0.04500		
Rangia cuneata	315		272.31750		
Tubificidae imm w/o cap chaetae *	270		0.00225		
Total Abundance w/ Epi.	2070				
Total Abundance w/o Epi.	2025				
Number of Taxa w/ Epi.	7				
Number of Taxa w/o Epi.	6				
Total Biomass w/ Epi.			273.12525		
Total Biomass w/o Epi.			273.11625		

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Upper Eastern Shore		Station: 029	Rep: 02
Gear: Wildco Box Corer		Habitat: Oligohaline	Date: 21AUG13
		Sampled Area: 0.022 sq.m	Time: 11:38:50
BOTTOM ENVIRONMENT			
Depth (m): 5.5	Salinity (ppt): 0.40	Temperature (C): 25.35	
Dissolved Oxygen (mg/l): 6.3	Sediment Silt-Clay (%): 52.26	Total Carbon (%): 1.85	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 3.00	Condition: Meets Goal		# Attributes Scored: 5
	Value	Score	Value
Shannon-Wiener Index	1.77		59.52
Abundance (#/m2)	1890	5	3
Deep Deposit Feeder Abundance (%)	57.14		9.65
Carnivore-Omnivore Abundance (%)	0.00	1	1
			38.10
			0.00
			5
			0.00
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)		Biomass (g/m2)
Gammarus daiberi (Epi)	45		0.00450
Leptocheirus plumulosus	45		0.00450
Limnodrilus hoffmeisteri	720		
Marenzelleria viridis	720		0.84600
Oligochaeta			0.11700
Rangia cuneata	45		4.19400
Tubificidae imm w/o cap chaetae *	360		
Total Abundance w/ Epi.	1935		
Total Abundance w/o Epi.	1890		
Number of Taxa w/ Epi.	5		
Number of Taxa w/o Epi.	4		
Total Biomass w/ Epi.			5.16600
Total Biomass w/o Epi.			5.16150

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Upper Eastern Shore		Station: 029	Rep: 03
Gear: Wildco Box Corer		Habitat: Oligohaline	Date: 21AUG13
		Sampled Area: 0.022 sq.m	Time: 11:38:50
BOTTOM ENVIRONMENT			
Depth (m): 5.5	Salinity (ppt): 0.40	Temperature (C): 25.35	
Dissolved Oxygen (mg/l): 6.3	Sediment Silt-Clay (%): 52.26	Total Carbon (%): 1.85	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 3.00	Condition: Meets Goal		# Attributes Scored: 6
	Value	Score	Value Score
Shannon-Wiener Index	2.62	5	52.83 3
Abundance (#/m2)	2385		8.66 3
Deep Deposit Feeder Abundance (%)	45.28		16.98 3
Carnivore-Omnivore Abundance (%)	13.21	1	50.00 3
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)		Biomass (g/m2)
Cryptochironomus spp.	45		0.00225
Cyathura polita	225		0.15750
Gammarus daiberi (Epi)	135		0.00450
Leptocheirus plumulosus	135		0.03600
Limnodrilus hoffmeisteri	630		
Marenzelleria viridis	405		0.46350
Oligochaeta			0.12150
Procladius spp.	45		0.00225
Rangia cuneata	450		414.38250
Tubificidae imm w/o cap chaetae *	450		
Total Abundance w/ Epi.	2520		
Total Abundance w/o Epi.	2385		
Number of Taxa w/ Epi.	8		
Number of Taxa w/o Epi.	7		
Total Biomass w/ Epi.			415.17000
Total Biomass w/o Epi.			415.16550

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Potomac River		Station: 036		Rep: 01	
Gear: Wildco Box Corer		Habitat: Tidal Freshwater		Date: 24SEP13	
		Sampled Area: 0.022 sq.m		Time: 14:12:08	
BOTTOM ENVIRONMENT					
Depth (m): 1.7		Salinity (ppt): 0.19		Temperature (C): 20.87	
Dissolved Oxygen (mg/l): 7.2		Sediment Silt-Clay (%): 78.00		Total Carbon (%): 2.77	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.50		Condition: Severely Degr.		# Attributes Scored: 3	
		Value	Score	Value	Score
Shannon-Wiener Index		1.25		78.74	3
Abundance (#/m2)		5715	1	Tolerance Score	9.62
Deep Deposit Feeder Abundance (%)		95.28	1	Limnodrilus Abundance (%)	78.74
Carnivore-Omnivore Abundance (%)		3.15			
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Branchiura sowerbyi		45		0.14850	
Coelotanypus spp.		135		0.02700	
Cryptochironomus spp.		45		0.00225	
Hirudinea (Epi)		45		0.03150	
Limnodrilus hoffmeisteri		225			
Musculium transversum		90		0.00900	
Oligochaeta				0.53100	
Tubificidae imm w cap chaetae		900			
Tubificidae imm w/o cap chaetae *		4275			
Total Abundance w/ Epi.		5760			
Total Abundance w/o Epi.		5715			
Number of Taxa w/ Epi.		7			
Number of Taxa w/o Epi.		6			
Total Biomass w/ Epi.				0.74925	
Total Biomass w/o Epi.				0.71775	

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Potomac River		Station: 036		Rep: 02	
Gear: Wildco Box Corer		Habitat: Tidal Freshwater		Date: 24SEP13	
		Sampled Area: 0.022 sq.m		Time: 14:12:08	
BOTTOM ENVIRONMENT					
Depth (m): 1.7		Salinity (ppt): 0.19		Temperature (C): 20.87	
Dissolved Oxygen (mg/l): 7.2		Sediment Silt-Clay (%): 78.00		Total Carbon (%): 2.77	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.00		Condition: Severely Degr.		# Attributes Scored: 3	
		Value	Score	Value	Score
Shannon-Wiener Index		2.12		65.22	3
Abundance (#/m2)		6210	1	T.F. Pollution Indicative Spp. Abund. (%)	
Deep Deposit Feeder Abundance (%)		94.20	3	Tolerance Score	
Carnivore-Omnivore Abundance (%)		3.62		Limnodrilus Abundance (%)	
				9.58	1
				76.09	
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Branchiura sowerbyi		225		0.18000	
Coelotanypus spp.		135		0.02250	
Cryptochironomus spp.		45		0.00225	
Harnischia spp.		45		0.00225	
Limnodrilus cervix		450			
Limnodrilus hoffmeisteri		450			
Limnodrilus spp. *		225			
Menetus dilatatus (Epi)		45		0.00225	
Musculium transversum		90		0.00450	
Oligochaeta				0.58388	
Pisidium spp.		45		0.09000	
Tubificidae imm w cap chaetae		900			
Tubificidae imm w/o cap chaetae *		3600			
Total Abundance w/ Epi.		6255			
Total Abundance w/o Epi.		6210			
Number of Taxa w/ Epi.		10			
Number of Taxa w/o Epi.		9			
Total Biomass w/ Epi.				0.88763	
Total Biomass w/o Epi.				0.88538	

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Potomac River		Station: 036		Rep: 03	
Gear: Wildco Box Corer		Habitat: Tidal Freshwater		Date: 24SEP13	
		Sampled Area: 0.022 sq.m		Time: 14:12:08	
BOTTOM ENVIRONMENT					
Depth (m): 1.7		Salinity (ppt): 0.19		Temperature (C): 20.87	
Dissolved Oxygen (mg/l): 7.2		Sediment Silt-Clay (%): 78.00		Total Carbon (%): 2.77	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.50		Condition: Severely Degr.		# Attributes Scored: 3	
		Value	Score	Value	Score
Shannon-Wiener Index		1.17		87.84	1
Abundance (#/m2)		6660	1	Tolerance Score	9.64
Deep Deposit Feeder Abundance (%)		94.59	3	Limnodrilus Abundance (%)	91.22
Carnivore-Omnivore Abundance (%)		4.05			
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Branchiura sowerbyi		225		0.14850	
Chironomus spp.		45		0.00900	
Coelotanypus spp.		180		0.04050	
Cryptochironomus spp.		45		0.00900	
Limnodrilus cervix		225			
Limnodrilus hoffmeisteri		450			
Musculium transversum		45		0.00900	
Oligochaeta				0.61200	
Pisidium spp.		45		0.01800	
Tubificidae imm w/o cap chaetae		5400			
Total Abundance w/ Epi.		6660			
Total Abundance w/o Epi.		6660			
Number of Taxa w/ Epi.		9			
Number of Taxa w/o Epi.		9			
Total Biomass w/ Epi.				0.84600	
Total Biomass w/o Epi.				0.84600	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Potomac River		Station: 040		Rep: 01	
Gear: Wildco Box Corer		Habitat: Oligohaline		Date: 24SEP13	
		Sampled Area: 0.022 sq.m		Time: 11:26:15	
BOTTOM ENVIRONMENT					
Depth (m): 7.3		Salinity (ppt): 6.22		Temperature (C): 21.69	
Dissolved Oxygen (mg/l): 6.1		Sediment Silt-Clay (%): 86.12		Total Carbon (%): 2.66	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.60		Condition: Degraded		# Attributes Scored: 5	
		Value	Score	Value	Score
Shannon-Wiener Index		1.08		92.94	3
Abundance (#/m2)		3825	3	Tolerance Score	6.00
Deep Deposit Feeder Abundance (%)		4.71		Oligohaline Pollution Sensitive Spp. Abund.	0.00
Carnivore-Omnivore Abundance (%)		4.71	1	Tanypodinae/Chironomidae Abundance Ratio	0.00
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Carinoma tremaphoros		45		0.35550	
Cyathura polita		135		0.00900	
Leptocheirus plumulosus		3150		0.38700	
Macoma mitchelli		45		0.02250	
Melita nitida (Epi)		180		0.00900	
Rangia cuneata		45		28.04400	
Streblospio benedicti		225		0.01800	
Tubificoides spp.		180		0.00450	
Total Abundance w/ Epi.		4005			
Total Abundance w/o Epi.		3825			
Number of Taxa w/ Epi.		8			
Number of Taxa w/o Epi.		7			
Total Biomass w/ Epi.				28.84950	
Total Biomass w/o Epi.				28.84050	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Potomac River		Station: 040	Rep: 02
Gear: Wildco Box Corer		Habitat: Oligohaline	Date: 24SEP13
		Sampled Area: 0.022 sq.m	Time: 11:26:15
BOTTOM ENVIRONMENT			
Depth (m): 7.3	Salinity (ppt): 6.22	Temperature (C): 21.69	
Dissolved Oxygen (mg/l): 6.1	Sediment Silt-Clay (%): 86.12	Total Carbon (%): 2.66	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 3.40	Condition: Meets Goal		# Attributes Scored: 5
	Value	Score	Value
Shannon-Wiener Index	1.70		90.77
Abundance (#/m2)	2925	5	3
Deep Deposit Feeder Abundance (%)	13.85		6.00
Carnivore-Omnivore Abundance (%)	3.08	1	3
			0.00
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)		Biomass (g/m2)
Apocorophium lacustre (Epi)	90		0.00225
Cyathura polita	90		0.17550
Leptocheirus plumulosus	1845		0.14400
Macoma mitchelli	45		0.00450
Marenzelleria viridis	90		0.18900
Melita nitida (Epi)	90		0.00225
Rangia cuneata	45		0.06300
Streblospio benedicti	405		0.01350
Tubificoides spp.	405		0.00900
Total Abundance w/ Epi.	3105		
Total Abundance w/o Epi.	2925		
Number of Taxa w/ Epi.	9		
Number of Taxa w/o Epi.	7		
Total Biomass w/ Epi.			0.60300
Total Biomass w/o Epi.			0.59850

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Potomac River		Station: 040		Rep: 03	
Gear: Wildco Box Corer		Habitat: Oligohaline		Date: 24SEP13	
		Sampled Area: 0.022 sq.m		Time: 11:26:15	
BOTTOM ENVIRONMENT					
Depth (m): 7.3		Salinity (ppt): 6.22		Temperature (C): 21.69	
Dissolved Oxygen (mg/l): 6.1		Sediment Silt-Clay (%): 86.12		Total Carbon (%): 2.66	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.00		Condition: Meets Goal		# Attributes Scored: 5	
		Value	Score	Value	Score
Shannon-Wiener Index		1.36		Oligohaline Pollution Indicative Spp. Abund.	84.62 3
Abundance (#/m2)		3510	3	Tolerance Score	6.00 5
Deep Deposit Feeder Abundance (%)		5.13		Oligohaline Pollution Sensitive Spp. Abund.	8.97 3
Carnivore-Omnivore Abundance (%)		3.85	1	Tanypodinae/Chironomidae Abundance Ratio	0.00
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Ameroculodes species complex		45		0.01800	
Cyathura polita		135		0.05400	
Leptocheirus plumulosus		2655		0.22500	
Marenzelleria viridis		315		1.53450	
Melita nitida (Epi)		180		0.00450	
Rangia cuneata		45		25.96050	
Streblospio benedicti		135		0.00900	
Tubificoides spp.		180		0.00450	
Total Abundance w/ Epi.		3690			
Total Abundance w/o Epi.		3510			
Number of Taxa w/ Epi.		8			
Number of Taxa w/o Epi.		7			
Total Biomass w/ Epi.				27.81000	
Total Biomass w/o Epi.				27.80550	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Potomac River		Station: 043		Rep: 01	
Gear: Modified Box Corer		Habitat: Low Mesohaline		Date: 25SEP13	
		Sampled Area: 0.025 sq.m		Time: 11:23:04	
BOTTOM ENVIRONMENT					
Depth (m): 2.3		Salinity (ppt): 9.95		Temperature (C): 22.06	
Dissolved Oxygen (mg/l): 6.3		Sediment Silt-Clay (%): 2.48		Total Carbon (%): 0.07	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.40		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.09	3	Pollution Indicative Species Abundance (%)	7.89	5
Abundance (#/m2)	3040	3	Pollution Indicative Species Biomass (%)	0.38	
Biomass (g/m2)	1.06	3	Pollution Sensitive Species Abundance (%)	25.00	
Carnivore-Omnivore Abundance (%)	2.63		Pollution Sensitive Species Biomass (%)	61.63	3
Deep Deposit Feeder Abundance (%)	9.21				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Eteone heteropoda	40		0.00200		
Heteromastus filiformis	40		0.02400		
Leptocheirus plumulosus	1480		0.15600		
Macoma mitchelli	240		0.20800		
Marenzelleria viridis	760		0.65200		
Neanthes succinea	40		0.01200		
Streblospio benedicti	200		0.00200		
Tubificidae imm w cap chaetae	240		0.00200		
Total Abundance w/ Epi.	3040				
Total Abundance w/o Epi.	3040				
Number of Taxa w/ Epi.	8				
Number of Taxa w/o Epi.	8				
Total Biomass w/ Epi.			1.05800		
Total Biomass w/o Epi.			1.05800		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Potomac River		Station: 043		Rep: 02	
Gear: Modified Box Corer		Habitat: Low Mesohaline		Date: 25SEP13	
		Sampled Area: 0.025 sq.m		Time: 11:23:04	
BOTTOM ENVIRONMENT					
Depth (m): 2.3		Salinity (ppt): 9.95		Temperature (C): 22.06	
Dissolved Oxygen (mg/l): 6.3		Sediment Silt-Clay (%): 2.48		Total Carbon (%): 0.07	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.40		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.19	3	Pollution Indicative Species Abundance (%)	5.00	5
Abundance (#/m2)	3200	3	Pollution Indicative Species Biomass (%)	0.24	
Biomass (g/m2)	1.68	3	Pollution Sensitive Species Abundance (%)	33.75	
Carnivore-Omnivore Abundance (%)	5.00		Pollution Sensitive Species Biomass (%)	66.35	3
Deep Deposit Feeder Abundance (%)	8.75				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Apocorophium lacustre	(Epi)	40		0.00200	
Heteromastus filiformis		80		0.14400	
Leptocheirus plumulosus		1280		0.12000	
Littoridinops tenuipes	(Epi)	40		0.00200	
Macoma mitchelli		240		0.08400	
Marenzelleria viridis		1080		1.11600	
Micrura leidyi		40		0.17200	
Neanthes succinea		120		0.04000	
Streblospio benedicti		160		0.00400	
Tubificidae imm w cap chaetae		200		0.00200	
Total Abundance w/ Epi.		3280			
Total Abundance w/o Epi.		3200			
Number of Taxa w/ Epi.		10			
Number of Taxa w/o Epi.		8			
Total Biomass w/ Epi.				1.68600	
Total Biomass w/o Epi.				1.68200	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Potomac River	Station: 043	Rep: 03
Gear: Modified Box Corer	Habitat: Low Mesohaline	Date: 25SEP13
	Sampled Area: 0.025 sq.m	Time: 11:23:04
BOTTOM ENVIRONMENT		
Depth (m): 2.3	Salinity (ppt): 9.95	Temperature (C): 22.06
Dissolved Oxygen (mg/l): 6.3	Sediment Silt-Clay (%): 2.48	Total Carbon (%): 0.07
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.80	Condition: Meets Goal	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	2.17 3	Pollution Indicative Species Abundance (%) 5.36 5
Abundance (#/m2)	2240 5	Pollution Indicative Species Biomass (%) 0.76
Biomass (g/m2)	1.05 3	Pollution Sensitive Species Abundance (%) 41.07
Carnivore-Omnivore Abundance (%)	0.00	Pollution Sensitive Species Biomass (%) 73.76 3
Deep Deposit Feeder Abundance (%)	12.50	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Apocorophium lacustre (Epi)	40	0.00200
Edotea triloba (Epi)	40	0.00400
Heteromastus filiformis	80	0.16400
Leptocheirus plumulosus	680	0.08400
Macoma mitchelli	240	0.01600
Marenzelleria viridis	920	0.77600
Streblospio benedicti	120	0.00800
Tubificidae imm w cap chaetae	160	0.00200
Tubificoides spp.	40	0.00200
Total Abundance w/ Epi.	2320	
Total Abundance w/o Epi.	2240	
Number of Taxa w/ Epi.	9	
Number of Taxa w/o Epi.	7	
Total Biomass w/ Epi.		1.05800
Total Biomass w/o Epi.		1.05200

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Potomac River		Station: 044		Rep: 01	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 25SEP13	
		Sampled Area: 0.022 sq.m		Time: 10:24:57	
BOTTOM ENVIRONMENT					
Depth (m): 12.5		Salinity (ppt): 11.35		Temperature (C): 21.82	
Dissolved Oxygen (mg/l): 5.8		Sediment Silt-Clay (%): 84.10		Total Carbon (%): 2.33	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.40		Condition: Severely Degr.		# Attributes Scored: 5	
		Value	Score	Value	Score
Shannon-Wiener Index		2.00	3	Pollution Indicative Species Abundance (%)	50.00 1
Abundance (#/m2)		180	1	Pollution Indicative Species Biomass (%)	2.11
Biomass (g/m2)		0.32	1	Pollution Sensitive Species Abundance (%)	0.00
Carnivore-Omnivore Abundance (%)		75.00		Pollution Sensitive Species Biomass (%)	0.00 1
Deep Deposit Feeder Abundance (%)		0.00			
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Coelotanypus spp.		45		0.00225	
Eteone heteropoda		45		0.00450	
Macoma mitchelli		45		0.31050	
Neanthes succinea		45		0.00225	
Total Abundance w/ Epi.		180			
Total Abundance w/o Epi.		180			
Number of Taxa w/ Epi.		4			
Number of Taxa w/o Epi.		4			
Total Biomass w/ Epi.				0.31950	
Total Biomass w/o Epi.				0.31950	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Potomac River		Station: 044		Rep: 02	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 25SEP13	
		Sampled Area: 0.022 sq.m		Time: 10:24:57	
BOTTOM ENVIRONMENT					
Depth (m): 12.5		Salinity (ppt): 11.35		Temperature (C): 21.82	
Dissolved Oxygen (mg/l): 5.8		Sediment Silt-Clay (%): 84.10		Total Carbon (%): 2.33	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.80		Condition: Severely Degr.		# Attributes Scored: 5	
		Value	Score	Value	Score
Shannon-Wiener Index		2.16	3	Pollution Indicative Species Abundance (%)	37.50
Abundance (#/m2)		360	1	Pollution Indicative Species Biomass (%)	2.51
Biomass (g/m2)		0.54	1	Pollution Sensitive Species Abundance (%)	12.50
Carnivore-Omnivore Abundance (%)		75.00		Pollution Sensitive Species Biomass (%)	85.36
Deep Deposit Feeder Abundance (%)		12.50			3
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Carinoma tremaphoros		45		0.03600	
Eteone heteropoda		135		0.01350	
Macoma balthica		45		0.45900	
Neanthes succinea		90		0.02700	
Tubificoides spp.		45		0.00225	
Total Abundance w/ Epi.		360			
Total Abundance w/o Epi.		360			
Number of Taxa w/ Epi.		5			
Number of Taxa w/o Epi.		5			
Total Biomass w/ Epi.				0.53775	
Total Biomass w/o Epi.				0.53775	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Potomac River		Station: 044		Rep: 03	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 25SEP13	
		Sampled Area: 0.022 sq.m		Time: 10:24:57	
BOTTOM ENVIRONMENT					
Depth (m): 12.5		Salinity (ppt): 11.35		Temperature (C): 21.82	
Dissolved Oxygen (mg/l): 5.8		Sediment Silt-Clay (%): 84.10		Total Carbon (%): 2.33	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.20		Condition: Degraded		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.25	3	Pollution Indicative Species Abundance (%)	16.67	3
Abundance (#/m2)	270	1	Pollution Indicative Species Biomass (%)	0.68	
Biomass (g/m2)	0.33	1	Pollution Sensitive Species Abundance (%)	16.67	
Carnivore-Omnivore Abundance (%)	33.33		Pollution Sensitive Species Biomass (%)	95.24	3
Deep Deposit Feeder Abundance (%)	33.33				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Eteone heteropoda	45		0.00225		
Leptocheirus plumulosus	45		0.00900		
Macoma balthica	45		0.31500		
Neanthes succinea	45		0.00225		
Tubificoides spp.	90		0.00225		
Total Abundance w/ Epi.	270				
Total Abundance w/o Epi.	270				
Number of Taxa w/ Epi.	5				
Number of Taxa w/o Epi.	5				
Total Biomass w/ Epi.			0.33075		
Total Biomass w/o Epi.			0.33075		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Morgantown Discharge		Station: 047		Rep: 01	
Gear: Modified Box Corer		Habitat: Low Mesohaline		Date: 25SEP13	
		Sampled Area: 0.025 sq.m		Time: 14:36:48	
BOTTOM ENVIRONMENT					
Depth (m): 1.7		Salinity (ppt): 9.80		Temperature (C): 22.64	
Dissolved Oxygen (mg/l): 7.7		Sediment Silt-Clay (%): 5.23		Total Carbon (%): 0.2	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.40		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.13	3	Pollution Indicative Species Abundance (%)	7.14	5
Abundance (#/m2)	3920	3	Pollution Indicative Species Biomass (%)	9.98	
Biomass (g/m2)	4.41	3	Pollution Sensitive Species Abundance (%)	48.98	
Carnivore-Omnivore Abundance (%)	9.18		Pollution Sensitive Species Biomass (%)	69.06	3
Deep Deposit Feeder Abundance (%)	5.10				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Americamysis bigelowi (Epi)		40		0.00200	
Edotea triloba (Epi)		40		0.00200	
Eteone heteropoda		80		0.03200	
Heteromastus filiformis		80		0.46000	
Leptocheirus plumulosus		1000		0.15600	
Macoma mitchelli		240		0.05600	
Marenzelleria viridis		1920		3.04400	
Neanthes succinea		280		0.24800	
Odostomia engonia (Epi)		40		0.00400	
Streblospio benedicti		200		0.40800	
Tubificoides spp.		120		0.00400	
Total Abundance w/ Epi.		4040			
Total Abundance w/o Epi.		3920			
Number of Taxa w/ Epi.		11			
Number of Taxa w/o Epi.		8			
Total Biomass w/ Epi.				4.41600	
Total Biomass w/o Epi.				4.40800	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Morgantown Discharge		Station: 047		Rep: 02	
Gear: Modified Box Corer		Habitat: Low Mesohaline		Date: 25SEP13	
		Sampled Area: 0.025 sq.m		Time: 14:36:48	
BOTTOM ENVIRONMENT					
Depth (m): 1.7		Salinity (ppt): 9.80		Temperature (C): 22.64	
Dissolved Oxygen (mg/l): 7.7		Sediment Silt-Clay (%): 5.23		Total Carbon (%): 0.2	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.40		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.59	5	Pollution Indicative Species Abundance (%)	13.58	3
Abundance (#/m2)	3240	3	Pollution Indicative Species Biomass (%)	1.70	
Biomass (g/m2)	3.06	3	Pollution Sensitive Species Abundance (%)	37.04	
Carnivore-Omnivore Abundance (%)	9.88		Pollution Sensitive Species Biomass (%)	65.97	3
Deep Deposit Feeder Abundance (%)	7.41				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Eteone heteropoda	200		0.04400		
Heteromastus filiformis	120		0.42400		
Leptocheirus plumulosus	800		0.10400		
Macoma balthica	40		0.31600		
Macoma mitchelli	440		0.30400		
Marenzelleria viridis	1160		1.70000		
Micrura leidyi	40		0.07200		
Neanthes succinea	80		0.08000		
Odostomia engonia (Epi)	40		0.00200		
Streblospio benedicti	240		0.00800		
Tubificoides spp.	120		0.00400		
Total Abundance w/ Epi.	3280				
Total Abundance w/o Epi.	3240				
Number of Taxa w/ Epi.	11				
Number of Taxa w/o Epi.	10				
Total Biomass w/ Epi.			3.05800		
Total Biomass w/o Epi.			3.05600		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Morgantown Discharge	Station: 047	Rep: 03
Gear: Modified Box Corer	Habitat: Low Mesohaline	Date: 25SEP13
	Sampled Area: 0.025 sq.m	Time: 14:36:48
BOTTOM ENVIRONMENT		
Depth (m): 1.7	Salinity (ppt): 9.80	Temperature (C): 22.64
Dissolved Oxygen (mg/l): 7.7	Sediment Silt-Clay (%): 5.23	Total Carbon (%): 0.2
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.80	Condition: Meets Goal	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	2.36 3	Pollution Indicative Species Abundance (%) 8.33 5
Abundance (#/m2)	2400 5	Pollution Indicative Species Biomass (%) 0.73
Biomass (g/m2)	3.58 3	Pollution Sensitive Species Abundance (%) 51.67
Carnivore-Omnivore Abundance (%)	13.33	Pollution Sensitive Species Biomass (%) 55.48 3
Deep Deposit Feeder Abundance (%)	10.00	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Eteone heteropoda	160	0.02400
Heteromastus filiformis	160	0.71200
Leptocheirus plumulosus	240	0.02400
Macoma mitchelli	320	0.56000
Marenzelleria viridis	1200	1.86800
Neanthes succinea	160	0.26800
Rangia cuneata	40	0.11600
Streblospio benedicti	40	0.00200
Tubificoides spp.	80	0.00200
Total Abundance w/ Epi.	2400	
Total Abundance w/o Epi.	2400	
Number of Taxa w/ Epi.	9	
Number of Taxa w/o Epi.	9	
Total Biomass w/ Epi.		3.57600
Total Biomass w/o Epi.		3.57600

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Potomac River		Station: 051		Rep: 01	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 25SEP13	
		Sampled Area: 0.025 sq.m		Time: 12:44:27	
BOTTOM ENVIRONMENT					
Depth (m): 2.2		Salinity (ppt): 13.49		Temperature (C): 21.57	
Dissolved Oxygen (mg/l): 7.7		Sediment Silt-Clay (%): 2.65		Total Carbon (%): 0.26	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.67		Condition: Meets Goal		# Attributes Scored: 6	
		Value	Score	Value	Score
Shannon-Wiener Index		2.68	3	Pollution Indicative Species Abundance (%)	0.00
Abundance (#/m2)		1720	5	Pollution Indicative Species Biomass (%)	0.00
Biomass (g/m2)		1.09	3	Pollution Sensitive Species Abundance (%)	13.95
Carnivore-Omnivore Abundance (%)		32.56	3	Pollution Sensitive Species Biomass (%)	25.00
Deep Deposit Feeder Abundance (%)		4.65			
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Carinoma tremaphoros		80		0.06400	
Edwardsia elegans		240		0.02800	
Gemma gemma		640		0.04400	
Glycinde solitaria		160		0.02800	
Heteromastus filiformis		80		0.14400	
Leptocheirus plumulosus		40		0.03200	
Macoma mitchelli		320		0.13200	
Marenzelleria viridis		40		0.21200	
Micrura leidyi		40		0.33600	
Neanthes succinea		40		0.03600	
Phoronis spp.		40		0.03200	
Total Abundance w/ Epi.		1720			
Total Abundance w/o Epi.		1720			
Number of Taxa w/ Epi.		11			
Number of Taxa w/o Epi.		11			
Total Biomass w/ Epi.				1.08800	
Total Biomass w/o Epi.				1.08800	



BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Potomac River		Station: 051		Rep: 02	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 25SEP13	
		Sampled Area: 0.025 sq.m		Time: 12:44:27	
BOTTOM ENVIRONMENT					
Depth (m): 2.2		Salinity (ppt): 13.49		Temperature (C): 21.57	
Dissolved Oxygen (mg/l): 7.7		Sediment Silt-Clay (%): 2.65		Total Carbon (%): 0.26	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.33		Condition: Meets Goal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.87	3	Pollution Indicative Species Abundance (%)	8.00	5
Abundance (#/m2)	1000	3	Pollution Indicative Species Biomass (%)	50.23	
Biomass (g/m2)	0.88	1	Pollution Sensitive Species Abundance (%)	32.00	3
Carnivore-Omnivore Abundance (%)	52.00	5	Pollution Sensitive Species Biomass (%)	30.14	
Deep Deposit Feeder Abundance (%)	12.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Edwardsia elegans	160		0.01200		
Gemma gemma	160		0.01200		
Glycinde solitaria	280		0.03200		
Heteromastus filiformis	80		0.07600		
Leitoscoloplos fragilis	40		0.43600		
Macoma mitchelli	120		0.03200		
Marenzelleria viridis	40		0.23200		
Micrura leidyi	80		0.04000		
Streblospio benedicti	40		0.00400		
Total Abundance w/ Epi.	1000				
Total Abundance w/o Epi.	1000				
Number of Taxa w/ Epi.	9				
Number of Taxa w/o Epi.	9				
Total Biomass w/ Epi.			0.87600		
Total Biomass w/o Epi.			0.87600		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Station: 051			Rep: 03		
Watershed: Potomac River		Habitat: High Mesohaline Sand		Date: 25SEP13	
Gear: Modified Box Corer		Sampled Area: 0.025 sq.m		Time: 12:44:27	
BOTTOM ENVIRONMENT					
Depth (m): 2.2		Salinity (ppt): 13.49		Temperature (C): 21.57	
Dissolved Oxygen (mg/l): 7.7		Sediment Silt-Clay (%): 2.65		Total Carbon (%): 0.26	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.67		Condition: Marginal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.65	3	Pollution Indicative Species Abundance (%)	7.14	5
Abundance (#/m2)	560	1	Pollution Indicative Species Biomass (%)	2.12	
Biomass (g/m2)	0.75	1	Pollution Sensitive Species Abundance (%)	42.86	3
Carnivore-Omnivore Abundance (%)	28.57	3	Pollution Sensitive Species Biomass (%)	23.34	
Deep Deposit Feeder Abundance (%)	21.43				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Gemma gemma	40		0.00200		
Glycinde solitaria	120		0.01200		
Heteromastus filiformis	120		0.14400		
Macoma mitchelli	80		0.36000		
Micrura leidyi	40		0.05600		
Phoronis spp.	120		0.16400		
Streblospio benedicti	40		0.01600		
Total Abundance w/ Epi.	560				
Total Abundance w/o Epi.	560				
Number of Taxa w/ Epi.	7				
Number of Taxa w/o Epi.	7				
Total Biomass w/ Epi.			0.75400		
Total Biomass w/o Epi.			0.75400		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Potomac River		Station: 052		Rep: 01	
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud		Date: 20AUG13	
		Sampled Area: 0.022 sq.m		Time: 14:28:38	
BOTTOM ENVIRONMENT					
Depth (m): 12.0		Salinity (ppt): 12.92		Temperature (C): 25.09	
Dissolved Oxygen (mg/l): 2.2		Sediment Silt-Clay (%): 90.59		Total Carbon (%): 3.3	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.00		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	0.00	1	Pollution Indicative Species Abundance (%)	100.00	
Abundance (#/m2)	0	1	Pollution Indicative Species Biomass (%)	100.00	1
Biomass (g/m2)	0.00	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	0.00	1	Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
No Organisms Present			0.00000		
Total Abundance w/ Epi.					
Total Abundance w/o Epi.					
Number of Taxa w/ Epi.	0				
Number of Taxa w/o Epi.	0				
Total Biomass w/ Epi.			0.00000		
Total Biomass w/o Epi.			0.00000		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Potomac River		Station: 052		Rep: 02	
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud		Date: 20AUG13	
		Sampled Area: 0.022 sq.m		Time: 14:28:38	
BOTTOM ENVIRONMENT					
Depth (m): 12.0		Salinity (ppt): 12.92		Temperature (C): 25.09	
Dissolved Oxygen (mg/l): 2.2		Sediment Silt-Clay (%): 90.59		Total Carbon (%): 3.3	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.00		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	0.00	1	Pollution Indicative Species Abundance (%)	100.00	
Abundance (#/m2)	0	1	Pollution Indicative Species Biomass (%)	100.00	1
Biomass (g/m2)	0.00	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	0.00	1	Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
No Organisms Present			0.00000		
Total Abundance w/ Epi.					
Total Abundance w/o Epi.					
Number of Taxa w/ Epi.	0				
Number of Taxa w/o Epi.	0				
Total Biomass w/ Epi.			0.00000		
Total Biomass w/o Epi.			0.00000		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Potomac River		Station: 052		Rep: 03	
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud		Date: 20AUG13	
		Sampled Area: 0.022 sq.m		Time: 14:28:38	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.00		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	0.00	1	Pollution Indicative Species Abundance (%)	100.00	
Abundance (#/m2)	0	1	Pollution Indicative Species Biomass (%)	100.00	1
Biomass (g/m2)	0.00	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	0.00	1	Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
No Organisms Present			0.00000		
Total Abundance w/ Epi.					
Total Abundance w/o Epi.					
Number of Taxa w/ Epi.	0				
Number of Taxa w/o Epi.	0				
Total Biomass w/ Epi.			0.00000		
Total Biomass w/o Epi.			0.00000		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Lower Eastern Shore		Station: 062		Rep: 01	
Gear: Petite Ponar		Habitat: Low Mesohaline		Date: 18SEP13	
		Sampled Area: 0.025 sq.m		Time: 13:45:07	
BOTTOM ENVIRONMENT					
Depth (m): 5.4		Salinity (ppt): 6.60		Temperature (C): 21.50	
Dissolved Oxygen (mg/l): 6.9		Sediment Silt-Clay (%): 82.01		Total Carbon (%): 3.97	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.80		Condition: Severely Degr.		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	0.89	1	Pollution Indicative Species Abundance (%)	1.75	5
Abundance (#/m2)	18280	1	Pollution Indicative Species Biomass (%)	0.27	
Biomass (g/m2)	0.73	1	Pollution Sensitive Species Abundance (%)	0.44	
Carnivore-Omnivore Abundance (%)	0.44		Pollution Sensitive Species Biomass (%)	14.44	1
Deep Deposit Feeder Abundance (%)	86.21				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Ameroculodes species complex	480		0.04800		
Carinoma tremaphoros	40		0.06400		
Cyathura polita	40		0.00200		
Edotea triloba (Epi)	40		0.00400		
Gammarus daiberi (Epi)	80		0.04000		
Heteromastus filiformis	40		0.00200		
Leptocheirus plumulosus	1840		0.17600		
Macoma mitchelli	80		0.04400		
Marenzelleria viridis	40		0.10400		
Mytilopsis leucophaeata (Epi)	40		0.00200		
Tubificidae imm w/o cap chaetae	320		0.00200		
Tubificoides spp.	15400		0.29200		
Total Abundance w/ Epi.	18440				
Total Abundance w/o Epi.	18280				
Number of Taxa w/ Epi.	12				
Number of Taxa w/o Epi.	9				
Total Biomass w/ Epi.			0.78000		
Total Biomass w/o Epi.			0.73400		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Lower Eastern Shore		Station: 062		Rep: 02	
Gear: Petite Ponar		Habitat: Low Mesohaline		Date: 18SEP13	
		Sampled Area: 0.025 sq.m		Time: 13:45:07	
BOTTOM ENVIRONMENT					
Depth (m): 5.4		Salinity (ppt): 6.60		Temperature (C): 21.50	
Dissolved Oxygen (mg/l): 6.9		Sediment Silt-Clay (%): 82.01		Total Carbon (%): 3.97	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.80		Condition: Severely Degr.		# Attributes Scored: 5	
		Value	Score	Value	Score
Shannon-Wiener Index		1.02	1	Pollution Indicative Species Abundance (%)	4.85
Abundance (#/m2)		17320	1	Pollution Indicative Species Biomass (%)	4.02
Biomass (g/m2)		0.65	1	Pollution Sensitive Species Abundance (%)	0.00
Carnivore-Omnivore Abundance (%)		0.23		Pollution Sensitive Species Biomass (%)	0.00
Deep Deposit Feeder Abundance (%)		84.53			1
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Ameroculodes species complex		440		0.04000	
Coelotanypus spp.		40		0.02000	
Edotea triloba (Epi)		400		0.02800	
Gammarus daiberi (Epi)		120		0.01600	
Leptocheirus plumulosus		2120		0.30000	
Littoridinops tenuipes (Epi)		40		0.00400	
Macoma mitchelli		40		0.01600	
Streblospio benedicti		40		0.00400	
Tubificidae imm w/o cap chaetae		760		0.00200	
Tubificoides spp.		13880		0.26400	
Total Abundance w/ Epi.		17880			
Total Abundance w/o Epi.		17320			
Number of Taxa w/ Epi.		10			
Number of Taxa w/o Epi.		7			
Total Biomass w/ Epi.				0.69400	
Total Biomass w/o Epi.				0.64600	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Lower Eastern Shore		Station: 062		Rep: 03	
Gear: Petite Ponar		Habitat: Low Mesohaline		Date: 18SEP13	
		Sampled Area: 0.025 sq.m		Time: 13:45:07	
BOTTOM ENVIRONMENT					
Depth (m): 5.4		Salinity (ppt): 6.60		Temperature (C): 21.50	
Dissolved Oxygen (mg/l): 6.9		Sediment Silt-Clay (%): 82.01		Total Carbon (%): 3.97	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.60		Condition: Degraded		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	1.36	1	Pollution Indicative Species Abundance (%)	2.46	5
Abundance (#/m2)	9760	1	Pollution Indicative Species Biomass (%)	0.19	
Biomass (g/m2)	1.03	3	Pollution Sensitive Species Abundance (%)	2.05	
Carnivore-Omnivore Abundance (%)	0.41		Pollution Sensitive Species Biomass (%)	63.57	3
Deep Deposit Feeder Abundance (%)	71.31				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Ameroculodes species complex	360		0.03200		
Chiridotea almyra	40		0.00400		
Edotea triloba (Epi)	200		0.01200		
Gammarus daiberi (Epi)	40		0.00800		
Leptocheirus plumulosus	2120		0.21600		
Littoridinops tenuipes (Epi)	40		0.00200		
Macoma mitchelli	80		0.00200		
Marenzelleria viridis	200		0.65600		
Tubificidae imm w/o cap chaetae	240		0.00200		
Tubificoides spp.	6720		0.12000		
Total Abundance w/ Epi.	10040				
Total Abundance w/o Epi.	9760				
Number of Taxa w/ Epi.	10				
Number of Taxa w/o Epi.	7				
Total Biomass w/ Epi.			1.05400		
Total Biomass w/o Epi.			1.03200		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Choptank River		Station: 064		Rep: 01	
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud		Date: 10SEP13	
		Sampled Area: 0.022 sq.m		Time: 12:18:32	
BOTTOM ENVIRONMENT					
Depth (m): 9.5		Salinity (ppt): 12.40		Temperature (C): 25.01	
Dissolved Oxygen (mg/l): 3.9		Sediment Silt-Clay (%): 91.28		Total Carbon (%): 1.97	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.67		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	0.70	1	Pollution Indicative Species Abundance (%)	0.00	
Abundance (#/m2)	675	1	Pollution Indicative Species Biomass (%)	0.00	5
Biomass (g/m2)	0.42	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	6.67	1	Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Americamysis bigelowi (Epi)		45		0.00225	
Leptocheirus plumulosus		585		0.13950	
Macoma mitchelli		45		0.25650	
Neanthes succinea		45		0.02250	
Total Abundance w/ Epi.		720			
Total Abundance w/o Epi.		675			
Number of Taxa w/ Epi.		4			
Number of Taxa w/o Epi.		3			
Total Biomass w/ Epi.				0.42075	
Total Biomass w/o Epi.				0.41850	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Choptank River		Station: 064	Rep: 02
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud	Date: 10SEP13
		Sampled Area: 0.022 sq.m	Time: 12:18:32
BOTTOM ENVIRONMENT			
Depth (m): 9.5	Salinity (ppt): 12.40	Temperature (C): 25.01	
Dissolved Oxygen (mg/l): 3.9	Sediment Silt-Clay (%): 91.28	Total Carbon (%): 1.97	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 1.67	Condition: Severely Degr.		# Attributes Scored: 6
	Value	Score	Value Score
Shannon-Wiener Index	0.85	1	Pollution Indicative Species Abundance (%) 5.00
Abundance (#/m2)	900	1	Pollution Indicative Species Biomass (%) 1.15 5
Biomass (g/m2)	0.20	1	Pollution Sensitive Species Abundance (%) 0.00
Carnivore-Omnivore Abundance (%)	5.00	1	Pollution Sensitive Species Biomass (%) 0.00 1
Deep Deposit Feeder Abundance (%)	5.00		
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)		Biomass (g/m2)
Leptocheirus plumulosus	765		0.18900
Parahesionia luteola	45		0.00225
Streblospio benedicti	45		0.00225
Tubificoides spp.	45		0.00225
Total Abundance w/ Epi.	900		
Total Abundance w/o Epi.	900		
Number of Taxa w/ Epi.	4		
Number of Taxa w/o Epi.	4		
Total Biomass w/ Epi.			0.19575
Total Biomass w/o Epi.			0.19575



BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Choptank River		Station: 064		Rep: 03	
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud		Date: 10SEP13	
		Sampled Area: 0.022 sq.m		Time: 12:18:32	
BOTTOM ENVIRONMENT					
Depth (m): 9.5		Salinity (ppt): 12.40		Temperature (C): 25.01	
Dissolved Oxygen (mg/l): 3.9		Sediment Silt-Clay (%): 91.28		Total Carbon (%): 1.97	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.00		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	1.05	1	Pollution Indicative Species Abundance (%)	0.00	
Abundance (#/m2)	1035	3	Pollution Indicative Species Biomass (%)	0.00	5
Biomass (g/m2)	0.25	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	4.35	1	Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	13.04				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Leptocheirus plumulosus	810		0.22500		
Macoma mitchelli	45		0.00225		
Neanthes succinea	45		0.01350		
Tubificoides spp.	135		0.00450		
Total Abundance w/ Epi.	1035				
Total Abundance w/o Epi.	1035				
Number of Taxa w/ Epi.	4				
Number of Taxa w/o Epi.	4				
Total Biomass w/ Epi.			0.24525		
Total Biomass w/o Epi.			0.24525		



BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Choptank River		Station: 066		Rep: 01	
Gear: Wildco Box Corer		Habitat: Oligohaline		Date: 30AUG13	
		Sampled Area: 0.022 sq.m		Time: 9:35:27	
BOTTOM ENVIRONMENT					
Depth (m): 4.7		Salinity (ppt): 0.57		Temperature (C): 26.29	
Dissolved Oxygen (mg/l): 5.5		Sediment Silt-Clay (%): 64.06		Total Carbon (%): 5.8	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.40		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.36		Oligohaline Pollution Indicative Spp. Abund.	50.00	3
Abundance (#/m2)	540	5	Tolerance Score	8.85	3
Deep Deposit Feeder Abundance (%)	33.33		Oligohaline Pollution Sensitive Spp. Abund.	33.33	5
Carnivore-Omnivore Abundance (%)	0.00	1	Tanypodinae/Chironomidae Abundance Ratio	0.00	
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Ameroculodes species complex	45		0.00450		
Gammarus daiberi (Epi)	225		0.01350		
Leptocheirus plumulosus	90		0.00900		
Limnodrilus hoffmeisteri	135		0.00225		
Littoridinops tenuipes (Epi)	855		0.06300		
Marenzelleria viridis	180		0.25650		
Oligochaeta			0.00900		
Rangia cuneata	45		0.12600		
Tubificoides spp.	45		0.00450		
Total Abundance w/ Epi.	1620				
Total Abundance w/o Epi.	540				
Number of Taxa w/ Epi.	8				
Number of Taxa w/o Epi.	6				
Total Biomass w/ Epi.			0.48825		
Total Biomass w/o Epi.			0.41175		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Choptank River		Station: 066		Rep: 02	
Gear: Wildco Box Corer		Habitat: Oligohaline		Date: 30AUG13	
		Sampled Area: 0.022 sq.m		Time: 9:35:27	
BOTTOM ENVIRONMENT					
Depth (m): 4.7		Salinity (ppt): 0.57		Temperature (C): 26.29	
Dissolved Oxygen (mg/l): 5.5		Sediment Silt-Clay (%): 64.06		Total Carbon (%): 5.8	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.00		Condition: Meets Goal		# Attributes Scored: 6	
		Value	Score	Value	Score
Shannon-Wiener Index		2.52		Oligohaline Pollution Indicative Spp. Abund.	42.86 3
Abundance (#/m2)		315	3	Tolerance Score	7.44 3
Deep Deposit Feeder Abundance (%)		42.86		Oligohaline Pollution Sensitive Spp. Abund.	0.00 1
Carnivore-Omnivore Abundance (%)		28.57	3	Tanypodinae/Chironomidae Abundance Ratio	0.00 5
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Aulodrilus pigueti		45		0.00225	
Chaoborus punctipennis		45		0.00225	
Cryptochironomus spp.		45		0.00225	
Gammarus daiberi (Epi)		315		0.00900	
Limnodrilus hoffmeisteri		45		0.00225	
Littoridinops tenuipes (Epi)		1485		0.10350	
Rangia cuneata		90		0.41400	
Tubificidae imm w/o cap chaetae *		45		0.00225	
Total Abundance w/ Epi.		2115			
Total Abundance w/o Epi.		315			
Number of Taxa w/ Epi.		7			
Number of Taxa w/o Epi.		5			
Total Biomass w/ Epi.				0.53775	
Total Biomass w/o Epi.				0.42525	

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Choptank River		Station: 066	Rep: 03
Gear: Wildco Box Corer		Habitat: Oligohaline	Date: 30AUG13
		Sampled Area: 0.022 sq.m	Time: 9:35:27
BOTTOM ENVIRONMENT			
Depth (m): 4.7	Salinity (ppt): 0.57	Temperature (C): 26.29	
Dissolved Oxygen (mg/l): 5.5	Sediment Silt-Clay (%): 64.06	Total Carbon (%): 5.8	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 3.33	Condition: Meets Goal		# Attributes Scored: 6
	Value	Score	Value Score
Shannon-Wiener Index	2.55		53.33 3
Abundance (#/m2)	675	5	Tolerance Score 7.28 3
Deep Deposit Feeder Abundance (%)	40.00		Oligohaline Pollution Sensitive Spp. Abund. 20.00 3
Carnivore-Omnivore Abundance (%)	6.67	1	Tanypodinae/Chironomidae Abundance Ratio 0.00 5
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)		Biomass (g/m2)
Ameroculodes species complex	45		0.00225
Apocorophium lacustre (Epi)	45		0.00450
Cryptochironomus spp.	45		0.00225
Gammarus daiberi (Epi)	855		0.04950
Leptocheirus plumulosus	90		0.00225
Limnodrilus hoffmeisteri	45		0.00225
Littoridinops tenuipes (Epi)	1755		0.13950
Marenzelleria viridis	135		0.40050
Rangia cuneata	90		33.22350
Tubificoides spp.	225		0.00225
Total Abundance w/ Epi.	3330		
Total Abundance w/o Epi.	675		
Number of Taxa w/ Epi.	10		
Number of Taxa w/o Epi.	7		
Total Biomass w/ Epi.			33.82875
Total Biomass w/o Epi.			33.63525

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Upper Eastern Shore	Station: 068	Rep: 01
Gear: Wildco Box Corer	Habitat: Low Mesohaline	Date: 04SEP13
	Sampled Area: 0.022 sq.m	Time: 10:42:20
BOTTOM ENVIRONMENT		
Depth (m): 4.1	Salinity (ppt): 8.31	Temperature (C): 26.86
Dissolved Oxygen (mg/l): 3.2	Sediment Silt-Clay (%): 77.25	Total Carbon (%): 2.83
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 4.20	Condition: Meets Goal	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	1.95 3	Pollution Indicative Species Abundance (%) 6.90 5
Abundance (#/m2)	1305 3	Pollution Indicative Species Biomass (%) 0.03
Biomass (g/m2)	6.49 5	Pollution Sensitive Species Abundance (%) 48.28
Carnivore-Omnivore Abundance (%)	6.90	Pollution Sensitive Species Biomass (%) 98.68 5
Deep Deposit Feeder Abundance (%)	20.69	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Leptocheirus plumulosus	225	0.04500
Macoma balthica	630	6.40350
Neanthes succinea	90	0.03600
Streblospio benedicti	90	0.00225
Tubificoides spp.	270	0.00225
Total Abundance w/ Epi.	1305	
Total Abundance w/o Epi.	1305	
Number of Taxa w/ Epi.	5	
Number of Taxa w/o Epi.	5	
Total Biomass w/ Epi.		6.48900
Total Biomass w/o Epi.		6.48900



BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Upper Eastern Shore		Station: 068		Rep: 02	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 04SEP13	
		Sampled Area: 0.022 sq.m		Time: 10:42:20	
BOTTOM ENVIRONMENT					
Depth (m): 4.1		Salinity (ppt): 8.31		Temperature (C): 26.86	
Dissolved Oxygen (mg/l): 3.2		Sediment Silt-Clay (%): 77.25		Total Carbon (%): 2.83	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.00		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.14	3	Pollution Indicative Species Abundance (%)	11.32	3
Abundance (#/m2)	4770	3	Pollution Indicative Species Biomass (%)	0.06	
Biomass (g/m2)	32.05	1	Pollution Sensitive Species Abundance (%)	21.70	
Carnivore-Omnivore Abundance (%)	5.66		Pollution Sensitive Species Biomass (%)	98.92	5
Deep Deposit Feeder Abundance (%)	58.49				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	45		0.00450		
Coelotanypus spp.	45		0.00900		
Edotea triloba (Epi)	45		0.00450		
Heteromastus filiformis	90		0.19350		
Leptocheirus plumulosus	225		0.04500		
Macoma balthica	990		31.69800		
Macoma mitchelli	45		0.03150		
Neanthes succinea	135		0.01800		
Procladius spp.	45		0.00225		
Rangia cuneata	45		0.00900		
Streblospio benedicti	405		0.00900		
Tubificidae imm w/o cap chaetae	90		0.00225		
Tubificoides spp.	2610		0.03150		
Total Abundance w/ Epi.	4815				
Total Abundance w/o Epi.	4770				
Number of Taxa w/ Epi.	13				
Number of Taxa w/o Epi.	12				
Total Biomass w/ Epi.			32.05800		
Total Biomass w/o Epi.			32.05350		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Upper Eastern Shore		Station: 068		Rep: 03	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 04SEP13	
		Sampled Area: 0.022 sq.m		Time: 10:42:20	
BOTTOM ENVIRONMENT					
Depth (m): 4.1		Salinity (ppt): 8.31		Temperature (C): 26.86	
Dissolved Oxygen (mg/l): 3.2		Sediment Silt-Clay (%): 77.25		Total Carbon (%): 2.83	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.80		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.15	3	Pollution Indicative Species Abundance (%)	14.86	3
Abundance (#/m2)	3330	3	Pollution Indicative Species Biomass (%)	0.10	
Biomass (g/m2)	9.33	5	Pollution Sensitive Species Abundance (%)	21.62	
Carnivore-Omnivore Abundance (%)	2.70		Pollution Sensitive Species Biomass (%)	94.57	5
Deep Deposit Feeder Abundance (%)	59.46				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	45		0.01350		
Eteone heteropoda	45		0.00225		
Heteromastus filiformis	45		0.00225		
Leptocheirus plumulosus	225		0.01800		
Macoma balthica	720		8.82450		
Macoma mitchelli	90		0.43650		
Neomysis americana (Epi)	90		0.00450		
Streblospio benedicti	225		0.00450		
Tubificidae imm w/o cap chaetae	225		0.00225		
Tubificoides spp.	1710		0.02700		
Total Abundance w/ Epi.	3420				
Total Abundance w/o Epi.	3330				
Number of Taxa w/ Epi.	10				
Number of Taxa w/o Epi.	9				
Total Biomass w/ Epi.			9.33525		
Total Biomass w/o Epi.			9.33075		



BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Patuxent River		Station: 071		Rep: 01	
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud		Date: 11SEP13	
		Sampled Area: 0.022 sq.m		Time: 15:32:54	
BOTTOM ENVIRONMENT					
Depth (m): 11.9		Salinity (ppt): 13.87		Temperature (C): 25.75	
Dissolved Oxygen (mg/l): 3.2		Sediment Silt-Clay (%): 94.07		Total Carbon (%): 3.26	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.00		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	1.00	1	Pollution Indicative Species Abundance (%)	100.00	
Abundance (#/m2)	90	1	Pollution Indicative Species Biomass (%)	100.00	1
Biomass (g/m2)	0.01	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	0.00	1	Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Mulinia lateralis		45		0.00450	
Paraprionospio pinnata		45		0.00450	
Total Abundance w/ Epi.		90			
Total Abundance w/o Epi.		90			
Number of Taxa w/ Epi.		2			
Number of Taxa w/o Epi.		2			
Total Biomass w/ Epi.				0.00900	
Total Biomass w/o Epi.				0.00900	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Patuxent River		Station: 071		Rep: 02	
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud		Date: 11SEP13	
		Sampled Area: 0.022 sq.m		Time: 15:32:54	
BOTTOM ENVIRONMENT					
Depth (m): 11.9		Salinity (ppt): 13.87		Temperature (C): 25.75	
Dissolved Oxygen (mg/l): 3.2		Sediment Silt-Clay (%): 94.07		Total Carbon (%): 3.26	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.67		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	0.00	1	Pollution Indicative Species Abundance (%)	0.00	
Abundance (#/m2)	45	1	Pollution Indicative Species Biomass (%)	0.00	5
Biomass (g/m2)	0.00	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	0.00	1	Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Leptocheirus plumulosus		45		0.00450	
Total Abundance w/ Epi.		45			
Total Abundance w/o Epi.		45			
Number of Taxa w/ Epi.		1			
Number of Taxa w/o Epi.		1			
Total Biomass w/ Epi.				0.00450	
Total Biomass w/o Epi.				0.00450	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Patuxent River		Station: 071		Rep: 03	
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud		Date: 11SEP13	
		Sampled Area: 0.022 sq.m		Time: 15:32:54	
BOTTOM ENVIRONMENT					
Depth (m): 11.9		Salinity (ppt): 13.87		Temperature (C): 25.75	
Dissolved Oxygen (mg/l): 3.2		Sediment Silt-Clay (%): 94.07		Total Carbon (%): 3.26	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.00		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	0.00	1	Pollution Indicative Species Abundance (%)	100.00	
Abundance (#/m2)	0	1	Pollution Indicative Species Biomass (%)	100.00	1
Biomass (g/m2)	0.00	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	0.00	1	Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
No Organisms Present				0.00000	
Total Abundance w/ Epi.					
Total Abundance w/o Epi.					
Number of Taxa w/ Epi.		0			
Number of Taxa w/o Epi.		0			
Total Biomass w/ Epi.				0.00000	
Total Biomass w/o Epi.				0.00000	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Chalk Point Discharge		Station: 074		Rep: 01	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 03SEP13	
		Sampled Area: 0.022 sq.m		Time: 12:17:16	
BOTTOM ENVIRONMENT					
Depth (m): 2.1		Salinity (ppt): 9.70		Temperature (C): 28.37	
Dissolved Oxygen (mg/l): 4.5		Sediment Silt-Clay (%): 84.00		Total Carbon (%): 3.16	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.80		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.23	3	Pollution Indicative Species Abundance (%)	7.02	5
Abundance (#/m2)	2565	3	Pollution Indicative Species Biomass (%)	0.15	
Biomass (g/m2)	21.26	3	Pollution Sensitive Species Abundance (%)	29.82	
Carnivore-Omnivore Abundance (%)	7.02		Pollution Sensitive Species Biomass (%)	95.60	5
Deep Deposit Feeder Abundance (%)	54.39				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Eteone heteropoda	45		0.02250		
Heteromastus filiformis	495		0.03600		
Macoma balthica	765		20.32650		
Macoma mitchelli	90		0.00900		
Neanthes succinea	135		0.83700		
Streblospio benedicti	135		0.00900		
Tubificoides spp.	900		0.02250		
Total Abundance w/ Epi.	2565				
Total Abundance w/o Epi.	2565				
Number of Taxa w/ Epi.	7				
Number of Taxa w/o Epi.	7				
Total Biomass w/ Epi.			21.26250		
Total Biomass w/o Epi.			21.26250		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Chalk Point Discharge		Station: 074		Rep: 02	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 03SEP13	
		Sampled Area: 0.022 sq.m		Time: 12:17:16	
BOTTOM ENVIRONMENT					
Depth (m): 2.1		Salinity (ppt): 9.70		Temperature (C): 28.37	
Dissolved Oxygen (mg/l): 4.5		Sediment Silt-Clay (%): 84.00		Total Carbon (%): 3.16	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.40		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	1.64	1	Pollution Indicative Species Abundance (%)	7.25	5
Abundance (#/m2)	3105	3	Pollution Indicative Species Biomass (%)	0.09	
Biomass (g/m2)	10.09	3	Pollution Sensitive Species Abundance (%)	14.49	
Carnivore-Omnivore Abundance (%)	1.45		Pollution Sensitive Species Biomass (%)	97.50	5
Deep Deposit Feeder Abundance (%)	71.01				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Heteromastus filiformis	135		0.00900		
Leptocheirus plumulosus	45		0.00450		
Macoma balthica	450		9.83700		
Macoma mitchelli	135		0.09900		
Neanthes succinea	45		0.09900		
Streblospio benedicti	225		0.00900		
Tubificoides spp.	2070		0.03150		
Total Abundance w/ Epi.	3105				
Total Abundance w/o Epi.	3105				
Number of Taxa w/ Epi.	7				
Number of Taxa w/o Epi.	7				
Total Biomass w/ Epi.			10.08900		
Total Biomass w/o Epi.			10.08900		



BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Chalk Point Discharge		Station: 074		Rep: 03	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 03SEP13	
		Sampled Area: 0.022 sq.m		Time: 12:17:16	
BOTTOM ENVIRONMENT					
Depth (m): 2.1		Salinity (ppt): 9.70		Temperature (C): 28.37	
Dissolved Oxygen (mg/l): 4.5		Sediment Silt-Clay (%): 84.00		Total Carbon (%): 3.16	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.80		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	1.84	3	Pollution Indicative Species Abundance (%)	6.45	5
Abundance (#/m2)	1395	3	Pollution Indicative Species Biomass (%)	0.08	
Biomass (g/m2)	20.18	3	Pollution Sensitive Species Abundance (%)	51.61	
Carnivore-Omnivore Abundance (%)	9.68		Pollution Sensitive Species Biomass (%)	99.72	5
Deep Deposit Feeder Abundance (%)	35.48				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	45		0.00900		
Eteone heteropoda	45		0.01350		
Macoma balthica	675		19.92150		
Neanthes succinea	45		0.02700		
Rangia cuneata	45		0.20700		
Streblospio benedicti	45		0.00225		
Tubificoides spp.	495		0.00450		
Total Abundance w/ Epi.	1395				
Total Abundance w/o Epi.	1395				
Number of Taxa w/ Epi.	7				
Number of Taxa w/o Epi.	7				
Total Biomass w/ Epi.			20.18475		
Total Biomass w/o Epi.			20.18475		



BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Patuxent River		Station: 077		Rep: 01	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 03SEP13	
		Sampled Area: 0.022 sq.m		Time: 10:23:17	
BOTTOM ENVIRONMENT					
Depth (m): 3.3		Salinity (ppt): 4.66		Temperature (C): 28.09	
Dissolved Oxygen (mg/l): 4.6		Sediment Silt-Clay (%): 92.21		Total Carbon (%): 2.89	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.20		Condition: Degraded		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	1.64	1	Pollution Indicative Species Abundance (%)	34.35	1
Abundance (#/m2)	5895	3	Pollution Indicative Species Biomass (%)	6.11	
Biomass (g/m2)	1.03	3	Pollution Sensitive Species Abundance (%)	3.82	
Carnivore-Omnivore Abundance (%)	3.82		Pollution Sensitive Species Biomass (%)	65.07	3
Deep Deposit Feeder Abundance (%)	54.20				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Cyathura polita		45		0.06750	
Edotea triloba (Epi)		90		0.00450	
Leptocheirus plumulosus		180		0.01800	
Macoma balthica		45		0.13500	
Macoma mitchelli		90		0.00900	
Marenzelleria viridis		135		0.46800	
Neanthes succinea		180		0.22950	
Rhithropanopeus harrisii (Epi)		45		0.15750	
Streblospio benedicti		2025		0.06300	
Tubificoides spp.		3195		0.04050	
Total Abundance w/ Epi.		6030			
Total Abundance w/o Epi.		5895			
Number of Taxa w/ Epi.		10			
Number of Taxa w/o Epi.		8			
Total Biomass w/ Epi.				1.19250	
Total Biomass w/o Epi.				1.03050	



BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Patuxent River		Station: 077		Rep: 02	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 03SEP13	
		Sampled Area: 0.022 sq.m		Time: 10:23:17	
BOTTOM ENVIRONMENT					
Depth (m): 3.3		Salinity (ppt): 4.66		Temperature (C): 28.09	
Dissolved Oxygen (mg/l): 4.6		Sediment Silt-Clay (%): 92.21		Total Carbon (%): 2.89	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.40		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.30	3	Pollution Indicative Species Abundance (%)	42.19	1
Abundance (#/m2)	2880	3	Pollution Indicative Species Biomass (%)	0.84	
Biomass (g/m2)	6.97	5	Pollution Sensitive Species Abundance (%)	17.19	
Carnivore-Omnivore Abundance (%)	6.25		Pollution Sensitive Species Biomass (%)	85.03	5
Deep Deposit Feeder Abundance (%)	26.56				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	45		0.00225		
Cyathura polita	135		0.13050		
Edotea triloba (Epi)	45		0.00225		
Leptocheirus plumulosus	135		0.00450		
Macoma balthica	270		5.51250		
Macoma mitchelli	225		0.97650		
Marenzelleria viridis	90		0.28800		
Melita nitida (Epi)	45		0.00225		
Streblospio benedicti	1215		0.05850		
Tubificoides spp.	765		0.00225		
Total Abundance w/ Epi.	2970				
Total Abundance w/o Epi.	2880				
Number of Taxa w/ Epi.	10				
Number of Taxa w/o Epi.	8				
Total Biomass w/ Epi.			6.97950		
Total Biomass w/o Epi.			6.97500		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Patuxent River		Station: 077		Rep: 03	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 03SEP13	
		Sampled Area: 0.022 sq.m		Time: 10:23:17	
BOTTOM ENVIRONMENT					
Depth (m): 3.3		Salinity (ppt): 4.66		Temperature (C): 28.09	
Dissolved Oxygen (mg/l): 4.6		Sediment Silt-Clay (%): 92.21		Total Carbon (%): 2.89	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.00		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	1.70	3	Pollution Indicative Species Abundance (%)	19.44	3
Abundance (#/m2)	1620	5	Pollution Indicative Species Biomass (%)	3.54	
Biomass (g/m2)	1.02	3	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	0.00		Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	52.78				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Edotea triloba (Epi)		45		0.02250	
Leptocheirus plumulosus		135		0.05400	
Macoma mitchelli		315		0.89100	
Streblospio benedicti		315		0.03600	
Tubificoides spp.		855		0.03600	
Total Abundance w/ Epi.		1665			
Total Abundance w/o Epi.		1620			
Number of Taxa w/ Epi.		5			
Number of Taxa w/o Epi.		4			
Total Biomass w/ Epi.				1.03950	
Total Biomass w/o Epi.				1.01700	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Patuxent River		Station: 079		Rep: 01	
Gear: Wildco Box Corer		Habitat: Tidal Freshwater		Date: 03SEP13	
		Sampled Area: 0.022 sq.m		Time: 11:13:13	
BOTTOM ENVIRONMENT					
Depth (m): 0.5		Salinity (ppt): 0.42		Temperature (C): 27.55	
Dissolved Oxygen (mg/l): 4.2		Sediment Silt-Clay (%): 82.87		Total Carbon (%): 3.86	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.50		Condition: Meets Goal		# Attributes Scored: 3	
	Value	Score		Value	Score
Shannon-Wiener Index	2.03		T.F. Pollution Indicative Spp. Abund. (%)	65.52	3
Abundance (#/m2)	2610	5	Tolerance Score	9.31	3
Deep Deposit Feeder Abundance (%)	91.38	3	Limnodrilus Abundance (%)	68.97	
Carnivore-Omnivore Abundance (%)	8.62				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Aulodrilus pigueti	90				
Branchiura sowerbyi	45		0.00225		
Chironomus spp.	45		0.00225		
Coelotanypus spp.	90		0.00900		
Harnischia spp.	90		0.00225		
Limnodrilus hoffmeisteri	180				
Limnodrilus spp. *	90				
Oligochaeta			0.38700		
Tubificidae imm w cap chaetae	450				
Tubificidae imm w/o cap chaetae *	1530				
Total Abundance w/ Epi.	2610				
Total Abundance w/o Epi.	2610				
Number of Taxa w/ Epi.	7				
Number of Taxa w/o Epi.	7				
Total Biomass w/ Epi.			0.40275		
Total Biomass w/o Epi.			0.40275		

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Patuxent River		Station: 079		Rep: 02	
Gear: Wildco Box Corer		Habitat: Tidal Freshwater		Date: 03SEP13	
		Sampled Area: 0.022 sq.m		Time: 11:13:13	
BOTTOM ENVIRONMENT					
Depth (m): 0.5		Salinity (ppt): 0.42		Temperature (C): 27.55	
Dissolved Oxygen (mg/l): 4.2		Sediment Silt-Clay (%): 82.87		Total Carbon (%): 3.86	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.50		Condition: Meets Goal		# Attributes Scored: 3	
	Value	Score		Value	Score
Shannon-Wiener Index	1.62		T.F. Pollution Indicative Spp. Abund. (%)	73.68	3
Abundance (#/m2)	2565	5	Tolerance Score	9.24	3
Deep Deposit Feeder Abundance (%)	92.98	3	Limnodrilus Abundance (%)	73.68	
Carnivore-Omnivore Abundance (%)	5.26				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Aulodrilus pigueti	180				
Branchiura sowerbyi	45		0.13950		
Chironomus spp.	45		0.01800		
Coelotanypus spp.	90		0.00225		
Limnodrilus hoffmeisteri	90				
Oligochaeta			0.35550		
Streblospio benedicti	45		0.00225		
Tubificidae imm w cap chaetae	270				
Tubificidae imm w/o cap chaetae *	1800				
Total Abundance w/ Epi.		2565			
Total Abundance w/o Epi.		2565			
Number of Taxa w/ Epi.		7			
Number of Taxa w/o Epi.		7			
Total Biomass w/ Epi.				0.51750	
Total Biomass w/o Epi.				0.51750	

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Patuxent River		Station: 079	Rep: 03
Gear: Wildco Box Corer		Habitat: Tidal Freshwater	Date: 03SEP13
		Sampled Area: 0.022 sq.m	Time: 11:13:13
BOTTOM ENVIRONMENT			
Depth (m): 0.5	Salinity (ppt): 0.42	Temperature (C): 27.55	
Dissolved Oxygen (mg/l): 4.2	Sediment Silt-Clay (%): 82.87	Total Carbon (%): 3.86	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 3.00	Condition: Meets Goal		# Attributes Scored: 3
	Value	Score	Value
Shannon-Wiener Index	1.83		78.05
Abundance (#/m2)	1845	5	9.43
Deep Deposit Feeder Abundance (%)	92.68	3	78.05
Carnivore-Omnivore Abundance (%)	7.32		
		T.F. Pollution Indicative Spp. Abund. (%)	3
		Tolerance Score	1
		Limnodrilus Abundance (%)	
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Branchiura sowerbyi	90	0.40500	
Coelotanypus spp.	90	0.03600	
Limnodrilus hoffmeisteri	135		
Oligochaeta	360	0.27900	
Tubificidae imm w/o cap chaetae *	1080		
Tubificoides spp.	90	0.00900	
Total Abundance w/ Epi.	1845		
Total Abundance w/o Epi.	1845		
Number of Taxa w/ Epi.	5		
Number of Taxa w/o Epi.	5		
Total Biomass w/ Epi.		0.72900	
Total Biomass w/o Epi.		0.72900	

*Indicates taxa is skipped in taxon counts



BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Station: 201		Rep: 01	
Watershed: Patapsco & Back Rivers		Habitat: Low Mesohaline	
Gear: Wildco Box Corer		Date: 26AUG13	
		Sampled Area: 0.022 sq.m	
		Time: 16:07:02	
BOTTOM ENVIRONMENT			
Depth (m): 3.9		Salinity (ppt): 7.47	
Dissolved Oxygen (mg/l): 5.3		Sediment Silt-Clay (%): 71.76	
		Temperature (C): 24.91	
		Total Carbon (%): 4.5	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 1.00		Condition: Severely Degr.	
		# Attributes Scored: 5	
Value	Score	Value	Score
Shannon-Wiener Index	0.00	Pollution Indicative Species Abundance (%)	100.00
Abundance (#/m2)	135	Pollution Indicative Species Biomass (%)	100.00
Biomass (g/m2)	0.00	Pollution Sensitive Species Abundance (%)	0.00
Carnivore-Omnivore Abundance (%)	0.00	Pollution Sensitive Species Biomass (%)	0.00
Deep Deposit Feeder Abundance (%)	0.00		
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Streblospio benedicti	135	0.00225	
Total Abundance w/ Epi.	135		
Total Abundance w/o Epi.	135		
Number of Taxa w/ Epi.	1		
Number of Taxa w/o Epi.	1		
Total Biomass w/ Epi.		0.00225	
Total Biomass w/o Epi.		0.00225	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Station: 201		Rep: 02	
Watershed: Patapsco & Back Rivers		Habitat: Low Mesohaline	
Gear: Wildco Box Corer		Date: 26AUG13	
		Sampled Area: 0.022 sq.m	
		Time: 16:07:02	
BOTTOM ENVIRONMENT			
Depth (m): 3.9		Salinity (ppt): 7.47	
Dissolved Oxygen (mg/l): 5.3		Sediment Silt-Clay (%): 71.76	
		Temperature (C): 24.91	
		Total Carbon (%): 4.5	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 1.40		Condition: Severely Degr.	
		# Attributes Scored: 5	
Value	Score	Value	Score
Shannon-Wiener Index	0.41	Pollution Indicative Species Abundance (%)	91.67
Abundance (#/m2)	540	Pollution Indicative Species Biomass (%)	6.76
Biomass (g/m2)	0.33	Pollution Sensitive Species Abundance (%)	0.00
Carnivore-Omnivore Abundance (%)	0.00	Pollution Sensitive Species Biomass (%)	0.00
Deep Deposit Feeder Abundance (%)	0.00		
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Macoma mitchelli	45	0.31050	
Streblospio benedicti	495	0.02250	
Total Abundance w/ Epi.	540		
Total Abundance w/o Epi.	540		
Number of Taxa w/ Epi.	2		
Number of Taxa w/o Epi.	2		
Total Biomass w/ Epi.		0.33300	
Total Biomass w/o Epi.		0.33300	



BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 201		Rep: 03	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 26AUG13	
		Sampled Area: 0.022 sq.m		Time: 16:07:02	
BOTTOM ENVIRONMENT					
Depth (m): 3.9		Salinity (ppt): 7.47		Temperature (C): 24.91	
Dissolved Oxygen (mg/l): 5.3		Sediment Silt-Clay (%): 71.76		Total Carbon (%): 4.5	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.00		Condition: Severely Degr.		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	0.00	1	Pollution Indicative Species Abundance (%)	100.00	1
Abundance (#/m2)	405	1	Pollution Indicative Species Biomass (%)	100.00	
Biomass (g/m2)	0.01	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	0.00		Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Streblospio benedicti		405		0.01350	
Total Abundance w/ Epi.		405			
Total Abundance w/o Epi.		405			
Number of Taxa w/ Epi.		1			
Number of Taxa w/o Epi.		1			
Total Biomass w/ Epi.				0.01350	
Total Biomass w/o Epi.				0.01350	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 202		Rep: 01	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 26AUG13	
		Sampled Area: 0.022 sq.m		Time: 9:31:42	
BOTTOM ENVIRONMENT					
Depth (m): 6.2		Salinity (ppt): 9.60		Temperature (C): 25.34	
Dissolved Oxygen (mg/l): 3.3		Sediment Silt-Clay (%): 81.86		Total Carbon (%): 4.74	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.00		Condition: Severely Degr.		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	0.92	1	Pollution Indicative Species Abundance (%)	66.67	1
Abundance (#/m2)	135	1	Pollution Indicative Species Biomass (%)	66.67	
Biomass (g/m2)	0.01	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	0.00		Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Leptocheirus plumulosus		45		0.00225	
Streblospio benedicti		90		0.00450	
Total Abundance w/ Epi.		135			
Total Abundance w/o Epi.		135			
Number of Taxa w/ Epi.		2			
Number of Taxa w/o Epi.		2			
Total Biomass w/ Epi.				0.00675	
Total Biomass w/o Epi.				0.00675	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Station: 202		Rep: 02
Watershed: Patapsco & Back Rivers	Habitat: Low Mesohaline	Date: 26AUG13
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 9:31:42
BOTTOM ENVIRONMENT		
Depth (m): 6.2	Salinity (ppt): 9.60	Temperature (C): 25.34
Dissolved Oxygen (mg/l): 3.3	Sediment Silt-Clay (%): 81.86	Total Carbon (%): 4.74
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 1.00	Condition: Severely Degr.	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	0.00 1	Pollution Indicative Species Abundance (%) 100.00 1
Abundance (#/m2)	135 1	Pollution Indicative Species Biomass (%) 100.00
Biomass (g/m2)	0.00 1	Pollution Sensitive Species Abundance (%) 0.00
Carnivore-Omnivore Abundance (%)	0.00	Pollution Sensitive Species Biomass (%) 0.00 1
Deep Deposit Feeder Abundance (%)	0.00	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Streblospio benedicti	135	0.00450
Total Abundance w/ Epi.	135	
Total Abundance w/o Epi.	135	
Number of Taxa w/ Epi.	1	
Number of Taxa w/o Epi.	1	
Total Biomass w/ Epi.		0.00450
Total Biomass w/o Epi.		0.00450

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Station: 202		Rep: 03
Watershed: Patapsco & Back Rivers	Habitat: Low Mesohaline	Date: 26AUG13
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 9:31:42
BOTTOM ENVIRONMENT		
Depth (m): 6.2	Salinity (ppt): 9.60	Temperature (C): 25.34
Dissolved Oxygen (mg/l): 3.3	Sediment Silt-Clay (%): 81.86	Total Carbon (%): 4.74
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 1.00	Condition: Severely Degr.	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	0.00 1	Pollution Indicative Species Abundance (%) 100.00 1
Abundance (#/m2)	0 1	Pollution Indicative Species Biomass (%) 100.00
Biomass (g/m2)	0.00 1	Pollution Sensitive Species Abundance (%) 0.00
Carnivore-Omnivore Abundance (%)	0.00	Pollution Sensitive Species Biomass (%) 0.00 1
Deep Deposit Feeder Abundance (%)	0.00	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
No Organisms Present		0.00000
Total Abundance w/ Epi.		
Total Abundance w/o Epi.		
Number of Taxa w/ Epi.	0	
Number of Taxa w/o Epi.	0	
Total Biomass w/ Epi.		0.00000
Total Biomass w/o Epi.		0.00000

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 203		Rep: 01	
Gear: Young Grab		Habitat: Oligohaline		Date: 12AUG13	
		Sampled Area: 0.044 sq.m		Time: 9:13:01	
BOTTOM ENVIRONMENT					
Depth (m): 1.9		Salinity (ppt): 1.08		Temperature (C): 26.74	
Dissolved Oxygen (mg/l): 6.7		Sediment Silt-Clay (%): 80.90		Total Carbon (%): 4.57	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.00		Condition: Meets Goal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	1.14		Oligohaline Pollution Indicative Spp. Abund.	100.00	1
Abundance (#/m2)	1045	5	Tolerance Score	9.80	1
Deep Deposit Feeder Abundance (%)	30.43		Oligohaline Pollution Sensitive Spp. Abund.	0.00	1
Carnivore-Omnivore Abundance (%)	67.39	5	Tanypodinae/Chironomidae Abundance Ratio	0.00	5
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Chironomus spp.		704		0.68387	
Leptocheirus plumulosus		23		0.00454	
Limnodrilus hoffmeisteri		23		0.00114	
Oligochaeta				0.01136	
Tubificidae imm w/o cap chaetae *		295		0.00114	
Total Abundance w/ Epi.		1045			
Total Abundance w/o Epi.		1045			
Number of Taxa w/ Epi.		3			
Number of Taxa w/o Epi.		3			
Total Biomass w/ Epi.				0.70205	
Total Biomass w/o Epi.				0.70205	

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 203	Rep: 02
Gear: Young Grab		Habitat: Oligohaline	Date: 12AUG13
		Sampled Area: 0.044 sq.m	Time: 9:13:01
BOTTOM ENVIRONMENT			
Depth (m): 1.9	Salinity (ppt): 1.08	Temperature (C): 26.74	
Dissolved Oxygen (mg/l): 6.7	Sediment Silt-Clay (%): 80.90	Total Carbon (%): 4.57	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 3.33	Condition: Meets Goal		# Attributes Scored: 6
	Value	Score	Value Score
Shannon-Wiener Index	1.07		Oligohaline Pollution Indicative Spp. Abund. 95.77 1
Abundance (#/m2)	1613	5	Tolerance Score 9.80 1
Deep Deposit Feeder Abundance (%)	12.68		Oligohaline Pollution Sensitive Spp. Abund. 4.23 3
Carnivore-Omnivore Abundance (%)	81.69	5	Tanypodinae/Chironomidae Abundance Ratio 0.00 5
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)		Biomass (g/m2)
Chironomus spp.	1318		1.07920
Leptocheirus plumulosus	23		0.00227
Limnodrilus hoffmeisteri	91		0.00114
Marenzelleria viridis	68		0.09542
Oligochaeta			0.00454
Tubificidae imm w/o cap chaetae	91		0.00114
Tubificoides spp.	23		0.00114
Total Abundance w/ Epi.	1613		
Total Abundance w/o Epi.	1613		
Number of Taxa w/ Epi.	6		
Number of Taxa w/o Epi.	6		
Total Biomass w/ Epi.			1.18485
Total Biomass w/o Epi.			1.18485

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 203		Rep: 03	
Gear: Young Grab		Habitat: Oligohaline		Date: 12AUG13	
		Sampled Area: 0.044 sq.m		Time: 9:13:01	
BOTTOM ENVIRONMENT					
Depth (m): 1.9		Salinity (ppt): 1.08		Temperature (C): 26.74	
Dissolved Oxygen (mg/l): 6.7		Sediment Silt-Clay (%): 80.90		Total Carbon (%): 4.57	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.00		Condition: Meets Goal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	0.42		Oligohaline Pollution Indicative Spp. Abund.	100.00	1
Abundance (#/m2)	1340	5	Tolerance Score	9.80	1
Deep Deposit Feeder Abundance (%)	8.47		Oligohaline Pollution Sensitive Spp. Abund.	0.00	1
Carnivore-Omnivore Abundance (%)	91.53	5	Tanypodinae/Chironomidae Abundance Ratio	0.00	5
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Chironomus spp.		1227		1.11782	
Tubificidae imm w/o cap chaetae		114		0.00114	
Total Abundance w/ Epi.		1340			
Total Abundance w/o Epi.		1340			
Number of Taxa w/ Epi.		2			
Number of Taxa w/o Epi.		2			
Total Biomass w/ Epi.				1.11896	
Total Biomass w/o Epi.				1.11896	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Lower Western Shore	Station: 204	Rep: 01
Gear: Young Grab	Habitat: High Mesohaline Mud	Date: 27AUG13
	Sampled Area: 0.044 sq.m	Time: 13:32:08
BOTTOM ENVIRONMENT		
Depth (m): 6.4	Salinity (ppt): 11.31	Temperature (C): 25.38
Dissolved Oxygen (mg/l): 2.5	Sediment Silt-Clay (%): 52.48	Total Carbon (%): 1.76
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.00	Condition: Meets Goal	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	2.06 3	Pollution Indicative Species Abundance (%) 5.26
Abundance (#/m2)	432 1	Pollution Indicative Species Biomass (%) 0.15 5
Biomass (g/m2)	1.50 3	Pollution Sensitive Species Abundance (%) 31.58
Carnivore-Omnivore Abundance (%)	15.79 3	Pollution Sensitive Species Biomass (%) 94.26 3
Deep Deposit Feeder Abundance (%)	42.11	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Apocorophium lacustre (Epi)	23	0.00114
Carinoma tremaphoros	45	0.03862
Leptocheirus plumulosus	23	0.00454
Macoma balthica	136	1.41773
Neanthes succinea	23	0.03862
Streblospio benedicti	23	0.00227
Tubificoides spp.	182	0.00227
Total Abundance w/ Epi.	454	
Total Abundance w/o Epi.	432	
Number of Taxa w/ Epi.	7	
Number of Taxa w/o Epi.	6	
Total Biomass w/ Epi.		1.50520
Total Biomass w/o Epi.		1.50406



BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Lower Western Shore	Station: 204	Rep: 02
Gear: Young Grab	Habitat: High Mesohaline Mud	Date: 27AUG13
	Sampled Area: 0.044 sq.m	Time: 13:32:08
BOTTOM ENVIRONMENT		
Depth (m): 6.4	Salinity (ppt): 11.31	Temperature (C): 25.38
Dissolved Oxygen (mg/l): 2.5	Sediment Silt-Clay (%): 52.48	Total Carbon (%): 1.76
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.33	Condition: Meets Goal	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	2.98 3	Pollution Indicative Species Abundance (%) 20.00
Abundance (#/m2)	454 1	Pollution Indicative Species Biomass (%) 0.28 5
Biomass (g/m2)	1.63 3	Pollution Sensitive Species Abundance (%) 20.00
Carnivore-Omnivore Abundance (%)	45.00 5	Pollution Sensitive Species Biomass (%) 81.79 3
Deep Deposit Feeder Abundance (%)	5.00	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Apocorophium lacustre (Epi)	45	0.00114
Carinoma tremaphoros	23	0.01136
Chironomus spp.	23	0.00114
Eteone heteropoda	23	0.00227
Leptocheirus plumulosus	45	0.02726
Macoma balthica	91	1.33139
Macoma mitchelli	45	0.04544
Micrura leidyi	68	0.03862
Neanthes succinea	68	0.16813
Streblospio benedicti	45	0.00114
Tubificoides spp.	23	0.00114
Total Abundance w/ Epi.	500	
Total Abundance w/o Epi.	454	
Number of Taxa w/ Epi.	11	
Number of Taxa w/o Epi.	10	
Total Biomass w/ Epi.		1.62902
Total Biomass w/o Epi.		1.62789



BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) FIXED STATIONS

Watershed: Lower Western Shore		Station: 204		Rep: 03	
Gear: Young Grab		Habitat: High Mesohaline Mud		Date: 27AUG13	
		Sampled Area: 0.044 sq.m		Time: 13:32:08	
BOTTOM ENVIRONMENT					
Depth (m): 6.4		Salinity (ppt): 11.31		Temperature (C): 25.38	
Dissolved Oxygen (mg/l): 2.5		Sediment Silt-Clay (%): 52.48		Total Carbon (%): 1.76	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.00		Condition: Meets Goal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.51	3	Pollution Indicative Species Abundance (%)	16.13	
Abundance (#/m2)	704	1	Pollution Indicative Species Biomass (%)	0.30	5
Biomass (g/m2)	0.76	3	Pollution Sensitive Species Abundance (%)	9.68	
Carnivore-Omnivore Abundance (%)	22.58	3	Pollution Sensitive Species Biomass (%)	60.90	3
Deep Deposit Feeder Abundance (%)	48.39				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	45		0.01818		
Glycinde solitaria	23		0.01818		
Heteromastus filiformis	45		0.10224		
Leptocheirus plumulosus	45		0.02272		
Macoma balthica	45		0.44531		
Neanthes succinea	91		0.14541		
Streblospio benedicti	114		0.00227		
Tubificoides spp.	295		0.00682		
Total Abundance w/ Epi.	704				
Total Abundance w/o Epi.	704				
Number of Taxa w/ Epi.	8				
Number of Taxa w/o Epi.	8				
Total Biomass w/ Epi.			0.76112		
Total Biomass w/o Epi.			0.76112		

DATA SUMMARY B

**BENTHIC ENVIRONMENT AND COMMUNITY
COMPOSITION AT RANDOM SITES:
SUMMER 2013**

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20401	20402	20403	20404	20405					
Watershed	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs					
Habitat	High Meso Mud	High Meso Sand	High Meso Mud	Low Mesohaline	Low Mesohaline					
Date	09/19/13	09/19/13	09/19/13	09/18/13	09/18/13					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	4.4	2.5	2.7	1.9	1.7					
Salinity (ppt)	16.64	16.66	15.85	11.35	11.12					
Temperature (C)	20.87	20.75	19.62	19.29	19.01					
Dissolved Oxygen (mg/L)	7.0	7.1	7.7	7.8	7.7					
Sediment Silt-Clay (%)	74.63	4.45	88.13	6.38	5.22					
Total Carbon (%)	2.38	0.16	1.92	0.16	0.24					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	2.00		4.00		2.67		2.60		3.00	
Condition	Severely Degr.		Meets Goal		Marginal		Degraded		Meets Goal	
# Attributes Scored	6		6		6		5		5	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.00	3	3.56	5	2.12	3	2.98	5	2.89	5
Abundance (#/m2)	182	1	2363	5	250	1	1295	3	1091	3
Biomass (g/m2)	0.15	1	0.79	1	0.64	3	0.69	1	1.05	3
Pollution Indicative Spp Abund (%)	50.00		6.73	5	45.45		19.30	3	12.50	3
Pollution Indicative Spp Biom (%)	14.71	3	3.72		21.43	3	10.91		3.03	
Pollution Sensitive Spp Abund (%)	0.00		59.62	5	9.09		40.35		18.75	
Pollution Sensitive Spp Biom (%)	0.00	1	65.62		0.36	1	32.23	1	2.59	1
Carnivore-Omnivore Abund (%)	12.50	3	34.62	3	36.36	5	57.89		64.58	
Deep Deposit Feeder Abund (%)	12.50		12.50		9.09		7.02		10.42	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Tolerance Score	0.00		0.00		0.00		0.00		0.00	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		0.00		0.00	

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20401	20402	20403	20404	20405
<i>Acteocina canaliculata</i>		545		45	
<i>Americamysis bigelowi</i> (Epi.)					23
<i>Ameroculodes species complex</i>		23			
<i>Ampelisca abdita</i>		23			
<i>Amphiporus bioculatus</i>					23
<i>Carinoma tremaphoros</i>				23	45
<i>Clymenella torquata</i>		91			
<i>Edwardsia elegans</i>		45			
<i>Gemma gemma</i>					45
<i>Glycera dibranchiata</i>		91		45	
<i>Glycinde solitaria</i>		45	23	341	204
<i>Heteromastus filiformis</i>		91		68	114
<i>Laeonereis culveri</i>					318
<i>Leitoscoloplos robustus</i>			23		
<i>Leptosynapta tenuis</i>		23			
<i>Leucon americanus</i>	23				
<i>Listriella barnardi</i>		182			
<i>Loimia medusa</i>		45			
<i>Lyonsia hyalina</i>		68			
<i>Macoma mitchelli</i>	23	114	45	68	91
<i>Marenzelleria viridis</i>				136	
<i>Mediomastus ambiseta</i>		91			
<i>Mulinia lateralis</i>		159		114	68
<i>Mytilus edulis</i> (Epi.)		23			
<i>Neanthes succinea</i>	23	45	68	295	114
<i>Paraprionospio pinnata</i>	91		91		
<i>Phoronis</i> spp.		568			
<i>Podarkeopsis levifuscina</i>		23			
<i>Ptilanthura tenuis</i>		23			
<i>Saccoglossus kowalevskii</i>		23			
<i>Spiochaetopterus costarum</i>		23			
<i>Streblospio benedicti</i>				136	68
<i>Tubificoides</i> spp.	23	23		23	
<i>Turbonilla interrupta</i> (Epi.)		23			
Total Abundance w/ Epifauna	182	2408	250	1295	1113
Total Abundance w/o Epifauna	182	2363	250	1295	1091
Number of Taxa w/ Epifauna	5	24	5	11	11
Number of Taxa w/o Epifauna	5	22	5	11	10

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	20401	20402	20403	20404	20405
<i>Acteocina canaliculata</i>		0.0341		0.0011	
<i>Americamysis bigelowi</i> (Epi.)					0.0023
<i>Ameroculodes species complex</i>		0.0023			
<i>Ampelisca abdita</i>		0.0011			
<i>Amphiporus bioculatus</i>					0.0011
<i>Carinoma tremaphoros</i>				0.0011	0.0136
<i>Clymenella torquata</i>		0.2136			
<i>Edwardsia elegans</i>		0.0091			
<i>Gemma gemma</i>					0.0114
<i>Glycera dibranchiata</i>		0.1091		0.1886	
<i>Glycinde solitaria</i>		0.0045	0.0023	0.0227	0.0273
<i>Heteromastus filiformis</i>		0.0227		0.0909	0.0886
<i>Laeonereis culveri</i>					0.6293
<i>Leitoscoloplos robustus</i>			0.0136		
<i>Leptosynapta tenuis</i>			0.0318		
<i>Leucon americanus</i>	0.0011				
<i>Listriella barnardi</i>		0.0136			
<i>Loimia medusa</i>		0.1545			
<i>Lyonsia hyalina</i>		0.0136			
<i>Macoma mitchelli</i>	0.0500	0.0023	0.0727	0.0023	0.1477
<i>Marenzelleria viridis</i>				0.1977	
<i>Mediomastus ambiseta</i>		0.0045			
<i>Mulinia lateralis</i>		0.0295		0.0704	0.0295
<i>Mytilus edulis</i> (Epi.)		0.0023			
<i>Neanthes succinea</i>	0.0795	0.0045	0.4249	0.1068	0.1000
<i>Paraprionospio pinnata</i>	0.0227		0.1227		
<i>Phoronis</i> spp.		0.1022			
<i>Podarkeopsis levifuscina</i>		0.0023			
<i>Ptilanthura tenuis</i>		0.0114			
<i>Saccoglossus kowalevskii</i>		0.0182			
<i>Spiochaetopterus costarum</i>		0.0068			
<i>Streblospio benedicti</i>				0.0045	0.0023
<i>Tubificoides</i> spp.	0.0011	0.0011		0.0011	
<i>Turbonilla interrupta</i> (Epi.)		0.0114			
Total Biomass w/ Epifauna	0.1545	0.8066	0.6362	0.6873	1.0531
Total Biomass w/o Epifauna	0.1545	0.7929	0.6362	0.6873	1.0508

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20406	20407	20408	20409	20411					
Watershed	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs					
Habitat	Low Mesohaline	High Meso Mud	Low Mesohaline	Low Mesohaline	High Meso Sand					
Date	09/18/13	09/18/13	09/18/13	09/18/13	09/10/13					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	3.4	2.6	4.1	2.4	4.7					
Salinity (ppt)	8.10	12.75	10.11	9.28	12.18					
Temperature (C)	21.51	21.43	21.01	20.39	24.96					
Dissolved Oxygen (mg/L)	7.1	8.0	7.2	7.5	4.3					
Sediment Silt-Clay (%)	3.44	86.90	84.75	70.52	16.07					
Total Carbon (%)	0.19	2.43	3.53	2.82	0.35					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	3.40		3.33		2.60		2.60		3.00	
Condition	Meets Goal		Meets Goal		Degraded		Degraded		Meets Goal	
# Attributes Scored	5		6		5		5		6	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.90	5	2.68	3	1.41	1	1.50	1	2.63	3
Abundance (#/m2)	3340	3	500	1	17085	1	13836	1	1295	3
Biomass (g/m2)	1.85	3	1.02	3	3.49	3	3.04	3	1.28	3
Pollution Indicative Spp Abund (%)	12.93	3	18.18		7.05	5	9.85	5	12.28	3
Pollution Indicative Spp Biom (%)	0.74		4.36	5	0.85		0.71		7.79	
Pollution Sensitive Spp Abund (%)	37.41		9.09		1.60		2.30		7.02	1
Pollution Sensitive Spp Biom (%)	76.10	3	59.22	3	46.03	3	55.59	3	2.65	
Carnivore-Omnivore Abund (%)	9.52		40.91	5	1.20		2.46		47.37	5
Deep Deposit Feeder Abund (%)	17.69		31.82		68.88		74.88		14.04	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		0.00		0.00		1.81		0.00	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Tolerance Score	0.00		0.00		0.00		9.80		0.00	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		0.00		0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20406	20407	20408	20409	20411
Americamysis almyra (Epi.)			23		
Amerocolodes species complex	23				
Amphiporus bioculatus			23		23
Apocorophium lacustre (Epi.)	114				
Carinoma tremaphoros	23		91	136	45
Cyathura polita	136		45	204	
Eteone heteropoda	68				
Glycera dibranchiata		23			
Glycinde solitaria		23			68
Hargeria rapax					23
Heteromastus filiformis	386	23	227	273	182
Laeonereis culveri	23				
Leptocheirus plumulosus	704		3658	1840	
Macoma balthica	68	23	91	91	
Macoma mitchelli	227	23	23	68	295
Marenzelleria viridis	1045		136	23	23
Melita nitida (Epi.)			273	136	
Micrura leidyi					45
Mulinia lateralis					45
Mytilopsis leucophaeata (Epi.)	45				
Neanthes succinea	68	159	45		432
Paraprionospio pinnata		45			
Streblospio benedicti	364	45	1204	1113	114
Stylochus ellipticus (Epi.)	23		23		
Tubificidae imm w/o cap chaetae				250	
Tubificoides spp.	204	136	11542	9838	
Total Abundance w/ Epifauna	3522	500	17404	13973	1295
Total Abundance w/o Epifauna	3340	500	17085	13836	1295
Number of Taxa w/ Epifauna	16	9	14	11	11
Number of Taxa w/o Epifauna	13	9	11	10	11
BENTHIC BIOMASS (Grams per sq. meter)					
Site	20406	20407	20408	20409	20411
Americamysis almyra (Epi.)			0.0159		
Amerocolodes species complex	0.0045				
Amphiporus bioculatus			0.0045		0.0091
Apocorophium lacustre (Epi.)	0.0045				
Carinoma tremaphoros	0.0068		0.0295	0.1727	0.0136
Cyathura polita	0.0068		0.3635	0.6498	
Eteone heteropoda	0.0068				
Glycera dibranchiata		0.0591			
Glycinde solitaria		0.0068			0.0114
Hargeria rapax					0.0045
Heteromastus filiformis	0.1250	0.0068	0.1613	0.0613	0.2931
Laeonereis culveri	0.0091				
Leptocheirus plumulosus	0.1613		1.3314	0.6316	
Macoma balthica	0.4249	0.5953	0.7543	0.9156	
Macoma mitchelli	0.1000	0.0772	0.1068	0.3408	0.0364
Marenzelleria viridis	0.9792		0.4908	0.1227	0.0227
Melita nitida (Epi.)			0.0159	0.0068	
Micrura leidyi					0.6521
Mulinia lateralis					0.0886
Mytilopsis leucophaeata (Epi.)	0.0136				
Neanthes succinea	0.0204	0.2045	0.0432		0.1409
Paraprionospio pinnata		0.0432			
Streblospio benedicti	0.0068	0.0011	0.0295	0.0204	0.0114
Stylochus ellipticus (Epi.)	0.0023		0.0023		
Tubificidae imm w/o cap chaetae				0.0011	
Tubificoides spp.	0.0023	0.0227	0.1795	0.1204	
Total Biomass w/ Epifauna	1.8744	1.0167	3.5284	3.0433	1.2837
Total Biomass w/o Epifauna	1.8540	1.0167	3.4943	3.0365	1.2837

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20413	20414	20415	20416	20417					
Watershed	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs					
Habitat	Oligohaline	Oligohaline	Low Mesohaline	Low Mesohaline	High Meso Mud					
Date	08/30/13	08/30/13	09/09/13	09/09/13	09/09/13					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	3.8	8.1	6.8	3.2	14.6					
Salinity (ppt)	4.97	3.14	11.26	11.11	16.21					
Temperature (C)	26.44	26.49	24.08	24.73	24.86					
Dissolved Oxygen (mg/L)	4.4	5.8	6.4	5.2	0.4					
Sediment Silt-Clay (%)	51.46	2.83	39.73	3.69	92.33					
Total Carbon (%)	4.10	0.05	1.15	0.13	3.09					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	3.40		4.67		3.80		2.60		1.00	
Condition	Meets Goal		Meets Goal		Meets Goal		Degraded		Severely Degr.	
# Attributes Scored	5		6		5		5		6	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	1.49		1.55		2.83	5	2.38	3	0.00	1
Abundance (#/m2)	295	3	1000	5	3408	3	1022	3	0	1
Biomass (g/m2)	0.62		0.60		7.88	5	0.38	1	0.00	1
Pollution Indicative Spp Abund (%)	7.69		0.00		13.33	3	17.78	3	100.00	
Pollution Indicative Spp Biom (%)	0.18		0.00		1.25		3.57		100.00	1
Pollution Sensitive Spp Abund (%)	61.54		45.45		15.33		11.11		0.00	
Pollution Sensitive Spp Biom (%)	79.56		85.88		76.93	3	44.05	3	0.00	1
Carnivore-Omnivore Abund (%)	23.08	3	47.73	5	41.33		8.89		0.00	1
Deep Deposit Feeder Abund (%)	7.69		0.00		28.00		24.44		0.00	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	7.69		0.00		6.67		0.00		0.00	
Oligo Poll. Indic. Spp Abund (%)	7.69	5	0.00	5	0.00		0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	61.54	5	88.64	5	0.00		0.00		0.00	
Tolerance Score	9.80	1	6.65	3	9.80		0.00		0.00	
Tany./Chir. Abundance Ratio	0.00		0.00	5	0.00		0.00		0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20413	20414	20415	20416	20417
Ameroculodes species complex		68			
Apocorophium lacustre (Epi.)		45			
Carinoma tremaphoros	68		182		
Chiridotea almyra		454			
Cryptochironomus spp.		23			
Eteone heteropoda			45		
Gammarus daiberi (Epi.)		273			
Heteromastus filiformis			409	250	
Macoma balthica			523	23	
Macoma mitchelli	23		341	386	
Marenzelleria viridis	182	432		91	
Micrura leidyi			23		
Mulinia lateralis			68	68	
Neanthes succinea			1159	91	
Rangia cuneata		23			
Streblospio benedicti			114	114	
Tubificidae imm w/o cap chaetae	23		227		
Tubificoides spp.			318		
Total Abundance w/ Epifauna	295	1318	3408	1022	0
Total Abundance w/o Epifauna	295	1000	3408	1022	0
Number of Taxa w/ Epifauna	4	7	11	7	0
Number of Taxa w/o Epifauna	4	5	11	7	0
BENTHIC BIOMASS (Grams per sq. meter)					
Site	20413	20414	20415	20416	20417
Ameroculodes species complex		0.0023			
Apocorophium lacustre (Epi.)		0.0011			
Carinoma tremaphoros	0.0409		0.0227		
Chiridotea almyra		0.0818			
Cryptochironomus spp.		0.0011			
Eteone heteropoda			0.0045		
Gammarus daiberi (Epi.)		0.0568			
Heteromastus filiformis			0.2499	0.1363	
Macoma balthica			6.0640	0.1068	
Macoma mitchelli	0.0841		0.5271	0.0568	
Marenzelleria viridis	0.4908	0.3567		0.0613	
Micrura leidyi			0.3226		
Mulinia lateralis			0.0909	0.0045	
Neanthes succinea			0.5930	0.0068	
Rangia cuneata		0.1613			
Streblospio benedicti			0.0023	0.0091	
Tubificidae imm w/o cap chaetae	0.0011		0.0011		
Tubificoides spp.			0.0045		
Total Biomass w/ Epifauna	0.6168	0.6612	7.8827	0.3817	0.0000
Total Biomass w/o Epifauna	0.6168	0.6032	7.8827	0.3817	0.0000

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20418	20419	20420	20421	20422					
Watershed	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs					
Habitat	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline					
Date	09/09/13	09/09/13	09/09/13	09/04/13	09/09/13					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	3.8	1.7	2.8	9.6	2.1					
Salinity (ppt)	11.15	9.26	10.07	10.35	7.10					
Temperature (C)	24.48	24.10	24.59	26.37	24.77					
Dissolved Oxygen (mg/L)	5.0	7.8	5.0	1.9	4.2					
Sediment Silt-Clay (%)	6.48	2.07	4.10	90.65	83.01					
Total Carbon (%)	0.28	0.08	0.16	2.60	2.68					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	3.40		2.60		2.60		3.40		2.20	
Condition	Meets Goal		Degraded		Degraded		Meets Goal		Degraded	
# Attributes Scored	5		5		5		5		5	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.21	3	1.71	3	2.34	3	0.00	1	1.38	1
Abundance (#/m2)	1000	3	818	3	727	3	841	3	159	1
Biomass (g/m2)	1.23	3	0.40	1	0.41	1	1.53	3	0.50	1
Pollution Indicative Spp Abund (%)	4.55	5	5.56	5	9.38	5	0.00	5	0.00	5
Pollution Indicative Spp Biom (%)	0.28		0.56		0.55		0.00		0.00	
Pollution Sensitive Spp Abund (%)	15.91		13.89		25.00		100.00		42.86	
Pollution Sensitive Spp Biom (%)	71.76	3	25.84	1	14.40	1	100.00	5	99.10	3
Carnivore-Omnivore Abund (%)	20.45		2.78		9.38		0.00		0.00	
Deep Deposit Feeder Abund (%)	20.45		5.56		31.25		0.00		57.14	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Tolerance Score	6.00		0.00		0.00		0.00		0.00	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		0.00		0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20418	20419	20420	20421	20422
Eteone heteropoda	23		23		
Heteromastus filiformis	204	45	204		
Leptocheirus plumulosus		68			
Macoma balthica				841	45
Macoma mitchelli	409	523	204		
Marenzelleria viridis	136	114	182		23
Neanthes succinea	182	23	45		
Rangia cuneata	23				
Streblospio benedicti	23	45	45		
Tubificoides spp.			23		91
Total Abundance w/ Epifauna	1000	818	727	841	159
Total Abundance w/o Epifauna	1000	818	727	841	159
Number of Taxa w/ Epifauna	7	6	7	1	3
Number of Taxa w/o Epifauna	7	6	7	1	3
BENTHIC BIOMASS (Grams per sq. meter)					
Site	20418	20419	20420	20421	20422
Eteone heteropoda	0.0023		0.0011		
Heteromastus filiformis	0.2068	0.0341	0.1886		
Leptocheirus plumulosus		0.0023			
Macoma balthica				1.5291	0.4862
Macoma mitchelli	0.1181	0.2567	0.1568		
Marenzelleria viridis	0.0591	0.1045	0.0591		0.0114
Neanthes succinea	0.0204	0.0045	0.0011		
Rangia cuneata	0.8270				
Streblospio benedicti	0.0011	0.0023	0.0011		
Tubificoides spp.			0.0023		0.0045
Total Biomass w/ Epifauna	1.2348	0.4044	0.4101	1.5291	0.5021
Total Biomass w/o Epifauna	1.2348	0.4044	0.4101	1.5291	0.5021

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20423	20424	20425	20427	20428					
Watershed	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs					
Habitat	Oligohaline	Oligohaline	Oligohaline	High Meso Mud	Freshwater					
Date	09/04/13	08/21/13	09/06/13	09/10/13	08/21/13					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	1.8	3.1	2.5	12.5	6.0					
Salinity (ppt)	4.09	0.59	0.69	13.55	0.46					
Temperature (C)	26.70	25.62	25.41	24.77	25.35					
Dissolved Oxygen (mg/L)	6.3	6.1	7.1	3.8	6.3					
Sediment Silt-Clay (%)	77.17	58.45	48.38	85.11	37.19					
Total Carbon (%)	4.34	2.04	2.28	1.79	1.14					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	3.67		3.00		1.00		2.67		4.50	
Condition	Meets Goal		Meets Goal		Severely Degr.		Marginal		Meets Goal	
# Attributes Scored	6		6		4		6		4	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.20		2.89		0.00		1.92	1	1.44	
Abundance (#/m2)	477	5	1954	5	0	1	136	1	1272	5
Biomass (g/m2)	0.63		155.99		0.00		0.31	1	19.72	
Pollution Indicative Spp Abund (%)	61.90		17.44		100.00		16.67		5.36	
Pollution Indicative Spp Biom (%)	60.51		0.01		100.00		1.47	5	0.01	
Pollution Sensitive Spp Abund (%)	14.29		50.00		0.00		16.67		92.86	
Pollution Sensitive Spp Biom (%)	33.33		99.98		0.00		36.03	3	99.99	
Carnivore-Omnivore Abund (%)	57.14	5	33.72	3	0.00	1	66.67	5	35.71	
Deep Deposit Feeder Abund (%)	4.76		33.72		0.00		0.00		5.36	5
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		5.36	5
Limnodrilus Abundance (%)	0.00		13.95		0.00		0.00		5.36	
Oligo Poll. Indic. Spp Abund (%)	85.71	3	38.37	3	100.00	1	0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	14.29	3	9.30	3	0.00	1	0.00		0.00	
Tolerance Score	8.90	3	7.86	3	0.00		0.00		8.85	3
Tany./Chir. Abundance Ratio	25.00	3	100.00	1	0.00		0.00		0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20423	20424	20425	20427	20428
Apocorophium lacustre (Epi.)		159			
Balanus improvisus (Epi.)		295			
Boccardiella ligERICA		91			
Carinoma tremaphoros				45	
Chironomus spp.	204				
Coelotanypus spp.	68	68			
Corbicula fluminea		23			
Cyathura polita		591			454
Gammarus daiberi (Epi.)	23				
Hobsonia florida		136			
Leptocheirus plumulosus	91				23
Limnodrilus hoffmeisteri		114			68
Macoma balthica				23	
Marenzelleria viridis	68	182			704
Mytilopsis leucophaeata (Epi.)		2204			
Neanthes succinea				45	
Paraprionospio pinnata				23	
Rangia cuneata		204			23
Rhithropanopeus harrisi (Epi.)		114			
Streblospio benedicti	23				
Tubificidae imm w/o cap chaetae *		159			
Tubificoides spp.	23	386			
Total Abundance w/ Epifauna	500	4726	0	136	1272
Total Abundance w/o Epifauna	477	1954		136	1272
Number of Taxa w/ Epifauna	7	13	0	4	5
Number of Taxa w/o Epifauna	6	9	0	4	5
BENTHIC BIOMASS (Grams per sq. meter)					
Site	20423	20424	20425	20427	20428
Apocorophium lacustre (Epi.)		0.0227			
Balanus improvisus (Epi.)		2.1629			
Boccardiella ligERICA		0.0023			
Carinoma tremaphoros				0.1000	
Chironomus spp.	0.3612				
Coelotanypus spp.	0.0136	0.0045			
Corbicula fluminea		0.0045			
Cyathura polita		0.2227			0.1522
Gammarus daiberi (Epi.)	0.0045				
Hobsonia florida		0.0114			
Leptocheirus plumulosus	0.0364				0.0011
Limnodrilus hoffmeisteri					0.0011
Macoma balthica				0.1113	
Marenzelleria viridis	0.2090	0.1477			0.4203
Mytilopsis leucophaeata (Epi.)		6.1776			
Neanthes succinea				0.0932	
Oligochaeta		0.0068			
Paraprionospio pinnata				0.0045	
Rangia cuneata		155.5866			19.1416
Rhithropanopeus harrisi (Epi.)		0.3953			
Streblospio benedicti	0.0045				
Tubificoides spp.	0.0023	0.0068			
Total Biomass w/ Epifauna	0.6316	164.7518	0.0000	0.3090	19.7164
Total Biomass w/o Epifauna	0.6271	155.9932	0.0000	0.3090	19.7164

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20501	20502	20504	20505	20506	
Watershed	Mainstem	Mainstem	Mainstem	Mainstem	Mainstem	
Habitat	High Meso Sand	High Meso Sand	High Meso Sand	High Meso Sand	High Meso Sand	
Date	09/19/13	09/19/13	09/19/13	08/20/13	09/19/13	
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab	
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044	
BOTTOM ENVIRONMENT						
Depth (m)	1.9	4.7	3.3	6.0	2.5	
Salinity (ppt)	17.73	17.84	16.89	14.58	16.60	
Temperature (C)	21.15	22.91	21.75	24.39	22.31	
Dissolved Oxygen (mg/L)	7.6	6.5	7.1	7.9	6.7	
Sediment Silt-Clay (%)	26.07	3.53	1.60	1.57	1.87	
Total Carbon (%)	0.05	0.05	0.04	0.03	0.05	
BENTHIC INDEX OF BIOTIC INTEGRITY						
B-IBI Score	3.67	4.00	4.00	4.00	3.33	
Condition	Meets Goal	Meets Goal	Meets Goal	Meets Goal	Meets Goal	
# Attributes Scored	6	6	6	6	6	
	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	3.73	5	3.32	5	3.41	5
Abundance (#/m2)	2386	5	2772	5	2340	5
Biomass (g/m2)	1.22	3	1.14	3	2.10	3
Pollution Indicative Spp Abund (%)	22.86	3	11.48	3	8.74	5
Pollution Indicative Spp Biom (%)	8.68		62.81		74.32	
Pollution Sensitive Spp Abund (%)	11.43	3	43.44	5	30.10	3
Pollution Sensitive Spp Biom (%)	25.37		13.06		12.38	
Carnivore-Omnivore Abund (%)	23.81	3	27.05	3	34.95	3
Deep Deposit Feeder Abund (%)	42.86		40.16		32.04	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00	
Limnodrilus Abundance (%)	14.29		0.00		0.00	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00	
Tolerance Score	9.80		0.00		0.00	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	BENTHIC ABUNDANCE (per sq. meter)				
	20501	20502	20504	20505	20506
Acteocina canaliculata	45	500	568	91	250
Ameroculodes species complex	45				
Ampelisca abdita		91	23		
Ampelisca verrilli		23	68		
Amphiporus bioculatus		23			
Ancistrosyllis hartmanae		23			
Apocorophium lacustre (Epi.)	23				
Branchiostoma caribaeum		23			
Cyathura polita				318	
Drilonereis longa	23				
Edotea triloba (Epi.)	23				
Edwardsia elegans	23	136	91		
Eteone foliosa				45	
Eteone heteropoda					23
Gemma gemma	295		23	136	23
Glycera americana			23		
Glycera dibranchiata					23
Glycinde solitaria	136	68	23	45	68
Haminoea solitaria			45		91
Heteromastus filiformis	227	23			23
Leitoscoloplos robustus			45	68	68
Leitoscoloplos spp.	23				
Lepidactylus dytiscus				500	
Leptosynapta tenuis	68	45	114	23	273
Listriella barnardi	23		23		
Loimia medusa		68	23	136	
Lyonsia hyalina	45	114	45		
Macoma mitchelli	23		45	23	
Marenzelleria viridis	23				
Mediomastus ambiseta		364	23		
Micrura leidyi			23		
Molgula manhattensis (Epi.)		23	23		23
Mulinia lateralis	159	295	136	23	
Mya arenaria	23				
Neanthes succinea	295			23	
Odostomia engonia (Epi.)		45			
Oxyurostylis smithi		23			
Paraonis fulgens			23	23	68
Paraprionospio pinnata		23	23		45
Parvilucina crenella				364	
Phoronis spp.	45	182	23	114	45
Podarkeopsis levifuscina	45		45		91
Scolecopsis texana	23		182		136
Scoloplos rubra	23				
Spiochaetopterus costarum		23		68	
Spiophanes bombyx			23	23	
Streblospio benedicti	23				68
Stylochus ellipticus (Epi.)					23
Tubificidae imm w/o cap chaetae	341				
Tubificoides spp.	409	727	682		1091
Total Abundance w/ Epifauna	2431	2840	2363	2022	2431
Total Abundance w/o Epifauna	2386	2772	2340	2022	2386
Number of Taxa w/ Epifauna	25	21	25	17	18
Number of Taxa w/o Epifauna	23	19	24	17	16

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	20501	20502	20504	20505	20506
Acteocina canaliculata	0.0023	0.0364	0.1227	0.0091	0.0477
Amerocolodes species complex	0.0091				
Ampelisca abdita		0.0114	0.0068		
Ampelisca verrilli		0.0273	0.0341		
Amphiporus bioculatus		0.0011			
Ancistrostylis hartmanae		0.0011			
Apocorophium lacustre (Epi.)	0.0068				
Branchiostoma caribaeum		0.1704			
Cyathura polita				0.1409	
Drilonereis longa	0.0523				
Edotea triloba (Epi.)	0.0023				
Edwardsia elegans	0.0068	0.0227	0.0227		
Eteone foliosa				0.1091	
Eteone heteropoda					0.0045
Gemma gemma	0.0068		0.0068	0.0818	0.0204
Glycera americana			0.0568		
Glycera dibranchiata					0.0136
Glycinde solitaria	0.0045	0.0011	0.0023	0.0045	0.0068
Haminoea solitaria			0.0045		0.0250
Heteromastus filiformis	0.0750	0.0114			0.0341
Leitoscoloplos robustus			0.7498	0.0954	0.1045
Leitoscoloplos spp.	0.0011				
Lepidactylus dytiscus				0.1159	
Leptosynapta tenuis	0.0045	0.0068	0.0568	0.0091	0.1931
Listriella barnardi	0.0011		0.0023		
Loimia medusa		0.0477	0.0011	0.2022	
Lyonsia hyalina	0.0023	0.0068	0.0011		
Macoma mitchelli	0.0045		0.0011	0.0023	
Marenzelleria viridis	0.0863				
Mediomastus ambiseta		0.0114	0.0023		
Micrura leidyi			0.1000		
Molgula manhattensis (Epi.)		0.0250	0.0011		0.0011
Mulinia lateralis	0.1022	0.6930	0.8111	0.1386	
Mya arenaria	0.1159				
Neanthes succinea	0.5498			0.0023	
Odostomia engonia (Epi.)		0.0045			
Oxyurostylis smithi		0.0045			
Paraonis fulgens			0.0023	0.0011	0.0023
Paraprionospio pinnata		0.0227	0.0011		0.0295
Parvilucina crenella				0.1136	
Phoronis spp.	0.1000	0.0477	0.0045	0.0136	0.0091
Podarkeopsis levifuscina	0.0068		0.0023		0.0114
Scolecopsis texana	0.0068		0.0273		0.0250
Scoloplos rubra	0.0682				
Spiochaetopterus costarum		0.0045		0.0523	
Spiophanes bombyx			0.0704	0.0432	
Streblospio benedicti	0.0011				0.0023
Stylochus ellipticus (Epi.)					0.0250
Tubificidae imm w/o cap chaetae	0.0011				
Tubificoides spp.	0.0091	0.0114	0.0114		0.0227
Total Biomass w/ Epifauna	1.2269	1.1689	2.1027	1.1349	0.5782
Total Biomass w/o Epifauna	1.2178	1.1394	2.1016	1.1349	0.5521

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20507	20508	20509	20510	20511					
Watershed	Mainstem	Mainstem	Mainstem	Mainstem	Mainstem					
Habitat	High Meso Mud	High Meso Mud	High Meso Mud	High Meso Mud	High Meso Sand					
Date	08/20/13	08/20/13	08/20/13	09/18/13	09/18/13					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	11.3	11.0	11.4	3.5	1.8					
Salinity (ppt)	15.39	17.39	14.44	13.98	14.38					
Temperature (C)	24.97	25.07	24.91	21.24	21.56					
Dissolved Oxygen (mg/L)	2.0	0.7	3.7	7.6	8.7					
Sediment Silt-Clay (%)	80.80	74.42	64.22	83.85	3.67					
Total Carbon (%)	3.26	2.85	2.56	1.39	0.14					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	1.00		1.00		1.00		3.33		3.00	
Condition	Severely Degr.		Severely Degr.		Severely Degr.		Meets Goal		Meets Goal	
# Attributes Scored	6		6		6		6		6	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	0.00	1	0.00	1	0.00	1	2.36	3	3.05	3
Abundance (#/m2)	0	1	0	1	0	1	432	1	1295	3
Biomass (g/m2)	0.00	1	0.00	1	0.00	1	1.91	3	0.31	1
Pollution Indicative Spp Abund (%)	100.00	1	100.00	1	100.00	1	15.79	3	24.56	3
Pollution Indicative Spp Biom (%)	100.00	1	100.00	1	100.00	1	1.90	5	40.81	3
Pollution Sensitive Spp Abund (%)	0.00	1	0.00	1	0.00	1	31.58	3	31.58	3
Pollution Sensitive Spp Biom (%)	0.00	1	0.00	1	0.00	1	79.88	3	23.53	3
Carnivore-Omnivore Abund (%)	0.00	1	0.00	1	0.00	1	42.11	5	35.09	5
Deep Deposit Feeder Abund (%)	0.00	1	0.00	1	0.00	1	0.00	1	17.54	1
TF Poll. Indicative Spp Abund (%)	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1
Limnodrilus Abundance (%)	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1
Oligo Poll. Indic. Spp Abund (%)	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1
Oligo Poll. Sens. Spp Abund (%)	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1
Tolerance Score	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1
Tany./Chir. Abundance Ratio	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20507	20508	20509	20510	20511
Acteocina canaliculata					318
Amphiporus bioculatus					23
Carinoma tremaphoros				45	
Glycera dibranchiata					23
Glycinde solitaria					45
Hamineoa solitaria					45
Heteromastus filiformis					23
Leitoscoloplos robustus					204
Leptocheirus plumulosus				45	
Leptosynapta tenuis					23
Macoma balthica				136	
Macoma mitchelli					364
Mulinia lateralis					45
Neanthes succinea				114	
Paraprionospio pinnata				68	
Parvilucina crenella					45
Phoronis spp.					23
Podarkeopsis levifuscina				23	
Scolecopsis texana					23
Spiophanes bombyx					23
Streblospio benedicti					68
Stylochus ellipticus (Epi.)					23
Total Abundance w/ Epifauna	0	0	0	432	1318
Total Abundance w/o Epifauna				432	1295
Number of Taxa w/ Epifauna	0	0	0	6	16
Number of Taxa w/o Epifauna	0	0	0	6	15
BENTHIC BIOMASS (Grams per sq. meter)					
Site	20507	20508	20509	20510	20511
Acteocina canaliculata					0.0386
Amphiporus bioculatus					0.0011
Carinoma tremaphoros				0.0295	
Glycera dibranchiata					0.0204
Glycinde solitaria					0.0023
Hamineoa solitaria					0.0068
Heteromastus filiformis					0.0227
Leitoscoloplos robustus					0.1204
Leptocheirus plumulosus				0.0159	
Leptosynapta tenuis					0.0227
Macoma balthica				1.5245	
Macoma mitchelli					0.0068
Mulinia lateralis					0.0011
Neanthes succinea				0.2999	
Paraprionospio pinnata				0.0364	
Parvilucina crenella					0.0204
Phoronis spp.					0.0023
Podarkeopsis levifuscina				0.0023	
Scolecopsis texana					0.0091
Spiophanes bombyx					0.0295
Streblospio benedicti					0.0045
Stylochus ellipticus (Epi.)					0.0068
Total Biomass w/ Epifauna	0.0000	0.0000	0.0000	1.9085	0.3158
Total Biomass w/o Epifauna	0.0000	0.0000	0.0000	1.9085	0.3090

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20512	20513	20514	20515	20516					
Watershed	Mainstem	Mainstem	Mainstem	Mainstem	Mainstem					
Habitat	High Meso Mud	High Meso Sand	Low Mesohaline	High Meso Sand	High Meso Sand					
Date	09/18/13	08/21/13	09/18/13	09/18/13	08/22/13					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
=====										
BOTTOM ENVIRONMENT										
=====										
Depth (m)	1.5	7.3	2.5	1.3	8.8					
Salinity (ppt)	13.79	13.91	9.40	13.63	14.01					
Temperature (C)	19.71	24.92	19.87	20.80	24.85					
Dissolved Oxygen (mg/L)	8.8	4.9	7.3	8.9	1.8					
Sediment Silt-Clay (%)	47.59	6.31	81.96	4.44	4.79					
Total Carbon (%)	0.30	0.48	3.72	0.19	0.22					
=====										
BENTHIC INDEX OF BIOTIC INTEGRITY										
=====										
B-IBI Score	1.67		2.67		2.20		2.33		2.00	
Condition	Severely Degr.		Marginal		Degraded		Degraded		Severely Degr.	
# Attributes Scored	6		6		5		6		6	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.64	3	3.27	5	2.29	3	2.41	1	1.87	1
Abundance (#/m2)	477	1	863	1	8043	1	1431	3	250	1
Biomass (g/m2)	0.27	1	0.26	1	4.82	3	0.76	1	0.12	1
Pollution Indicative Spp Abund (%)	33.33		34.21	1	31.07	1	14.29	3	18.18	3
Pollution Indicative Spp Biom (%)	61.28	1	12.83		1.70		22.39		3.85	
Pollution Sensitive Spp Abund (%)	52.38		23.68	3	3.67		20.63	3	0.00	1
Pollution Sensitive Spp Biom (%)	19.15	1	15.04		70.51	3	60.60		0.00	
Carnivore-Omnivore Abund (%)	23.81	3	39.47	5	4.52		23.81	3	63.64	5
Deep Deposit Feeder Abund (%)	33.33		13.16		36.16		4.76		18.18	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Tolerance Score	0.00		0.00		0.00		0.00		0.00	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		0.00		0.00	
=====										

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20512	20513	20514	20515	20516
Acteocina canaliculata		45		23	
Carinoma tremaphoros				68	
Cyathura polita			91		
Dugesia spp. (Epi.)			23		
Edotea triloba (Epi.)		23			
Eteone heteropoda			114		
Gemma gemma		45			
Glycera americana		23			
Glycinde solitaria	114	114		182	
Haminoea solitaria				23	
Heteromastus filiformis	23	91	432	45	45
Leitoscoloplos robustus	23			23	
Leptocheirus plumulosus			2090		
Littoridinops tenuipes (Epi.)				45	
Macoma balthica			136		
Macoma mitchelli	45	23	91	750	
Marenzelleria viridis	23		68	91	
Mediomastus ambiseta	114				
Micrura leidyi		45			
Mulinia lateralis				23	23
Neanthes succinea		114	136	23	136
Nemertina			23		23
Paraprionospio pinnata	23	227			
Parvilucina crenella		23			
Pectinaria gouldii		23			
Phoronis spp.		23			
Rictaxis punctostriatus				23	
Streblospio benedicti	114	68	2386	159	23
Tubificoides spp.			2476		
Total Abundance w/ Epifauna	477	886	8066	1477	250
Total Abundance w/o Epifauna	477	863	8043	1431	250
Number of Taxa w/ Epifauna	8	14	12	13	5
Number of Taxa w/o Epifauna	8	13	11	12	5
BENTHIC BIOMASS (Grams per sq. meter)					
Site	20512	20513	20514	20515	20516
Acteocina canaliculata		0.0091		0.0023	
Carinoma tremaphoros				0.0182	
Cyathura polita			0.1363		
Dugesia spp. (Epi.)			0.0023		
Edotea triloba (Epi.)		0.0011			
Eteone heteropoda			0.0523		
Gemma gemma		0.0250			
Glycera americana		0.0136			
Glycinde solitaria	0.0182	0.0114		0.0136	
Haminoea solitaria				0.0011	
Heteromastus filiformis	0.0386	0.0909	0.1340	0.0159	0.0568
Leitoscoloplos robustus	0.0954			0.1613	
Leptocheirus plumulosus			0.6566		
Littoridinops tenuipes (Epi.)				0.0011	
Macoma balthica			3.0127		
Macoma mitchelli	0.0136	0.0011	0.2726	0.0364	
Marenzelleria viridis	0.0318		0.2522	0.4453	
Mediomastus ambiseta	0.0011				
Micrura leidyi		0.0432			
Mulinia lateralis				0.0023	0.0023
Neanthes succinea		0.0136	0.2431	0.0568	0.0273
Nemertina			0.0023		0.0295
Paraprionospio pinnata	0.0659	0.0318			
Parvilucina crenella		0.0023			
Pectinaria gouldii		0.0091			
Phoronis spp.		0.0045			
Rictaxis punctostriatus				0.0011	
Streblospio benedicti	0.0023	0.0011	0.0295	0.0068	0.0023
Tubificoides spp.			0.0318		
Total Biomass w/ Epifauna	0.2670	0.2579	4.8257	0.7623	0.1181
Total Biomass w/o Epifauna	0.2670	0.2567	4.8235	0.7611	0.1181

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20517	20518	20519	20520	20521					
Watershed	Mainstem	Mainstem	Mainstem	Mainstem	Mainstem					
Habitat	Polyhaline Mud	High Meso Mud	High Meso Sand	High Meso Sand	High Meso Sand					
Date	08/22/13	08/22/13	08/22/13	08/22/13	09/12/13					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	14.4	8.0	6.0	5.2	1.2					
Salinity (ppt)	20.18	13.07	12.05	12.84	12.99					
Temperature (C)	25.01	24.89	25.29	24.93	26.79					
Dissolved Oxygen (mg/L)	0.3	3.5	6.6	1.4	7.5					
Sediment Silt-Clay (%)	80.72	82.63	1.46	33.57	2.75					
Total Carbon (%)	2.80	1.63	0.27	0.58	0.19					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	1.00		1.67		2.33		2.00		1.67	
Condition	Severely Degr.		Severely Degr.		Degraded		Severely Degr.		Severely Degr.	
# Attributes Scored	6		6		6		6		6	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	0.00	1	1.50	1	0.08	1	2.15	1	2.44	1
Abundance (#/m2)	0	1	91	1	105216	1	909	1	841	1
Biomass (g/m2)	0.00	1	0.03	1	9.54	5	0.97	1	0.74	1
Pollution Indicative Spp Abund (%)	100.00		50.00		0.02	5	5.00	5	48.65	1
Pollution Indicative Spp Biom (%)	100.00	1	92.86	1	0.01		0.47		58.28	
Pollution Sensitive Spp Abund (%)	0.00		0.00		0.15	1	2.50	1	2.70	1
Pollution Sensitive Spp Biom (%)	0.00	1	0.00	1	0.14		46.26		0.92	
Carnivore-Omnivore Abund (%)	0.00	1	50.00	5	0.50	1	20.00	3	40.54	5
Deep Deposit Feeder Abund (%)	0.00		25.00		0.13		65.00		37.84	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Tolerance Score	0.00		0.00		0.00		0.00		0.00	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		0.00		0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20517	20518	20519	20520	20521
Carinoma tremaphoros			68		45
Edotea triloba (Epi.)			23		
Eteone foliosa					23
Gemma gemma			104398		
Glycinde solitaria			114		23
Heteromastus filiformis			114	295	68
Laeonereis culveri					250
Leitoscoloplos fragilis					250
Leitoscoloplos spp.		23			
Littoridinops tenuipes (Epi.)			45		
Macoma balthica				23	
Macoma mitchelli			91	68	23
Mya arenaria			45		
Neanthes succinea			341	182	
Sigambra tentaculata		45			
Streblospio benedicti		23	23	45	159
Stylochus ellipticus (Epi.)			23		
Tubificoides spp.			23	295	
Total Abundance w/ Epifauna	0	91	105307	909	841
Total Abundance w/o Epifauna		91	105216	909	841
Number of Taxa w/ Epifauna	0	3	12	6	8
Number of Taxa w/o Epifauna	0	3	9	6	8
BENTHIC BIOMASS (Grams per sq. meter)					
Site	20517	20518	20519	20520	20521
Carinoma tremaphoros			0.0136		0.0341
Edotea triloba (Epi.)			0.0045		
Eteone foliosa					0.1181
Gemma gemma			9.3606		
Glycinde solitaria			0.0091		0.0068
Heteromastus filiformis			0.0727	0.1954	0.0364
Laeonereis culveri					0.1113
Leitoscoloplos fragilis					0.4249
Leitoscoloplos spp.		0.0273			
Littoridinops tenuipes (Epi.)			0.0023		
Macoma balthica				0.4499	
Macoma mitchelli			0.0091	0.2386	0.0023
Mya arenaria			0.0045		
Neanthes succinea			0.0636	0.0795	
Sigambra tentaculata		0.0023			
Streblospio benedicti		0.0023	0.0011	0.0045	0.0068
Stylochus ellipticus (Epi.)			0.0045		
Tubificoides spp.			0.0045	0.0045	
Total Biomass w/ Epifauna	0.0000	0.0318	9.5504	0.9724	0.7407
Total Biomass w/o Epifauna	0.0000	0.0318	9.5390	0.9724	0.7407

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20522	20523	20524	20526	20528
Watershed	Mainstem	Mainstem	Mainstem	Mainstem	Mainstem
Habitat	High Meso Sand	Low Mesohaline	Low Mesohaline	High Meso Sand	High Meso Mud
Date	08/22/13	08/22/13	08/22/13	09/18/13	09/26/13
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044
BOTTOM ENVIRONMENT					
Depth (m)	6.2	6.1	3.2	3.0	11.4
Salinity (ppt)	12.22	11.46	11.22	13.76	13.24
Temperature (C)	24.96	25.60	25.32	21.30	20.92
Dissolved Oxygen (mg/L)	2.3	6.8	5.9	7.6	6.3
Sediment Silt-Clay (%)	9.72	2.02	1.89	3.49	61.25
Total Carbon (%)	0.38	0.19	0.10	0.12	2.01
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	2.33	2.20	2.60	3.33	1.00
Condition	Degraded	Degraded	Degraded	Meets Goal	Severely Degr.
# Attributes Scored	6	5	5	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	2.43 1	2.65 5	2.60 5	3.02 3	0.00 1
Abundance (#/m2)	659 1	636 3	682 3	1772 5	23 1
Biomass (g/m2)	0.26 1	0.25 1	0.43 1	0.34 1	0.00 1
Pollution Indicative Spp Abund (%)	24.14 3	25.00 1	13.33 3	5.13 5	100.00
Pollution Indicative Spp Biom (%)	0.86	1.83	0.79	35.69	100.00 1
Pollution Sensitive Spp Abund (%)	10.34 3	7.14	3.33	38.46 3	0.00
Pollution Sensitive Spp Biom (%)	57.08	4.59 1	18.47 1	19.87	0.00 1
Carnivore-Omnivore Abund (%)	51.72 5	39.29	20.00	32.05 3	0.00 1
Deep Deposit Feeder Abund (%)	17.24	3.57	16.67	32.05	0.00
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	0.00	0.00	0.00	0.00	0.00
Oligo Poll. Indic. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Oligo Poll. Sens. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Tolerance Score	0.00	0.00	0.00	0.00	0.00
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20522	20523	20524	20526	20528
<i>Acteocina canaliculata</i>				409	
<i>Americamysis bigelowi</i> (Epi.)				23	
<i>Apocorophium lacustre</i> (Epi.)			23		
<i>Balanus improvisus</i> (Epi.)				250	
<i>Carinoma tremaphoros</i>			68		
<i>Diadumene leucolena</i> (Epi.)				23	
<i>Edotea triloba</i> (Epi.)				23	
<i>Epitonium rupicola</i> (Epi.)				23	
<i>Eteone heteropoda</i>	23				
<i>Gemma gemma</i>		23	68	45	
<i>Glycera dibranchiata</i>				23	
<i>Glycinde solitaria</i>	23	45		68	
<i>Heteromastus filiformis</i>	68	23	114		
<i>Leucon americanus</i>				45	
<i>Macoma balthica</i>	23		23		
<i>Macoma mitchelli</i>	23	182	250	364	
<i>Mediomastus ambiseta</i>				136	
<i>Micrura leidyi</i>		45	23		
<i>Mulinia lateralis</i>		68	68	45	
<i>Mytilus edulis</i> (Epi.)				23	
<i>Neanthes succinea</i>	295	159	45	68	
<i>Paraprionospio pinnata</i>				45	
<i>Parvilucina crenella</i>				23	
<i>Phoronis</i> spp.				45	
<i>Spiochaetopterus costarum</i>				23	
<i>Spiophanes bombyx</i>	23				
<i>Streblospio benedicti</i>	136	91	23		23
<i>Tubificoides</i> spp.	45			432	
Total Abundance w/ Epifauna	659	636	704	2136	23
Total Abundance w/o Epifauna	659	636	682	1772	23
Number of Taxa w/ Epifauna	9	8	10	20	1
Number of Taxa w/o Epifauna	9	8	9	14	1
BENTHIC BIOMASS (Grams per sq. meter)					
Site	20522	20523	20524	20526	20528
<i>Acteocina canaliculata</i>				0.0568	
<i>Americamysis bigelowi</i> (Epi.)				0.0045	
<i>Apocorophium lacustre</i> (Epi.)			0.0023		
<i>Balanus improvisus</i> (Epi.)				0.0045	
<i>Carinoma tremaphoros</i>			0.0432		
<i>Diadumene leucolena</i> (Epi.)				0.0159	
<i>Edotea triloba</i> (Epi.)				0.0023	
<i>Epitonium rupicola</i> (Epi.)				0.0159	
<i>Eteone heteropoda</i>	0.0011				
<i>Gemma gemma</i>		0.0045	0.0068	0.0068	
<i>Glycera dibranchiata</i>				0.0523	
<i>Glycinde solitaria</i>	0.0023	0.0114		0.0011	
<i>Heteromastus filiformis</i>	0.0182	0.0068	0.0636		
<i>Leucon americanus</i>				0.0011	
<i>Macoma balthica</i>	0.1477		0.0795		
<i>Macoma mitchelli</i>	0.0011	0.0682	0.0159	0.0591	
<i>Mediomastus ambiseta</i>				0.0023	
<i>Micrura leidyi</i>		0.1227	0.1931		
<i>Mulinia lateralis</i>		0.0023	0.0023	0.0091	
<i>Mytilus edulis</i> (Epi.)				0.0011	
<i>Neanthes succinea</i>	0.0909	0.0295	0.0250	0.0227	
<i>Paraprionospio pinnata</i>				0.1113	
<i>Parvilucina crenella</i>				0.0011	
<i>Phoronis</i> spp.				0.0023	
<i>Spiochaetopterus costarum</i>				0.0045	
<i>Spiophanes bombyx</i>	0.0011				
<i>Streblospio benedicti</i>	0.0011	0.0023	0.0011		0.0011
<i>Tubificoides</i> spp.	0.0011			0.0068	
Total Biomass w/ Epifauna	0.2647	0.2476	0.4328	0.3817	0.0011
Total Biomass w/o Epifauna	0.2647	0.2476	0.4305	0.3374	0.0011

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20301	20302	20303	20304	20305					
Watershed	Western Tribs	Western Tribs	Western Tribs	Western Tribs	Western Tribs					
Habitat	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline					
Date	08/27/13	08/22/13	08/27/13	08/27/13	08/27/13					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	3.8	5.3	2.3	4.8	1.8					
Salinity (ppt)	11.36	11.25	9.28	10.21	7.78					
Temperature (C)	24.98	25.09	25.98	24.97	25.73					
Dissolved Oxygen (mg/L)	3.2	4.4	1.1	1.6	4.3					
Sediment Silt-Clay (%)	91.69	86.16	50.95	78.50	1.75					
Total Carbon (%)	2.43	1.83	3.51	5.62	0.43					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	3.40		3.40		1.00		1.00		2.60	
Condition	Meets Goal		Meets Goal		Severely Degr.		Severely Degr.		Degraded	
# Attributes Scored	5		5		5		5		5	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	1.22	1	1.83	3	0.00	1	1.00	1	2.96	5
Abundance (#/m2)	909	3	1431	3	0	1	45	1	2636	3
Biomass (g/m2)	4.13	3	3.86	3	0.00	1	0.00	1	0.61	1
Pollution Indicative Spp Abund (%)	2.50	5	3.17	5	100.00	1	50.00	1	63.79	1
Pollution Indicative Spp Biom (%)	0.03		7.39		100.00		66.67		10.72	
Pollution Sensitive Spp Abund (%)	32.50		1.59		0.00		0.00		9.48	
Pollution Sensitive Spp Biom (%)	99.83	5	65.55	3	0.00	1	0.00	1	70.24	3
Carnivore-Omnivore Abund (%)	0.00		15.87		0.00		100.00		40.52	
Deep Deposit Feeder Abund (%)	67.50		6.35		0.00		0.00		17.24	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	2.50		0.00		0.00		0.00		2.59	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Tolerance Score	9.80		0.00		0.00		0.00		5.26	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		0.00		0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20301	20302	20303	20304	20305
Americamysis almyra (Epi.)	23				
Apocorophium lacustre (Epi.)					91
Cladotanytarsus spp. B Epler					500
Eteone heteropoda				23	545
Hargeria rapax					273
Heteromastus filiformis	23	23			45
Leptocheirus plumulosus		863			
Macoma balthica	295	23			23
Macoma mitchelli		182			23
Marenzelleria viridis					227
Mulinia lateralis		23			
Mytilopsis leucophaeata (Epi.)					91
Neanthes succinea		227		23	23
Streblospio benedicti		23			568
Tubificidae imm w cap chaetae					114
Tubificidae imm w/o cap chaetae	23				68
Tubificoides spp.	568	68			227
Total Abundance w/ Epifauna	932	1431	0	45	2817
Total Abundance w/o Epifauna	909	1431		45	2636
Number of Taxa w/ Epifauna	5	8	0	2	14
Number of Taxa w/o Epifauna	4	8	0	2	12
BENTHIC BIOMASS (Grams per sq. meter)					
Site	20301	20302	20303	20304	20305
Americamysis almyra (Epi.)	0.0023				
Apocorophium lacustre (Epi.)					0.0011
Chironomidae					0.0091
Eteone heteropoda				0.0023	0.0364
Hargeria rapax					0.0136
Heteromastus filiformis	0.0011	0.0341			0.0114
Leptocheirus plumulosus		0.3953			
Macoma balthica	4.1237	2.5287			0.1795
Macoma mitchelli		0.0386			0.0011
Marenzelleria viridis					0.2522
Mulinia lateralis		0.2840			
Mytilopsis leucophaeata (Epi.)					0.0136
Neanthes succinea		0.5748		0.0011	0.0886
Streblospio benedicti		0.0011			0.0204
Tubificidae imm w/o cap chaetae	0.0011				
Tubificoides spp.	0.0045	0.0011			0.0023
Total Biomass w/ Epifauna	4.1328	3.8579	0.0000	0.0034	0.6293
Total Biomass w/o Epifauna	4.1305	3.8579	0.0000	0.0034	0.6146

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20306	20307	20308	20309	20311					
Watershed	Western Tribs	Western Tribs	Western Tribs	Western Tribs	Western Tribs					
Habitat	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline					
Date	08/26/13	08/26/13	08/26/13	08/26/13	08/26/13					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	3.9	4.2	1.9	1.6	4.8					
Salinity (ppt)	7.58	8.51	7.76	7.10	9.55					
Temperature (C)	24.54	24.97	24.90	26.00	25.12					
Dissolved Oxygen (mg/L)	7.8	2.1	7.7	8.4	1.3					
Sediment Silt-Clay (%)	7.10	25.61	1.55	4.97	38.86					
Total Carbon (%)	2.00	1.34	0.07	0.20	1.26					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	2.60		3.40		3.00		3.00		3.40	
Condition	Degraded		Meets Goal		Meets Goal		Meets Goal		Meets Goal	
# Attributes Scored	5		5		5		5		5	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.74	5	2.38	3	2.11	3	2.16	3	2.20	3
Abundance (#/m2)	7838	1	3363	3	2431	5	1590	5	1954	5
Biomass (g/m2)	3.28	3	5.16	5	1.47	3	0.83	1	4.37	3
Pollution Indicative Spp Abund (%)	37.10	1	25.00	1	30.84	1	0.00	5	10.47	3
Pollution Indicative Spp Biom (%)	3.16		0.62		2.01		0.00		0.13	
Pollution Sensitive Spp Abund (%)	26.09		14.86		52.34		2.86		30.23	
Pollution Sensitive Spp Biom (%)	71.45	3	82.25	5	46.33	3	12.57	1	79.30	3
Carnivore-Omnivore Abund (%)	10.72		4.05		9.35		31.43		9.30	
Deep Deposit Feeder Abund (%)	24.35		56.08		1.87		22.86		54.65	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.58		0.00		0.00		0.00		4.65	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Tolerance Score	7.52		6.00		6.00		0.00		9.80	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		0.00		0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20306	20307	20308	20309	20311
Apocorophium lacustre (Epi.)	23	23	23		
Carinoma tremaphoros		23		45	
Chiridotea almyra	45				
Edotea triloba (Epi.)	1022	45			
Eteone heteropoda	727	68	91		
Heteromastus filiformis	795	568	23	204	182
Hydrobia truncata (Epi.)	23	23			
Laeonereis culveri			136		
Lepidactylus dytiscus			45		
Leptocheirus plumulosus	45	23	68	659	
Littoridinops tenuipes (Epi.)			68		
Macoma balthica	114	386		23	568
Macoma mitchelli	863	45	114	23	
Marenzelleria viridis	1863	91	1227	23	23
Mytilopsis leucophaeata (Epi.)	136				
Neanthes succinea	68	45		454	182
Rangia cuneata	68	23	45		
Streblospio benedicti	2136	772	659		114
Tubificidae imm w/o cap chaetae	45				91
Tubificoides spp.	1068	1318	23	159	795
Total Abundance w/ Epifauna	9043	3453	2522	1590	1954
Total Abundance w/o Epifauna	7838	3363	2431	1590	1954
Number of Taxa w/ Epifauna	16	14	12	8	7
Number of Taxa w/o Epifauna	12	11	10	8	7
BENTHIC BIOMASS (Grams per sq. meter)					
Site	20306	20307	20308	20309	20311
Apocorophium lacustre (Epi.)	0.0011	0.0045	0.0011		
Carinoma tremaphoros		0.0204		0.0250	
Chiridotea almyra	0.0114				
Edotea triloba (Epi.)	0.0500	0.0068			
Eteone heteropoda	0.0636	0.0091	0.0091		
Heteromastus filiformis	0.4680	0.6203	0.0409	0.1500	0.1454
Hydrobia truncata (Epi.)	0.0023	0.0068			
Laeonereis culveri			0.1340		
Lepidactylus dytiscus			0.0182		
Leptocheirus plumulosus	0.0045	0.0045	0.0023	0.2545	
Littoridinops tenuipes (Epi.)			0.0114		
Macoma balthica	0.8588	3.9396		0.0545	3.4444
Macoma mitchelli	0.1568	0.0136	0.5635	0.0613	
Marenzelleria viridis	1.1610	0.0545	0.6793	0.0500	0.0250
Mytilopsis leucophaeata (Epi.)	0.0477				
Neanthes succinea	0.1772	0.2045		0.2317	0.7429
Rangia cuneata	0.3204	0.2499	0.0023		
Streblospio benedicti	0.0386	0.0227	0.0204		0.0045
Tubificidae imm w/o cap chaetae	0.0011				0.0011
Tubificoides spp.	0.0136	0.0204	0.0011	0.0045	0.0114
Total Biomass w/ Epifauna	3.3762	5.1779	1.4836	0.8316	4.3747
Total Biomass w/o Epifauna	3.2751	5.1597	1.4711	0.8316	4.3747

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20312	20313	20314	20315	20316					
Watershed	Western Tribs	Western Tribs	Western Tribs	Western Tribs	Western Tribs					
Habitat	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline					
Date	08/26/13	08/26/13	08/26/13	08/26/13	08/26/13					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	4.4	3.2	5.5	3.9	3.5					
Salinity (ppt)	7.70	7.09	10.44	8.83	8.61					
Temperature (C)	25.01	24.75	25.28	25.34	25.22					
Dissolved Oxygen (mg/L)	5.8	5.1	2.0	6.1	4.1					
Sediment Silt-Clay (%)	95.87	81.60	71.68	1.17	16.39					
Total Carbon (%)	3.79	2.09	2.98	0.06	8.11					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	1.00		3.80		1.80		3.40		1.80	
Condition	Severely Degr.		Meets Goal		Severely Degr.		Meets Goal		Severely Degr.	
# Attributes Scored	5		5		5		5		5	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	0.00	1	1.39	1	1.15	1	1.83	3	2.02	3
Abundance (#/m2)	0	1	2090	5	159	1	2204	5	15381	1
Biomass (g/m2)	0.00	1	10.86	3	0.09	1	1.14	3	2.13	3
Pollution Indicative Spp Abund (%)	100.00	1	2.17	5	0.00	5	35.05	1	54.80	1
Pollution Indicative Spp Biom (%)	100.00		0.02		0.00		4.17		13.15	
Pollution Sensitive Spp Abund (%)	0.00		65.22		0.00		51.55		0.89	
Pollution Sensitive Spp Biom (%)	0.00	1	95.84	5	0.00	1	83.70	5	25.33	1
Carnivore-Omnivore Abund (%)	0.00		1.09		0.00		34.02		12.56	
Deep Deposit Feeder Abund (%)	0.00		32.61		85.71		3.09		11.08	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		1.09		0.00		0.00		0.00	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Tolerance Score	0.00		9.80		0.00		6.00		6.00	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		0.00		0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20312	20313	20314	20315	20316
Apocorophium lacustre (Epi.)				45	23
Chiridotea almyra				23	
Edotea triloba (Epi.)					136
Edwardsia elegans					23
Eteone heteropoda				704	954
Heteromastus filiformis		45	23	68	
Hobsonia florida					45
Littoridinops tenuipes (Epi.)					227
Macoma balthica		1318			23
Macoma mitchelli			23	182	114
Marenzelleria viridis		45		1113	
Mytilopsis leucophaeata (Epi.)				23	4021
Neanthes succinea		23		23	954
Polydora cornuta					3976
Rangia cuneata				23	114
Rhithropanopeus harrisi (Epi.)					68
Streblospio benedicti		23		68	7475
Tubificidae imm w/o cap chaetae		23			
Tubificoides spp.		613	114		1704
Total Abundance w/ Epifauna	0	2090	159	2272	19857
Total Abundance w/o Epifauna		2090	159	2204	15381
Number of Taxa w/ Epifauna	0	7	3	10	15
Number of Taxa w/o Epifauna	0	7	3	8	10
BENTHIC BIOMASS (Grams per sq. meter)					
Site	20312	20313	20314	20315	20316
Apocorophium lacustre (Epi.)				0.0068	0.0023
Chiridotea almyra				0.0114	
Edotea triloba (Epi.)					0.0159
Edwardsia elegans					0.0011
Eteone heteropoda				0.0454	0.1295
Heteromastus filiformis		0.2340	0.0841	0.0909	
Hobsonia florida					0.0023
Littoridinops tenuipes (Epi.)					0.0204
Macoma balthica		10.3830			0.0659
Macoma mitchelli			0.0011	0.0341	0.0045
Marenzelleria viridis		0.0204		0.6521	
Mytilopsis leucophaeata (Epi.)				0.0011	7.0796
Neanthes succinea		0.2045		0.0023	1.1746
Polydora cornuta					0.1045
Rangia cuneata				0.3044	0.4726
Rhithropanopeus harrisi (Epi.)					0.9679
Streblospio benedicti		0.0011		0.0023	0.1500
Tubificidae imm w/o cap chaetae		0.0011			
Tubificoides spp.		0.0114	0.0011		0.0204
Total Biomass w/ Epifauna	0.0000	10.8556	0.0863	1.1508	10.2115
Total Biomass w/o Epifauna	0.0000	10.8556	0.0863	1.1428	2.1255

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20317	20318	20319	20320	20321					
Watershed	Western Tribs	Western Tribs	Western Tribs	Western Tribs	Western Tribs					
Habitat	High Meso Mud	Oligohaline	Oligohaline	Oligohaline	Oligohaline					
Date	08/26/13	08/29/13	09/20/13	09/20/13	09/20/13					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	15.7	1.8	1.8	2.5	3.3					
Salinity (ppt)	16.15	4.47	4.22	4.43	3.78					
Temperature (C)	25.01	25.30	20.84	20.62	20.96					
Dissolved Oxygen (mg/L)	0.3	4.2	7.0	7.5	7.9					
Sediment Silt-Clay (%)	97.38	83.04	16.30	88.05	85.69					
Total Carbon (%)	1.76	3.13	0.53	2.59	1.34					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	1.00	3.33	2.67	3.00	3.00					
Condition	Severely Degr.	Meets Goal	Marginal	Meets Goal	Meets Goal					
# Attributes Scored	6	6	6	6	6					
	Value	Score	Value	Score	Value	Score				
Shannon-Wiener Index	0.00	1	1.88	1.61	1.64	2.52				
Abundance (#/m2)	0	1	1204	5	4317	1	2658	5	2158	5
Biomass (g/m2)	0.00	1	0.68	65.92	1.37	7.93				
Pollution Indicative Spp Abund (%)	100.00		30.19	7.37	8.55	26.32				
Pollution Indicative Spp Biom (%)	100.00	1	6.84	0.01	1.66	0.66				
Pollution Sensitive Spp Abund (%)	0.00		28.30	11.58	23.93	24.21				
Pollution Sensitive Spp Biom (%)	0.00	1	60.43	99.83	58.24	97.08				
Carnivore-Omnivore Abund (%)	0.00	1	30.19	3	2.11	1	15.38	3	20.00	3
Deep Deposit Feeder Abund (%)	0.00		1.89	63.68	2.56	16.84				
TF Poll. Indicative Spp Abund (%)	0.00		0.00	0.00	0.00	0.00				
Limnodrilus Abundance (%)	0.00		0.00	0.00	0.00	0.00				
Oligo Poll. Indic. Spp Abund (%)	0.00		71.70	3	88.42	3	76.07	3	75.79	3
Oligo Poll. Sens. Spp Abund (%)	0.00		26.42	5	9.47	3	14.53	3	15.79	3
Tolerance Score	0.00		6.20	3	7.90	3	6.20	3	6.17	3
Tany./Chir. Abundance Ratio	0.00		100.00	1	0.00	5	100.00	1	100.00	1

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20317	20318	20319	20320	20321
Apocorophium lacustre (Epi.)				23	
Chironomus spp.			23		
Coelotanypus spp.		341		159	295
Cyathura polita		23	68	250	136
Edotea triloba (Epi.)			136		
Leptocheirus plumulosus		477	750	1727	704
Marenzelleria viridis		318	409	386	341
Melita nitida (Epi.)				45	114
Mytilopsis leucophaeata (Epi.)				23	
Odonata (Epi.)				23	
Rangia cuneata			23		45
Streblospio benedicti		23	295	68	273
Tubificoides spp.		23	2749	68	364
Total Abundance w/ Epifauna	0	1204	4453	2772	2272
Total Abundance w/o Epifauna		1204	4317	2658	2158
Number of Taxa w/ Epifauna	0	6	8	10	8
Number of Taxa w/o Epifauna	0	6	7	6	7
BENTHIC BIOMASS (Grams per sq. meter)					
Site	20317	20318	20319	20320	20321
Apocorophium lacustre (Epi.)				0.0068	
Chironomus spp.			0.0023		
Coelotanypus spp.		0.0454		0.0204	0.0477
Cyathura polita		0.0204	0.0841	0.3885	0.1318
Edotea triloba (Epi.)			0.0182		
Leptocheirus plumulosus		0.2204	0.0591	0.5453	0.1772
Marenzelleria viridis		0.3908	0.1636	0.4067	1.3087
Melita nitida (Epi.)				0.0045	0.0045
Mytilopsis leucophaeata (Epi.)				0.0023	
Odonata (Epi.)				0.0011	
Rangia cuneata			65.5563		6.2548
Streblospio benedicti		0.0011	0.0045	0.0023	0.0045
Tubificoides spp.		0.0023	0.0477	0.0023	0.0023
Total Biomass w/ Epifauna	0.0000	0.6805	65.9357	1.3802	7.9316
Total Biomass w/o Epifauna	0.0000	0.6805	65.9175	1.3655	7.9270

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20322	20323	20324	20325	20326					
Watershed	Western Tribs	Western Tribs	Western Tribs	Western Tribs	Western Tribs					
Habitat	Oligohaline	Oligohaline	Oligohaline	Oligohaline	Oligohaline					
Date	09/20/13	09/20/13	09/20/13	09/20/13	08/29/13					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	1.9	2.4	1.5	1.3	2.7					
Salinity (ppt)	4.14	2.51	2.10	1.30	3.06					
Temperature (C)	21.15	20.49	21.00	20.62	25.54					
Dissolved Oxygen (mg/L)	7.9	6.7	8.1	8.8	3.6					
Sediment Silt-Clay (%)	3.90	93.64	3.47	4.09	76.32					
Total Carbon (%)	0.10	0.22	0.14	0.28	2.62					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	3.00		3.33		3.33		3.33		2.67	
Condition	Meets Goal		Meets Goal		Meets Goal		Meets Goal		Marginal	
# Attributes Scored	6		6		6		6		6	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	1.32		2.55		1.44		2.32		2.23	
Abundance (#/m2)	2181	5	1181	5	3840	3	3476	3	2476	5
Biomass (g/m2)	0.23		60.41		0.61		0.65		0.66	
Pollution Indicative Spp Abund (%)	2.08		40.38		19.53		37.91		12.84	
Pollution Indicative Spp Biom (%)	0.49		0.30		0.19		5.60		5.83	
Pollution Sensitive Spp Abund (%)	8.33		23.08		0.59		1.31		19.27	
Pollution Sensitive Spp Biom (%)	31.22		99.50		2.25		9.80		79.59	
Carnivore-Omnivore Abund (%)	2.08	1	21.15	3	82.25	5	71.24	5	14.68	1
Deep Deposit Feeder Abund (%)	12.50		28.85		17.16		28.10		55.96	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		19.23		11.24		14.38		0.00	
Oligo Poll. Indic. Spp Abund (%)	88.54	3	76.92	3	28.40	3	59.48	3	78.90	3
Oligo Poll. Sens. Spp Abund (%)	8.33	3	21.15	3	0.59	3	0.65	3	17.43	3
Tolerance Score	9.80	1	8.97	3	9.73	1	9.71	1	6.20	3
Tany./Chir. Abundance Ratio	0.00	5	36.36	3	3.60	5	11.11	5	100.00	1

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20322	20323	20324	20325	20326
Ameroculodes species complex	23				
Boccardiella ligERICA	23				
Carinoma tremaphoros					23
Chironomus spp.	45	159	318	818	
Coelotanypus spp.		91			227
Cyathura polita				23	45
Heteromastus filiformis					91
Lepidactylus dytiscus	23				
Leptocheirus plumulosus	1613	318			204
Limnodrilus hoffmeisteri				45	
Lipiniella spp.			2726	1363	
Marenzelleria viridis	182	250	23	23	432
Mytilopsis leucophaeata (Epi.)	432				
Neanthes succinea					45
Parahesionia luteola					23
Procladius spp.			114	273	
Rangia cuneata		23			
Streblospio benedicti					91
Tubificidae imm w cap chaetae				45	
Tubificidae imm w/o cap chaetae		227	432		
Tubificidae imm w/o cap chaetae *				454	
Tubificoides spp.	273	114	227	432	1295
Total Abundance w/ Epifauna	2613	1181	3840	3476	2476
Total Abundance w/o Epifauna	2181	1181	3840	3476	2476
Number of Taxa w/ Epifauna	8	7	6	8	10
Number of Taxa w/o Epifauna	7	7	6	8	10
BENTHIC BIOMASS (Grams per sq. meter)					
Site	20322	20323	20324	20325	20326
Ameroculodes species complex	0.0023				
Boccardiella ligERICA	0.0023				
Carinoma tremaphoros					0.0011
Chironomidae			0.5907	0.5423	
Chironomus spp.	0.0011	0.1431			
Coelotanypus spp.		0.0318			0.0364
Cyathura polita				0.0091	0.1568
Heteromastus filiformis					0.0068
Lepidactylus dytiscus	0.0023				
Leptocheirus plumulosus	0.1477	0.1181			0.0591
Marenzelleria viridis	0.0727	0.2999	0.0136	0.0545	0.3703
Mytilopsis leucophaeata (Epi.)	0.0114				
Neanthes succinea					0.0091
Oligochaeta		0.0045		0.0364	
Parahesionia luteola					0.0045
Rangia cuneata		59.8059			
Streblospio benedicti					0.0023
Tubificidae imm w/o cap chaetae		0.0011	0.0011		
Tubificoides spp.	0.0045	0.0023	0.0011	0.0068	0.0159
Total Biomass w/ Epifauna	0.2442	60.4068	0.6066	0.6490	0.6623
Total Biomass w/o Epifauna	0.2329	60.4068	0.6066	0.6490	0.6623

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20101	20102	20103	20104	20105					
Watershed	Potomac R	Potomac R	Potomac R	Potomac R	Potomac R					
Habitat	High Meso Mud	High Meso Mud	High Meso Mud	High Meso Sand	High Meso Mud					
Date	08/20/13	08/20/13	08/20/13	08/20/13	08/20/13					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	13.6	12.9	15.5	15.3	12.4					
Salinity (ppt)	15.54	14.91	17.41	17.17	16.27					
Temperature (C)	25.06	24.85	25.31	25.61	25.66					
Dissolved Oxygen (mg/L)	2.3	4.5	0.2	0.3	0.3					
Sediment Silt-Clay (%)	80.07	75.23	65.17	6.34	87.35					
Total Carbon (%)	2.68	3.10	1.91	0.22	2.69					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	1.00		1.00		3.67		1.00		1.00	
Condition	Severely Degr.		Severely Degr.		Meets Goal		Severely Degr.		Severely Degr.	
# Attributes Scored	6		6		6		6		6	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	0.00	1	0.00	1	2.74	3	0.00	1	0.00	1
Abundance (#/m2)	0	1	0	1	3408	3	0	1	0	1
Biomass (g/m2)	0.00	1	0.00	1	108.84	1	0.00	1	0.00	1
Pollution Indicative Spp Abund (%)	100.00		100.00		13.33		100.00	1	100.00	
Pollution Indicative Spp Biom (%)	100.00	1	100.00	1	0.03	5	100.00		100.00	1
Pollution Sensitive Spp Abund (%)	0.00		0.00		63.33		0.00	1	0.00	
Pollution Sensitive Spp Biom (%)	0.00	1	0.00	1	99.85	5	0.00		0.00	1
Carnivore-Omnivore Abund (%)	0.00	1	0.00	1	25.33	5	0.00	1	0.00	1
Deep Deposit Feeder Abund (%)	0.00		0.00		19.33		0.00		0.00	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		0.00		13.33		0.00		0.00	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Tolerance Score	0.00		0.00		8.27		0.00		0.00	
Tany./Chir. Abundance Ratio	0.00		0.00		100.00		0.00		0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20101	20102	20103	20104	20105
Apocorophium lacustre (Epi.)			5112		
Boccardiella ligERICA			159		
Carinoma tremaphoros			23		
Cyathura polita			818		
Gammarus daiberi (Epi.)			23		
Hobsonia florida			386		
Limnodrilus hoffmeisteri			136		
Marenzelleria viridis			1022		
Mytilopsis leucophaeata (Epi.)			1681		
Procladius spp.			23		
Rangia cuneata			318		
Rhithropanopeus harrisii (Epi.)			45		
Tubificidae imm w/o cap chaetae *			318		
Tubificoides spp.			204		
Total Abundance w/ Epifauna	0	0	10269	0	0
Total Abundance w/o Epifauna			3408		
Number of Taxa w/ Epifauna	0	0	13	0	0
Number of Taxa w/o Epifauna	0	0	9	0	0
BENTHIC BIOMASS (Grams per sq. meter)					
Site	20101	20102	20103	20104	20105
Apocorophium lacustre (Epi.)			0.3340		
Boccardiella ligERICA			0.0068		
Carinoma tremaphoros			0.0545		
Cyathura polita			0.7657		
Gammarus daiberi (Epi.)			0.0045		
Hobsonia florida			0.0727		
Marenzelleria viridis			1.6040		
Mytilopsis leucophaeata (Epi.)			1.3359		
Oligochaeta			0.0295		
Rangia cuneata			106.3069		
Rhithropanopeus harrisii (Epi.)			0.1068		
Tubificoides spp.			0.0023		
Total Biomass w/ Epifauna	0.0000	0.0000	110.6237	0.0000	0.0000
Total Biomass w/o Epifauna	0.0000	0.0000	108.8424	0.0000	0.0000

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20106	20107	20108	20109	20110					
Watershed	Potomac R	Potomac R	Potomac R	Potomac R	Potomac R					
Habitat	High Meso Mud	High Meso Mud	Low Mesohaline	Low Mesohaline	High Meso Sand					
Date	08/20/13	08/20/13	08/20/13	08/20/13	08/20/13					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	8.8	11.5	3.0	7.2	7.3					
Salinity (ppt)	13.89	15.61	10.38	11.28	13.11					
Temperature (C)	25.16	25.55	24.85	24.40	25.00					
Dissolved Oxygen (mg/L)	4.1	1.2	9.2	4.6	4.9					
Sediment Silt-Clay (%)	41.35	67.94	1.77	86.93	4.10					
Total Carbon (%)	1.29	2.76	0.04	2.93	0.28					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	1.00		1.00		2.60		1.00		2.33	
Condition	Severely Degr.		Severely Degr.		Degraded		Severely Degr.		Degraded	
# Attributes Scored	6		6		5		5		6	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	0.00	1	0.00	1	2.61	5	0.00	1	3.20	3
Abundance (#/m2)	0	1	0	1	1295	3	0	1	477	1
Biomass (g/m2)	0.00	1	0.00	1	0.52	1	0.00	1	0.17	1
Pollution Indicative Spp Abund (%)	100.00	1	100.00	1	29.82	1	100.00	1	38.10	1
Pollution Indicative Spp Biom (%)	100.00	1	100.00	1	4.82	1	100.00	1	8.61	1
Pollution Sensitive Spp Abund (%)	0.00	1	0.00	1	19.30	1	0.00	1	14.29	3
Pollution Sensitive Spp Biom (%)	0.00	1	0.00	1	50.88	3	0.00	1	3.97	1
Carnivore-Omnivore Abund (%)	0.00	1	0.00	1	35.09	1	0.00	1	38.10	5
Deep Deposit Feeder Abund (%)	0.00	1	0.00	1	12.28	1	0.00	1	19.05	1
TF Poll. Indicative Spp Abund (%)	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1
Limnodrilus Abundance (%)	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1
Oligo Poll. Indic. Spp Abund (%)	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1
Oligo Poll. Sens. Spp Abund (%)	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1
Tolerance Score	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1
Tany./Chir. Abundance Ratio	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20106	20107	20108	20109	20110
Apocorophium lacustre (Epi.)			68		
Eteone heteropoda			68		23
Gemma gemma					23
Glycinde solitaria			23		68
Heteromastus filiformis			68		68
Macoma mitchelli			136		23
Marenzelleria viridis			227		
Micrura leidyi					45
Neanthes succinea			364		23
Paraprionospio pinnata					114
Pectinaria gouldii					23
Rictaxis punctostriatus					23
Streblospio benedicti			318		45
Tubificoides spp.			91		
Total Abundance w/ Epifauna	0	0	1363	0	477
Total Abundance w/o Epifauna			1295		477
Number of Taxa w/ Epifauna	0	0	9	0	11
Number of Taxa w/o Epifauna	0	0	8	0	11
BENTHIC BIOMASS (Grams per sq. meter)					
Site	20106	20107	20108	20109	20110
Apocorophium lacustre (Epi.)			0.0023		
Eteone heteropoda			0.0045		0.0011
Gemma gemma					0.0136
Glycinde solitaria			0.0023		0.0068
Heteromastus filiformis			0.1590		0.0704
Macoma mitchelli			0.0136		0.0011
Marenzelleria viridis			0.2613		
Micrura leidyi					0.0591
Neanthes succinea			0.0545		0.0011
Paraprionospio pinnata					0.0068
Pectinaria gouldii					0.0023
Rictaxis punctostriatus					0.0023
Streblospio benedicti			0.0204		0.0068
Tubificoides spp.			0.0023		
Total Biomass w/ Epifauna	0.0000	0.0000	0.5203	0.0000	0.1715
Total Biomass w/o Epifauna	0.0000	0.0000	0.5180	0.0000	0.1715

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20111	20112	20113	20114	20115					
Watershed	Potomac R	Potomac R	Potomac R	Potomac R	Potomac R					
Habitat	High Meso Mud	High Meso Mud	High Meso Sand	Low Mesohaline	Oligohaline					
Date	08/20/13	09/25/13	09/25/13	09/24/13	09/24/13					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	8.9	7.2	5.0	1.3	4.1					
Salinity (ppt)	13.42	12.30	12.26	5.58	3.02					
Temperature (C)	25.10	21.55	21.42	21.51	20.68					
Dissolved Oxygen (mg/L)	2.8	5.1	7.2	6.8	6.7					
Sediment Silt-Clay (%)	87.09	90.94	2.52	36.85	82.37					
Total Carbon (%)	3.45	2.58	0.13	0.92	2.68					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	1.00		1.00		2.00		2.60		3.33	
Condition	Severely Degr.		Severely Degr.		Severely Degr.		Degraded		Meets Goal	
# Attributes Scored	6		6		6		5		6	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	0.00	1	0.00	1	2.14	1	2.88	5	1.26	
Abundance (#/m2)	0	1	0	1	1999	5	6702	1	1363	5
Biomass (g/m2)	0.00	1	0.00	1	0.64	1	1.01	3	19.71	
Pollution Indicative Spp Abund (%)	100.00		100.00		15.91	3	23.73	1	3.33	
Pollution Indicative Spp Biom (%)	100.00	1	100.00	1	22.61		4.48		0.02	
Pollution Sensitive Spp Abund (%)	0.00		0.00		4.55	1	7.12		13.33	
Pollution Sensitive Spp Biom (%)	0.00	1	0.00	1	6.71		69.73	3	98.74	
Carnivore-Omnivore Abund (%)	0.00	1	0.00	1	6.82	1	32.54		5.00	1
Deep Deposit Feeder Abund (%)	0.00		0.00		19.32		27.46		3.33	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		0.00		85.00	3
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		0.00		8.33	3
Tolerance Score	0.00		0.00		0.00		8.15		6.75	3
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		12.09		0.00	5

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20111	20112	20113	20114	20115
Carinoma tremaphoros				23	
Chironomus spp.				636	
Cladotanytarsus spp. B Epler				91	
Coelotanypus spp.				250	
Cryptochironomus spp.				182	
Cyathura polita				91	45
Eteone heteropoda			45		
Gammarus daiberi (Epi.)					68
Glycinde solitaria			68		
Harnischia spp.					23
Heteromastus filiformis			91		
Leitoscoloplos fragilis			23		
Leitoscoloplos spp. *			114		
Leptocheirus plumulosus			1250	1659	1068
Lipiniella spp.				91	
Macoma mitchelli			68	23	
Marenzelleria viridis			23	386	114
Melita nitida (Epi.)				45	23
Mulinia lateralis			23		
Mytilopsis leucophaeata (Epi.)					23
Neanthes succinea			23		
Polypedilum halterale group				818	
Rangia cuneata					23
Streblospio benedicti			114	613	45
Tubificoides spp.			159	1840	45
Total Abundance w/ Epifauna	0	0	1999	6748	1477
Total Abundance w/o Epifauna			1999	6702	1363
Number of Taxa w/ Epifauna	0	0	11	14	10
Number of Taxa w/o Epifauna	0	0	11	13	7
BENTHIC BIOMASS (Grams per sq. meter)					
Site	20111	20112	20113	20114	20115
Carinoma tremaphoros				0.0136	
Coelotanypus spp.				0.0250	
Cyathura polita				0.0772	0.0182
Eteone heteropoda			0.0091		
Gammarus daiberi (Epi.)					0.0045
Glycinde solitaria			0.0068		
Harnischia spp.					0.0011
Heteromastus filiformis			0.0182		
Leitoscoloplos fragilis			0.1181		
Leitoscoloplos spp. *			0.0068		
Leptocheirus plumulosus			0.2340	0.2158	0.2386
Macoma mitchelli			0.1204	0.0045	
Marenzelleria viridis			0.0364	0.6293	0.3544
Melita nitida (Epi.)				0.0068	0.0011
Mulinia lateralis			0.0023		
Mytilopsis leucophaeata (Epi.)					0.0011
Neanthes succinea			0.0772		
Rangia cuneata					19.0871
Streblospio benedicti			0.0091	0.0204	0.0045
Tubificoides spp.			0.0045	0.0273	0.0045
Total Biomass w/ Epifauna	0.0000	0.0000	0.6430	1.0201	19.7153
Total Biomass w/o Epifauna	0.0000	0.0000	0.6430	1.0133	19.7085

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20116	20117	20118	20119	20120					
Watershed	Potomac R	Potomac R	Potomac R	Potomac R	Potomac R					
Habitat	Oligohaline	Low Mesohaline	Low Mesohaline	Oligohaline	Oligohaline					
Date	09/24/13	09/25/13	09/25/13	09/24/13	09/24/13					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	4.7	2.9	2.2	2.7	2.8					
Salinity (ppt)	3.74	9.03	8.90	3.40	1.61					
Temperature (C)	21.14	21.44	21.11	21.25	20.39					
Dissolved Oxygen (mg/L)	7.1	6.6	7.2	6.7	6.4					
Sediment Silt-Clay (%)	79.50	70.88	77.75	85.91	13.15					
Total Carbon (%)	2.10	1.79	2.36	2.40	0.63					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	3.80		3.80		3.80		3.00		2.50	
Condition	Meets Goal		Meets Goal		Meets Goal		Meets Goal		Degraded	
# Attributes Scored	5		5		5		6		4	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.15		2.13	3	2.89	5	2.61		1.51	
Abundance (#/m2)	1000	5	1250	3	1749	5	704	5	1091	5
Biomass (g/m2)	92.53		4.74	3	1.27	3	3.38		5.29	
Pollution Indicative Spp Abund (%)	4.55		5.45	5	10.39	3	22.58		0.00	
Pollution Indicative Spp Biom (%)	0.00		0.10		0.18		0.60		0.00	
Pollution Sensitive Spp Abund (%)	70.45		40.00		38.96		32.26		60.42	
Pollution Sensitive Spp Biom (%)	99.98		95.68	5	73.79	3	97.95		96.91	
Carnivore-Omnivore Abund (%)	9.09	1	10.91		45.45		25.81	3	8.33	1
Deep Deposit Feeder Abund (%)	6.82		7.27		22.08		16.13		31.25	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	4.55		0.00		1.30		16.13		0.00	
Oligo Poll. Indic. Spp Abund (%)	25.00	5	0.00		0.00		61.29	3	37.50	3
Oligo Poll. Sens. Spp Abund (%)	50.00	5	0.00		0.00		12.90	3	0.00	1
Tolerance Score	7.09	3	0.00		7.27		8.32	3	0.00	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		66.67	1	0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20116	20117	20118	20119	20120
Apocorophium lacustre (Epi.)	23		5862	45	
Balanus improvisus (Epi.)			68		
Boccardiella ligERICA	45		45	23	
Carinoma tremaphoros			45		23
Cassidinidea ovalis (Epi.)			114		
Coelotanypus spp.				45	
Cyathura polita	91	114	477	114	
Doridella obscura (Epi.)			23		
Dugesia spp. (Epi.)			114		
Harnischia spp.				23	
Heteromastus filiformis					45
Leptocheirus plumulosus	182	568	23	273	
Limnodrilus hoffmeisteri				91	
Macoma balthica		341			659
Marenzelleria viridis	500	45	159	91	
Melita nitida (Epi.)	45	23	23		
Mytilopsis leucophaeata (Epi.)			114		
Neanthes succinea		23	273		68
Polydora cornuta			136		
Rangia cuneata	114		45	23	
Rhithropanopeus harrisi (Epi.)			91		
Streblospio benedicti		68	159		
Tubificidae imm w/o cap chaetae	45		23		
Tubificidae imm w/o cap chaetae *				23	
Tubificoides spp.	23	91	364		295
Total Abundance w/ Epifauna	1068	1272	8156	750	1091
Total Abundance w/o Epifauna	1000	1250	1749	704	1091
Number of Taxa w/ Epifauna	9	8	19	9	5
Number of Taxa w/o Epifauna	7	7	11	8	5
BENTHIC BIOMASS (Grams per sq. meter)					
Site	20116	20117	20118	20119	20120
Apocorophium lacustre (Epi.)	0.0011		0.5521	0.0091	
Balanus improvisus (Epi.)			0.2885		
Boccardiella ligERICA	0.0011		0.0023	0.0023	
Carinoma tremaphoros			0.0204		0.0045
Cassidinidea ovalis (Epi.)			0.0159		
Coelotanypus spp.				0.0204	
Cyathura polita	0.2931	0.2454	0.2295	0.1863	
Doridella obscura (Epi.)			0.0011		
Dugesia spp. (Epi.)			0.0045		
Harnischia spp.				0.0011	
Heteromastus filiformis					0.0727
Leptocheirus plumulosus	0.0182	0.1181	0.0045	0.0454	
Macoma balthica		4.2396			5.1256
Marenzelleria viridis	1.0179	0.0477	0.2295	0.2363	
Melita nitida (Epi.)	0.0011	0.0023	0.0045		
Mytilopsis leucophaeata (Epi.)			0.7725		
Neanthes succinea		0.0795	0.2863		0.0772
Oligochaeta	0.0011				
Polydora cornuta			0.0091		
Rangia cuneata	91.1935		0.4748	2.8900	
Rhithropanopeus harrisi (Epi.)			0.8747		
Streblospio benedicti		0.0045	0.0011		
Tubificidae imm w/o cap chaetae	0.0011		0.0011		
Tubificoides spp.	0.0011	0.0023	0.0068		0.0091
Total Biomass w/ Epifauna	92.5295	4.7394	3.7795	3.3910	5.2892
Total Biomass w/o Epifauna	92.5272	4.7371	1.2655	3.3819	5.2892

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20121	20122	20123	20124	20125					
Watershed	Potomac R	Potomac R	Potomac R	Potomac R	Potomac R					
Habitat	Oligohaline	Oligohaline	Oligohaline	Oligohaline	Oligohaline					
Date	09/24/13	09/24/13	09/24/13	09/24/13	09/24/13					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	2.5	7.7	4.4	9.4	8.3					
Salinity (ppt)	1.22	3.79	1.53	1.22	0.92					
Temperature (C)	19.88	21.31	21.21	21.42	21.22					
Dissolved Oxygen (mg/L)	7.7	6.4	6.8	6.7	2.3					
Sediment Silt-Clay (%)	81.10	84.69	88.66	81.60	88.45					
Total Carbon (%)	3.16	2.84	3.01	3.20	3.28					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	1.80		3.00		2.33		3.00		2.20	
Condition	Severely Degr.		Meets Goal		Degraded		Meets Goal		Degraded	
# Attributes Scored	5		6		6		5		5	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	1.92		2.56		2.69		1.88		1.47	
Abundance (#/m2)	136	1	2454	5	5544	1	318	3	1113	5
Biomass (g/m2)	0.14		65.45		127.40		80.11		1.97	
Pollution Indicative Spp Abund (%)	33.33		27.78		28.69		21.43		69.39	
Pollution Indicative Spp Biom (%)	10.00		0.20		0.14		0.01		32.35	
Pollution Sensitive Spp Abund (%)	16.67		38.89		25.41		64.29		2.04	
Pollution Sensitive Spp Biom (%)	43.33		99.54		96.24		99.85		7.02	
Carnivore-Omnivore Abund (%)	0.00	1	10.19	1	25.41	3	0.00	1	2.04	1
Deep Deposit Feeder Abund (%)	83.33		28.70		64.34		35.71		95.92	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	33.33		25.93		27.05		21.43		69.39	
Oligo Poll. Indic. Spp Abund (%)	66.67	3	60.19	3	58.20	3	35.71	3	95.92	1
Oligo Poll. Sens. Spp Abund (%)	16.67	3	27.78	5	0.41	3	42.86	5	2.04	3
Tolerance Score	9.10	1	9.27	1	9.11	1	8.03	3	9.39	1
Tany./Chir. Abundance Ratio	0.00		50.00	3	20.00	3	0.00		0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20121	20122	20123	20124	20125
Apocorophium lacustre (Epi.)		23	1318		
Balanus improvisus (Epi.)			159		
Boccardiella ligerica			91		
Branchiura sowerbyi	45			45	295
Bratislavia unidentata			795		
Cassidinidea ovalis (Epi.)			318		
Chaoborus punctipennis					23
Chironomus spp.			45		
Coelotanypus spp.		23	23		
Corbicula fluminea			364		
Cryptochironomus spp.		23	23		
Cyathura polita		204	1295		
Dero spp.	23				
Dugesia spp. (Epi.)			45		
Gammarus daiberi (Epi.)			91		
Glyptotendipes spp.			23		
Goniobasis virginica (Epi.)			204		
Leptocheirus plumulosus		727			
Limnodrilus hoffmeisteri		409	227		682
Marenzelleria viridis	23	682	23	136	23
Melita nitida (Epi.)		23			
Rangia cuneata		68	91	68	
Streblospio benedicti		23			
Tubificidae imm w cap chaetae			1272		
Tubificidae imm w/o cap chaetae	45			68	
Tubificidae imm w/o cap chaetae *		227	1272		91
Tubificoides spp.		68			
Total Abundance w/ Epifauna	136	2499	7679	318	1113
Total Abundance w/o Epifauna	136	2454	5544	318	1113
Number of Taxa w/ Epifauna	4	11	18	4	4
Number of Taxa w/o Epifauna	4	9	12	4	4

BENTHIC BIOMASS (Grams per sq. meter)					
Site	20121	20122	20123	20124	20125
Apocorophium lacustre (Epi.)		0.0045	0.3181		
Balanus improvisus (Epi.)			1.9017		
Boccardiella ligerica			0.0068		
Branchiura sowerbyi	0.0636			0.1136	1.1951
Cassidinidea ovalis (Epi.)			0.0273		
Chaoborus punctipennis					0.0011
Coelotanypus spp.		0.0114	0.0023		
Corbicula fluminea			4.5985		
Cryptochironomus spp.		0.0011			
Cyathura polita		0.2249	0.9724		
Dugesia spp. (Epi.)			0.0023		
Gammarus daiberi (Epi.)			0.0318		
Goniobasis virginica (Epi.)			12.0166		
Leptocheirus plumulosus		0.1659			
Marenzelleria viridis	0.0591	1.9289	0.0273	0.3908	0.1386
Melita nitida (Epi.)		0.0011			
Oligochaeta	0.0136	0.1181	0.1806	0.0045	0.6384
Rangia cuneata		62.9935	121.6088	79.5950	
Streblospio benedicti		0.0011			
Tubificidae imm w/o cap chaetae				0.0011	
Tubificoides spp.		0.0023			
Total Biomass w/ Epifauna	0.1363	65.4529	141.6944	80.1050	1.9732
Total Biomass w/o Epifauna	0.1363	65.4472	127.3967	80.1050	1.9732

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20201	20202	20203	20204	20205					
Watershed	Patuxent R	Patuxent R	Patuxent R	Patuxent R	Patuxent R					
Habitat	High Meso Mud	High Meso Mud	High Meso Sand	High Meso Sand	High Meso Mud					
Date	08/21/13	09/11/13	09/11/13	09/11/13	09/11/13					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	15.3	27.4	1.9	0.5	7.9					
Salinity (ppt)	13.23	16.19	13.94	13.67	13.85					
Temperature (C)	24.98	25.25	27.33	27.24	25.77					
Dissolved Oxygen (mg/L)	4.3	3.6	7.9	7.6	3.6					
Sediment Silt-Clay (%)	79.01	80.93	2.89	1.99	68.74					
Total Carbon (%)	2.95	3.87	0.09	0.10	2.67					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	1.67		1.00		2.67		1.33		2.33	
Condition	Severely Degr.		Severely Degr.		Marginal		Severely Degr.		Degraded	
# Attributes Scored	6		6		6		6		6	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	0.00	1	0.00	1	2.04	1	1.97	1	1.92	1
Abundance (#/m2)	23	1	0	1	1386	3	568	1	114	1
Biomass (g/m2)	0.00	1	0.00	1	0.38	1	0.60	1	0.10	1
Pollution Indicative Spp Abund (%)	0.00		100.00		6.56	5	12.00	3	60.00	
Pollution Indicative Spp Biom (%)	0.00	5	100.00	1	23.81		80.08		3.37	5
Pollution Sensitive Spp Abund (%)	0.00		0.00		11.48	3	8.00	1	20.00	
Pollution Sensitive Spp Biom (%)	0.00	1	0.00	1	8.33		1.50		74.16	3
Carnivore-Omnivore Abund (%)	0.00	1	0.00	1	21.31	3	8.00	1	20.00	3
Deep Deposit Feeder Abund (%)	100.00		0.00		3.28		12.00		0.00	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Tolerance Score	0.00		0.00		0.00		0.00		0.00	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		0.00		0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20201	20202	20203	20204	20205
Acteocina canaliculata			114		
Ameroculodes species complex			23		
Apocorophium lacustre (Epi.)			23		
Gemma gemma			909	68	
Glycinde solitaria			45	45	
Haminoea solitaria			68		
Heteromastus filiformis			23	68	
Leitoscoloplos robustus			23		
Littoridinops tenuipes (Epi.)			68		
Macoma balthica					23
Macoma mitchelli			45	318	
Micrura leidyi			45		
Mulinia lateralis				23	
Neanthes succinea			23		23
Paraprionospio pinnata			45		45
Streblospio benedicti			23	45	23
Stylochus ellipticus (Epi.)			23		
Tubificoides spp.	23				
Total Abundance w/ Epifauna	23	0	1500	568	114
Total Abundance w/o Epifauna	23		1386	568	114
Number of Taxa w/ Epifauna	1	0	15	6	4
Number of Taxa w/o Epifauna	1	0	12	6	4
BENTHIC BIOMASS (Grams per sq. meter)					
Site	20201	20202	20203	20204	20205
Acteocina canaliculata			0.0295		
Ameroculodes species complex			0.0068		
Apocorophium lacustre (Epi.)			0.0023		
Gemma gemma			0.0204	0.0136	
Glycinde solitaria			0.0023	0.0091	
Haminoea solitaria			0.1863		
Heteromastus filiformis			0.0023	0.0159	
Leitoscoloplos robustus			0.0795		
Littoridinops tenuipes (Epi.)			0.0023		
Macoma balthica					0.0750
Macoma mitchelli			0.0023	0.0818	
Micrura leidyi			0.0295		
Mulinia lateralis				0.4817	
Neanthes succinea			0.0114		0.0227
Paraprionospio pinnata			0.0068		0.0023
Streblospio benedicti			0.0045	0.0023	0.0011
Stylochus ellipticus (Epi.)			0.0068		
Tubificoides spp.	0.0023				
Total Biomass w/ Epifauna	0.0023	0.0000	0.3931	0.6044	0.1011
Total Biomass w/o Epifauna	0.0023	0.0000	0.3817	0.6044	0.1011

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20206	20207	20208	20209	20210					
Watershed	Patuxent R	Patuxent R	Patuxent R	Patuxent R	Patuxent R					
Habitat	High Meso Mud	High Meso Mud	High Meso Sand	High Meso Mud	High Meso Sand					
Date	09/11/13	09/11/13	09/11/13	09/11/13	09/11/13					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	9.2	7.5	1.0	6.8	3.2					
Salinity (ppt)	13.86	13.59	13.10	13.61	13.71					
Temperature (C)	25.80	25.66	26.19	25.68	25.90					
Dissolved Oxygen (mg/L)	4.1	3.5	5.2	3.5	4.3					
Sediment Silt-Clay (%)	73.40	84.80	4.51	87.01	4.77					
Total Carbon (%)	3.21	2.14	0.18	2.65	0.17					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	1.67		1.00		2.33		2.67		1.67	
Condition	Severely Degr.		Severely Degr.		Degraded		Marginal		Severely Degr.	
# Attributes Scored	6		6		6		6		6	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	1.45	1	1.37	1	2.63	3	1.50	1	2.46	1
Abundance (#/m2)	159	1	114	1	863	1	91	1	863	1
Biomass (g/m2)	0.07	1	0.02	1	0.60	1	0.01	1	0.27	1
Pollution Indicative Spp Abund (%)	85.71		80.00		15.79	3	0.00		10.53	3
Pollution Indicative Spp Biom (%)	24.59	3	93.75	1	0.75		0.00	5	0.83	
Pollution Sensitive Spp Abund (%)	0.00		0.00		10.53	3	50.00		2.63	1
Pollution Sensitive Spp Biom (%)	0.00	1	0.00	1	37.22		60.00	3	0.41	
Carnivore-Omnivore Abund (%)	14.29	3	0.00	1	31.58	3	25.00	5	34.21	3
Deep Deposit Feeder Abund (%)	0.00		0.00		34.21		0.00		52.63	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		0.00		2.63		0.00		5.26	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Tolerance Score	0.00		0.00		9.80		0.00		9.80	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		0.00		0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20206	20207	20208	20209	20210
Carinoma tremaphoros	23				91
Chironomus spp.			23		
Gemma gemma			23		
Glycinde solitaria			68		23
Heteromastus filiformis			273		364
Leptocheirus plumulosus				23	
Leucon americanus		23			
Macoma balthica			23		
Macoma mitchelli			159		68
Marenzelleria viridis				45	
Micrura leidyi					23
Mulinia lateralis		23			
Neanthes succinea			182	23	159
Paraprionospio pinnata	68	68			
Streblospio benedicti	68		91		45
Tubificidae imm w/o cap chaetae			23		45
Tubificoides spp.					45
Total Abundance w/ Epifauna	159	114	863	91	863
Total Abundance w/o Epifauna	159	114	863	91	863
Number of Taxa w/ Epifauna	3	3	9	3	9
Number of Taxa w/o Epifauna	3	3	9	3	9
BENTHIC BIOMASS (Grams per sq. meter)					
Site	20206	20207	20208	20209	20210
Carinoma tremaphoros	0.0523				0.0159
Chironomus spp.			0.0011		
Gemma gemma			0.0045		
Glycinde solitaria			0.0136		0.0011
Heteromastus filiformis			0.2408		0.1545
Leptocheirus plumulosus				0.0023	
Leucon americanus		0.0011			
Macoma balthica			0.2113		
Macoma mitchelli			0.0659		0.0011
Marenzelleria viridis				0.0068	
Micrura leidyi					0.0273
Mulinia lateralis		0.0011			
Neanthes succinea			0.0636	0.0023	0.0704
Paraprionospio pinnata	0.0159	0.0159			
Streblospio benedicti	0.0011		0.0023		0.0011
Tubificidae imm w/o cap chaetae			0.0011		0.0011
Tubificoides spp.					0.0011
Total Biomass w/ Epifauna	0.0693	0.0182	0.6044	0.0114	0.2738
Total Biomass w/o Epifauna	0.0693	0.0182	0.6044	0.0114	0.2738

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20211	20212	20213	20214	20215					
Watershed	Patuxent R	Patuxent R	Patuxent R	Patuxent R	Patuxent R					
Habitat	High Meso Mud	High Meso Mud	Low Mesohaline	High Meso Mud	High Meso Sand					
Date	09/11/13	09/11/13	09/11/13	09/11/13	09/11/13					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	2.9	9.5	0.4	5.5	0.9					
Salinity (ppt)	13.45	13.78	11.76	13.49	13.34					
Temperature (C)	26.30	25.71	27.90	25.72	28.60					
Dissolved Oxygen (mg/L)	5.3	2.6	4.2	4.4	7.0					
Sediment Silt-Clay (%)	86.52	80.95	68.40	81.23	3.92					
Total Carbon (%)	1.94	3.45	5.41	2.76	0.07					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	2.67		1.00		4.20		2.33		2.00	
Condition	Marginal		Severely Degr.		Meets Goal		Degraded		Severely Degr.	
# Attributes Scored	6		6		5		6		6	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.64	3	0.00	1	2.57	5	1.00	1	2.29	1
Abundance (#/m2)	454	1	0	1	1977	5	45	1	1318	3
Biomass (g/m2)	0.29	1	0.00	1	4.60	3	0.01	1	0.62	1
Pollution Indicative Spp Abund (%)	35.00		100.00		4.60	5	0.00		3.45	5
Pollution Indicative Spp Biom (%)	0.00	5	100.00	1	0.20		0.00	5	0.36	
Pollution Sensitive Spp Abund (%)	0.00		0.00		14.94		0.00		3.45	1
Pollution Sensitive Spp Biom (%)	0.00	1	0.00	1	73.64	3	0.00	1	1.09	
Carnivore-Omnivore Abund (%)	80.00	5	0.00	1	11.49		50.00	5	13.79	1
Deep Deposit Feeder Abund (%)	5.00		0.00		39.08		50.00		12.07	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Tolerance Score	9.74		0.00		0.00		0.00		0.00	
Tany./Chir. Abundance Ratio	10.00		0.00		0.00		0.00		0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20211	20212	20213	20214	20215
Carinoma tremaphoros	68		23	23	45
Chironomus spp.	159				
Cyathura polita			23		
Gemma gemma					523
Glycera dibranchiata					23
Glycinde solitaria					45
Heteromastus filiformis	23		227		159
Laeonereis culveri					45
Leptocheirus plumulosus	23		591		
Macoma balthica			273		
Macoma mitchelli	45		23		409
Micrura leidy	23				
Neanthes succinea	45		182		23
Paraprionospio pinnata			68		
Polypedilum halterale group	45				
Procladius spp.	23				
Streblospio benedicti			23		45
Tubificoides spp.			545	23	
Total Abundance w/ Epifauna	454	0	1977	45	1318
Total Abundance w/o Epifauna	454		1977	45	1318
Number of Taxa w/ Epifauna	9	0	10	2	9
Number of Taxa w/o Epifauna	9	0	10	2	9
BENTHIC BIOMASS (Grams per sq. meter)					
Site	20211	20212	20213	20214	20215
Carinoma tremaphoros	0.0863		0.0636	0.0091	0.0114
Cyathura polita			0.0250		
Gemma gemma					0.1272
Glycera dibranchiata					0.3113
Glycinde solitaria					0.0068
Heteromastus filiformis	0.0182		0.0727		0.1181
Laeonereis culveri					0.0068
Leptocheirus plumulosus	0.0045		0.1454		
Macoma balthica			3.3648		
Macoma mitchelli	0.0909		0.0273		0.0364
Micrura leidy	0.0045				
Neanthes succinea	0.0886		0.8838		0.0023
Paraprionospio pinnata			0.0068		
Streblospio benedicti			0.0023		0.0023
Tubificoides spp.			0.0114	0.0011	
Total Biomass w/ Epifauna	0.2931	0.0000	4.6031	0.0102	0.6225
Total Biomass w/o Epifauna	0.2931	0.0000	4.6031	0.0102	0.6225

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20216	20217	20218	20219	20220					
Watershed	Patuxent R	Patuxent R	Patuxent R	Patuxent R	Patuxent R					
Habitat	High Meso Sand	High Meso Sand	High Meso Mud	High Meso Sand	Low Mesohaline					
Date	09/11/13	09/11/13	09/11/13	09/11/13	09/03/13					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
=====										
BOTTOM ENVIRONMENT										
=====										
Depth (m)	1.9	1.5	8.5	2.1	2.0					
Salinity (ppt)	13.32	12.85	12.32	12.87	11.17					
Temperature (C)	26.93	26.18	25.61	28.67	27.31					
Dissolved Oxygen (mg/L)	6.9	5.6	2.1	8.7	3.4					
Sediment Silt-Clay (%)	32.47	4.40	57.86	21.96	92.61					
Total Carbon (%)	0.64	0.14	3.28	0.45	2.41					
=====										
BENTHIC INDEX OF BIOTIC INTEGRITY										
=====										
B-IBI Score	2.00		2.00		1.00		3.33		2.20	
Condition	Severely Degr.		Severely Degr.		Severely Degr.		Meets Goal		Degraded	
# Attributes Scored	6		6		6		6		5	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.73	3	2.70	3	0.00	1	3.08	3	1.55	1
Abundance (#/m2)	4158	3	932	1	0	1	3067	3	613	3
Biomass (g/m2)	2.71	3	0.96	1	0.00	1	3.53	5	0.16	1
Pollution Indicative Spp Abund (%)	36.61	1	12.20	3	100.00	1	9.63	5	3.70	5
Pollution Indicative Spp Biom (%)	2.89		1.42		100.00	1	0.19		0.69	
Pollution Sensitive Spp Abund (%)	9.84	1	17.07	3	0.00		8.89	1	0.00	
Pollution Sensitive Spp Biom (%)	42.94		78.77		0.00	1	57.33		0.00	1
Carnivore-Omnivore Abund (%)	17.49	1	14.63	1	0.00	1	25.19	3	3.70	
Deep Deposit Feeder Abund (%)	44.26		34.15		0.00		40.74		37.04	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	7.65		0.00		0.00		2.96		0.00	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Tolerance Score	9.80		0.00		0.00		9.80		0.00	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		0.00		0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20216	20217	20218	20219	20220
Carinoma tremaphoros	23			45	23
Chironomus spp.	23				
Eteone heteropoda				23	
Gemma gemma				23	
Glycera dibranchiata		23			
Glycinde solitaria	136	68		68	
Heteromastus filiformis	386	295		545	
Leptocheirus plumulosus	23	23		318	318
Macoma balthica	250	91		159	
Macoma mitchelli	114	250		318	23
Marenzelleria viridis	23			45	
Mulinia lateralis		23			
Neanthes succinea	545	45		636	
Streblospio benedicti	1181	91		182	23
Tubificidae imm w/o cap chaetae	318			91	
Tubificoides spp.	1136	23		613	227
Total Abundance w/ Epifauna	4158	932	0	3067	613
Total Abundance w/o Epifauna	4158	932		3067	613
Number of Taxa w/ Epifauna	12	10	0	13	5
Number of Taxa w/o Epifauna	12	10	0	13	5
BENTHIC BIOMASS (Grams per sq. meter)					
Site	20216	20217	20218	20219	20220
Carinoma tremaphoros	0.0023			0.0068	0.0182
Chironomus spp.	0.0068				
Eteone heteropoda				0.0011	
Gemma gemma				0.0011	
Glycera dibranchiata		0.0227			
Glycinde solitaria	0.0523	0.0204		0.0204	
Heteromastus filiformis	0.4317	0.1227		0.2999	
Leptocheirus plumulosus	0.0068	0.0023		0.0772	0.1227
Macoma balthica	1.0519	0.7384		1.8653	
Macoma mitchelli	0.2545	0.0318		0.4953	0.0182
Marenzelleria viridis	0.0591			0.1363	
Mulinia lateralis		0.0068			
Neanthes succinea	0.7588	0.0091		0.6089	
Streblospio benedicti	0.0704	0.0068		0.0045	0.0011
Tubificidae imm w/o cap chaetae	0.0011			0.0011	
Tubificoides spp.	0.0136	0.0023		0.0091	0.0045
Total Biomass w/ Epifauna	2.7094	0.9633	0.0000	3.5273	0.1647
Total Biomass w/o Epifauna	2.7094	0.9633	0.0000	3.5273	0.1647

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20221	20222	20223	20224	20225
Watershed	Patuxent R	Patuxent R	Patuxent R	Patuxent R	Patuxent R
Habitat	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline
Date	09/03/13	09/03/13	09/03/13	09/03/13	09/03/13
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044
BOTTOM ENVIRONMENT					
Depth (m)	2.1	2.8	2.5	4.0	4.7
Salinity (ppt)	10.35	10.01	9.78	8.10	7.18
Temperature (C)	27.62	27.92	28.29	28.78	28.88
Dissolved Oxygen (mg/L)	5.0	5.2	4.7	4.7	4.9
Sediment Silt-Clay (%)	44.39	4.73	77.70	72.57	89.51
Total Carbon (%)	1.07	0.24	2.09	3.84	3.38
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	1.00	3.00	3.80	3.00	4.20
Condition	Severely Degr.	Meets Goal	Meets Goal	Meets Goal	Meets Goal
# Attributes Scored	5	5	5	5	5
	Value	Score	Value	Score	Value
Shannon-Wiener Index	0.00	1	2.84	5	2.03
Abundance (#/m2)	0	1	2068	5	818
Biomass (g/m2)	0.00	1	0.73	1	3.14
Pollution Indicative Spp Abund (%)	100.00	1	12.09	3	0.00
Pollution Indicative Spp Biom (%)	100.00	1	1.09	3	0.03
Pollution Sensitive Spp Abund (%)	0.00	1	9.89	5	7.22
Pollution Sensitive Spp Biom (%)	0.00	1	18.60	3	55.80
Carnivore-Omnivore Abund (%)	0.00	1	19.78	5	1.11
Deep Deposit Feeder Abund (%)	0.00	1	36.26	3	88.33
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	0.00	0.00	1.10	0.00	0.56
Oligo Poll. Indic. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Oligo Poll. Sens. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Tolerance Score	0.00	9.80	0.00	9.80	9.80
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20221	20222	20223	20224	20225
Apocorophium lacustre (Epi.)		23			
Carinoma tremaphoros		136		23	
Eteone heteropoda		45			
Glycinde solitaria		136			
Heteromastus filiformis		568	68	500	45
Leptocheirus plumulosus		68	159		
Macoma balthica			114	273	250
Macoma mitchelli		591		136	
Marenzelleria viridis		68		23	
Micrura leidyi		23			
Neanthes succinea		68	45	23	23
Parahesion luteola			23		
Streblospio benedicti		182			
Tubificidae imm w/o cap chaetae		23		23	23
Tubificoides spp.		159	409	3090	1727
Total Abundance w/ Epifauna	0	2090	818	4090	2068
Total Abundance w/o Epifauna		2068	818	4090	2068
Number of Taxa w/ Epifauna	0	13	6	8	5
Number of Taxa w/o Epifauna	0	12	6	8	5
BENTHIC BIOMASS (Grams per sq. meter)					
Site	20221	20222	20223	20224	20225
Apocorophium lacustre (Epi.)		0.0011			
Carinoma tremaphoros		0.0114		0.0068	
Eteone heteropoda		0.0023			
Glycinde solitaria		0.0159			
Heteromastus filiformis		0.4408	0.0023	0.0386	0.0011
Leptocheirus plumulosus		0.0159	0.0727		
Macoma balthica			3.0149	2.2266	5.7618
Macoma mitchelli		0.0613		1.7131	
Marenzelleria viridis		0.1204		0.0636	
Micrura leidyi		0.0295			
Neanthes succinea		0.0273	0.0477	0.0136	0.0454
Parahesion luteola			0.0011		
Streblospio benedicti		0.0045			
Tubificidae imm w/o cap chaetae		0.0011		0.0011	0.0011
Tubificoides spp.		0.0023	0.0045	0.0409	0.0204
Total Biomass w/ Epifauna	0.0000	0.7339	3.1433	4.1044	5.8300
Total Biomass w/o Epifauna	0.0000	0.7327	3.1433	4.1044	5.8300

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20601	20602	20603	20604	20605					
Watershed	Upper Bay	Upper Bay	Upper Bay	Upper Bay	Upper Bay					
Habitat	Low Mesohaline	Low Mesohaline	High Meso Mud	Low Mesohaline	Low Mesohaline					
Date	09/09/13	08/27/13	09/09/13	08/22/13	08/22/13					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	3.5	1.2	9.5	7.3	3.8					
Salinity (ppt)	11.12	9.92	16.48	10.49	7.65					
Temperature (C)	24.42	27.18	24.80	24.81	25.51					
Dissolved Oxygen (mg/L)	8.2	8.6	0.2	3.3	9.3					
Sediment Silt-Clay (%)	1.16	2.28	95.33	89.68	3.03					
Total Carbon (%)	0.13	0.04	2.89	2.20	0.11					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	2.20		2.20		1.00		2.60		4.20	
Condition	Degraded		Degraded		Severely Degr.		Degraded		Meets Goal	
# Attributes Scored	5		5		6		5		5	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.26	3	1.55	1	0.00	1	1.66	1	2.78	5
Abundance (#/m2)	568	3	1068	3	0	1	204	1	636	3
Biomass (g/m2)	0.27	1	0.44	1	0.00	1	2.67	3	2.27	3
Pollution Indicative Spp Abund (%)	12.00	3	2.13	5	100.00	0.00	0.00	5	0.00	5
Pollution Indicative Spp Biom (%)	5.00		16.41		100.00	1	0.00		0.00	
Pollution Sensitive Spp Abund (%)	16.00		4.26		0.00		55.56		25.00	
Pollution Sensitive Spp Biom (%)	31.67	1	27.69	1	0.00	1	94.08	3	81.36	5
Carnivore-Omnivore Abund (%)	40.00		4.26		0.00	1	22.22		21.43	
Deep Deposit Feeder Abund (%)	4.00		8.51		0.00		22.22		21.43	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Tolerance Score	0.00		0.00		0.00		0.00		6.00	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		0.00		0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20601	20602	20603	20604	20605
Ameroculodes species complex		23			
Cyathura polita					45
Heteromastus filiformis	23	68		23	136
Laeonereis culveri					23
Leitoscoloplos fragilis					23
Lepidactylus dytiscus		795			
Leptocheirus plumulosus	45	23			114
Macoma balthica				114	23
Macoma mitchelli	114	45			136
Marenzelleria viridis	91	45			
Micrura leidy		23			45
Mulinia lateralis	68				
Neanthes succinea	227			45	45
Rangia cuneata					91
Tubificoides spp.				23	
Total Abundance w/ Epifauna	568	1068	0	204	636
Total Abundance w/o Epifauna	568	1068		204	636
Number of Taxa w/ Epifauna	6	9	0	4	8
Number of Taxa w/o Epifauna	6	9	0	4	8
BENTHIC BIOMASS (Grams per sq. meter)					
Site	20601	20602	20603	20604	20605
Ameroculodes species complex		0.0068			
Cyathura polita					0.0227
Heteromastus filiformis	0.1454	0.0182		0.0841	0.0795
Laeonereis culveri		0.0091			
Leitoscoloplos fragilis		0.0727			
Lepidactylus dytiscus		0.1999			
Leptocheirus plumulosus	0.0023	0.0023			0.0091
Macoma balthica				2.5106	0.2181
Macoma mitchelli	0.0227	0.0045			0.0023
Marenzelleria viridis	0.0863	0.1227			
Micrura leidy		0.0068			0.3226
Mulinia lateralis	0.0136				
Neanthes succinea	0.0023			0.0727	0.0091
Rangia cuneata					1.6040
Tubificoides spp.				0.0011	
Total Biomass w/ Epifauna	0.2726	0.4430	0.0000	2.6685	2.2675
Total Biomass w/o Epifauna	0.2726	0.4430	0.0000	2.6685	2.2675

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20606	20607	20608	20609	20610					
Watershed	Upper Bay	Upper Bay	Upper Bay	Upper Bay	Upper Bay					
Habitat	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline					
Date	08/22/13	08/26/13	08/26/13	08/26/13	08/21/13					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	3.6	6.0	5.7	3.0	3.8					
Salinity (ppt)	7.83	10.95	11.81	6.86	6.01					
Temperature (C)	25.55	25.01	25.01	25.07	25.46					
Dissolved Oxygen (mg/L)	8.9	2.4	1.7	5.5	7.9					
Sediment Silt-Clay (%)	2.03	76.01	70.39	8.75	3.79					
Total Carbon (%)	0.03	2.83	2.47	0.27	0.15					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	3.00		4.60		2.60		3.80		3.00	
Condition	Meets Goal		Meets Goal		Degraded		Meets Goal		Meets Goal	
# Attributes Scored	5		5		5		5		5	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.43	3	2.13	3	2.31	3	2.31	3	2.33	3
Abundance (#/m2)	1113	3	1886	5	4135	3	2317	5	1681	5
Biomass (g/m2)	0.43	1	7.49	5	188.28	1	1.02	3	0.50	1
Pollution Indicative Spp Abund (%)	0.00	5	4.82	5	84.62	1	7.84	5	13.51	3
Pollution Indicative Spp Biom (%)	0.00		0.11		0.21		0.11		0.69	
Pollution Sensitive Spp Abund (%)	26.53		33.73		7.69		32.35		25.68	
Pollution Sensitive Spp Biom (%)	42.55	3	87.34	5	99.77	5	53.39	3	40.27	3
Carnivore-Omnivore Abund (%)	4.08		19.28		4.95		2.94		8.11	
Deep Deposit Feeder Abund (%)	0.00		43.37		86.81		11.76		4.05	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		0.00		75.82		0.00		0.00	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Tolerance Score	6.00		0.00		9.38		6.00		6.00	
Tany./Chir. Abundance Ratio	0.00		0.00		33.33		0.00		0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20606	20607	20608	20609	20610
Apocorophium lacustre (Epi.)			636	23	
Aulodrilus pigueti			114		
Aulodrilus pluriseta			227		
Boccardiella ligerica			45		
Carinoma tremaphoros	23	91			
Chiridotea almyra	23				23
Cyathura polita			136		23
Eteone heteropoda		23			23
Harnischia spp.			45		
Heteromastus filiformis				273	68
Lepidactylus dytiscus	341				
Leptocheirus plumulosus	182		91	932	841
Limnodrilus hoffmeisteri			1340		
Macoma balthica		523		23	23
Macoma mitchelli	250			91	23
Marenzelleria viridis	136	114	68	659	295
Mytilopsis leucophaeata (Epi.)	23				
Neanthes succinea		250		68	68
Polydora cornuta				23	
Procladius spp.			23		
Rangia cuneata	159		114	68	91
Streblospio benedicti		68	23	182	204
Tubificidae imm w cap chaetae			114		
Tubificidae imm w/o cap chaetae *			1795		
Tubificoides spp.		818			
Total Abundance w/ Epifauna	1136	1886	4771	2340	1681
Total Abundance w/o Epifauna	1113	1886	4135	2317	1681
Number of Taxa w/ Epifauna	8	7	13	10	11
Number of Taxa w/o Epifauna	7	7	12	9	11
BENTHIC BIOMASS (Grams per sq. meter)					
Site	20606	20607	20608	20609	20610
Apocorophium lacustre (Epi.)			0.0727	0.0023	
Boccardiella ligerica			0.0023		
Carinoma tremaphoros	0.0023	0.0795			
Chiridotea almyra	0.0068				0.0045
Cyathura polita			0.0295		0.0045
Eteone heteropoda		0.0011			0.0011
Heteromastus filiformis				0.1227	0.0159
Lepidactylus dytiscus	0.1204				
Leptocheirus plumulosus	0.0409		0.0273	0.1590	0.1613
Macoma balthica		6.3252		0.3090	0.0682
Macoma mitchelli	0.0750			0.0011	0.0023
Marenzelleria viridis	0.1113	0.2158	0.1409	0.2295	0.1227
Mytilopsis leucophaeata (Epi.)	0.0011				
Neanthes succinea		0.8497		0.1908	0.1091
Oligochaeta			0.3942		
Polydora cornuta				0.0011	
Rangia cuneata	0.0704		187.6854	0.0068	0.0045
Streblospio benedicti		0.0068	0.0011	0.0011	0.0023
Tubificoides spp.		0.0114			
Total Biomass w/ Epifauna	0.4283	7.4896	188.3533	1.0235	0.4964
Total Biomass w/o Epifauna	0.4271	7.4896	188.2806	1.0213	0.4964

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20611	20612	20613	20614	20616					
Watershed	Upper Bay	Upper Bay	Upper Bay	Upper Bay	Upper Bay					
Habitat	Low Mesohaline	Oligohaline	Low Mesohaline	Low Mesohaline	Oligohaline					
Date	08/26/13	08/29/13	08/21/13	09/20/13	09/20/13					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	3.4	1.5	4.0	3.4	4.0					
Salinity (ppt)	5.14	4.52	5.11	5.83	4.74					
Temperature (C)	25.31	26.80	25.50	21.39	20.82					
Dissolved Oxygen (mg/L)	8.5	5.7	6.5	6.5	7.4					
Sediment Silt-Clay (%)	51.89	95.53	92.36	79.73	84.79					
Total Carbon (%)	1.66	1.86	2.10	1.51	2.36					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	3.80		3.33		3.80		2.60		3.80	
Condition	Meets Goal		Meets Goal		Meets Goal		Degraded		Meets Goal	
# Attributes Scored	5		6		5		5		5	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.45	3	1.74		2.96	5	2.39	3	2.56	
Abundance (#/m2)	4385	3	2317	5	523	3	1045	3	613	5
Biomass (g/m2)	9.05	5	1.73		47.47	1	78.54	1	31.80	
Pollution Indicative Spp Abund (%)	13.99	3	70.59		4.35	5	26.09	1	3.70	
Pollution Indicative Spp Biom (%)	0.13		96.58		0.01		0.01		0.00	
Pollution Sensitive Spp Abund (%)	35.23		0.98		47.83		63.04		59.26	
Pollution Sensitive Spp Biom (%)	93.22	5	1.18		98.45	5	99.95	5	97.08	
Carnivore-Omnivore Abund (%)	2.59		70.59	5	39.13		10.87		14.81	1
Deep Deposit Feeder Abund (%)	28.50		26.47		8.70		2.17		14.81	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Indic. Spp Abund (%)	0.00		99.02	1	0.00		0.00		33.33	3
Oligo Poll. Sens. Spp Abund (%)	0.00		0.98	3	0.00		0.00		33.33	5
Tolerance Score	0.00		8.20	3	6.04		6.02		6.00	5
Tany./Chir. Abundance Ratio	0.00		44.44	3	100.00		100.00		0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20611	20612	20613	20614	20616
Apocorophium lacustre (Epi.)	318				
Carinoma tremaphoros			68		
Chironomus spp.		909			
Coelotanypus spp.		727	23	23	
Cyathura polita	68		114	91	91
Edotea triloba (Epi.)	23				
Heteromastus filiformis	91		23		
Leptocheirus plumulosus	818	45	68	68	91
Macoma balthica	136				
Macoma mitchelli			68		45
Marenzelleria viridis	1340	23	45	386	204
Melita nitida (Epi.)	45			23	
Mytilopsis leucophaeata (Epi.)				23	
Neanthes succinea	45				
Polydora cornuta	114			23	
Rangia cuneata			91	182	68
Rhithropanopeus harrisii (Epi.)	23				
Streblospio benedicti	613			250	23
Tubificoides spp.	1159	613	23	23	91
Total Abundance w/ Epifauna	4794	2317	523	1091	613
Total Abundance w/o Epifauna	4385	2317	523	1045	613
Number of Taxa w/ Epifauna	13	5	9	10	7
Number of Taxa w/o Epifauna	9	5	9	8	7
BENTHIC BIOMASS (Grams per sq. meter)					
Site	20611	20612	20613	20614	20616
Apocorophium lacustre (Epi.)	0.0432				
Carinoma tremaphoros			0.0250		
Chironomus spp.		1.5313			
Coelotanypus spp.		0.1386	0.0068	0.0045	
Cyathura polita	0.1431		0.1931	0.0772	0.1590
Edotea triloba (Epi.)	0.0011				
Heteromastus filiformis	0.0591		0.0045		
Leptocheirus plumulosus	0.1977	0.0273	0.0295	0.0159	0.0295
Macoma balthica	6.3934				
Macoma mitchelli			0.6657		0.8952
Marenzelleria viridis	1.8994	0.0204	0.0432	2.1993	1.1246
Melita nitida (Epi.)	0.0023			0.0045	
Mytilopsis leucophaeata (Epi.)				0.0023	
Neanthes succinea	0.3204				
Polydora cornuta	0.0068			0.0114	
Rangia cuneata			46.5033	76.2233	29.5860
Rhithropanopeus harrisii (Epi.)	0.0182				
Streblospio benedicti	0.0114			0.0068	0.0011
Tubificoides spp.	0.0182	0.0114	0.0023	0.0045	0.0023
Total Biomass w/ Epifauna	9.1141	1.7290	47.4734	78.5499	31.7978
Total Biomass w/o Epifauna	9.0494	1.7290	47.4734	78.5430	31.7978

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20617	20618	20619	20620	20622					
Watershed	Upper Bay	Upper Bay	Upper Bay	Upper Bay	Upper Bay					
Habitat	Oligohaline	Oligohaline	Freshwater	Freshwater	Freshwater					
Date	08/21/13	08/21/13	08/21/13	08/21/13	09/06/13					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	7.3	9.1	4.2	3.3	1.1					
Salinity (ppt)	2.41	2.20	0.43	0.13	0.12					
Temperature (C)	25.09	25.06	25.56	25.16	22.63					
Dissolved Oxygen (mg/L)	5.8	5.7	7.5	7.8	8.2					
Sediment Silt-Clay (%)	65.10	85.68	77.14	55.03	7.83					
Total Carbon (%)	2.73	2.93	2.68	2.82	1.36					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	4.00		4.20		4.00		3.00		3.50	
Condition	Meets Goal		Meets Goal		Meets Goal		Meets Goal		Meets Goal	
# Attributes Scored	6		5		4		4		4	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	1.95		2.35		2.25		2.00		2.80	
Abundance (#/m2)	3135	5	1250	5	1181	5	3385	5	4612	3
Biomass (g/m2)	92.86		58.02		82.94		168.18		1.31	
Pollution Indicative Spp Abund (%)	0.00		0.00		71.15		77.85		62.07	
Pollution Indicative Spp Biom (%)	0.00		0.00		0.03		0.16		50.48	
Pollution Sensitive Spp Abund (%)	89.13		78.18		25.00		16.11		12.32	
Pollution Sensitive Spp Biom (%)	99.93		99.91		99.96		98.75		22.98	
Carnivore-Omnivore Abund (%)	11.59	1	25.45	3	11.54		2.68		27.59	
Deep Deposit Feeder Abund (%)	4.35		9.09		61.54	5	78.52	3	55.67	5
TF Poll. Indicative Spp Abund (%)	0.00		0.00		61.54	3	77.85	3	52.22	3
Limnodrilus Abundance (%)	0.00		0.00		61.54		77.85		52.22	
Oligo Poll. Indic. Spp Abund (%)	4.35	5	10.91	5	0.00		0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	40.58	5	30.91	5	0.00		0.00		0.00	
Tolerance Score	6.02	3	6.02	3	8.72	3	9.44	1	9.16	3
Tany./Chir. Abundance Ratio	0.00	5	0.00		100.00		0.00		3.64	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20617	20618	20619	20620	20622
Ablabesmyia mallochi					45
Ameroculodes species complex	23				
Apocorophium lacustre (Epi.)	68		114	23	
Branchiura sowerbyi				23	159
Carinoma tremaphoros	23	23			
Chiridotea almyra	45				
Chironomus spp.					364
Cladotanytarsus spp. B Epler					91
Coelotanypus spp.			114		
Corbicula fluminea		23		114	204
Cryptochironomus spp.	23			45	114
Cyathura polita	273	295	23	23	23
Cyclaspis varians					23
Cyrenellus fraternus (Epi.)			23		
Dicrotendipes simpsoni				23	
Edotea triloba (Epi.)	23				
Gammarus daiberi (Epi.)			91	23	45
Harnischia spp.					45
Hobsonia florida	91	114			
Leptocheirus plumulosus			45		
Limnodrilus hoffmeisteri			545	1272	364
Lipiniella spp.					45
Littoridinops tenuipes (Epi.)		68			
Marenzelleria viridis	1227	386	91	386	545
Mytilopsis leucophaeata (Epi.)		68			
Oecetis spp. (Epi.)					23
Polypedilum halterale group					432
Polypedilum spp.					114
Rangia cuneata	1295	295	182	136	
Tubificidae imm w/o cap chaetae			182		
Tubificidae imm w/o cap chaetae *				1363	2045
Tubificoides spp.	136	114			
Total Abundance w/ Epifauna	3226	1386	1409	3431	4680
Total Abundance w/o Epifauna	3135	1250	1181	3385	4612
Number of Taxa w/ Epifauna	11	9	10	10	16
Number of Taxa w/o Epifauna	9	7	7	8	14
BENTHIC BIOMASS (Grams per sq. meter)					
Site	20617	20618	20619	20620	20622
Ameroculodes species complex	0.0068				
Apocorophium lacustre (Epi.)	0.0182		0.0091	0.0091	
Branchiura sowerbyi				0.0318	0.1340
Carinoma tremaphoros	0.0091	0.0091			
Chiridotea almyra	0.0136				
Chironomidae					0.4044
Coelotanypus spp.			0.0114		
Corbicula fluminea		0.0023		1.8062	0.2113
Cryptochironomus spp.	0.0011				
Cyathura polita	0.2204	0.0977	0.0023	0.0068	0.0045
Cyclaspis varians					0.0011
Cyrenellus fraternus (Epi.)			0.0011		
Edotea triloba (Epi.)	0.0068				
Gammarus daiberi (Epi.)			0.0341	0.0068	0.0045
Hobsonia florida	0.0364	0.0341			
Leptocheirus plumulosus			0.0068		
Littoridinops tenuipes (Epi.)		0.0045			
Marenzelleria viridis	0.8702	0.4499	0.0818	0.1886	0.2954
Mytilopsis leucophaeata (Epi.)		0.0114			
Oecetis spp. (Epi.)					0.0011
Oligochaeta			0.0159	0.2620	0.2545
Rangia cuneata	91.7047	57.4203	82.8189	165.8855	
Tubificoides spp.	0.0023	0.0045			
Total Biomass w/ Epifauna	92.8896	58.0337	82.9814	168.1969	1.3109
Total Biomass w/o Epifauna	92.8646	58.0178	82.9371	168.1810	1.3053

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

Site	20623	20624	20625	20626	20627	
Watershed	Upper Bay	Upper Bay	Upper Bay	Upper Bay	Upper Bay	
Habitat	Freshwater	Freshwater	Freshwater	Low Mesohaline	High Meso Mud	
Date	09/06/13	09/06/13	09/06/13	08/26/13	08/22/13	
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab	
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044	
BOTTOM ENVIRONMENT						
Depth (m)	0.6	1.1	5.4	4.5	9.3	
Salinity (ppt)	0.12	0.11	0.12	7.89	12.46	
Temperature (C)	25.37	23.47	25.21	24.78	24.81	
Dissolved Oxygen (mg/L)	7.5	8.3	5.8	7.0	1.2	
Sediment Silt-Clay (%)	13.56	3.40	81.00	83.97	97.94	
Total Carbon (%)	1.31	0.25	3.29	3.33	3.01	
BENTHIC INDEX OF BIOTIC INTEGRITY						
B-IBI Score	1.50	4.00	3.50	4.20	1.33	
Condition	Severely Degr.	Meets Goal	Meets Goal	Meets Goal	Severely Degr.	
# Attributes Scored	4	4	4	5	6	
	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	1.51		1.43		1.91	3
Abundance (#/m2)	9156	1	2022	5	4226	3
Biomass (g/m2)	1.84		0.77		7.87	5
Pollution Indicative Spp Abund (%)	87.59		29.21		8.06	5
Pollution Indicative Spp Biom (%)	42.80		4.12		0.12	
Pollution Sensitive Spp Abund (%)	0.99		0.00		18.82	
Pollution Sensitive Spp Biom (%)	14.45		0.00		90.65	5
Carnivore-Omnivore Abund (%)	3.97		75.28		3.23	
Deep Deposit Feeder Abund (%)	90.32	3	24.72	5	63.98	
TF Poll. Indicative Spp Abund (%)	87.59	1	24.72	5	0.00	
Limnodrilus Abundance (%)	87.59		24.72		0.00	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00	
Tolerance Score	9.59	1	9.62	1	9.29	3
Tany./Chir. Abundance Ratio	31.25		0.00		25.81	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2013 (CRUISE 01:2013/2014) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	20623	20624	20625	20626	20627
Ampelisca abdita					23
Aulodrilus pigueti			68		
Branchiura sowerbyi	250		23		
Chironomus spp.		91	318		
Coelotanypus spp.			23		
Corbicula fluminea	386		136		
Cryptochironomus spp.	45	45	45		
Harnischia spp.			45		
Heteromastus filiformis				295	23
Leptocheirus plumulosus				250	
Limnodrilus hoffmeisteri	1749	318	273		
Lipiniella spp.		1386			
Lumbriculidae			68		
Macoma balthica				772	
Marenzelleria viridis	91			23	
Musculium transversum	45				
Neanthes succinea				136	
Paraprionospio pinnata					23
Polypedilum halterale group	204		114		
Procladius spp.	114		159		
Streblospio benedicti				341	
Tubificidae imm w cap chaetae			273		
Tubificidae imm w/o cap chaetae *	6271	182	1568		
Tubificoides spp.				2408	
Total Abundance w/ Epifauna	9156	2022	3113	4226	68
Total Abundance w/o Epifauna	9156	2022	3113	4226	68
Number of Taxa w/ Epifauna	8	4	12	7	3
Number of Taxa w/o Epifauna	8	4	12	7	3
BENTHIC BIOMASS (Grams per sq. meter)					
Site	20623	20624	20625	20626	20627
Ampelisca abdita					0.0023
Branchiura sowerbyi	0.2340		0.0295		
Chironomidae		0.7407	0.0591		
Coelotanypus spp.			0.0023		
Corbicula fluminea	0.4453		12.4392		
Heteromastus filiformis				0.3272	0.0454
Leptocheirus plumulosus				0.0613	
Macoma balthica				7.1068	
Marenzelleria viridis	0.2658			0.0318	
Musculium transversum	0.1068				
Neanthes succinea				0.3181	
Oligochaeta	0.7872	0.0318	0.5170		
Paraprionospio pinnata					0.0045
Streblospio benedicti				0.0091	
Tubificoides spp.				0.0204	
Total Biomass w/ Epifauna	1.8392	0.7725	13.0471	7.8748	0.0523
Total Biomass w/o Epifauna	1.8392	0.7725	13.0471	7.8748	0.0523

*Indicates taxa is skipped in taxon counts