



VERSAR

Final Report

Chesapeake Bay Water Quality Monitoring Program

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

July 1984 – December 2016
(Volume 2)

Prepared for

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

Prepared by

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December 2017

**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 2016**

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Mainstem		Station: 001		Rep: 01	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 09SEP16	
		Sampled Area: 0.025 sq.m		Time: 13:31:52	
BOTTOM ENVIRONMENT					
Depth (m): 1.7		Salinity (ppt): 15.54		Temperature (C): 26.64	
Dissolved Oxygen (mg/l): 9.1		Sediment Silt-Clay (%): 1.08		Total Carbon (%): 0.19	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.67		Condition: Meets Goal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.88	3	Pollution Indicative Species Abundance (%)	0.00	5
Abundance (#/m2)	1840	5	Pollution Indicative Species Biomass (%)	0.00	
Biomass (g/m2)	4.17	5	Pollution Sensitive Species Abundance (%)	19.57	3
Carnivore-Omnivore Abundance (%)	17.39	1	Pollution Sensitive Species Biomass (%)	7.86	
Deep Deposit Feeder Abundance (%)	15.22				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Acteocina canaliculata	120		0.02000		
Ameroculodes species complex	120		0.01600		
Gemma gemma	40		0.00200		
Glycinde solitaria	40		0.01600		
Haminoea solitaria	120		0.33200		
Heteromastus filiformis	280		0.03600		
Lepidactylus dytiscus	120		0.01200		
Leptosynapta tenuis	40		3.40800		
Paraonis fulgens	720		0.00800		
Phoronis spp.	40		0.12800		
Podarkeopsis levifuscina	40		0.03200		
Spiophanes bombyx	160		0.16400		
Total Abundance w/ Epi.	1840				
Total Abundance w/o Epi.	1840				
Number of Taxa w/ Epi.	12				
Number of Taxa w/o Epi.	12				
Total Biomass w/ Epi.			4.17400		
Total Biomass w/o Epi.			4.17400		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Mainstem	Station: 001	Rep: 02
Gear: Modified Box Corer	Habitat: High Mesohaline Sand	Date: 09SEP16
	Sampled Area: 0.025 sq.m	Time: 13:31:52
BOTTOM ENVIRONMENT		
Depth (m): 1.7	Salinity (ppt): 15.54	Temperature (C): 26.64
Dissolved Oxygen (mg/l): 9.1	Sediment Silt-Clay (%): 1.08	Total Carbon (%): 0.19
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 2.00	Condition: Severely Degr.	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	1.41 1	Pollution Indicative Species Abundance (%) 0.00 5
Abundance (#/m2)	840 1	Pollution Indicative Species Biomass (%) 0.00
Biomass (g/m2)	2.20 3	Pollution Sensitive Species Abundance (%) 4.76 1
Carnivore-Omnivore Abundance (%)	14.29 1	Pollution Sensitive Species Biomass (%) 6.38
Deep Deposit Feeder Abundance (%)	9.52	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Cyathura polita	40	0.14000
Heteromastus filiformis	80	0.04400
Lepidactylus dytiscus	40	0.02800
Leptosynapta tenuis	600	1.96800
Podarkeopsis levifuscina	80	0.01600
Stylochus ellipticus (Epi)	40	0.00800
Total Abundance w/ Epi.	880	
Total Abundance w/o Epi.	840	
Number of Taxa w/ Epi.	6	
Number of Taxa w/o Epi.	5	
Total Biomass w/ Epi.		2.20400
Total Biomass w/o Epi.		2.19600

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Station: 001		Rep: 03
Watershed: Mainstem	Habitat: High Mesohaline Sand	Date: 09SEP16
Gear: Modified Box Corer	Sampled Area: 0.025 sq.m	Time: 13:31:52
BOTTOM ENVIRONMENT		
Depth (m): 1.7	Salinity (ppt): 15.54	Temperature (C): 26.64
Dissolved Oxygen (mg/l): 9.1	Sediment Silt-Clay (%): 1.08	Total Carbon (%): 0.19
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.33	Condition: Meets Goal	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	2.73 3	Pollution Indicative Species Abundance (%) 4.35 5
Abundance (#/m2)	920 1	Pollution Indicative Species Biomass (%) 1.49
Biomass (g/m2)	2.68 3	Pollution Sensitive Species Abundance (%) 21.74 3
Carnivore-Omnivore Abundance (%)	39.13 5	Pollution Sensitive Species Biomass (%) 1.49
Deep Deposit Feeder Abundance (%)	21.74	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Acteocina canaliculata	40	0.02000
Glycinde solitaria	80	0.01600
Haminoea solitaria	80	0.16400
Heteromastus filiformis	80	0.04000
Leitoscoloplos spp.	40	0.04000
Leptosynapta tenuis	360	2.12400
Mediomastus ambiseta	80	0.00400
Micrura leidyi	40	0.23600
Podarkeopsis levifuscina	120	0.03600
Total Abundance w/ Epi.	920	
Total Abundance w/o Epi.	920	
Number of Taxa w/ Epi.	9	
Number of Taxa w/o Epi.	9	
Total Biomass w/ Epi.		2.68000
Total Biomass w/o Epi.		2.68000

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Calvert Cliffs Discharge		Station: 006	Rep: 01
Gear: Modified Box Corer		Habitat: High Mesohaline Sand	Date: 09SEP16
		Sampled Area: 0.025 sq.m	Time:
=====			
BOTTOM ENVIRONMENT			
=====			
Depth (m): 1.7	Salinity (ppt): 15.96	Temperature (C): 26.99	
Dissolved Oxygen (mg/l): 8.1	Sediment Silt-Clay (%): 0.94	Total Carbon (%): 0.13	
=====			
BENTHIC INDEX OF BIOTIC INTEGRITY			
=====			
B-IBI Score: 3.00	Condition: Meets Goal	# Attributes Scored: 6	
	Value Score	Value	Score
Shannon-Wiener Index	2.74 3	Pollution Indicative Species Abundance (%)	0.00 5
Abundance (#/m2)	600 1	Pollution Indicative Species Biomass (%)	0.00
Biomass (g/m2)	1.76 3	Pollution Sensitive Species Abundance (%)	13.33 3
Carnivore-Omnivore Abundance (%)	33.33 3	Pollution Sensitive Species Biomass (%)	1.59
Deep Deposit Feeder Abundance (%)	6.67		
=====			
BENTHIC ABUNDANCE (per sq. meter)			
=====			
TAXA	Abundance (#/m2)	Biomass (g/m2)	

Eteone foliosa	40	0.15200	
Gemma gemma	80	0.00400	
Glycinde solitaria	40	0.01600	
Haminoea solitaria	40	0.02800	
Leptosynapta tenuis	240	0.26400	
Micrura leidyi	40	1.26800	
Phoronis spp.	40	0.01200	
Podarkeopsis levifuscina	40	0.00800	
Stylochus ellipticus (Epi)	40	0.01600	
Tubificoides spp.	40	0.00800	

Total Abundance w/ Epi.	640		
Total Abundance w/o Epi.	600		
Number of Taxa w/ Epi.	10		
Number of Taxa w/o Epi.	9		
Total Biomass w/ Epi.		1.77600	
Total Biomass w/o Epi.		1.76000	
=====			

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Calvert Cliffs Discharge		Station: 006	Rep: 02
Gear: Modified Box Corer		Habitat: High Mesohaline Sand	Date: 09SEP16
		Sampled Area: 0.025 sq.m	Time:
BOTTOM ENVIRONMENT			
Depth (m): 1.7	Salinity (ppt): 15.96	Temperature (C): 26.99	
Dissolved Oxygen (mg/l): 8.1	Sediment Silt-Clay (%): 0.94	Total Carbon (%): 0.13	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 4.00	Condition: Meets Goal		# Attributes Scored: 6
	Value	Score	Value
Shannon-Wiener Index	3.31	5	0.00
Abundance (#/m2)	1280	3	0.00
Biomass (g/m2)	1.30	3	37.50
Carnivore-Omnivore Abundance (%)	46.88	5	8.31
Deep Deposit Feeder Abundance (%)	15.63		
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)		Biomass (g/m2)
Acteocina canaliculata	120		0.01200
Branchiostoma caribaeum	80		0.60800
Gemma gemma	120		0.00400
Glycinde solitaria	240		0.04400
Haminoea solitaria	120		0.02400
Heteromastus filiformis	40		0.01200
Leptosynapta tenuis	240		0.44400
Mediomastus ambiseta	80		0.00800
Pectinaria gouldii	40		0.07200
Podarkeopsis levifuscina	120		0.02400
Spiochaetopterus costarum	40		0.04400
Stylochus ellipticus (Epi)	40		0.03200
Tubificoides spp.	40		0.00400
Total Abundance w/ Epi.	1320		
Total Abundance w/o Epi.	1280		
Number of Taxa w/ Epi.	13		
Number of Taxa w/o Epi.	12		
Total Biomass w/ Epi.			1.33200
Total Biomass w/o Epi.			1.30000

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Calvert Cliffs Discharge	Station: 006	Rep: 03
Gear: Modified Box Corer	Habitat: High Mesohaline Sand	Date: 09SEP16
	Sampled Area: 0.025 sq.m	Time:
BOTTOM ENVIRONMENT		
Depth (m): 1.7	Salinity (ppt): 15.96	Temperature (C): 26.99
Dissolved Oxygen (mg/l): 8.1	Sediment Silt-Clay (%): 0.94	Total Carbon (%): 0.13
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.33	Condition: Meets Goal	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	2.65 3	Pollution Indicative Species Abundance (%) 3.33 5
Abundance (#/m2)	1200 3	Pollution Indicative Species Biomass (%) 13.11
Biomass (g/m2)	1.40 3	Pollution Sensitive Species Abundance (%) 23.33 3
Carnivore-Omnivore Abundance (%)	26.67 3	Pollution Sensitive Species Biomass (%) 10.54
Deep Deposit Feeder Abundance (%)	10.00	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Acteocina canaliculata	80	0.00400
Branchiostoma caribaeum	40	0.19600
Eteone heteropoda	40	0.18400
Gemma gemma	400	0.02800
Glycinde solitaria	160	0.04000
Heteromastus filiformis	120	0.02400
Leptosynapta tenuis	280	0.80400
Podarkeopsis levifuscina	40	0.02000
Spiochaetopterus costarum	40	0.10400
Stylochus ellipticus (Epi)	40	0.01600
Total Abundance w/ Epi.	1240	
Total Abundance w/o Epi.	1200	
Number of Taxa w/ Epi.	10	
Number of Taxa w/o Epi.	9	
Total Biomass w/ Epi.		1.42000
Total Biomass w/o Epi.		1.40400

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Mainstem		Station: 015		Rep: 02	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 09SEP16	
		Sampled Area: 0.025 sq.m		Time: 10:12:55	
BOTTOM ENVIRONMENT					
Depth (m): 2.1		Salinity (ppt): 15.51		Temperature (C): 26.10	
Dissolved Oxygen (mg/l): 6.5		Sediment Silt-Clay (%): 2.08		Total Carbon (%): 0.13	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.67		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.17	1	Pollution Indicative Species Abundance (%)	30.00	1
Abundance (#/m ²)	400	1	Pollution Indicative Species Biomass (%)	10.00	
Biomass (g/m ²)	0.12	1	Pollution Sensitive Species Abundance (%)	20.00	3
Carnivore-Omnivore Abundance (%)	30.00	3	Pollution Sensitive Species Biomass (%)	6.67	
Deep Deposit Feeder Abundance (%)	30.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m ²)		Biomass (g/m ²)		
Glycinde solitaria	80		0.00800		
Heteromastus filiformis	120		0.04400		
Macoma mitchelli	40		0.02400		
Micrura leidyi	40		0.03200		
Mulinia lateralis	120		0.01200		
Total Abundance w/ Epi.	400				
Total Abundance w/o Epi.	400				
Number of Taxa w/ Epi.	5				
Number of Taxa w/o Epi.	5				
Total Biomass w/ Epi.			0.12000		
Total Biomass w/o Epi.			0.12000		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Mainstem		Station: 015		Rep: 03	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 09SEP16	
		Sampled Area: 0.025 sq.m		Time: 10:12:55	
BOTTOM ENVIRONMENT					
Depth (m): 2.1		Salinity (ppt): 15.51		Temperature (C): 26.10	
Dissolved Oxygen (mg/l): 6.5		Sediment Silt-Clay (%): 2.08		Total Carbon (%): 0.13	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.67		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	1.90	1	Pollution Indicative Species Abundance (%)	40.00	1
Abundance (#/m2)	400	1	Pollution Indicative Species Biomass (%)	64.44	
Biomass (g/m2)	0.09	1	Pollution Sensitive Species Abundance (%)	30.00	3
Carnivore-Omnivore Abundance (%)	30.00	3	Pollution Sensitive Species Biomass (%)	31.11	
Deep Deposit Feeder Abundance (%)	10.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Gemma gemma	120		0.00400		
Glycinde solitaria	120		0.02800		
Mulinia lateralis	120		0.05600		
Tubificidae imm w/o cap chaetae	40		0.00200		
Total Abundance w/ Epi.	400				
Total Abundance w/o Epi.	400				
Number of Taxa w/ Epi.	4				
Number of Taxa w/o Epi.	4				
Total Biomass w/ Epi.			0.09000		
Total Biomass w/o Epi.			0.09000		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 022		Rep: 01	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 30AUG16	
		Sampled Area: 0.022 sq.m		Time: 8:34:47	
BOTTOM ENVIRONMENT					
Depth (m): 5.5		Salinity (ppt): 11.19		Temperature (C): 28.23	
Dissolved Oxygen (mg/l): 3.3		Sediment Silt-Clay (%): 55.35		Total Carbon (%): 3.6	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.40		Condition: Severely Degr.		# Attributes Scored: 5	
		Value	Score	Value	Score
Shannon-Wiener Index		1.69	1	Pollution Indicative Species Abundance (%)	63.64 1
Abundance (#/m2)		1000	3	Pollution Indicative Species Biomass (%)	17.46
Biomass (g/m2)		0.29	1	Pollution Sensitive Species Abundance (%)	4.55
Carnivore-Omnivore Abundance (%)		13.64		Pollution Sensitive Species Biomass (%)	1.59 1
Deep Deposit Feeder Abundance (%)		27.27			
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Leitoscoloplos spp.	45		0.01363		
Mediomastus ambiseta	45		0.00455		
Micrura leidyi	136		0.20907		
Streblospio benedicti	591		0.03636		
Tubificoides spp.	182		0.02272		
Total Abundance w/ Epi.	1000				
Total Abundance w/o Epi.	1000				
Number of Taxa w/ Epi.	5				
Number of Taxa w/o Epi.	5				
Total Biomass w/ Epi.			0.28634		
Total Biomass w/o Epi.			0.28634		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 022		Rep: 02	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 30AUG16	
		Sampled Area: 0.022 sq.m		Time: 8:34:47	
BOTTOM ENVIRONMENT					
Depth (m): 5.5		Salinity (ppt): 11.19		Temperature (C): 28.23	
Dissolved Oxygen (mg/l): 3.3		Sediment Silt-Clay (%): 55.35		Total Carbon (%): 3.6	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.40		Condition: Severely Degr.		# Attributes Scored: 5	
		Value	Score	Value	Score
Shannon-Wiener Index		1.09	1	Pollution Indicative Species Abundance (%)	78.57 1
Abundance (#/m2)		1273	3	Pollution Indicative Species Biomass (%)	90.74
Biomass (g/m2)		0.25	1	Pollution Sensitive Species Abundance (%)	0.00
Carnivore-Omnivore Abundance (%)		0.00		Pollution Sensitive Species Biomass (%)	0.00 1
Deep Deposit Feeder Abundance (%)		28.57			
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Leitoscoloplos robustus	91		0.17271		
Streblospio benedicti	909		0.05000		
Tubificoides spp.	273		0.02273		
Total Abundance w/ Epi.	1273				
Total Abundance w/o Epi.	1273				
Number of Taxa w/ Epi.	3				
Number of Taxa w/o Epi.	3				
Total Biomass w/ Epi.			0.24543		
Total Biomass w/o Epi.			0.24543		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 022	Rep: 03
Gear: Wildco Box Corer		Habitat: Low Mesohaline	Date: 30AUG16
		Sampled Area: 0.022 sq.m	Time: 8:34:47
BOTTOM ENVIRONMENT			
Depth (m): 5.5	Salinity (ppt): 11.19	Temperature (C): 28.23	
Dissolved Oxygen (mg/l): 3.3	Sediment Silt-Clay (%): 55.35	Total Carbon (%): 3.6	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 1.40	Condition: Severely Degr.		# Attributes Scored: 5
	Value	Score	Value
Shannon-Wiener Index	0.51	1	93.00
Abundance (#/m2)	4545	3	62.75
Biomass (g/m2)	0.46	1	0.00
Carnivore-Omnivore Abundance (%)	2.00		0.00
Deep Deposit Feeder Abundance (%)	6.00		1
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Leitoscoloplos robustus	45	0.04091	
Micrura leidyi	91	0.15908	
Streblospio benedicti	4181	0.24998	
Tubificoides spp.	227	0.01364	
Total Abundance w/ Epi.	4545		
Total Abundance w/o Epi.	4545		
Number of Taxa w/ Epi.	4		
Number of Taxa w/o Epi.	4		
Total Biomass w/ Epi.		0.46359	
Total Biomass w/o Epi.		0.46359	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 023		Rep: 01	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 30AUG16	
		Sampled Area: 0.022 sq.m		Time: 10:36:49	
BOTTOM ENVIRONMENT					
Depth (m): 6.0		Salinity (ppt): 11.77		Temperature (C): 28.07	
Dissolved Oxygen (mg/l): 3.0		Sediment Silt-Clay (%): 58.13		Total Carbon (%): 3.45	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.80		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.96	5	Pollution Indicative Species Abundance (%)	35.14	1
Abundance (#/m2)	1682	5	Pollution Indicative Species Biomass (%)	22.48	
Biomass (g/m2)	8.91	5	Pollution Sensitive Species Abundance (%)	16.22	
Carnivore-Omnivore Abundance (%)	40.54		Pollution Sensitive Species Biomass (%)	55.83	3
Deep Deposit Feeder Abundance (%)	10.81				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Eteone heteropoda	45		0.00227		
Glycinde solitaria	45		0.03182		
Heteromastus filiformis	91		0.10908		
Macoma balthica	227		4.94041		
Macoma mitchelli	45		0.13181		
Mulinia lateralis	318		1.98617		
Neanthes succinea	409		1.66347		
Parahesionia luteola	182		0.02273		
Streblospio benedicti	227		0.01363		
Tubificoides spp.	91		0.00454		
Total Abundance w/ Epi.	1682				
Total Abundance w/o Epi.	1682				
Number of Taxa w/ Epi.	10				
Number of Taxa w/o Epi.	10				
Total Biomass w/ Epi.			8.90593		
Total Biomass w/o Epi.			8.90593		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 023		Rep: 02	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 30AUG16	
		Sampled Area: 0.022 sq.m		Time: 10:36:49	
BOTTOM ENVIRONMENT					
Depth (m): 6.0		Salinity (ppt): 11.77		Temperature (C): 28.07	
Dissolved Oxygen (mg/l): 3.0		Sediment Silt-Clay (%): 58.13		Total Carbon (%): 3.45	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.40		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.69	5	Pollution Indicative Species Abundance (%)	29.17	1
Abundance (#/m2)	2182	5	Pollution Indicative Species Biomass (%)	20.15	
Biomass (g/m2)	25.17	3	Pollution Sensitive Species Abundance (%)	12.50	
Carnivore-Omnivore Abundance (%)	27.08		Pollution Sensitive Species Biomass (%)	60.54	3
Deep Deposit Feeder Abundance (%)	29.17				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Heteromastus filiformis	318		0.09999		
Leptocheirus plumulosus	45		0.01364		
Macoma balthica	273		15.23939		
Mulinia lateralis	455		5.05858		
Neanthes succinea	545		4.36320		
Parahesionia luteola	45		0.00227		
Streblospio benedicti	182		0.01363		
Tubificoides spp.	318		0.38178		
Total Abundance w/ Epi.	2182				
Total Abundance w/o Epi.	2182				
Number of Taxa w/ Epi.	8				
Number of Taxa w/o Epi.	8				
Total Biomass w/ Epi.			25.17248		
Total Biomass w/o Epi.			25.17248		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 023		Rep: 03	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 30AUG16	
		Sampled Area: 0.022 sq.m		Time: 10:36:49	
BOTTOM ENVIRONMENT					
Depth (m): 6.0		Salinity (ppt): 11.77		Temperature (C): 28.07	
Dissolved Oxygen (mg/l): 3.0		Sediment Silt-Clay (%): 58.13		Total Carbon (%): 3.45	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.40		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.87	5	Pollution Indicative Species Abundance (%)	45.83	1
Abundance (#/m2)	2182	5	Pollution Indicative Species Biomass (%)	14.20	
Biomass (g/m2)	14.14	3	Pollution Sensitive Species Abundance (%)	20.83	
Carnivore-Omnivore Abundance (%)	33.33		Pollution Sensitive Species Biomass (%)	57.87	3
Deep Deposit Feeder Abundance (%)	6.25				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	45		0.10908		
Eteone heteropoda	136		0.01363		
Glycinde solitaria	45		0.01364		
Heteromastus filiformis	45		0.00909		
Leptocheirus plumulosus	45		0.01364		
Macoma balthica	409		8.17191		
Mulinia lateralis	273		1.94526		
Neanthes succinea	455		3.19514		
Parahesionia luteola	45		0.00455		
Pectinaria gouldii	45		0.60903		
Streblospio benedicti	591		0.04999		
Tubificoides spp.	45		0.00909		
Total Abundance w/ Epi.	2182				
Total Abundance w/o Epi.	2182				
Number of Taxa w/ Epi.	12				
Number of Taxa w/o Epi.	12				
Total Biomass w/ Epi.			14.14404		
Total Biomass w/o Epi.			14.14404		



BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Mainstem		Station: 024		Rep: 01	
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud		Date: 18AUG16	
		Sampled Area: 0.022 sq.m		Time: 15:24:17	
BOTTOM ENVIRONMENT					
Depth (m): 6.1		Salinity (ppt): 11.05		Temperature (C): 29.17	
Dissolved Oxygen (mg/l): 4.0		Sediment Silt-Clay (%): 80.67		Total Carbon (%): 1.97	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.33		Condition: Meets Goal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.51	3	Pollution Indicative Species Abundance (%)	48.10	
Abundance (#/m2)	3591	3	Pollution Indicative Species Biomass (%)	27.59	3
Biomass (g/m2)	39.54	3	Pollution Sensitive Species Abundance (%)	15.19	
Carnivore-Omnivore Abundance (%)	22.78	3	Pollution Sensitive Species Biomass (%)	66.17	5
Deep Deposit Feeder Abundance (%)	16.46				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Eteone heteropoda	45		0.00454		
Glycinde solitaria	45		0.01818		
Heteromastus filiformis	455		0.19089		
Leitoscoloplos robustus	45		0.08181		
Macoma balthica	409		9.81720		
Macoma mitchelli	45		0.00454		
Micrura leidyi	45		0.09090		
Mulinia lateralis	1545		10.81710		
Mya arenaria	91		16.32564		
Neanthes succinea	682		2.17251		
Streblospio benedicti	91		0.00454		
Tubificoides spp.	91		0.00909		
Total Abundance w/ Epi.	3591				
Total Abundance w/o Epi.	3591				
Number of Taxa w/ Epi.	12				
Number of Taxa w/o Epi.	12				
Total Biomass w/ Epi.			39.53696		
Total Biomass w/o Epi.			39.53696		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Mainstem		Station: 024		Rep: 02	
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud		Date: 18AUG16	
		Sampled Area: 0.022 sq.m		Time: 15:24:17	
BENTHIC ABUNDANCE (per sq. meter)					
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.67		Condition: Meets Goal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.92	3	Pollution Indicative Species Abundance (%)	39.13	
Abundance (#/m2)	4181	3	Pollution Indicative Species Biomass (%)	28.69	3
Biomass (g/m2)	26.09	3	Pollution Sensitive Species Abundance (%)	17.39	
Carnivore-Omnivore Abundance (%)	26.09	5	Pollution Sensitive Species Biomass (%)	67.61	5
Deep Deposit Feeder Abundance (%)	20.65				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Edwardsia elegans	364		0.22725		
Glycinde solitaria	227		0.14089		
Heteromastus filiformis	318		0.07272		
Macoma balthica	455		11.92153		
Macoma mitchelli	91		0.10908		
Micrura leidyi	45		0.01363		
Mulinia lateralis	1409		7.46744		
Mya arenaria	45		5.57672		
Neanthes succinea	455		0.51359		
Streblospio benedicti	227		0.01818		
Tubificoides spp.	545		0.02727		
Total Abundance w/ Epi.	4181				
Total Abundance w/o Epi.	4181				
Number of Taxa w/ Epi.	11				
Number of Taxa w/o Epi.	11				
Total Biomass w/ Epi.			26.08830		
Total Biomass w/o Epi.			26.08830		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Mainstem		Station: 024		Rep: 03	
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud		Date: 18AUG16	
		Sampled Area: 0.022 sq.m		Time: 15:24:17	
BOTTOM ENVIRONMENT					
Depth (m): 6.1		Salinity (ppt): 11.05		Temperature (C): 29.17	
Dissolved Oxygen (mg/l): 4.0		Sediment Silt-Clay (%): 80.67		Total Carbon (%): 1.97	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.33		Condition: Degraded		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	1.86	1	Pollution Indicative Species Abundance (%)	8.82	
Abundance (#/m2)	3091	3	Pollution Indicative Species Biomass (%)	53.44	1
Biomass (g/m2)	25.93	3	Pollution Sensitive Species Abundance (%)	14.71	
Carnivore-Omnivore Abundance (%)	16.18	3	Pollution Sensitive Species Biomass (%)	43.57	3
Deep Deposit Feeder Abundance (%)	1.47				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Glycinde solitaria	136		0.06363		
Macoma balthica	318		11.23524		
Macoma mitchelli	1954		0.30906		
Micrura leidyi	45		0.28179		
Mulinia lateralis	182		13.83043		
Neanthes succinea	318		0.18180		
Paraprionospio pinnata	91		0.02727		
Tubificoides spp.	45		0.00227		
Total Abundance w/ Epi.	3091				
Total Abundance w/o Epi.	3091				
Number of Taxa w/ Epi.	8				
Number of Taxa w/o Epi.	8				
Total Biomass w/ Epi.			25.93150		
Total Biomass w/o Epi.			25.93150		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Upper Western Shore		Station: 026	Rep: 01
Gear: Wildco Box Corer		Habitat: Low Mesohaline	Date: 18AUG16
		Sampled Area: 0.022 sq.m	Time: 11:50:30
BOTTOM ENVIRONMENT			
Depth (m): 3.4	Salinity (ppt): 7.98	Temperature (C): 29.84	
Dissolved Oxygen (mg/l): 6.3	Sediment Silt-Clay (%): 71.50	Total Carbon (%): 2.82	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 3.80	Condition: Meets Goal		# Attributes Scored: 5
	Value	Score	Value
Shannon-Wiener Index	3.06	5	14.55
Abundance (#/m2)	2500	5	0.02
Biomass (g/m2)	81.43	1	54.55
Carnivore-Omnivore Abundance (%)	14.55		97.68
Deep Deposit Feeder Abundance (%)	16.36		5
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Carinoma tremaphoros	91	0.02727	
Cyathura polita	273	0.52268	
Heteromastus filiformis	136	0.04091	
Leptocheirus plumulosus	45	0.03182	
Macoma balthica	409	4.92678	
Macoma mitchelli	227	1.76346	
Marenzelleria viridis	136	0.44087	
Rangia cuneata	545	73.64718	
Streblospio benedicti	364	0.01818	
Tubificoides spp.	273	0.00909	
Total Abundance w/ Epi.	2500		
Total Abundance w/o Epi.	2500		
Number of Taxa w/ Epi.	10		
Number of Taxa w/o Epi.	10		
Total Biomass w/ Epi.		81.42822	
Total Biomass w/o Epi.		81.42822	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Upper Western Shore		Station: 026	Rep: 02
Gear: Wildco Box Corer		Habitat: Low Mesohaline	Date: 18AUG16
		Sampled Area: 0.022 sq.m	Time: 11:50:30
BOTTOM ENVIRONMENT			
Depth (m): 3.4	Salinity (ppt): 7.98	Temperature (C): 29.84	
Dissolved Oxygen (mg/l): 6.3	Sediment Silt-Clay (%): 71.50	Total Carbon (%): 2.82	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 3.00	Condition: Meets Goal		# Attributes Scored: 5
	Value	Score	Value
Shannon-Wiener Index	3.33	5	21.54
Abundance (#/m2)	2954	3	0.08
Biomass (g/m2)	66.28	1	46.15
Carnivore-Omnivore Abundance (%)	16.92		98.94
Deep Deposit Feeder Abundance (%)	18.46		5
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)		Biomass (g/m2)
Ameroculodes species complex	45		0.01818
Carinoma tremaphoros	91		0.05000
Coelotanypus spp.	45		0.00909
Cyathura polita	273		0.35451
Eteone heteropoda	91		0.00909
Heteromastus filiformis	91		0.10908
Leptocheirus plumulosus	182		0.05454
Macoma balthica	409		3.45420
Macoma mitchelli	91		0.40905
Marenzelleria viridis	318		2.13615
Mytilopsis leucophaeata (Epi)	45		0.08181
Rangia cuneata	364		59.63949
Streblospio benedicti	500		0.03636
Tubificoides spp.	455		0.00454
Total Abundance w/ Epi.	3000		
Total Abundance w/o Epi.	2954		
Number of Taxa w/ Epi.	14		
Number of Taxa w/o Epi.	13		
Total Biomass w/ Epi.			66.36609
Total Biomass w/o Epi.			66.28428

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Upper Western Shore		Station: 026	Rep: 03
Gear: Wildco Box Corer		Habitat: Low Mesohaline	Date: 18AUG16
		Sampled Area: 0.022 sq.m	Time: 11:50:30
BOTTOM ENVIRONMENT			
Depth (m): 3.4	Salinity (ppt): 7.98	Temperature (C): 29.84	
Dissolved Oxygen (mg/l): 6.3	Sediment Silt-Clay (%): 71.50	Total Carbon (%): 2.82	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 3.80	Condition: Meets Goal		# Attributes Scored: 5
	Value	Score	Value
Shannon-Wiener Index	2.90	5	15.79
Abundance (#/m2)	1727	5	3
Biomass (g/m2)	68.16	1	0.01
Carnivore-Omnivore Abundance (%)	21.05		Pollution Indicative Species Abundance (%)
Deep Deposit Feeder Abundance (%)	5.26		Pollution Indicative Species Biomass (%)
			Pollution Sensitive Species Abundance (%)
			Pollution Sensitive Species Biomass (%)
			98.17
			5
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)		Biomass (g/m2)
Carinoma tremaphoros	45		0.01363
Cyathura polita	318		0.44087
Heteromastus filiformis	45		0.00909
Leptocheirus plumulosus	45		0.01818
Macoma balthica	136		1.96799
Macoma mitchelli	182		1.19079
Marenzelleria viridis	182		0.11362
Mytilopsis leucophaeata (Epi)	91		0.46814
Rangia cuneata	455		64.39356
Streblospio benedicti	273		0.00909
Tubificoides spp.	45		0.00455
Total Abundance w/ Epi.	1818		
Total Abundance w/o Epi.	1727		
Number of Taxa w/ Epi.	11		
Number of Taxa w/o Epi.	10		
Total Biomass w/ Epi.			68.62950
Total Biomass w/o Epi.			68.16136

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Upper Eastern Shore		Station: 029		Rep: 01	
Gear: Wildco Box Corer		Habitat: Oligohaline		Date: 24AUG16	
		Sampled Area: 0.022 sq.m		Time: 17:02:34	
BOTTOM ENVIRONMENT					
Depth (m): 5.1		Salinity (ppt): 1.16		Temperature (C): 28.48	
Dissolved Oxygen (mg/l): 6.3		Sediment Silt-Clay (%): 41.73		Total Carbon (%): 1.25	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.67		Condition: Marginal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.88		Oligohaline Pollution Indicative Spp. Abund.	49.33	3
Abundance (#/m2)	3409	3	Tolerance Score	8.66	3
Deep Deposit Feeder Abundance (%)	38.67		Oligohaline Pollution Sensitive Spp. Abund.	10.67	3
Carnivore-Omnivore Abundance (%)	18.67	3	Tanypodinae/Chironomidae Abundance Ratio	100.00	1
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Ameroculodes species complex	136		0.00909		
Coelotanypus spp.	318		0.03181		
Cyathura polita	318		0.07727		
Edotea triloba (Epi)	45		0.01364		
Hobsonia florida	636		0.05000		
Limnodrilus hoffmeisteri	455				
Marenzelleria viridis	364		0.68175		
Mytilopsis leucophaeata (Epi)	45		0.00454		
Oligochaeta			0.11362		
Rangia cuneata	273		59.98491		
Streblospio benedicti	45		0.00909		
Tubificidae imm w/o cap chaetae *	864				
Total Abundance w/ Epi.	3500				
Total Abundance w/o Epi.	3409				
Number of Taxa w/ Epi.	10				
Number of Taxa w/o Epi.	8				
Total Biomass w/ Epi.			60.97572		
Total Biomass w/o Epi.			60.95754		

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Upper Eastern Shore		Station: 029	Rep: 02
Gear: Wildco Box Corer		Habitat: Oligohaline	Date: 24AUG16
		Sampled Area: 0.022 sq.m	Time: 17:02:34
BOTTOM ENVIRONMENT			
Depth (m): 5.1	Salinity (ppt): 1.16	Temperature (C): 28.48	
Dissolved Oxygen (mg/l): 6.3	Sediment Silt-Clay (%): 41.73	Total Carbon (%): 1.25	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 2.00	Condition: Severely Degr.	# Attributes Scored: 6	
	Value Score	Value	Score
Shannon-Wiener Index	2.49	Oligohaline Pollution Indicative Spp. Abund.	35.35 3
Abundance (#/m2)	4500 1	Tolerance Score	8.30 3
Deep Deposit Feeder Abundance (%)	32.32	Oligohaline Pollution Sensitive Spp. Abund.	6.06 3
Carnivore-Omnivore Abundance (%)	10.10 1	Tanypodinae/Chironomidae Abundance Ratio	100.00 1
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Coelotanypus spp.	91	0.01818	
Cyathura polita	364	0.23180	
Gammarus spp. (Epi)	91	0.01364	
Hobsonia florida	1409	0.17726	
Limnodrilus hoffmeisteri	1091		
Marenzelleria viridis	273	0.95900	
Mytilopsis leucophaeata (Epi)	45	0.07727	
Oligochaeta		0.35602	
Rangia cuneata	864	229.68612	
Rhithropanopeus harrisi (Epi)	91	0.15908	
Streblospio benedicti	45	0.00909	
Tubificidae imm w/o cap chaetae *	364		
Total Abundance w/ Epi.	4727		
Total Abundance w/o Epi.	4500		
Number of Taxa w/ Epi.	10		
Number of Taxa w/o Epi.	7		
Total Biomass w/ Epi.		231.68743	
Total Biomass w/o Epi.		231.43746	

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Station: 029			Rep: 03		
Watershed: Upper Eastern Shore	Habitat: Oligohaline		Date: 24AUG16		
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m		Time: 17:02:34		
BOTTOM ENVIRONMENT					
Depth (m): 5.1	Salinity (ppt): 1.16		Temperature (C): 28.48		
Dissolved Oxygen (mg/l): 6.3	Sediment Silt-Clay (%): 41.73		Total Carbon (%): 1.25		
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.00	Condition: Severely Degr.		# Attributes Scored: 6		
	Value	Score		Value	Score
Shannon-Wiener Index	2.60		Oligohaline Pollution Indicative Spp. Abund.	32.35	3
Abundance (#/m2)	4636	1	Tolerance Score	8.12	3
Deep Deposit Feeder Abundance (%)	29.41		Oligohaline Pollution Sensitive Spp. Abund.	9.80	3
Carnivore-Omnivore Abundance (%)	14.71	1	Tanypodinae/Chironomidae Abundance Ratio	100.00	1
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Ameroculodes species complex	45		0.01818		
Coelotanypus spp.	136		0.01818		
Cyathura polita	545		0.25452		
Gammarus spp. (Epi)	182		0.01818		
Hobsonia florida	1136		0.09999		
Limnodrilus hoffmeisteri	273				
Marenzelleria viridis	455		1.55894		
Mytilopsis leucophaeata (Epi)	91		0.09090		
Oligochaeta			0.14544		
Rangia cuneata	954		223.19132		
Tubificidae imm w/o cap chaetae *	1091				
Total Abundance w/ Epi.	4909				
Total Abundance w/o Epi.	4636				
Number of Taxa w/ Epi.	9				
Number of Taxa w/o Epi.	7				
Total Biomass w/ Epi.			225.39564		
Total Biomass w/o Epi.			225.28656		

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Potomac River		Station: 036	Rep: 01
Gear: Wildco Box Corer		Habitat: Tidal Freshwater	Date: 20SEP16
		Sampled Area: 0.022 sq.m	Time: 10:46:37
BOTTOM ENVIRONMENT			
Depth (m): 1.4	Salinity (ppt): 0.20	Temperature (C): 25.22	
Dissolved Oxygen (mg/l): 6.1	Sediment Silt-Clay (%): 61.35	Total Carbon (%): 2.74	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 4.00	Condition: Meets Goal		# Attributes Scored: 3
	Value	Score	Value
Shannon-Wiener Index	2.73		41.18
Abundance (#/m2)	2318	5	3
Deep Deposit Feeder Abundance (%)	58.82	5	8.57
Carnivore-Omnivore Abundance (%)	27.45		3
		T.F. Pollution Indicative Spp. Abund. (%)	41.18
		Tolerance Score	
		Limnodrilus Abundance (%)	
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)		Biomass (g/m2)
Branchiura sowerbyi	227		0.79083
Chironomus spp.	91		0.03181
Coelotanypus spp.	500		0.07727
Harnischia spp.	45		0.00227
Ilyodrilus templetoni	182		
Limnodrilus hoffmeisteri	182		
Lioplax subcarinata (Epi)	45		0.99536
Oligochaeta			0.36815
Pisidium spp.	136		0.01818
Sphaeriidae *	182		0.03181
Tubificidae imm w/o cap chaetae *	773		
Total Abundance w/ Epi.	2363		
Total Abundance w/o Epi.	2318		
Number of Taxa w/ Epi.	8		
Number of Taxa w/o Epi.	7		
Total Biomass w/ Epi.			2.31568
Total Biomass w/o Epi.			1.32032

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Potomac River		Station: 036		Rep: 02	
Gear: Wildco Box Corer		Habitat: Tidal Freshwater		Date: 20SEP16	
		Sampled Area: 0.022 sq.m		Time: 10:46:37	
BOTTOM ENVIRONMENT					
Depth (m): 1.4		Salinity (ppt): 0.20		Temperature (C): 25.22	
Dissolved Oxygen (mg/l): 6.1		Sediment Silt-Clay (%): 61.35		Total Carbon (%): 2.74	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.00		Condition: Meets Goal		# Attributes Scored: 3	
	Value	Score		Value	Score
Shannon-Wiener Index	2.36		T.F. Pollution Indicative Spp. Abund. (%)	53.04	3
Abundance (#/m2)	5227	3	Tolerance Score	9.31	3
Deep Deposit Feeder Abundance (%)	88.70	3	Limnodrilus Abundance (%)	53.04	
Carnivore-Omnivore Abundance (%)	6.09				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Branchiura sowerbyi	727		1.70438		
Chironomus spp.	45		0.00909		
Coelotanypus spp.	227		0.03182		
Limnodrilus hoffmeisteri	227				
Lioplax subcarinata (Epi)	91		0.29543		
Nais communis	682				
Oligochaeta			0.57040		
Pisidium spp.	227		0.00909		
Polypedilum halterale group	45		0.00227		
Sphaeriidae *	45		0.01818		
Tubificidae imm w cap chaetae	455				
Tubificidae imm w/o cap chaetae *	2545				
Viviparus georgianus (Epi)	45		94.22694		
Total Abundance w/ Epi.	5363				
Total Abundance w/o Epi.	5227				
Number of Taxa w/ Epi.	10				
Number of Taxa w/o Epi.	8				
Total Biomass w/ Epi.			96.86759		
Total Biomass w/o Epi.			2.34522		

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Potomac River		Station: 036		Rep: 03	
Gear: Wildco Box Corer		Habitat: Tidal Freshwater		Date: 20SEP16	
		Sampled Area: 0.022 sq.m		Time: 10:46:37	
BOTTOM ENVIRONMENT					
Depth (m): 1.4		Salinity (ppt): 0.20		Temperature (C): 25.22	
Dissolved Oxygen (mg/l): 6.1		Sediment Silt-Clay (%): 61.35		Total Carbon (%): 2.74	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.00		Condition: Meets Goal		# Attributes Scored: 3	
	Value	Score		Value	Score
Shannon-Wiener Index	2.23		T.F. Pollution Indicative Spp. Abund. (%)	58.62	3
Abundance (#/m2)	5272	3	Tolerance Score	9.30	3
Deep Deposit Feeder Abundance (%)	85.34	3	Limnodrilus Abundance (%)	58.62	
Carnivore-Omnivore Abundance (%)	7.76				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Branchiura sowerbyi	318		0.49086		
Coelotanypus spp.	409		0.08635		
Dero digitata	182				
Limnodrilus hoffmeisteri	364				
Oligochaeta			0.40451		
Pisidium spp.	227		0.02045		
Sphaeriidae *	136		0.00909		
Tubificidae imm w cap chaetae	909				
Tubificidae imm w/o cap chaetae *	2727				
Total Abundance w/ Epi.	5272				
Total Abundance w/o Epi.	5272				
Number of Taxa w/ Epi.	6				
Number of Taxa w/o Epi.	6				
Total Biomass w/ Epi.			1.01126		
Total Biomass w/o Epi.			1.01126		

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Potomac River		Station: 040	Rep: 01
Gear: Wildco Box Corer		Habitat: Oligohaline	Date: 20SEP16
		Sampled Area: 0.022 sq.m	Time: 14:37:19
BOTTOM ENVIRONMENT			
Depth (m): 6.4	Salinity (ppt): 6.32	Temperature (C): 25.49	
Dissolved Oxygen (mg/l): 4.6	Sediment Silt-Clay (%): 79.21	Total Carbon (%): 2.73	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 2.33	Condition: Degraded		# Attributes Scored: 6
	Value	Score	Value
Shannon-Wiener Index	2.29		
Abundance (#/m2)	3636	3	Oligohaline Pollution Indicative Spp. Abund. 85.00 3
Deep Deposit Feeder Abundance (%)	50.00		Tolerance Score 6.13 3
Carnivore-Omnivore Abundance (%)	10.00	1	Oligohaline Pollution Sensitive Spp. Abund. 5.00 3
			Tanypodinae/Chironomidae Abundance Ratio 100.00 1
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)		Biomass (g/m2)
Ameroculodes species complex	45		0.01818
Carinoma tremaphoros	136		0.07272
Coelotanypus spp.	91		0.05454
Eteone heteropoda	136		0.03181
Hydrobia truncata (Epi)	91		0.01818
Leptocheirus plumulosus	1045		0.19544
Littoridinops tenuipes (Epi)	136		0.03181
Macoma mitchelli	136		0.07727
Marenzelleria viridis	182		3.68600
Mediomastus ambiseta	1636		0.14089
Melita nitida (Epi)	45		0.00455
Rangia cuneata	45		8.99456
Tubificoides spp.	182		0.00455
Total Abundance w/ Epi.	3909		
Total Abundance w/o Epi.	3636		
Number of Taxa w/ Epi.	13		
Number of Taxa w/o Epi.	10		
Total Biomass w/ Epi.			13.33049
Total Biomass w/o Epi.			13.27595

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Potomac River	Station: 040	Rep: 02
Gear: Wildco Box Corer	Habitat: Oligohaline	Date: 20SEP16
	Sampled Area: 0.022 sq.m	Time: 14:37:19
BOTTOM ENVIRONMENT		
Depth (m): 6.4	Salinity (ppt): 6.32	Temperature (C): 25.49
Dissolved Oxygen (mg/l): 4.6	Sediment Silt-Clay (%): 79.21	Total Carbon (%): 2.73
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 2.00	Condition: Severely Degr.	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	2.02	Oligohaline Pollution Indicative Spp. Abund. 93.75
Abundance (#/m2)	5818 1	Tolerance Score 6.13
Deep Deposit Feeder Abundance (%)	77.34	Oligohaline Pollution Sensitive Spp. Abund. 1.56
Carnivore-Omnivore Abundance (%)	4.69 1	Tanypodinae/Chironomidae Abundance Ratio 100.00
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Ameroculodes species complex	45	0.00227
Carinoma tremaphoros	45	0.04090
Coelotanypus spp.	91	0.22725
Cyathura polita	91	0.04090
Leptocheirus plumulosus	500	0.12272
Macoma mitchelli	45	0.24997
Marenzelleria viridis	91	1.12261
Mediomastus ambiseta	3318	0.46813
Melita nitida (Epi)	45	0.00909
Neanthes succinea	45	0.13181
Neomysis americana (Epi)	91	0.05454
Rangia cuneata	45	28.61986
Streblospio benedicti	318	0.01818
Tubificoides spp.	1182	0.19544
Total Abundance w/ Epi.	5954	
Total Abundance w/o Epi.	5818	
Number of Taxa w/ Epi.	14	
Number of Taxa w/o Epi.	12	
Total Biomass w/ Epi.		31.30369
Total Biomass w/o Epi.		31.24006

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Potomac River		Station: 040	Rep: 03
Gear: Wildco Box Corer		Habitat: Oligohaline	Date: 20SEP16
		Sampled Area: 0.022 sq.m	Time: 14:37:19
BOTTOM ENVIRONMENT			
Depth (m): 6.4	Salinity (ppt): 6.32	Temperature (C): 25.49	
Dissolved Oxygen (mg/l): 4.6	Sediment Silt-Clay (%): 79.21	Total Carbon (%): 2.73	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 2.00	Condition: Severely Degr.		# Attributes Scored: 6
	Value	Score	Value Score
Shannon-Wiener Index	2.10		Oligohaline Pollution Indicative Spp. Abund. 90.20 3
Abundance (#/m2)	4636	1	Tolerance Score 6.20 3
Deep Deposit Feeder Abundance (%)	65.69		Oligohaline Pollution Sensitive Spp. Abund. 6.86 3
Carnivore-Omnivore Abundance (%)	6.86	1	Tanypodinae/Chironomidae Abundance Ratio 100.00 1
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)		Biomass (g/m2)
Americamysis almyra (Epi)	45		0.00227
Coelotanypus spp.	45		0.00227
Cyathura polita	91		0.18635
Eteone heteropoda	136		0.00454
Hydrobia truncata (Epi)	45		0.01364
Leptocheirus plumulosus	818		0.17726
Macoma mitchelli	45		0.20453
Marenzelleria viridis	318		3.85416
Mediomastus ambiseta	2545		0.67721
Melita nitida (Epi)	45		0.00455
Neanthes succinea	45		0.04091
Neomysis americana (Epi)	45		0.02273
Streblospio benedicti	91		0.00227
Tubificoides spp.	500		0.01364
Total Abundance w/ Epi.	4818		
Total Abundance w/o Epi.	4636		
Number of Taxa w/ Epi.	14		
Number of Taxa w/o Epi.	10		
Total Biomass w/ Epi.			5.20630
Total Biomass w/o Epi.			5.16312

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Potomac River		Station: 043		Rep: 01	
Gear: Modified Box Corer		Habitat: Low Mesohaline		Date: 07SEP16	
		Sampled Area: 0.025 sq.m		Time: 15:14:06	
BOTTOM ENVIRONMENT					
Depth (m): 1.9		Salinity (ppt): 11.23		Temperature (C): 26.89	
Dissolved Oxygen (mg/l): 5.7		Sediment Silt-Clay (%): 2.79		Total Carbon (%): 0.13	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 4.20		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.78	5	Pollution Indicative Species Abundance (%)	1.96	5
Abundance (#/m2)	2040	5	Pollution Indicative Species Biomass (%)	0.03	
Biomass (g/m2)	6.34	5	Pollution Sensitive Species Abundance (%)	23.53	
Carnivore-Omnivore Abundance (%)	35.29		Pollution Sensitive Species Biomass (%)	29.22	1
Deep Deposit Feeder Abundance (%)	23.53				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Amphiporus bioculatus		40		0.01200	
Apocorophium lacustre (Epi)		40		0.00200	
Carinoma tremaphoros		120		0.01200	
Cyathura polita		80		0.06000	
Glycinde solitaria		80		0.00400	
Heteromastus filiformis		480		0.96800	
Macoma mitchelli		480		0.04800	
Marenzelleria viridis		240		0.35200	
Micrura leidyi		40		3.36000	
Neanthes succinea		360		0.08400	
Rangia cuneata		80		1.43600	
Streblospio benedicti		40		0.00200	
Total Abundance w/ Epi.		2080			
Total Abundance w/o Epi.		2040			
Number of Taxa w/ Epi.		12			
Number of Taxa w/o Epi.		11			
Total Biomass w/ Epi.				6.34000	
Total Biomass w/o Epi.				6.33800	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Potomac River		Station: 043		Rep: 02	
Gear: Modified Box Corer		Habitat: Low Mesohaline		Date: 07SEP16	
		Sampled Area: 0.025 sq.m		Time: 15:14:06	
BOTTOM ENVIRONMENT					
Depth (m): 1.9		Salinity (ppt): 11.23		Temperature (C): 26.89	
Dissolved Oxygen (mg/l): 5.7		Sediment Silt-Clay (%): 2.79		Total Carbon (%): 0.13	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 4.20		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.85	5	Pollution Indicative Species Abundance (%)	1.82	5
Abundance (#/m2)	2200	5	Pollution Indicative Species Biomass (%)	0.39	
Biomass (g/m2)	2.06	3	Pollution Sensitive Species Abundance (%)	63.64	
Carnivore-Omnivore Abundance (%)	23.64		Pollution Sensitive Species Biomass (%)	77.24	3
Deep Deposit Feeder Abundance (%)	40.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Amphiporus bioculatus		40		0.00800	
Carinoma tremaphoros		80		0.02400	
Cyathura polita		80		0.10400	
Eteone heteropoda		40		0.00800	
Glycinde solitaria		120		0.01600	
Heteromastus filiformis		120		0.17600	
Macoma mitchelli		320		0.18400	
Marenzelleria viridis		440		0.92400	
Mediomastus ambiseta		720		0.03200	
Mytilopsis leucophaeata (Epi)		80		0.04000	
Neanthes succinea		160		0.06400	
Rangia cuneata		40		0.51200	
Tubificoides spp.		40		0.00400	
Total Abundance w/ Epi.		2280			
Total Abundance w/o Epi.		2200			
Number of Taxa w/ Epi.		13			
Number of Taxa w/o Epi.		12			
Total Biomass w/ Epi.				2.09600	
Total Biomass w/o Epi.				2.05600	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Potomac River		Station: 043		Rep: 03	
Gear: Modified Box Corer		Habitat: Low Mesohaline		Date: 07SEP16	
		Sampled Area: 0.025 sq.m		Time: 15:14:06	
BOTTOM ENVIRONMENT					
Depth (m): 1.9		Salinity (ppt): 11.23		Temperature (C): 26.89	
Dissolved Oxygen (mg/l): 5.7		Sediment Silt-Clay (%): 2.79		Total Carbon (%): 0.13	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 5.00		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.82	5	Pollution Indicative Species Abundance (%)	3.92	5
Abundance (#/m2)	2040	5	Pollution Indicative Species Biomass (%)	0.14	
Biomass (g/m2)	5.80	5	Pollution Sensitive Species Abundance (%)	70.59	
Carnivore-Omnivore Abundance (%)	15.69		Pollution Sensitive Species Biomass (%)	84.01	5
Deep Deposit Feeder Abundance (%)	23.53				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Apocorophium lacustre (Epi)		40		0.00200	
Glycinde solitaria		80		0.01600	
Heteromastus filiformis		80		0.44400	
Macoma balthica		200		3.60800	
Macoma mitchelli		200		0.14400	
Marenzelleria viridis		680		0.84800	
Mediomastus ambiseta		400		0.01200	
Micrura leidyi		40		0.05600	
Neanthes succinea		200		0.27600	
Rangia cuneata		80		0.39200	
Streblospio benedicti		80		0.00800	
Total Abundance w/ Epi.		2080			
Total Abundance w/o Epi.		2040			
Number of Taxa w/ Epi.		11			
Number of Taxa w/o Epi.		10			
Total Biomass w/ Epi.				5.80600	
Total Biomass w/o Epi.				5.80400	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Potomac River		Station: 044	Rep: 01
Gear: Wildco Box Corer		Habitat: Low Mesohaline	Date: 20SEP16
		Sampled Area: 0.022 sq.m	Time: 15:15:56
BOTTOM ENVIRONMENT			
Depth (m): 12.2	Salinity (ppt): 10.73	Temperature (C): 25.76	
Dissolved Oxygen (mg/l): 5.1	Sediment Silt-Clay (%): 65.98	Total Carbon (%): 2.31	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 3.00	Condition: Meets Goal		# Attributes Scored: 5
	Value	Score	Value
Shannon-Wiener Index	1.64	1	10.61
Abundance (#/m2)	3000	3	2.58
Biomass (g/m2)	3.43	3	80.30
Carnivore-Omnivore Abundance (%)	6.06		95.96
Deep Deposit Feeder Abundance (%)	78.79		5
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Carinoma tremaphoros	45	0.04091	
Glycinde solitaria	136	0.04091	
Macoma balthica	136	2.94516	
Mediomastus ambiseta	2136	0.30451	
Mulinia lateralis	91	0.03181	
Paraprionospio pinnata	136	0.05454	
Streblospio benedicti	91	0.00227	
Tubificoides spp.	227	0.00909	
Total Abundance w/ Epi.	3000		
Total Abundance w/o Epi.	3000		
Number of Taxa w/ Epi.	8		
Number of Taxa w/o Epi.	8		
Total Biomass w/ Epi.		3.42920	
Total Biomass w/o Epi.		3.42920	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Potomac River		Station: 044		Rep: 02	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 20SEP16	
		Sampled Area: 0.022 sq.m		Time: 15:15:56	
BOTTOM ENVIRONMENT					
Depth (m): 12.2		Salinity (ppt): 10.73		Temperature (C): 25.76	
Dissolved Oxygen (mg/l): 5.1		Sediment Silt-Clay (%): 65.98		Total Carbon (%): 2.31	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.40		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	0.95	1	Pollution Indicative Species Abundance (%)	2.86	5
Abundance (#/m2)	9545	1	Pollution Indicative Species Biomass (%)	2.33	
Biomass (g/m2)	6.63	5	Pollution Sensitive Species Abundance (%)	91.43	
Carnivore-Omnivore Abundance (%)	4.76		Pollution Sensitive Species Biomass (%)	89.03	5
Deep Deposit Feeder Abundance (%)	90.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Americamysis almyra (Epi)		136		0.03181	
Carinoma tremaphoros		45		0.12726	
Eteone heteropoda		45		0.00909	
Glycinde solitaria		227		0.13635	
Macoma balthica		273		4.39047	
Mediomastus ambiseta		8226		1.37714	
Micrura leidyi		91		0.27725	
Neanthes succinea		45		0.15908	
Paraprionospio pinnata		136		0.13635	
Streblospio benedicti		91		0.00909	
Tubificoides spp.		364		0.00909	
Total Abundance w/ Epi.		9681			
Total Abundance w/o Epi.		9545			
Number of Taxa w/ Epi.		11			
Number of Taxa w/o Epi.		10			
Total Biomass w/ Epi.				6.66297	
Total Biomass w/o Epi.				6.63116	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Potomac River		Station: 044		Rep: 03	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 20SEP16	
		Sampled Area: 0.022 sq.m		Time: 15:15:56	
BOTTOM ENVIRONMENT					
Depth (m): 12.2		Salinity (ppt): 10.73		Temperature (C): 25.76	
Dissolved Oxygen (mg/l): 5.1		Sediment Silt-Clay (%): 65.98		Total Carbon (%): 2.31	
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 (%)	10.22	3
Abundance (#/m2)	10226	1	Pollution Indicative Species Biomass (%)	2.73	
Biomass (g/m2)	12.49	3	Pollution Sensitive Species Abundance (%)	80.89	
Carnivore-Omnivore Abundance (%)	7.56		Pollution Sensitive Species Biomass (%)	91.71	5
Deep Deposit Feeder Abundance (%)	85.78				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	45		0.05909		
Eteone heteropoda	591		0.09544		
Glycinde solitaria	91		0.11363		
Heteromastus filiformis	91		0.26361		
Macoma balthica	227		9.58086		
Mediomastus ambiseta	7954		1.76346		
Mulinia lateralis	45		0.03181		
Neanthes succinea	45		0.32724		
Neomysis americana (Epi)	91		0.12726		
Paraprionospio pinnata	182		0.19544		
Streblospio benedicti	227		0.01818		
Tubificoides spp.	727		0.04545		
Total Abundance w/ Epi.	10317				
Total Abundance w/o Epi.	10226				
Number of Taxa w/ Epi.	12				
Number of Taxa w/o Epi.	11				
Total Biomass w/ Epi.			12.62146		
Total Biomass w/o Epi.			12.49420		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Morgantown Discharge		Station: 047	Rep: 01
Gear: Modified Box Corer		Habitat: Low Mesohaline	Date: 07SEP16
		Sampled Area: 0.025 sq.m	Time: 15:42:37
BOTTOM ENVIRONMENT			
Depth (m): 1.9	Salinity (ppt): 11.29	Temperature (C): 27.97	
Dissolved Oxygen (mg/l): 6.9	Sediment Silt-Clay (%): 3.91	Total Carbon (%): 0.2	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 5.00	Condition: Meets Goal		# Attributes Scored: 5
	Value	Score	Value
Shannon-Wiener Index	2.87	5	0.00
Abundance (#/m2)	1920	5	0.00
Biomass (g/m2)	6.45	5	37.50
Carnivore-Omnivore Abundance (%)	22.92		88.59
Deep Deposit Feeder Abundance (%)	37.50		5
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)		Biomass (g/m2)
Carinoma tremaphoros	160		0.04000
Glycinde solitaria	160		0.02000
Heteromastus filiformis	640		0.48400
Macoma balthica	200		4.60000
Macoma mitchelli	200		0.12800
Marenzelleria viridis	240		0.22000
Neanthes succinea	120		0.08000
Rangia cuneata	120		0.87600
Tubificoides spp.	80		0.00400
Total Abundance w/ Epi.	1920		
Total Abundance w/o Epi.	1920		
Number of Taxa w/ Epi.	9		
Number of Taxa w/o Epi.	9		
Total Biomass w/ Epi.			6.45200
Total Biomass w/o Epi.			6.45200

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Morgantown Discharge		Station: 047		Rep: 02	
Gear: Modified Box Corer		Habitat: Low Mesohaline		Date: 07SEP16	
		Sampled Area: 0.025 sq.m		Time: 15:42:37	
BOTTOM ENVIRONMENT					
Depth (m): 1.9		Salinity (ppt): 11.29		Temperature (C): 27.97	
Dissolved Oxygen (mg/l): 6.9		Sediment Silt-Clay (%): 3.91		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	2.90	5	Pollution Indicative Species Abundance (%)	2.94	5
Abundance (#/m2)	1360	3	Pollution Indicative Species Biomass (%)	0.33	
Biomass (g/m2)	1.20	3	Pollution Sensitive Species Abundance (%)	29.41	
Carnivore-Omnivore Abundance (%)	32.35		Pollution Sensitive Species Biomass (%)	56.15	3
Deep Deposit Feeder Abundance (%)	17.65				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	160		0.05200		
Cyathura polita	40		0.10400		
Glycinde solitaria	120		0.10000		
Heteromastus filiformis	240		0.35200		
Macoma balthica	40		0.36800		
Macoma mitchelli	400		0.08800		
Marenzelleria viridis	160		0.04000		
Neanthes succinea	120		0.03200		
Rangia cuneata	40		0.06400		
Streblospio benedicti	40		0.00400		
Total Abundance w/ Epi.	1360				
Total Abundance w/o Epi.	1360				
Number of Taxa w/ Epi.	10				
Number of Taxa w/o Epi.	10				
Total Biomass w/ Epi.			1.20400		
Total Biomass w/o Epi.			1.20400		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Morgantown Discharge	Station: 047	Rep: 03
Gear: Modified Box Corer	Habitat: Low Mesohaline	Date: 07SEP16
	Sampled Area: 0.025 sq.m	Time: 15:42:37
BOTTOM ENVIRONMENT		
Depth (m): 1.9	Salinity (ppt): 11.29	Temperature (C): 27.97
Dissolved Oxygen (mg/l): 6.9	Sediment Silt-Clay (%): 3.91	Total Carbon (%): 0.2
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 4.20	Condition: Meets Goal	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	3.05 5	Pollution Indicative Species Abundance (%) 4.55 5
Abundance (#/m2)	880 3	Pollution Indicative Species Biomass (%) 0.20
Biomass (g/m2)	2.00 3	Pollution Sensitive Species Abundance (%) 54.55
Carnivore-Omnivore Abundance (%)	18.18	Pollution Sensitive Species Biomass (%) 95.19 5
Deep Deposit Feeder Abundance (%)	22.73	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Glycinde solitaria	120	0.06800
Heteromastus filiformis	80	0.07200
Macoma balthica	80	1.04000
Macoma mitchelli	120	0.00200
Marenzelleria viridis	160	0.07200
Neanthes succinea	40	0.01600
Rangia cuneata	120	0.72000
Streblospio benedicti	40	0.00400
Tubificoides spp.	120	0.00200
Total Abundance w/ Epi.	880	
Total Abundance w/o Epi.	880	
Number of Taxa w/ Epi.	9	
Number of Taxa w/o Epi.	9	
Total Biomass w/ Epi.		1.99600
Total Biomass w/o Epi.		1.99600

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Station: 051			Rep: 01		
Watershed: Potomac River			Habitat: High Mesohaline Sand		
Gear: Modified Box Corer			Date: 07SEP16		
Sampled Area: 0.025 sq.m			Time: 12:01:42		
BOTTOM ENVIRONMENT					
Depth (m): 2.1		Salinity (ppt): 15.00		Temperature (C): 26.24	
Dissolved Oxygen (mg/l): 7.5		Sediment Silt-Clay (%): 1.95		Total Carbon (%): 0.14	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.00		Condition: Meets Goal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.23	1	Pollution Indicative Species Abundance (%)	0.00	5
Abundance (#/m2)	800	1	Pollution Indicative Species Biomass (%)	0.00	
Biomass (g/m2)	1.06	3	Pollution Sensitive Species Abundance (%)	65.00	3
Carnivore-Omnivore Abundance (%)	40.00	5	Pollution Sensitive Species Biomass (%)	40.15	
Deep Deposit Feeder Abundance (%)	15.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Gemma gemma	80		0.00400		
Glycinde solitaria	280		0.02400		
Heteromastus filiformis	120		0.38000		
Laeonereis culveri	40		0.24400		
Macoma mitchelli	40		0.00400		
Phoronis spp.	240		0.40000		
Total Abundance w/ Epi.	800				
Total Abundance w/o Epi.	800				
Number of Taxa w/ Epi.	6				
Number of Taxa w/o Epi.	6				
Total Biomass w/ Epi.			1.05600		
Total Biomass w/o Epi.			1.05600		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Potomac River		Station: 051		Rep: 02	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 07SEP16	
		Sampled Area: 0.025 sq.m		Time: 12:01:42	
BOTTOM ENVIRONMENT					
Depth (m): 2.1		Salinity (ppt): 15.00		Temperature (C): 26.24	
Dissolved Oxygen (mg/l): 7.5		Sediment Silt-Clay (%): 1.95		Total Carbon (%): 0.14	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.67		Condition: Meets Goal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.92	3	Pollution Indicative Species Abundance (%)	5.71	5
Abundance (#/m2)	1400	3	Pollution Indicative Species Biomass (%)	53.83	
Biomass (g/m2)	0.86	1	Pollution Sensitive Species Abundance (%)	42.86	5
Carnivore-Omnivore Abundance (%)	42.86	5	Pollution Sensitive Species Biomass (%)	23.20	
Deep Deposit Feeder Abundance (%)	2.86				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Gemma gemma	160		0.00400		
Glycinde solitaria	400		0.04800		
Heteromastus filiformis	40		0.02000		
Macoma mitchelli	320		0.02000		
Marenzelleria viridis	40		0.03200		
Micrura leidyi	40		0.10800		
Mulinia lateralis	80		0.46400		
Neanthes succinea	80		0.04000		
Phoronis spp.	160		0.12000		
Podarkeopsis levifuscina	40		0.00200		
Rictaxis punctostriatus	40		0.00400		
Total Abundance w/ Epi.	1400				
Total Abundance w/o Epi.	1400				
Number of Taxa w/ Epi.	11				
Number of Taxa w/o Epi.	11				
Total Biomass w/ Epi.			0.86200		
Total Biomass w/o Epi.			0.86200		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Potomac River		Station: 051		Rep: 03	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 07SEP16	
		Sampled Area: 0.025 sq.m		Time: 12:01:42	
BOTTOM ENVIRONMENT					
Depth (m): 2.1		Salinity (ppt): 15.00		Temperature (C): 26.24	
Dissolved Oxygen (mg/l): 7.5		Sediment Silt-Clay (%): 1.95		Total Carbon (%): 0.14	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 4.00		Condition: Meets Goal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.64	3	Pollution Indicative Species Abundance (%)	3.03	5
Abundance (#/m2)	1320	3	Pollution Indicative Species Biomass (%)	0.24	
Biomass (g/m2)	1.69	3	Pollution Sensitive Species Abundance (%)	63.64	5
Carnivore-Omnivore Abundance (%)	48.48	5	Pollution Sensitive Species Biomass (%)	47.16	
Deep Deposit Feeder Abundance (%)	9.09				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Edotea triloba (Epi)	40		0.01200		
Gemma gemma	80		0.02400		
Glycinde solitaria	400		0.05200		
Heteromastus filiformis	120		0.06000		
Laeonereis culveri	80		0.52800		
Marenzelleria viridis	40		0.02800		
Micrura leidyi	80		0.23200		
Neanthes succinea	80		0.04400		
Paraprionospio pinnata	40		0.00400		
Phoronis spp.	400		0.71600		
Stylochus ellipticus (Epi)	40		0.00800		
Total Abundance w/ Epi.	1400				
Total Abundance w/o Epi.	1320				
Number of Taxa w/ Epi.	11				
Number of Taxa w/o Epi.	9				
Total Biomass w/ Epi.			1.70800		
Total Biomass w/o Epi.			1.68800		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Potomac River			Station: 052			Rep: 01		
Gear: Wildco Box Corer			Habitat: High Mesohaline Mud			Date: 16AUG16		
			Sampled Area: 0.022 sq.m			Time: 15:57:01		
BOTTOM ENVIRONMENT								
Depth (m): 11.8			Salinity (ppt): 13.59			Temperature (C): 27.44		
Dissolved Oxygen (mg/l): 0.2			Sediment Silt-Clay (%): 78.93			Total Carbon (%):		
BENTHIC INDEX OF BIOTIC INTEGRITY								
B-IBI Score: 1.00			Condition: Severely Degr.			# Attributes Scored: 6		
	Value	Score		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 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Potomac River	Station: 052	Rep: 02
Gear: Wildco Box Corer	Habitat: High Mesohaline Mud	Date: 16AUG16
	Sampled Area: 0.022 sq.m	Time: 15:57:01
BOTTOM ENVIRONMENT		
Depth (m): 11.8	Salinity (ppt): 13.59	Temperature (C): 27.44
Dissolved Oxygen (mg/l): 0.2	Sediment Silt-Clay (%): 78.93	Total Carbon (%): 3.41
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 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Potomac River	Station: 052	Rep: 03
Gear: Wildco Box Corer	Habitat: High Mesohaline Mud	Date: 16AUG16
	Sampled Area: 0.022 sq.m	Time: 15:57:01
BOTTOM ENVIRONMENT		
Depth (m): 11.8	Salinity (ppt): 13.59	Temperature (C): 27.44
Dissolved Oxygen (mg/l): 0.2	Sediment Silt-Clay (%): 78.93	Total Carbon (%): 3.41
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 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Lower Eastern Shore		Station: 062	Rep: 01
Gear: Petite Ponar		Habitat: Low Mesohaline	Date: 14SEP16
		Sampled Area: 0.025 sq.m	Time: 8:04:28
BOTTOM ENVIRONMENT			
Depth (m): 3.5	Salinity (ppt): 8.31	Temperature (C): 25.78	
Dissolved Oxygen (mg/l): 6.5	Sediment Silt-Clay (%): 64.94	Total Carbon (%): 3.87	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 2.20	Condition: Degraded		# Attributes Scored: 5
	Value	Score	Value Score
Shannon-Wiener Index	2.19	3	Pollution Indicative Species Abundance (%) 19.48 3
Abundance (#/m2)	6160	1	Pollution Indicative Species Biomass (%) 19.04
Biomass (g/m2)	1.50	3	Pollution Sensitive Species Abundance (%) 1.95
Carnivore-Omnivore Abundance (%)	11.04		Pollution Sensitive Species Biomass (%) 14.11 1
Deep Deposit Feeder Abundance (%)	53.90		
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)		Biomass (g/m2)
Americamysis bigelowi (Epi)	40		0.04400
Ameroculodes species complex	280		0.02800
Carinoma tremaphoros	560		0.06800
Cyathura polita	120		0.21200
Leptocheirus plumulosus	200		0.04800
Macoma mitchelli	640		0.75600
Streblospio benedicti	1040		0.28400
Tubificidae imm w/o cap chaetae	160		0.00200
Tubificoides spp.	3160		0.10400
Total Abundance w/ Epi.	6200		
Total Abundance w/o Epi.	6160		
Number of Taxa w/ Epi.	9		
Number of Taxa w/o Epi.	8		
Total Biomass w/ Epi.			1.54600
Total Biomass w/o Epi.			1.50200

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Station: 062			Rep: 02		
Watershed: Lower Eastern Shore		Habitat: Low Mesohaline		Date: 14SEP16	
Gear: Petite Ponar		Sampled Area: 0.025 sq.m		Time: 8:04:28	
BOTTOM ENVIRONMENT					
Depth (m): 3.5		Salinity (ppt): 8.31		Temperature (C): 25.78	
Dissolved Oxygen (mg/l): 6.5		Sediment Silt-Clay (%): 64.94		Total Carbon (%): 3.87	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.20		Condition: Degraded		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.55	5	Pollution Indicative Species Abundance (%)	27.93	1
Abundance (#/m2)	7160	1	Pollution Indicative Species Biomass (%)	9.54	
Biomass (g/m2)	2.75	3	Pollution Sensitive Species Abundance (%)	2.23	
Carnivore-Omnivore Abundance (%)	20.11		Pollution Sensitive Species Biomass (%)	16.61	1
Deep Deposit Feeder Abundance (%)	45.81				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Americamysis almyra (Epi)	80		0.03600		
Ameroculodes species complex	240		0.02800		
Carinoma tremaphoros	1160		0.51200		
Cyathura polita	120		0.28000		
Eteone heteropoda	120		0.02000		
Gammarus spp. (Epi)	40		0.00800		
Heteromastus filiformis	80		0.02000		
Leptocheirus plumulosus	80		0.00400		
Leucon americanus	40		0.03200		
Macoma mitchelli	520		0.67600		
Marenzelleria viridis	40		0.17600		
Neanthes succinea	40		0.02000		
Neomysis americana (Epi)	40		0.01600		
Streblospio benedicti	1520		0.24000		
Tubificidae imm w/o cap chaetae	360		0.00200		
Tubificoides spp.	2840		0.73600		
Total Abundance w/ Epi.	7320				
Total Abundance w/o Epi.	7160				
Number of Taxa w/ Epi.	16				
Number of Taxa w/o Epi.	13				
Total Biomass w/ Epi.			2.80600		
Total Biomass w/o Epi.			2.74600		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Choptank River		Station: 064	Rep: 01	
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud	Date: 12SEP16	
		Sampled Area: 0.022 sq.m	Time: 12:16:10	
BOTTOM ENVIRONMENT				
Depth (m): 8.8	Salinity (ppt): 14.49	Temperature (C): 26.20		
Dissolved Oxygen (mg/l): 4.1	Sediment Silt-Clay (%): 76.54	Total Carbon (%): 1.95		
BENTHIC INDEX OF BIOTIC INTEGRITY				
B-IBI Score: 3.67	Condition: Meets Goal		# Attributes Scored: 6	
	Value	Score	Value	
Shannon-Wiener Index	2.65	3	36.67	
Abundance (#/m2)	1364	3	0.81	5
Biomass (g/m2)	41.75	3	40.00	
Carnivore-Omnivore Abundance (%)	20.00	3	95.59	5
Deep Deposit Feeder Abundance (%)	10.00			
BENTHIC ABUNDANCE (per sq. meter)				
TAXA	Abundance (#/m2)		Biomass (g/m2)	
Carinoma tremaphoros	45		0.12726	
Cyathura polita	45		0.00909	
Edwardsia elegans	45		0.00455	
Glycinde solitaria	91		0.08635	
Macoma balthica	409		39.81420	
Macoma mitchelli	45		0.21361	
Micrura leidyi	45		1.14534	
Mulinia lateralis	409		0.26361	
Paraprionospio pinnata	91		0.07272	
Tubificoides spp.	136		0.01363	
Total Abundance w/ Epi.	1364			
Total Abundance w/o Epi.	1364			
Number of Taxa w/ Epi.	10			
Number of Taxa w/o Epi.	10			
Total Biomass w/ Epi.			41.75037	
Total Biomass w/o Epi.			41.75037	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Choptank River		Station: 064		Rep: 02	
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud		Date: 12SEP16	
		Sampled Area: 0.022 sq.m		Time: 12:16:10	
BOTTOM ENVIRONMENT					
Depth (m): 8.8		Salinity (ppt): 14.49		Temperature (C): 26.20	
Dissolved Oxygen (mg/l): 4.1		Sediment Silt-Clay (%): 76.54		Total Carbon (%): 1.95	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 4.33		Condition: Meets Goal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	3.02	5	Pollution Indicative Species Abundance (%)	45.45	
Abundance (#/m2)	2000	5	Pollution Indicative Species Biomass (%)	0.33	5
Biomass (g/m2)	36.97	3	Pollution Sensitive Species Abundance (%)	29.55	
Carnivore-Omnivore Abundance (%)	15.91	3	Pollution Sensitive Species Biomass (%)	98.60	5
Deep Deposit Feeder Abundance (%)	43.18				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Amphiporus bioculatus	45		0.00454		
Cyathura polita	45		0.49086		
Glycinde solitaria	182		0.01364		
Heteromastus filiformis	45		0.29543		
Macoma balthica	364		35.95095		
Macoma mitchelli	45		0.07272		
Mulinia lateralis	318		0.09545		
Parahesionia luteola	45		0.00909		
Paraprionospio pinnata	91		0.02272		
Pectinaria gouldii	45		0.00454		
Tubificidae imm w/o cap chaetae	500		0.00227		
Tubificoides spp.	273		0.00909		
Total Abundance w/ Epi.	2000				
Total Abundance w/o Epi.	2000				
Number of Taxa w/ Epi.	12				
Number of Taxa w/o Epi.	12				
Total Biomass w/ Epi.			36.97130		
Total Biomass w/o Epi.			36.97130		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Choptank River		Station: 064	Rep: 03
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud	Date: 12SEP16
		Sampled Area: 0.022 sq.m	Time: 12:16:10
BOTTOM ENVIRONMENT			
Depth (m): 8.8	Salinity (ppt): 14.49	Temperature (C): 26.20	
Dissolved Oxygen (mg/l): 4.1	Sediment Silt-Clay (%): 76.54	Total Carbon (%): 1.95	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 4.00	Condition: Meets Goal		# Attributes Scored: 6
	Value	Score	Value
Shannon-Wiener Index	2.23	3	Pollution Indicative Species Abundance (%) 45.71
Abundance (#/m2)	1591	5	Pollution Indicative Species Biomass (%) 0.43
Biomass (g/m2)	37.40	3	Pollution Sensitive Species Abundance (%) 31.43
Carnivore-Omnivore Abundance (%)	20.00	3	Pollution Sensitive Species Biomass (%) 98.62
Deep Deposit Feeder Abundance (%)	8.57		Score 5
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)		Biomass (g/m2)
Glycinde solitaria	136		0.12726
Macoma balthica	364		36.75996
Macoma mitchelli	45		0.00227
Mulinia lateralis	727		0.15908
Neanthes succinea	91		0.32724
Parahesion luteola	91		0.01364
Tubificoides spp.	136		0.01364
Total Abundance w/ Epi.	1591		
Total Abundance w/o Epi.	1591		
Number of Taxa w/ Epi.	7		
Number of Taxa w/o Epi.	7		
Total Biomass w/ Epi.			37.40308
Total Biomass w/o Epi.			37.40308

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Choptank River		Station: 066		Rep: 01	
Gear: Wildco Box Corer		Habitat: Oligohaline		Date: 14SEP16	
		Sampled Area: 0.022 sq.m		Time: 10:13:54	
BOTTOM ENVIRONMENT					
Depth (m): 3.6		Salinity (ppt): 3.64		Temperature (C): 26.57	
Dissolved Oxygen (mg/l): 5.7		Sediment Silt-Clay (%): 69.20		Total Carbon (%): 5.94	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.00		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.03		Oligohaline Pollution Indicative Spp. Abund.	93.58	3
Abundance (#/m2)	4954	1	Tolerance Score	8.87	3
Deep Deposit Feeder Abundance (%)	36.70		Oligohaline Pollution Sensitive Spp. Abund.	0.00	1
Carnivore-Omnivore Abundance (%)	17.43	3	Tanypodinae/Chironomidae Abundance Ratio	100.00	1
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Chaoborus punctipennis	273		0.04545		
Coelotanypus spp.	591		0.08181		
Hobsonia florida	45		0.00227		
Limnodrilus hoffmeisteri	545				
Littoridinops tenuipes (Epi)	227		0.03182		
Oligochaeta			0.35754		
Streblospio benedicti	2227		0.23634		
Tubificidae imm w/o cap chaetae *	1273				
Total Abundance w/ Epi.	5181				
Total Abundance w/o Epi.	4954				
Number of Taxa w/ Epi.	6				
Number of Taxa w/o Epi.	5				
Total Biomass w/ Epi.			0.75523		
Total Biomass w/o Epi.			0.72341		

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Choptank River		Station: 066		Rep: 02	
Gear: Wildco Box Corer		Habitat: Oligohaline		Date: 14SEP16	
		Sampled Area: 0.022 sq.m		Time: 10:13:54	
BOTTOM ENVIRONMENT					
Depth (m): 3.6		Salinity (ppt): 3.64		Temperature (C): 26.57	
Dissolved Oxygen (mg/l): 5.7		Sediment Silt-Clay (%): 69.20		Total Carbon (%): 5.94	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.00		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	1.80		Oligohaline Pollution Indicative Spp. Abund.	96.67	1
Abundance (#/m2)	5454	1	Tolerance Score	9.48	1
Deep Deposit Feeder Abundance (%)	56.67		Oligohaline Pollution Sensitive Spp. Abund.	0.00	1
Carnivore-Omnivore Abundance (%)	5.00	1	Tanypodinae/Chironomidae Abundance Ratio	100.00	1
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Chaoborus punctipennis	91		0.01818		
Coelotanypus spp.	182		0.03181		
Gammarus spp. (Epi)	45		0.00455		
Limnodrilus hoffmeisteri	727				
Oligochaeta			0.78477		
Rangia cuneata	91		35.51917		
Streblospio benedicti	2000		0.11817		
Tubificidae imm w/o cap chaetae *	2363				
Total Abundance w/ Epi.	5499				
Total Abundance w/o Epi.	5454				
Number of Taxa w/ Epi.	6				
Number of Taxa w/o Epi.	5				
Total Biomass w/ Epi.			36.47665		
Total Biomass w/o Epi.			36.47211		

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Choptank River		Station: 066	Rep: 03
Gear: Wildco Box Corer		Habitat: Oligohaline	Date: 14SEP16
		Sampled Area: 0.022 sq.m	Time: 10:13:54
BOTTOM ENVIRONMENT			
Depth (m): 3.6	Salinity (ppt): 3.64	Temperature (C): 26.57	
Dissolved Oxygen (mg/l): 5.7	Sediment Silt-Clay (%): 69.20	Total Carbon (%): 5.94	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 1.00	Condition: Severely Degr.		# Attributes Scored: 6
	Value	Score	Value
Shannon-Wiener Index	1.85		95.77
Abundance (#/m2)	6454	1	9.38
Deep Deposit Feeder Abundance (%)	45.07		0.00
Carnivore-Omnivore Abundance (%)	6.34	1	100.00
			1
			1
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)		Biomass (g/m2)
Ameroculodes species complex	45		0.00227
Boccardiella ligERICA	45		0.00227
Chaoborus punctipennis	45		0.00909
Coelotanypus spp.	318		0.03636
Cyathura polita	45		0.00454
Gammarus spp. (Epi)	91		0.03636
Hobsonia florida	45		0.00455
Leptocheirus plumulosus	45		0.00454
Limnodrilus hoffmeisteri	364		
Littoridinops tenuipes (Epi)	500		0.16817
Oligochaeta			1.43319
Rangia cuneata	45		9.86265
Streblospio benedicti	2909		0.16817
Tubificidae imm w/o cap chaetae *	2545		
Total Abundance w/ Epi.	7045		
Total Abundance w/o Epi.	6454		
Number of Taxa w/ Epi.	12		
Number of Taxa w/o Epi.	10		
Total Biomass w/ Epi.			11.73216
Total Biomass w/o Epi.			11.52764

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Upper Eastern Shore		Station: 068		Rep: 01	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 03SEP16	
		Sampled Area: 0.022 sq.m		Time: 9:57:30	
BOTTOM ENVIRONMENT					
Depth (m): 4.2		Salinity (ppt): 10.45		Temperature (C): 26.26	
Dissolved Oxygen (mg/l): 3.9		Sediment Silt-Clay (%): 65.22		Total Carbon (%): 2.69	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.80		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.93	5	Pollution Indicative Species Abundance (%)	20.00	3
Abundance (#/m2)	2273	5	Pollution Indicative Species Biomass (%)	0.06	
Biomass (g/m2)	38.46	1	Pollution Sensitive Species Abundance (%)	42.00	
Carnivore-Omnivore Abundance (%)	14.00		Pollution Sensitive Species Biomass (%)	98.83	5
Deep Deposit Feeder Abundance (%)	22.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	136		0.09544		
Coelotanypus spp.	45		0.00909		
Cyathura polita	45		0.19544		
Glycinde solitaria	45		0.02273		
Heteromastus filiformis	45		0.14998		
Leptocheirus plumulosus	182		0.04545		
Macoma balthica	636		24.02942		
Marenzelleria viridis	182		1.20897		
Neanthes succinea	45		0.12272		
Rangia cuneata	45		12.54874		
Streblospio benedicti	409		0.01364		
Tubificoides spp.	455		0.01363		
Total Abundance w/ Epi.	2273				
Total Abundance w/o Epi.	2273				
Number of Taxa w/ Epi.	12				
Number of Taxa w/o Epi.	12				
Total Biomass w/ Epi.			38.45525		
Total Biomass w/o Epi.			38.45525		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Upper Eastern Shore		Station: 068	Rep: 02
Gear: Wildco Box Corer		Habitat: Low Mesohaline	Date: 03SEP16
		Sampled Area: 0.022 sq.m	Time: 9:57:30
BOTTOM ENVIRONMENT			
Depth (m): 4.2	Salinity (ppt): 10.45	Temperature (C): 26.26	
Dissolved Oxygen (mg/l): 3.9	Sediment Silt-Clay (%): 65.22	Total Carbon (%): 2.69	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 3.40	Condition: Meets Goal		# Attributes Scored: 5
	Value	Score	Value
Shannon-Wiener Index	2.89	5	20.29
Abundance (#/m2)	3136	3	0.12
Biomass (g/m2)	21.39	3	23.19
Carnivore-Omnivore Abundance (%)	18.84		97.99
Deep Deposit Feeder Abundance (%)	44.93		5
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)		Biomass (g/m2)
Carinoma tremaphoros	182		0.12726
Cyathura polita	91		0.28634
Diadumene leucolena (Epi)	136		3.10878
Edwardsia elegans	45		0.03181
Eteone heteropoda	91		0.00909
Heteromastus filiformis	45		0.00454
Leptocheirus plumulosus	136		0.02727
Macoma balthica	500		18.91629
Marenzelleria viridis	136		1.75892
Neanthes succinea	182		0.09999
Streblospio benedicti	364		0.01364
Tubificidae imm w/o cap chaetae	182		0.00227
Tubificoides spp.	1182		0.11363
Total Abundance w/ Epi.	3272		
Total Abundance w/o Epi.	3136		
Number of Taxa w/ Epi.	13		
Number of Taxa w/o Epi.	12		
Total Biomass w/ Epi.			24.49982
Total Biomass w/o Epi.			21.39104

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Upper Eastern Shore		Station: 068		Rep: 03	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 03SEP16	
		Sampled Area: 0.022 sq.m		Time: 9:57:30	
BOTTOM ENVIRONMENT					
Depth (m): 4.2		Salinity (ppt): 10.45		Temperature (C): 26.26	
Dissolved Oxygen (mg/l): 3.9		Sediment Silt-Clay (%): 65.22		Total Carbon (%): 2.69	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.00		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.09	3	Pollution Indicative Species Abundance (%)	12.15	3
Abundance (#/m2)	4863	3	Pollution Indicative Species Biomass (%)	0.41	
Biomass (g/m2)	45.88	1	Pollution Sensitive Species Abundance (%)	21.50	
Carnivore-Omnivore Abundance (%)	9.35		Pollution Sensitive Species Biomass (%)	98.91	5
Deep Deposit Feeder Abundance (%)	59.81				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	91		0.07272		
Coelotanypus spp.	45		0.01364		
Cyathura polita	182		0.47268		
Eteone heteropoda	91		0.00909		
Glycinde solitaria	45		0.00909		
Heteromastus filiformis	45		0.09090		
Leptocheirus plumulosus	227		0.07272		
Macoma balthica	773		44.73189		
Marenzelleria viridis	45		0.16362		
Melita nitida (Epi)	45		0.00227		
Mulinia lateralis	45		0.05000		
Streblospio benedicti	409		0.11363		
Tubificoides spp.	2863		0.07727		
Total Abundance w/ Epi.	4909				
Total Abundance w/o Epi.	4863				
Number of Taxa w/ Epi.	13				
Number of Taxa w/o Epi.	12				
Total Biomass w/ Epi.			45.87950		
Total Biomass w/o Epi.			45.87723		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Patuxent River		Station: 071	Rep: 01
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud	Date: 31AUG16
		Sampled Area: 0.022 sq.m	Time: 14:00:09
BOTTOM ENVIRONMENT			
Depth (m): 12.3	Salinity (ppt): 15.54	Temperature (C): 28.98	
Dissolved Oxygen (mg/l): 3.1	Sediment Silt-Clay (%): 66.21	Total Carbon (%): 3.33	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 2.00	Condition: Severely Degr.		# Attributes Scored: 6
	Value	Score	Value
Shannon-Wiener Index	1.48	1	Pollution Indicative Species Abundance (%) 78.57
Abundance (#/m2)	1909	5	Pollution Indicative Species Biomass (%) 71.21
Biomass (g/m2)	0.30	1	Pollution Sensitive Species Abundance (%) 2.38
Carnivore-Omnivore Abundance (%)	16.67	3	Pollution Sensitive Species Biomass (%) 3.03
Deep Deposit Feeder Abundance (%)	4.76		
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)		Biomass (g/m2)
Americamysis almyra (Epi)	45		0.01364
Glycinde solitaria	45		0.00909
Mulinia lateralis	91		0.00909
Parahesion luteola	91		0.00909
Paraprionospio pinnata	1409		0.20452
Pectinaria gouldii	91		0.03181
Podarkeopsis levifuscina	45		0.00909
Rictaxis punctostriatus	136		0.02727
Total Abundance w/ Epi.	1954		
Total Abundance w/o Epi.	1909		
Number of Taxa w/ Epi.	8		
Number of Taxa w/o Epi.	7		
Total Biomass w/ Epi.			0.31361
Total Biomass w/o Epi.			0.29997

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Patuxent River		Station: 071		Rep: 02	
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud		Date: 31AUG16	
		Sampled Area: 0.022 sq.m		Time: 14:00:09	
BOTTOM ENVIRONMENT					
Depth (m): 12.3		Salinity (ppt): 15.54		Temperature (C): 28.98	
Dissolved Oxygen (mg/l): 3.1		Sediment Silt-Clay (%): 66.21		Total Carbon (%): 3.33	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.00		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	1.52	1	Pollution Indicative Species Abundance (%)	82.26	
Abundance (#/m2)	2818	3	Pollution Indicative Species Biomass (%)	89.14	1
Biomass (g/m2)	1.21	3	Pollution Sensitive Species Abundance (%)	4.84	
Carnivore-Omnivore Abundance (%)	11.29	3	Pollution Sensitive Species Biomass (%)	5.62	1
Deep Deposit Feeder Abundance (%)	3.23				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Glycinde solitaria	91		0.05454		
Macoma mitchelli	45		0.00909		
Mulinia lateralis	182		0.14089		
Parahesionia luteola	45		0.00454		
Paraprionospio pinnata	2136		0.94082		
Pectinaria gouldii	45		0.00455		
Phoronis spp.	45		0.01364		
Podarkeopsis levifuscina	91		0.00454		
Sigambra tentaculata	91		0.03636		
Tubificoides spp.	45		0.00454		
Total Abundance w/ Epi.	2818				
Total Abundance w/o Epi.	2818				
Number of Taxa w/ Epi.	10				
Number of Taxa w/o Epi.	10				
Total Biomass w/ Epi.			1.21352		
Total Biomass w/o Epi.			1.21352		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Patuxent River		Station: 071		Rep: 03	
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud		Date: 31AUG16	
		Sampled Area: 0.022 sq.m		Time: 14:00:09	
BOTTOM ENVIRONMENT					
Depth (m): 12.3		Salinity (ppt): 15.54		Temperature (C): 28.98	
Dissolved Oxygen (mg/l): 3.1		Sediment Silt-Clay (%): 66.21		Total Carbon (%): 3.33	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.00		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	1.44	1	Pollution Indicative Species Abundance (%)	73.17	
Abundance (#/m2)	1863	5	Pollution Indicative Species Biomass (%)	74.14	1
Biomass (g/m2)	0.26	1	Pollution Sensitive Species Abundance (%)	2.44	
Carnivore-Omnivore Abundance (%)	14.63	3	Pollution Sensitive Species Biomass (%)	13.79	1
Deep Deposit Feeder Abundance (%)	9.76				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Glycinde solitaria	45		0.03636		
Macoma mitchelli	45		0.00455		
Mulinia lateralis	45		0.00455		
Paraprionospio pinnata	1318		0.19089		
Pectinaria gouldii	182		0.00909		
Rictaxis punctostriatus	227		0.01818		
Total Abundance w/ Epi.	1863				
Total Abundance w/o Epi.	1863				
Number of Taxa w/ Epi.	6				
Number of Taxa w/o Epi.	6				
Total Biomass w/ Epi.			0.26361		
Total Biomass w/o Epi.			0.26361		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Chalk Point Discharge		Station: 074		Rep: 01	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 31AUG16	
		Sampled Area: 0.022 sq.m		Time: 15:35:47	
BOTTOM ENVIRONMENT					
Depth (m): 1.4		Salinity (ppt): 11.89		Temperature (C): 29.71	
Dissolved Oxygen (mg/l): 4.5		Sediment Silt-Clay (%): 66.78		Total Carbon (%): 2.55	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.80		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	1.72	3	Pollution Indicative Species Abundance (%)	9.80	5
Abundance (#/m2)	4636	3	Pollution Indicative Species Biomass (%)	0.14	
Biomass (g/m2)	18.51	3	Pollution Sensitive Species Abundance (%)	10.78	
Carnivore-Omnivore Abundance (%)	5.88		Pollution Sensitive Species Biomass (%)	84.18	5
Deep Deposit Feeder Abundance (%)	74.51				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	136		0.06363		
Cyathura polita	45		0.20452		
Glycinde solitaria	45		0.00454		
Heteromastus filiformis	45		0.38178		
Macoma balthica	409		15.37574		
Macoma mitchelli	227		2.14069		
Neanthes succinea	45		0.12726		
Streblospio benedicti	273		0.02273		
Tubificidae imm w/o cap chaetae	182		0.00227		
Tubificoides spp.	3227		0.19089		
Total Abundance w/ Epi.	4636				
Total Abundance w/o Epi.	4636				
Number of Taxa w/ Epi.	10				
Number of Taxa w/o Epi.	10				
Total Biomass w/ Epi.			18.51406		
Total Biomass w/o Epi.			18.51406		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Chalk Point Discharge		Station: 074		Rep: 02	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 31AUG16	
		Sampled Area: 0.022 sq.m		Time: 15:35:47	
BOTTOM ENVIRONMENT					
Depth (m): 1.4		Salinity (ppt): 11.89		Temperature (C): 29.71	
Dissolved Oxygen (mg/l): 4.5		Sediment Silt-Clay (%): 66.78		Total Carbon (%): 2.55	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.00		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.39	3	Pollution Indicative Species Abundance (%)	10.13	3
Abundance (#/m2)	3591	3	Pollution Indicative Species Biomass (%)	0.10	
Biomass (g/m2)	38.18	1	Pollution Sensitive Species Abundance (%)	12.66	
Carnivore-Omnivore Abundance (%)	13.92		Pollution Sensitive Species Biomass (%)	92.14	5
Deep Deposit Feeder Abundance (%)	64.56				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	273		0.15908		
Cyathura polita	91		0.33179		
Heteromastus filiformis	227		0.84083		
Leptocheirus plumulosus	45		0.04545		
Macoma balthica	318		34.43292		
Macoma mitchelli	136		1.44531		
Marenzelleria viridis	45		0.40905		
Melita nitida (Epi)	45		0.01364		
Micrura leidyi	45		0.09090		
Neanthes succinea	91		0.32724		
Streblospio benedicti	227		0.03636		
Tubificidae imm w/o cap chaetae	136		0.00227		
Tubificoides spp.	1954		0.05454		
Total Abundance w/ Epi.	3636				
Total Abundance w/o Epi.	3591				
Number of Taxa w/ Epi.	13				
Number of Taxa w/o Epi.	12				
Total Biomass w/ Epi.			38.18936		
Total Biomass w/o Epi.			38.17573		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Chalk Point Discharge		Station: 074		Rep: 03	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 31AUG16	
		Sampled Area: 0.022 sq.m		Time: 15:35:47	
BOTTOM ENVIRONMENT					
Depth (m): 1.4		Salinity (ppt): 11.89		Temperature (C): 29.71	
Dissolved Oxygen (mg/l): 4.5		Sediment Silt-Clay (%): 66.78		Total Carbon (%): 2.55	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.60		Condition: Degraded		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	1.91	3	Pollution Indicative Species Abundance (%)	18.18	3
Abundance (#/m2)	8499	1	Pollution Indicative Species Biomass (%)	0.89	
Biomass (g/m2)	32.64	1	Pollution Sensitive Species Abundance (%)	6.42	
Carnivore-Omnivore Abundance (%)	4.81		Pollution Sensitive Species Biomass (%)	82.34	5
Deep Deposit Feeder Abundance (%)	67.38				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	91		0.12272		
Cyathura polita	45		0.03181		
Eteone heteropoda	91		0.01364		
Glycinde solitaria	45		0.00909		
Heteromastus filiformis	455		1.43168		
Leptocheirus plumulosus	227		0.05000		
Macoma balthica	409		26.78368		
Macoma mitchelli	227		3.13151		
Marenzelleria viridis	45		0.05454		
Micrura leidyi	136		0.24998		
Streblospio benedicti	1454		0.27725		
Tubificoides spp.	5272		0.48632		
Total Abundance w/ Epi.	8499				
Total Abundance w/o Epi.	8499				
Number of Taxa w/ Epi.	12				
Number of Taxa w/o Epi.	12				
Total Biomass w/ Epi.			32.64219		
Total Biomass w/o Epi.			32.64219		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Patuxent River		Station: 077		Rep: 01	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 01SEP16	
		Sampled Area: 0.022 sq.m		Time: 12:53:10	
BOTTOM ENVIRONMENT					
Depth (m): 2.5		Salinity (ppt): 6.05		Temperature (C): 28.79	
Dissolved Oxygen (mg/l): 5.0		Sediment Silt-Clay (%): 91.24		Total Carbon (%): 3.03	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.60		Condition: Degraded		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	1.81	3	Pollution Indicative Species Abundance (%)	44.23	1
Abundance (#/m2)	2363	5	Pollution Indicative Species Biomass (%)	5.11	
Biomass (g/m2)	0.62	1	Pollution Sensitive Species Abundance (%)	1.92	
Carnivore-Omnivore Abundance (%)	19.23		Pollution Sensitive Species Biomass (%)	40.88	3
Deep Deposit Feeder Abundance (%)	32.69				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	409		0.14544		
Cyathura polita	45		0.25452		
Edotea triloba (Epi)	45		0.00909		
Leptocheirus plumulosus	45		0.01818		
Macoma mitchelli	45		0.09544		
Melita nitida (Epi)	91		0.00227		
Rhithropanopeus harrisi (Epi)	136		0.33179		
Streblospio benedicti	1045		0.03181		
Tubificoides spp.	773		0.07727		
Total Abundance w/ Epi.	2636				
Total Abundance w/o Epi.	2363				
Number of Taxa w/ Epi.	9				
Number of Taxa w/o Epi.	6				
Total Biomass w/ Epi.			0.96581		
Total Biomass w/o Epi.			0.62267		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Patuxent River		Station: 077	Rep: 02
Gear: Wildco Box Corer		Habitat: Low Mesohaline	Date: 01SEP16
		Sampled Area: 0.022 sq.m	Time: 12:53:10
BOTTOM ENVIRONMENT			
Depth (m): 2.5	Salinity (ppt): 6.05	Temperature (C): 28.79	
Dissolved Oxygen (mg/l): 5.0	Sediment Silt-Clay (%): 91.24	Total Carbon (%): 3.03	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 2.20	Condition: Degraded		# Attributes Scored: 5
	Value	Score	Value
Shannon-Wiener Index	1.75	3	62.69
Abundance (#/m2)	3045	3	10.26
Biomass (g/m2)	0.71	1	8.96
Carnivore-Omnivore Abundance (%)	17.91		48.72
Deep Deposit Feeder Abundance (%)	14.93		3
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)		Biomass (g/m2)
Americamysis bigelowi (Epi)	45		0.00909
Carinoma tremaphoros	318		0.16817
Cyathura polita	182		0.33633
Leptocheirus plumulosus	45		0.02727
Littoridinops tenuipes (Epi)	45		0.00909
Neanthes succinea	45		0.08181
Rangia cuneata	91		0.00909
Rhithropanopeus harrisii (Epi)	45		0.11817
Streblospio benedicti	1909		0.07272
Tubificoides spp.	455		0.01364
Total Abundance w/ Epi.	3182		
Total Abundance w/o Epi.	3045		
Number of Taxa w/ Epi.	10		
Number of Taxa w/o Epi.	7		
Total Biomass w/ Epi.			0.84537
Total Biomass w/o Epi.			0.70902

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Station: 077			Rep: 03		
Watershed: Patuxent River		Habitat: Low Mesohaline		Date: 01SEP16	
Gear: Wildco Box Corer		Sampled Area: 0.022 sq.m		Time: 12:53:10	
BOTTOM ENVIRONMENT					
Depth (m): 2.5		Salinity (ppt): 6.05		Temperature (C): 28.79	
Dissolved Oxygen (mg/l): 5.0		Sediment Silt-Clay (%): 91.24		Total Carbon (%): 3.03	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.00		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	1.87	3	Pollution Indicative Species Abundance (%)	50.00	1
Abundance (#/m2)	1727	5	Pollution Indicative Species Biomass (%)	26.46	
Biomass (g/m2)	1.17	3	Pollution Sensitive Species Abundance (%)	13.16	
Carnivore-Omnivore Abundance (%)	15.79		Pollution Sensitive Species Biomass (%)	70.04	3
Deep Deposit Feeder Abundance (%)	28.95				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	136		0.02727		
Cyathura polita	136		0.69084		
Littoridinops tenuipes (Epi)	136		0.01364		
Marenzelleria viridis	45		0.09545		
Rangia cuneata	45		0.03181		
Rhithropanopeus harrisi (Epi)	45		0.08181		
Streblospio benedicti	864		0.30906		
Tubificoides spp.	500		0.01364		
Total Abundance w/ Epi.	1909				
Total Abundance w/o Epi.	1727				
Number of Taxa w/ Epi.	8				
Number of Taxa w/o Epi.	6				
Total Biomass w/ Epi.			1.26351		
Total Biomass w/o Epi.			1.16807		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Patuxent River		Station: 079		Rep: 01	
Gear: Wildco Box Corer		Habitat: Tidal Freshwater		Date: 01SEP16	
		Sampled Area: 0.022 sq.m		Time: 14:22:54	
BOTTOM ENVIRONMENT					
Depth (m): 0.5		Salinity (ppt): 0.34		Temperature (C): 28.24	
Dissolved Oxygen (mg/l): 5.4		Sediment Silt-Clay (%): 61.43		Total Carbon (%): 3.9	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.50		Condition: Severely Degr.		# Attributes Scored: 3	
	Value	Score		Value	Score
Shannon-Wiener Index	1.50		T.F. Pollution Indicative Spp. Abund. (%)	62.96	3
Abundance (#/m2)	7363	1	Tolerance Score	9.54	1
Deep Deposit Feeder Abundance (%)	95.68	1	Limnodrilus Abundance (%)	62.96	
Carnivore-Omnivore Abundance (%)	4.32				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Branchiura sowerbyi	91		0.01818		
Chironomidae			0.00227		
Coelotanypus spp.	182		0.01364		
Ilyodrilus templetoni	1863				
Oligochaeta			1.27361		
Procladius spp.	91				
Tanytarsus spp. G Epler	45				
Tubificidae imm w cap chaetae	455				
Tubificidae imm w/o cap chaetae	4636				
Total Abundance w/ Epi.	7363				
Total Abundance w/o Epi.	7363				
Number of Taxa w/ Epi.	7				
Number of Taxa w/o Epi.	7				
Total Biomass w/ Epi.			1.30770		
Total Biomass w/o Epi.			1.30770		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Patuxent River		Station: 079		Rep: 02	
Gear: Wildco Box Corer		Habitat: Tidal Freshwater		Date: 01SEP16	
		Sampled Area: 0.022 sq.m		Time: 14:22:54	
BOTTOM ENVIRONMENT					
Depth (m): 0.5		Salinity (ppt): 0.34		Temperature (C): 28.24	
Dissolved Oxygen (mg/l): 5.4		Sediment Silt-Clay (%): 61.43		Total Carbon (%): 3.9	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.50		Condition: Meets Goal		# Attributes Scored: 3	
	Value	Score		Value	Score
Shannon-Wiener Index	2.19		T.F. Pollution Indicative Spp. Abund. (%)	53.66	3
Abundance (#/m2)	1863	5	Tolerance Score	9.16	3
Deep Deposit Feeder Abundance (%)	85.37	3	Limnodrilus Abundance (%)	53.66	
Carnivore-Omnivore Abundance (%)	14.63				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Branchiura sowerbyi	45		0.07272		
Coelotanypus spp.	136		0.01818		
Ilyodrilus templetoni	182				
Limnodrilus hoffmeisteri	91				
Oligochaeta			0.38633		
Tanytarsus spp. G Epler	136		0.00227		
Tubificidae imm w cap chaetae	364				
Tubificidae imm w/o cap chaetae *	909				
Total Abundance w/ Epi.	1863				
Total Abundance w/o Epi.	1863				
Number of Taxa w/ Epi.	6				
Number of Taxa w/o Epi.	6				
Total Biomass w/ Epi.			0.47950		
Total Biomass w/o Epi.			0.47950		

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Patuxent River		Station: 079		Rep: 03	
Gear: Wildco Box Corer		Habitat: Tidal Freshwater		Date: 01SEP16	
		Sampled Area: 0.022 sq.m		Time: 14:22:54	
BOTTOM ENVIRONMENT					
Depth (m): 0.5		Salinity (ppt): 0.34		Temperature (C): 28.24	
Dissolved Oxygen (mg/l): 5.4		Sediment Silt-Clay (%): 61.43		Total Carbon (%): 3.9	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.50		Condition: Severely Degr.		# Attributes Scored: 3	
		Value	Score	Value	Score
Shannon-Wiener Index		1.87		T.F. Pollution Indicative Spp. Abund. (%)	71.21
Abundance (#/m2)		5999	1	Tolerance Score	9.64
Deep Deposit Feeder Abundance (%)		96.97	1	Limnodrilus Abundance (%)	78.79
Carnivore-Omnivore Abundance (%)		3.03			
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Branchiura sowerbyi		182		0.29543	
Chironomidae				0.00227	
Coelotanypus spp.		91		0.00909	
Ilyodrilus templetoni		682			
Limnodrilus claparedianus		455			
Limnodrilus hoffmeisteri		455			
Microchironomus spp.		45			
Oligochaeta				0.73515	
Procladius spp.		45			
Tubificidae imm w cap chaetae		227			
Tubificidae imm w/o cap chaetae *		3818			
Total Abundance w/ Epi.		5999			
Total Abundance w/o Epi.		5999			
Number of Taxa w/ Epi.		8			
Number of Taxa w/o Epi.		8			
Total Biomass w/ Epi.				1.04194	
Total Biomass w/o Epi.				1.04194	

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

=====					
Watershed: Patapsco & Back Rivers		Station: 201		Rep: 01	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 30AUG16	
		Sampled Area: 0.022 sq.m		Time: 10:26:41	
=====					
BOTTOM ENVIRONMENT					
Depth (m): 3.4		Salinity (ppt): 11.32		Temperature (C): 28.32	
Dissolved Oxygen (mg/l): 2.4		Sediment Silt-Clay (%): 55.40		Total Carbon (%): 2.92	
=====					
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 (%)	25.00	1
Abundance (#/m2)	182	1	Pollution Indicative Species Biomass (%)	2.13	
Biomass (g/m2)	0.21	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	25.00		Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	25.00				
=====					
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Macoma mitchelli	45		0.17726		
Neanthes succinea	45		0.02727		
Streblospio benedicti	45		0.00455		
Tubificoides spp.	45		0.00455		
Total Abundance w/ Epi.	182				
Total Abundance w/o Epi.	182				
Number of Taxa w/ Epi.	4				
Number of Taxa w/o Epi.	4				
Total Biomass w/ Epi.			0.21362		
Total Biomass w/o Epi.			0.21362		
=====					

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

=====					
Watershed: Patapsco & Back Rivers		Station: 201		Rep: 02	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 30AUG16	
		Sampled Area: 0.022 sq.m		Time: 10:26:41	
=====					
BOTTOM ENVIRONMENT					
Depth (m): 3.4		Salinity (ppt): 11.32		Temperature (C): 28.32	
Dissolved Oxygen (mg/l): 2.4		Sediment Silt-Clay (%): 55.40		Total Carbon (%): 2.92	
=====					
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.00		Condition: Severely Degr.		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	0.86	1	Pollution Indicative Species Abundance (%)	28.57	1
Abundance (#/m2)	318	1	Pollution Indicative Species Biomass (%)	1.07	
Biomass (g/m2)	0.85	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)		
Macoma mitchelli	227		0.84083		
Mytilopsis leucophaeata (Epi)	45		0.00454		
Streblospio benedicti	91		0.00909		
Total Abundance w/ Epi.	364				
Total Abundance w/o Epi.	318				
Number of Taxa w/ Epi.	3				
Number of Taxa w/o Epi.	2				
Total Biomass w/ Epi.			0.85446		
Total Biomass w/o Epi.			0.84992		
=====					

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 201		Rep: 03	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 30AUG16	
		Sampled Area: 0.022 sq.m		Time: 10:26:41	
BOTTOM ENVIRONMENT					
Depth (m): 3.4		Salinity (ppt): 11.32		Temperature (C): 28.32	
Dissolved Oxygen (mg/l): 2.4		Sediment Silt-Clay (%): 55.40		Total Carbon (%): 2.92	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.20		Condition: Degraded		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.30	3	Pollution Indicative Species Abundance (%)	45.45	1
Abundance (#/m2)	500	1	Pollution Indicative Species Biomass (%)	7.07	
Biomass (g/m2)	4.82	3	Pollution Sensitive Species Abundance (%)	9.09	
Carnivore-Omnivore Abundance (%)	9.09		Pollution Sensitive Species Biomass (%)	88.12	3
Deep Deposit Feeder Abundance (%)	36.36				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Eteone heteropoda	45		0.00909		
Macoma balthica	45		4.24958		
Macoma mitchelli	45		0.21361		
Mulinia lateralis	45		0.32724		
Streblospio benedicti	136		0.00454		
Tubificoides spp.	182		0.01818		
Total Abundance w/ Epi.	500				
Total Abundance w/o Epi.	500				
Number of Taxa w/ Epi.	6				
Number of Taxa w/o Epi.	6				
Total Biomass w/ Epi.			4.82225		
Total Biomass w/o Epi.			4.82225		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Station: 202		Rep: 01
Watershed: Patapsco & Back Rivers	Habitat: Low Mesohaline	Date: 30AUG16
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 9:16:57
BOTTOM ENVIRONMENT		
Depth (m): 5.7	Salinity (ppt): 10.94	Temperature (C): 28.17
Dissolved Oxygen (mg/l): 7.6	Sediment Silt-Clay (%): 66.58	Total Carbon (%): 2.51
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 1.40	Condition: Severely Degr.	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	0.62 1	Pollution Indicative Species Abundance (%) 88.46 1
Abundance (#/m2)	1182 3	Pollution Indicative Species Biomass (%) 56.52
Biomass (g/m2)	0.21 1	Pollution Sensitive Species Abundance (%) 0.00
Carnivore-Omnivore Abundance (%)	3.85	Pollution Sensitive Species Biomass (%) 0.00 1
Deep Deposit Feeder Abundance (%)	7.69	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Micrura leidyi	45	0.07727
Streblospio benedicti	1045	0.11817
Tubificoides spp.	91	0.01363
Total Abundance w/ Epi.	1182	
Total Abundance w/o Epi.	1182	
Number of Taxa w/ Epi.	3	
Number of Taxa w/o Epi.	3	
Total Biomass w/ Epi.		0.20907
Total Biomass w/o Epi.		0.20907

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Station: 202		Rep: 02
Watershed: Patapsco & Back Rivers	Habitat: Low Mesohaline	Date: 30AUG16
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 9:16:57
BOTTOM ENVIRONMENT		
Depth (m): 5.7	Salinity (ppt): 10.94	Temperature (C): 28.17
Dissolved Oxygen (mg/l): 7.6	Sediment Silt-Clay (%): 66.58	Total Carbon (%): 2.51
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 1.40	Condition: Severely Degr.	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	0.28 1	Pollution Indicative Species Abundance (%) 95.24 1
Abundance (#/m2)	954 3	Pollution Indicative Species Biomass (%) 73.68
Biomass (g/m2)	0.09 1	Pollution Sensitive Species Abundance (%) 0.00
Carnivore-Omnivore Abundance (%)	4.76	Pollution Sensitive Species Biomass (%) 0.00 1
Deep Deposit Feeder Abundance (%)	0.00	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Micrura leidyi	45	0.02273
Streblospio benedicti	909	0.06363
Total Abundance w/ Epi.	954	
Total Abundance w/o Epi.	954	
Number of Taxa w/ Epi.	2	
Number of Taxa w/o Epi.	2	
Total Biomass w/ Epi.		0.08635
Total Biomass w/o Epi.		0.08635

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Station: 202			Rep: 03		
Watershed: Patapsco & Back Rivers			Habitat: Low Mesohaline		
Gear: Wildco Box Corer			Sampled Area: 0.022 sq.m		
			Date: 30AUG16		
			Time: 9:16:57		
BOTTOM ENVIRONMENT					
Depth (m): 5.7		Salinity (ppt): 10.94		Temperature (C): 28.17	
Dissolved Oxygen (mg/l): 7.6		Sediment Silt-Clay (%): 66.58		Total Carbon (%): 2.51	
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)	909	3	Pollution Indicative Species Biomass (%)	100.00	
Biomass (g/m2)	0.07	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	909		0.06818		
Total Abundance w/ Epi.	909				
Total Abundance w/o Epi.	909				
Number of Taxa w/ Epi.	1				
Number of Taxa w/o Epi.	1				
Total Biomass w/ Epi.			0.06818		
Total Biomass w/o Epi.			0.06818		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Station: 203			Rep: 01		
Watershed: Patapsco & Back Rivers			Habitat: Oligohaline		
Gear: Young Grab			Sampled Area: 0.044 sq.m		
			Date: 22AUG16		
			Time: 9:11:01		
BOTTOM ENVIRONMENT					
Depth (m): 1.2		Salinity (ppt): 3.15		Temperature (C): 25.75	
Dissolved Oxygen (mg/l): 6.6		Sediment Silt-Clay (%): 79.62		Total Carbon (%): 3.34	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.67		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	1.56		Oligohaline Pollution Indicative Spp. Abund.	100.00	1
Abundance (#/m2)	500	5	Tolerance Score	9.47	1
Deep Deposit Feeder Abundance (%)	54.55		Oligohaline Pollution Sensitive Spp. Abund.	0.00	1
Carnivore-Omnivore Abundance (%)	4.55	1	Tanypodinae/Chironomidae Abundance Ratio	100.00	1
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Coelotanypus spp.	23		0.00909		
Streblospio benedicti	204		0.01136		
Tubificidae imm w/o cap chaetae	227		0.00114		
Tubificoides spp.	45		0.00114		
Total Abundance w/ Epi.	500				
Total Abundance w/o Epi.	500				
Number of Taxa w/ Epi.	4				
Number of Taxa w/o Epi.	4				
Total Biomass w/ Epi.			0.02272		
Total Biomass w/o Epi.			0.02272		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 203		Rep: 02	
Gear: Young Grab		Habitat: Oligohaline		Date: 22AUG16	
		Sampled Area: 0.044 sq.m		Time: 9:11:01	
BOTTOM ENVIRONMENT					
Depth (m): 1.2		Salinity (ppt): 3.15		Temperature (C): 25.75	
Dissolved Oxygen (mg/l): 6.6		Sediment Silt-Clay (%): 79.62		Total Carbon (%): 3.34	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.00		Condition: Severely Degr.		# Attributes Scored: 6	
		Value	Score	Value	Score
Shannon-Wiener Index		2.32		Oligohaline Pollution Indicative Spp. Abund.	100.00
Abundance (#/m2)		318	3	Tolerance Score	8.45
Deep Deposit Feeder Abundance (%)		64.29		Oligohaline Pollution Sensitive Spp. Abund.	0.00
Carnivore-Omnivore Abundance (%)		28.57	3	Tanypodinae/Chironomidae Abundance Ratio	75.00
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Chironomus spp.		23		0.01818	
Coelotanypus spp.		68		0.02954	
Mediomastus ambiseta		23		0.00454	
Streblospio benedicti		23		0.00454	
Tubificidae imm w/o cap chaetae		91		0.00114	
Tubificoides spp.		91		0.00454	
Total Abundance w/ Epi.		318			
Total Abundance w/o Epi.		318			
Number of Taxa w/ Epi.		6			
Number of Taxa w/o Epi.		6			
Total Biomass w/ Epi.				0.06248	
Total Biomass w/o Epi.				0.06248	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 203		Rep: 03	
Gear: Young Grab		Habitat: Oligohaline		Date: 22AUG16	
		Sampled Area: 0.044 sq.m		Time: 9:11:01	
BOTTOM ENVIRONMENT					
Depth (m): 1.2		Salinity (ppt): 3.15		Temperature (C): 25.75	
Dissolved Oxygen (mg/l): 6.6		Sediment Silt-Clay (%): 79.62		Total Carbon (%): 3.34	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.00		Condition: Severely Degr.		# Attributes Scored: 6	
		Value	Score	Value	Score
Shannon-Wiener Index		2.08		Oligohaline Pollution Indicative Spp. Abund.	100.00
Abundance (#/m2)		295	3	Tolerance Score	9.29
Deep Deposit Feeder Abundance (%)		61.54		Oligohaline Pollution Sensitive Spp. Abund.	0.00
Carnivore-Omnivore Abundance (%)		15.38	3	Tanypodinae/Chironomidae Abundance Ratio	50.00
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Chironomus spp.		23		0.03862	
Coelotanypus spp.		23		0.01136	
Streblospio benedicti		68		0.00909	
Tubificidae imm w/o cap chaetae		114		0.00114	
Tubificoides spp.		68		0.00454	
Total Abundance w/ Epi.		295			
Total Abundance w/o Epi.		295			
Number of Taxa w/ Epi.		5			
Number of Taxa w/o Epi.		5			
Total Biomass w/ Epi.				0.06475	
Total Biomass w/o Epi.				0.06475	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Station: 204			Rep: 01		
Watershed: Lower Western Shore		Habitat: High Mesohaline Mud		Date: 26AUG16	
Gear: Young Grab		Sampled Area: 0.044 sq.m		Time: 11:38:24	
BOTTOM ENVIRONMENT					
Depth (m): 6.6		Salinity (ppt): 12.70		Temperature (C): 28.36	
Dissolved Oxygen (mg/l): 5.6		Sediment Silt-Clay (%): 56.07		Total Carbon (%): 2.31	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 4.00		Condition: Meets Goal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	3.18	5	Pollution Indicative Species Abundance (%)	9.52	
Abundance (#/m2)	954	1	Pollution Indicative Species Biomass (%)	0.27	5
Biomass (g/m2)	4.58	5	Pollution Sensitive Species Abundance (%)	14.29	
Carnivore-Omnivore Abundance (%)	38.10	5	Pollution Sensitive Species Biomass (%)	55.84	3
Deep Deposit Feeder Abundance (%)	38.10				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	45		0.07952		
Diadumene leucolena (Epi)	45		0.75430		
Edwardsia elegans	23		0.00909		
Glycinde solitaria	45		0.04998		
Heteromastus filiformis	114		0.05907		
Macoma balthica	91		2.50829		
Macoma mitchelli	91		0.41805		
Neanthes succinea	182		1.42227		
Parahesion luteola	68		0.00909		
Streblospio benedicti	45		0.01136		
Tubificidae imm w/o cap chaetae	45		0.00114		
Tubificoides spp.	204		0.01363		
Total Abundance w/ Epi.	1000				
Total Abundance w/o Epi.	954				
Number of Taxa w/ Epi.	12				
Number of Taxa w/o Epi.	11				
Total Biomass w/ Epi.			5.33579		
Total Biomass w/o Epi.			4.58149		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Lower Western Shore	Station: 204	Rep: 02
Gear: Young Grab	Habitat: High Mesohaline Mud	Date: 26AUG16
	Sampled Area: 0.044 sq.m	Time: 11:38:24
BOTTOM ENVIRONMENT		
Depth (m): 6.6	Salinity (ppt): 12.70	Temperature (C): 28.36
Dissolved Oxygen (mg/l): 5.6	Sediment Silt-Clay (%): 56.07	Total Carbon (%): 2.31
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 4.00	Condition: Meets Goal	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	2.61 3	Pollution Indicative Species Abundance (%) 12.50
Abundance (#/m2)	1272 3	Pollution Indicative Species Biomass (%) 0.11 5
Biomass (g/m2)	2.98 5	Pollution Sensitive Species Abundance (%) 7.14
Carnivore-Omnivore Abundance (%)	32.14 5	Pollution Sensitive Species Biomass (%) 33.57 3
Deep Deposit Feeder Abundance (%)	57.14	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Glycinde solitaria	23	0.05907
Heteromastus filiformis	454	0.22266
Macoma balthica	68	0.94288
Macoma mitchelli	23	0.00909
Neanthes succinea	273	1.71990
Parahesion luteola	114	0.01818
Streblospio benedicti	45	0.00227
Tubificidae imm w/o cap chaetae	114	0.00114
Tubificoides spp.	159	0.00909
Total Abundance w/ Epi.	1272	
Total Abundance w/o Epi.	1272	
Number of Taxa w/ Epi.	9	
Number of Taxa w/o Epi.	9	
Total Biomass w/ Epi.		2.98427
Total Biomass w/o Epi.		2.98427

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) FIXED STATIONS

Watershed: Lower Western Shore		Station: 204		Rep: 03	
Gear: Young Grab		Habitat: High Mesohaline Mud		Date: 26AUG16	
		Sampled Area: 0.044 sq.m		Time: 11:38:24	
BOTTOM ENVIRONMENT					
Depth (m): 6.6		Salinity (ppt): 12.70		Temperature (C): 28.36	
Dissolved Oxygen (mg/l): 5.6		Sediment Silt-Clay (%): 56.07		Total Carbon (%): 2.31	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 4.00		Condition: Meets Goal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	3.10	5	Pollution Indicative Species Abundance (%)	35.38	
Abundance (#/m2)	1477	3	Pollution Indicative Species Biomass (%)	0.68	5
Biomass (g/m2)	3.20	5	Pollution Sensitive Species Abundance (%)	6.15	
Carnivore-Omnivore Abundance (%)	29.23	5	Pollution Sensitive Species Biomass (%)	8.53	1
Deep Deposit Feeder Abundance (%)	49.23				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	23		0.00227		
Edwardsia elegans	23		0.04090		
Glycinde solitaria	45		0.04544		
Heteromastus filiformis	250		0.25446		
Leptocheirus plumulosus	23		0.00909		
Macoma balthica	45		0.22720		
Mulinia lateralis	68		0.00682		
Neanthes succinea	273		0.00682		
Parahesion luteola	68		2.58554		
Streblospio benedicti	182		0.01363		
Tubificidae imm w/o cap chaetae	273		0.00114		
Tubificoides spp.	204		0.00227		
Total Abundance w/ Epi.	1477				
Total Abundance w/o Epi.	1477				
Number of Taxa w/ Epi.	12				
Number of Taxa w/o Epi.	12				
Total Biomass w/ Epi.			3.19557		
Total Biomass w/o Epi.			3.19557		

DATA SUMMARY B

**BENTHIC ENVIRONMENT AND COMMUNITY
COMPOSITION AT RANDOM SITES:
SUMMER 2016**

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23401	23402	23403	23404	23405
Watershed	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs
Habitat	Polyhaline Sand	Polyhaline Sand	High Meso Sand	High Meso Mud	High Meso Mud
Date	09/13/16	09/13/16	09/13/16	09/13/16	09/13/16
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)	1.6	1.6	1.2	2.3	1.7
Salinity (ppt)	19.01	19.00	13.87	16.92	16.48
Temperature (C)	26.48	26.84	24.98	25.72	25.51
Dissolved Oxygen (mg/L)	8.3	8.7	6.3	6.5	8.2
Sediment Silt-Clay (%)	6.12	6.70	34.52	89.17	56.95
Total Carbon (%)	0.21	0.23	2.22	1.97	1.59
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	4.00	3.67	3.00	2.67	2.33
Condition	Meets Goal	Meets Goal	Meets Goal	Marginal	Degraded
# Attributes Scored	6	6	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	3.50 3	3.15 3	2.15 1	2.78 3	2.32 3
Abundance (#/m2)	6998 3	4044 5	2158 5	659 1	2590 3
Biomass (g/m2)	2.59 3	4.49 3	1.79 3	1.19 3	1.11 3
Pollution Indicative Spp Abund (%)	0.65	2.25	21.05 3	27.59	33.33
Pollution Indicative Spp Biom (%)	1.05 5	1.62 5	0.51	19.35 3	59.90 1
Pollution Sensitive Spp Abund (%)	50.65 5	67.42 5	10.53 3	44.83	59.65
Pollution Sensitive Spp Biom (%)	48.22	19.99	67.68	27.65 1	38.36 3
Carnivore-Omnivore Abund (%)	12.99	36.52	20.00 3	27.59 5	7.89 1
Deep Deposit Feeder Abund (%)	47.08 5	8.99 1	53.68	27.59	50.88
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	6.20	0.00	0.00	0.00
Tany./Chir. Abundance Ratio	0.00	100.00	0.00	0.00	0.00

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	23401	23402	23403	23404	23405
Acteocina canaliculata	182	863			
Ampelisca abdita		23			
Amphiporus bioculatus	45				
Arcuatula papyria (Epi.)	454			23	
Balanus improvisus (Epi.)	45				
Carinoma tremaphoros			23		
Carinomella lactea		23			
Cerapus tubularis (Epi.)	23				
Coelotanypus spp.		23			
Crepidula spp. (Epi.)	23				
Cyathura polita			136		
Cyclaspis varians			23		
Edotea triloba (Epi.)	45				
Edwardsia elegans	136	227	45	23	
Gemma gemma	204				
Glycera dibranchiata	136	114		45	
Glycinde solitaria	91	91	23		159
Haminoea solitaria	68				
Hemipodus roseus		45			
Heteromastus filiformis	68		23		
Leptosynapta tenuis	68	318			
Leucon americanus					23
Listriella barnardi	136				
Listriella clymenellae	91	159			
Loimia medusa	23				
Macoma mitchelli	23	23	23		23
Maldanidae	114	204			
Marenzelleria viridis			68		
Mediomastus ambiseta	1386	159		182	1227
Melinna maculata	91				
Mulinia lateralis					23
Neanthes succinea	159		204		23
Ogyrides alphaerostris				91	
Parahesionia luteola				23	
Paraprionospio pinnata	45	68		159	341
Parvilucina crenella	45	91			
Pectinaria gouldii	68				
Phoronis spp.	1409	1409		45	
Podarkeopsis levifuscina	91	91			23
Saccoglossus kowalevskii	273	68			
Spiochaetopterus costarum	318	23		68	159
Spiophanes bombyx	45	23			
Streblospio benedicti			454	23	500
Stylochus ellipticus (Epi.)				23	
Tharyx sp. A Morris	23				
Tubificoides spp.	1659		1136		91
Turbonilla interrupta (Epi.)	114				
Total Abundance w/ Epifauna	7702	4044	2158	704	2590
Total Abundance w/o Epifauna	6998	4044	2158	659	2590
Number of Taxa w/ Epifauna	33	20	11	11	11
Number of Taxa w/o Epifauna	27	20	11	9	11

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	23401	23402	23403	23404	23405
Acteocina canaliculata	0.0114	0.0772			
Ampelisca abdita		0.0045			
Amphiporus bioculatus	0.0250				
Arcuatula papyria (Epi.)	0.1250			0.0011	
Balanus improvisus (Epi.)	0.0045				
Carinoma tremaphoros			0.0045		
Carinomella lactea		0.0045			
Cerapus tubularis (Epi.)	0.0023				
Coelotanypus spp.		0.0023			
Crepidula spp. (Epi.)	0.0011				
Cyathura polita			0.2340		
Cyclaspis varians			0.0011		
Edotea triloba (Epi.)	0.0023				
Edwardsia elegans	0.0136	0.0909	0.0114	0.0023	
Gemma gemma	0.1068				
Glycera dibranchiata	0.4885	2.0425		0.2227	
Glycinde solitaria	0.0114	0.0114	0.0068		0.0273
Haminoea solitaria	0.0045				
Hemipodus roseus		0.0295			
Heteromastus filiformis	0.0114		0.0273		
Leptosynapta tenuis	0.0364	0.2931			
Leucon americanus					0.0045
Listriella barnardi	0.0045				
Listriella clymenellae	0.0091	0.0250			
Loimia medusa	0.0704				
Macoma mitchelli	0.0011	0.0023	0.0295		0.0023
Maldanidae	0.3431	0.9929			
Marenzelleria viridis			0.9701		
Mediomastus ambiseta	0.0545	0.0068		0.0068	0.1295
Melinna maculata	0.1318				
Mulinia lateralis					0.1568
Neanthes succinea	0.0227		0.4771		0.0045
Ogyrides alphaerostris				0.4021	
Parahesion luteola				0.0045	
Paraprionospio pinnata	0.0273	0.0704		0.2295	0.4885
Parvilucina crenella	0.0204	0.0364			
Pectinaria gouldii	0.0136				
Phoronis spp.	0.9406	0.7566		0.0136	
Podarkeopsis levifuscina	0.0091	0.0068			0.0011
Saccoglossus kowalevskii	0.0500	0.0159			
Spiochaetopterus costarum	0.1181	0.0068		0.3090	0.2681
Spiophanes bombyx	0.0341	0.0136			
Streblospio benedicti			0.0091	0.0011	0.0182
Stylochus ellipticus (Epi.)				0.0136	
Tharyx sp. A Morris	0.0023				
Tubificoides spp.	0.0295		0.0182		0.0068
Turbonilla interrupta (Epi.)	0.0386				
Total Biomass w/ Epifauna	2.7650	4.4895	1.7892	1.2064	1.1076
Total Biomass w/o Epifauna	2.5912	4.4895	1.7892	1.1917	1.1076

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23406	23407	23408	23410	23412					
Watershed	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs					
Habitat	Polyhaline Mud	High Meso Mud	High Meso Mud	High Meso Mud	Low Mesohaline					
Date	09/13/16	09/12/16	09/12/16	09/12/16	09/12/16					
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)	7.8	3.7	10.5	3.9	3.3					
Salinity (ppt)	19.03	13.18	15.36	14.60	11.54					
Temperature (C)	26.12	25.85	26.41	26.24	26.44					
Dissolved Oxygen (mg/L)	4.7	7.3	3.1	4.6	6.1					
Sediment Silt-Clay (%)	85.26	52.06	82.24	55.67	63.73					
Total Carbon (%)	2.12	1.46	2.27	1.45	2.69					
=====										
BENTHIC INDEX OF BIOTIC INTEGRITY										
=====										
B-IBI Score	1.33		2.33		2.33		4.00		3.40	
Condition	Severely Degr.		Degraded		Degraded		Meets Goal		Meets Goal	
# Attributes Scored	6		6		6		6		5	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.30	1	2.36	3	2.85	3	3.04	5	2.99	5
Abundance (#/m2)	591	1	841	1	568	1	2431	5	909	3
Biomass (g/m2)	0.58	3	1.22	3	0.52	3	2.56	5	1.54	3
Pollution Indicative Spp Abund (%)	30.77		51.35		56.00		19.63		20.00	3
Pollution Indicative Spp Biom (%)	36.19	1	35.26	1	27.09	3	12.99	3	2.21	
Pollution Sensitive Spp Abund (%)	38.46		18.92		4.00		9.35		35.00	
Pollution Sensitive Spp Biom (%)	1.95	1	6.34	1	44.93	3	57.12	3	76.40	3
Carnivore-Omnivore Abund (%)	15.38	1	35.14	5	8.00	1	15.89	3	40.00	
Deep Deposit Feeder Abund (%)	42.31		8.11		24.00		28.97		25.00	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		0.00		4.00		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		9.80		0.00		6.20	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		0.00		100.00	
=====										

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	23406	23407	23408	23410	23412
Carinoma tremaphoros			23		23
Coelotanypus spp.					159
Cyathura polita		23		23	182
Gemma gemma		23	23	477	23
Glycinde solitaria		136		114	
Heteromastus filiformis	23		45	68	68
Leptocheirus plumulosus					68
Leucon americanus			23	23	
Macoma balthica			23	68	136
Macoma mitchelli	68	23	23	295	68
Mediomastus ambiseta	227			23	
Mulinia lateralis	23	409	68	295	23
Neanthes succinea		91		250	
Ogyrides alphaerostris	68				
Parahesion luteola	23	45			
Paraprionospio pinnata	159		227	23	
Podarkeopsis levifuscina			23		
Streblospio benedicti		23		159	
Tubificidae imm w/o cap chaetae			23		
Tubificoides spp.		68	68	613	159
Total Abundance w/ Epifauna	591	841	568	2431	909
Total Abundance w/o Epifauna	591	841	568	2431	909
Number of Taxa w/ Epifauna	7	9	11	13	10
Number of Taxa w/o Epifauna	7	9	11	13	10

BENTHIC BIOMASS (Grams per sq. meter)					
Site	23406	23407	23408	23410	23412
Carinoma tremaphoros			0.0273		0.0159
Coelotanypus spp.					0.0250
Cyathura polita		0.0068		0.2386	0.4021
Gemma gemma		0.0045	0.0011	0.1000	0.0250
Glycinde solitaria		0.0704		0.0159	
Heteromastus filiformis	0.0454		0.0682	0.0273	0.0682
Leptocheirus plumulosus					0.0159
Leucon americanus			0.0045	0.0045	
Macoma balthica			0.2317	1.2042	0.7748
Macoma mitchelli	0.1386	0.0591	0.0318	0.0136	0.1954
Mediomastus ambiseta	0.0114			0.0045	
Mulinia lateralis	0.0068	0.4271	0.0750	0.3226	0.0091
Neanthes succinea		0.6293		0.5975	
Ogyrides alphaerostris	0.1659				
Oligochaeta			0.0011		
Parahesion luteola	0.0114	0.0091			
Paraprionospio pinnata	0.2045		0.0636	0.0091	
Podarkeopsis levifuscina			0.0045		
Streblospio benedicti		0.0023		0.0011	
Tubificoides spp.		0.0091	0.0068	0.0227	0.0091
Total Biomass w/ Epifauna	0.5839	1.2178	0.5157	2.5617	1.5404
Total Biomass w/o Epifauna	0.5839	1.2178	0.5157	2.5617	1.5404

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23413	23414	23415	23416	23418					
Watershed	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs					
Habitat	High Meso Sand	High Meso Sand	High Meso Sand	High Meso Sand	Oligohaline					
Date	08/17/16	09/08/16	09/08/16	09/08/16	08/22/16					
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	5.0	4.7	0.9	3.0					
Salinity (ppt)	13.96	13.25	13.04	12.02	2.06					
Temperature (C)	30.49	25.62	25.59	26.22	28.02					
Dissolved Oxygen (mg/L)	7.8	6.4	5.3	8.0	6.8					
Sediment Silt-Clay (%)	1.10	1.64	7.03	2.43	75.49					
Total Carbon (%)	0.13	0.13	0.31	0.13	2.87					
=====										
BENTHIC INDEX OF BIOTIC INTEGRITY										
=====										
B-IBI Score	2.33		2.33		3.33		2.67		3.00	
Condition	Degraded		Degraded		Meets Goal		Marginal		Meets Goal	
# Attributes Scored	6		6		6		6		6	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	0.54	1	2.29	1	2.86	3	2.76	3	1.81	
Abundance (#/m2)	19062	1	4112	3	2545	5	2022	5	704	5
Biomass (g/m2)	8.54	5	3.44	5	7.30	5	3.91	5	44.44	
Pollution Indicative Spp Abund (%)	2.15	5	20.44	3	51.79	1	40.45	1	83.87	
Pollution Indicative Spp Biom (%)	2.70		63.32		80.96		16.77		0.39	
Pollution Sensitive Spp Abund (%)	0.48	1	4.97	1	16.07	3	3.37	1	6.45	
Pollution Sensitive Spp Biom (%)	1.65		5.34		6.07		65.91		99.60	
Carnivore-Omnivore Abund (%)	2.86	1	9.39	1	30.36	3	13.48	1	61.29	5
Deep Deposit Feeder Abund (%)	1.07		13.26		11.61		31.46		9.68	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		0.00		4.46		0.00		9.68	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		0.00		87.10	3
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	1
Tolerance Score	0.00		0.00		9.80		6.00		6.63	3
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		0.00		100.00	1
=====										

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	23413	23414	23415	23416	23418
<i>Amphiporus bioculatus</i>				23	
<i>Apocorophium lacustre</i> (Epi.)					204
<i>Carinoma tremaphoros</i>	91	91			
<i>Coelotanypus</i> spp.					432
<i>Cyathura polita</i>	68				
<i>Cyclaspis varians</i>		23		136	
<i>Edotea triloba</i> (Epi.)		45			
<i>Edwardsia elegans</i>	45	23	341	68	
<i>Eteone heteropoda</i>				23	
<i>Gemma gemma</i>	17790	2113			
<i>Geukensia demissa</i> (Epi.)		23			
<i>Glycinde solitaria</i>	23	182	341	23	
<i>Haminoea solitaria</i>	273				
<i>Heteromastus filiformis</i>	204	523	91	613	
<i>Hobsonia florida</i>					45
<i>Laeonereis culveri</i>				91	
<i>Leitoscoloplos</i> spp.				23	
<i>Leptocheirus plumulosus</i>					23
<i>Macoma balthica</i>			68		
<i>Macoma mitchelli</i>	114	182	204	159	
<i>Marenzelleria viridis</i>		23			
<i>Micrura leidyi</i>		45	23		
<i>Mulinia lateralis</i>	386	659	886	659	
<i>Mya arenaria</i>				23	
<i>Neanthes succinea</i>	23	45	68	45	
<i>Rangia cuneata</i>				23	45
<i>Rictaxis punctostriatus</i>	23				
<i>Streblospio benedicti</i>	23	182	318	114	91
Tubificidae imm w/o cap chaetae			114		68
<i>Tubificoides</i> spp.		23	91		
Total Abundance w/ Epifauna	19062	4180	2545	2022	909
Total Abundance w/o Epifauna	19062	4112	2545	2022	704
Number of Taxa w/ Epifauna	12	15	11	14	7
Number of Taxa w/o Epifauna	12	13	11	14	6

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	23413	23414	23415	23416	23418
<i>Amphiporus bioculatus</i>				0.0023	
<i>Apocorophium lacustre</i> (Epi.)					0.0341
<i>Carinoma tremaphoros</i>	0.0500	0.0659			
<i>Coelotanypus</i> spp.					0.1545
<i>Cyathura polita</i>	0.1340				
<i>Cyclaspis varians</i>		0.0023		0.0136	
<i>Edotea triloba</i> (Epi.)		0.0091			
<i>Edwardsia elegans</i>	0.0386	0.0068	0.2340	0.0250	
<i>Eteone heteropoda</i>				0.0011	
<i>Gemma gemma</i>	7.9156	0.1999			
<i>Geukensia demissa</i> (Epi.)		1.2837			
<i>Glycinde solitaria</i>	0.0068	0.0432	0.0954	0.0091	
<i>Haminoea solitaria</i>	0.0477				
<i>Heteromastus filiformis</i>	0.0750	0.4771	0.0250	0.3044	
<i>Hobsonia florida</i>					0.0023
<i>Laeonereis culveri</i>				0.1795	
<i>Leitoscoloplos</i> spp.				0.0613	
<i>Leptocheirus plumulosus</i>					0.0011
<i>Macoma balthica</i>			0.3476		
<i>Macoma mitchelli</i>	0.0045	0.0182	0.4271	0.1409	
<i>Marenzelleria viridis</i>		0.1409			
<i>Micrura leidyi</i>		0.2317	0.0977		
<i>Mulinia lateralis</i>	0.2295	2.1698	5.9004	0.5862	
<i>Mya arenaria</i>				0.7134	
<i>Neanthes succinea</i>	0.0341	0.0750	0.1590	0.0114	
<i>Oligochaeta</i>			0.0011		0.0102
<i>Rangia cuneata</i>				1.8540	44.2654
<i>Rictaxis punctostriatus</i>	0.0011				
<i>Streblospio benedicti</i>	0.0011	0.0114	0.0114	0.0068	0.0091
<i>Tubificoides</i> spp.		0.0023	0.0045		
Total Biomass w/ Epifauna	8.5382	4.7371	7.3033	3.9090	44.4767
Total Biomass w/o Epifauna	8.5382	3.4444	7.3033	3.9090	44.4426

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23419	23420	23421	23422	23423	
Watershed	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs	
Habitat	Oligohaline	Oligohaline	Oligohaline	Oligohaline	Oligohaline	
Date	08/24/16	08/24/16	08/22/16	08/24/16	08/24/16	
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)	4.6	1.6	4.9	3.4	1.6	
Salinity (ppt)	2.68	1.73	2.19	2.66	1.59	
Temperature (C)	27.99	29.08	27.80	28.10	27.33	
Dissolved Oxygen (mg/L)	6.0	9.5	6.8	5.7	8.1	
Sediment Silt-Clay (%)	63.24	78.37	88.90	89.82	94.55	
Total Carbon (%)	3.14	2.57	2.91	2.37	2.39	
BENTHIC INDEX OF BIOTIC INTEGRITY						
B-IBI Score	2.00	2.33	3.00	2.67	2.67	
Condition	Severely Degr.	Degraded	Meets Goal	Marginal	Marginal	
# Attributes Scored	6	6	6	6	6	
	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.82		1.50		1.14	
Abundance (#/m2)	4930	1	91	1	545	5
Biomass (g/m2)	59.38		0.58		32.66	
Pollution Indicative Spp Abund (%)	25.81		75.00		79.17	
Pollution Indicative Spp Biom (%)	0.21		3.94		0.31	
Pollution Sensitive Spp Abund (%)	46.54		25.00		12.50	
Pollution Sensitive Spp Biom (%)	99.09		96.06		99.68	
Carnivore-Omnivore Abund (%)	8.76	1	75.00	5	83.33	5
Deep Deposit Feeder Abund (%)	11.06		0.00		0.00	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00	
Limnodrilus Abundance (%)	11.06		0.00		0.00	
Oligo Poll. Indic. Spp Abund (%)	48.85	3	75.00	3	87.50	3
Oligo Poll. Sens. Spp Abund (%)	7.37	3	0.00	1	0.00	1
Tolerance Score	6.85	3	7.05	3	6.18	3
Tany./Chir. Abundance Ratio	100.00	1	66.67	1	100.00	1

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	23419	23420	23421	23422	23423
Ameroculodes species complex	45				
Apocorophium lacustre (Epi.)	45			23	
Boccardiella ligERICA	45				
Chironomus spp.		23			
Coelotanypus spp.	204	45	432	45	227
Corbicula fluminea	45				
Cyathura polita	227		23	45	
Hobsonia florida	136			23	
Leptocheirus plumulosus			23	23	
Limnodrilus hoffmeisteri	227			227	
Littoridinops tenuipes (Epi.)				45	
Marenzelleria viridis	364			45	
Mytilopsis leucophaeata (Epi.)	409			273	
Polydora cornuta	1091		23	659	
Rangia cuneata	1704	23	45	1704	23
Streblospio benedicti	523			114	
Stylochus ellipticus (Epi.)	23				
Tubificidae imm w/o cap chaetae					159
Tubificidae imm w/o cap chaetae *	318			273	
Total Abundance w/ Epifauna	5407	91	545	3499	409
Total Abundance w/o Epifauna	4930	91	545	3158	409
Number of Taxa w/ Epifauna	14	3	5	12	3
Number of Taxa w/o Epifauna	11	3	5	9	3

*Indicates taxa is skipped in taxon counts

BENTHIC BIOMASS (Grams per sq. meter)					
Site	23419	23420	23421	23422	23423
Ameroculodes species complex	0.0068				
Apocorophium lacustre (Epi.)	0.0011			0.0023	
Boccardiella ligERICA	0.0045				
Chironomus spp.		0.0045			
Coelotanypus spp.	0.0159	0.0182	0.1022	0.0091	0.0795
Corbicula fluminea	0.3181				
Cyathura polita	0.3135		0.0068	0.1613	
Hobsonia florida	0.0114			0.0091	
Leptocheirus plumulosus			0.0023	0.0023	
Littoridinops tenuipes (Epi.)				0.0091	
Marenzelleria viridis	1.6177			0.1363	
Mytilopsis leucophaeata (Epi.)	0.9224			0.4680	
Oligochaeta	0.0977			0.1045	0.0011
Polydora cornuta	0.0727		0.0011	0.1091	
Rangia cuneata	56.9113	0.5544	32.5509	68.6689	21.9134
Streblospio benedicti	0.0136			0.0114	
Stylochus ellipticus (Epi.)	0.0159				
Total Biomass w/ Epifauna	60.3227	0.5771	32.6634	69.6913	21.9941
Total Biomass w/o Epifauna	59.3833	0.5771	32.6634	69.2119	21.9941

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23424	23426	23427	23428	23429
Watershed	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs
Habitat	Oligohaline	Oligohaline	Polyhaline Mud	Polyhaline Sand	Low Mesohaline
Date	08/24/16	08/22/16	09/13/16	09/13/16	09/12/16
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)	1.7	1.7	2.9	1.7	7.6
Salinity (ppt)	1.62	2.20	19.03	18.58	7.10
Temperature (C)	27.16	27.48	26.46	26.33	27.06
Dissolved Oxygen (mg/L)	8.7	8.0	8.4	7.8	6.6
Sediment Silt-Clay (%)	95.05	6.30	80.28	37.93	53.86
Total Carbon (%)	2.77	0.19	2.67	1.58	1.38
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	2.67	2.00	2.33	2.00	3.00
Condition	Marginal	Severely Degr.	Degraded	Severely Degr.	Meets Goal
# Attributes Scored	6	6	6	6	5
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	1.28	2.52	2.46	3.08	1.61
Abundance (#/m2)	250 3	8815 1	909 1	1340 1	545 3
Biomass (g/m2)	0.21	31.76	0.37	0.98	0.27
Pollution Indicative Spp Abund (%)	81.82	27.58	15.00	20.34	4.17
Pollution Indicative Spp Biom (%)	26.98	0.35	34.15	47.56	0.43
Pollution Sensitive Spp Abund (%)	9.09	7.47	75.00	49.15	62.50
Pollution Sensitive Spp Biom (%)	71.96	84.16	46.34	32.25	90.21
Carnivore-Omnivore Abund (%)	72.73 5	2.84 1	42.50 5	40.68	75.00
Deep Deposit Feeder Abund (%)	18.18	36.08	20.00	18.64	0.00
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	9.09	2.06	0.00	0.00	0.00
Oligo Poll. Indic. Spp Abund (%)	90.91 3	70.62 3	0.00	0.00	0.00
Oligo Poll. Sens. Spp Abund (%)	0.00 1	3.61 3	0.00	0.00	0.00
Tolerance Score	6.54 3	7.29 3	0.00	0.00	0.00
Tany./Chir. Abundance Ratio	100.00 1	66.67 1	0.00	0.00	0.00

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	23424	23426	23427	23428	23429
<i>Acteocina canaliculata</i>			318	227	
<i>Apocorophium lacustre</i> (Epi.)		5135			
<i>Arcuatula papyria</i> (Epi.)			23		
<i>Boccardiella ligERICA</i>					91
<i>Carinoma tremaphoros</i>					68
<i>Coelotanypus</i> spp.	182	45			
<i>Corbicula fluminea</i>		204			
<i>Cyathura polita</i>		159			341
<i>Dicrotendipes simpsoni</i>		23			
<i>Edotea triloba</i> (Epi.)		23			
<i>Edwardsia elegans</i>				45	
<i>Glycera dibranchiata</i>				45	
<i>Glycinde solitaria</i>		23			
<i>Heteromastus filiformis</i>				23	
<i>Hobsonia florida</i>		1931			
<i>Leptocheirus plumulosus</i>		136			23
<i>Listriella barnardi</i>				23	
<i>Littoridinops tenuipes</i> (Epi.)		23			
<i>Macoma mitchelli</i>			23		
<i>Marenzelleria viridis</i>		318			
<i>Mediomastus ambiseta</i>			182	204	
<i>Melinna maculata</i>				23	
<i>Melita nitida</i> (Epi.)		23			
<i>Mytilopsis leucophaeata</i> (Epi.)		1522			
<i>Neanthes succinea</i>			45		
<i>Paraprionospio pinnata</i>			136	273	
<i>Phoronis</i> spp.			23	136	
<i>Podarkeopsis levifuscina</i>			23	227	
<i>Polydora cornuta</i>		432			
<i>Rangia cuneata</i>	23	159			
<i>Rhithropanopeus harrisii</i> (Epi.)		23			
<i>Spiochaetopterus costarum</i>			159	91	
<i>Streblospio benedicti</i>		2204			23
Tubificidae imm w/o cap chaetae	23	182			
<i>Tubificoides</i> spp.	23	2999		23	
Total Abundance w/ Epifauna	250	15563	932	1340	545
Total Abundance w/o Epifauna	250	8815	909	1340	545
Number of Taxa w/ Epifauna	4	19	9	12	5
Number of Taxa w/o Epifauna	4	13	8	12	5

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	23424	23426	23427	23428	23429
<i>Acteocina canaliculata</i>			0.0772	0.0136	
<i>Apocorophium lacustre</i> (Epi.)		0.5953			
<i>Arcuatula papyria</i> (Epi.)			0.0023		
<i>Boccardiella ligERICA</i>					0.0045
<i>Carinoma tremaphoros</i>					0.0182
Chironomidae		0.0011			
<i>Coelotanypus</i> spp.	0.0568	0.0023			
<i>Corbicula fluminea</i>		4.5554			
<i>Cyathura polita</i>		0.1636			0.2408
<i>Edotea triloba</i> (Epi.)		0.0011			
<i>Edwardsia elegans</i>				0.0068	
<i>Glycera dibranchiata</i>				0.0841	
<i>Glycinde solitaria</i>		0.0023			
<i>Heteromastus filiformis</i>				0.0045	
<i>Hobsonia florida</i>		0.1681			
<i>Leptocheirus plumulosus</i>		0.0341			0.0023
<i>Listriella barnardi</i>				0.0045	
<i>Littoridinops tenuipes</i> (Epi.)		0.0023			
<i>Macoma mitchelli</i>			0.0023		
<i>Marenzelleria viridis</i>		0.4249			
<i>Mediomastus ambiseta</i>			0.0091	0.0091	
<i>Melinna maculata</i>				0.0659	
<i>Melita nitida</i> (Epi.)		0.0011			
<i>Mytilopsis leucophaeata</i> (Epi.)		0.8588			
<i>Neanthes succinea</i>			0.0659		
<i>Oligochaeta</i>	0.0011	0.0011			
<i>Paraprionospio pinnata</i>			0.1272	0.4658	
<i>Phoronis</i> spp.			0.0068	0.0682	
<i>Podarkeopsis levifuscina</i>			0.0045	0.0295	
<i>Polydora cornuta</i>		0.0295			
<i>Rangia cuneata</i>	0.1545	26.1371			
<i>Rhithropanopeus harrisi</i> (Epi.)		0.0954			
<i>Spiochaetopterus costarum</i>			0.0795	0.2249	
<i>Streblospio benedicti</i>		0.1068			0.0011
<i>Tubificoides</i> spp.	0.0023	0.1318		0.0023	
Total Biomass w/ Epifauna	0.2147	33.3121	0.3749	0.9792	0.2670
Total Biomass w/o Epifauna	0.2147	31.7580	0.3726	0.9792	0.2670

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23501	23502	23503	23504	23505					
Watershed	Mainstem	Mainstem	Mainstem	Mainstem	Mainstem					
Habitat	High Meso Sand	Polyhaline Sand	Polyhaline Mud	High Meso Sand	Polyhaline Sand					
Date	08/16/16	08/16/16	08/16/16	08/16/16	09/13/16					
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)	7.6	6.5	12.2	8.4	1.6					
Salinity (ppt)	16.13	19.14	22.85	17.29	18.34					
Temperature (C)	28.92	28.48	27.17	28.56	25.44					
Dissolved Oxygen (mg/L)	5.7	2.8	0.8	3.9	7.9					
Sediment Silt-Clay (%)	3.54	0.69	67.70	1.63	7.08					
Total Carbon (%)	0.14	0.13	2.47	0.13	0.17					
=====										
BENTHIC INDEX OF BIOTIC INTEGRITY										
=====										
B-IBI Score	4.33		4.33		1.33		3.00		2.33	
Condition	Meets Goal		Meets Goal		Severely Degr.		Meets Goal		Degraded	
# Attributes Scored	6		6		6		6		6	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	3.67	5	3.39	3	2.25	1	2.69	3	3.44	3
Abundance (#/m2)	3294	3	5862	3	568	1	4362	3	1704	3
Biomass (g/m2)	1.56	3	6.82	5	0.30	1	2.23	3	0.59	1
Pollution Indicative Spp Abund (%)	0.00	5	0.00	5	52.00	1	13.54	3	8.00	
Pollution Indicative Spp Biom (%)	0.00		0.00	5	70.45	1	2.75		15.68	1
Pollution Sensitive Spp Abund (%)	41.38	5	53.88	5	24.00		48.44	5	37.33	3
Pollution Sensitive Spp Biom (%)	23.31		33.40		16.67	1	83.93		14.53	
Carnivore-Omnivore Abund (%)	49.66	5	24.42		28.00	3	12.50	1	30.67	
Deep Deposit Feeder Abund (%)	5.52		29.84	5	8.00		29.69		14.67	3
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	
=====										

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	23501	23502	23503	23504	23505
<i>Acteocina canaliculata</i>	795	250	91	91	295
<i>Ameroculodes</i> species complex					45
<i>Ampelisca abdita</i>	114				
<i>Ampelisca verrilli</i>		23			
<i>Amphiporus bioculatus</i>	45	91			
<i>Arcuatula papyria</i> (Epi.)		227			
<i>Branchiostoma caribaeum</i>	159	114			
<i>Cyathura polita</i>		182			
<i>Edotea triloba</i> (Epi.)	45	45			
<i>Edwardsia elegans</i>		45			
<i>Glycera dibranchiata</i>	23				
<i>Glycera</i> spp.					45
<i>Glycinde solitaria</i>	159	477		68	23
<i>Haminoea solitaria</i>					114
<i>Heteromastus filiformis</i>					114
<i>Leitoscoloplos</i> spp.			23		45
<i>Leptosynapta tenuis</i>	23	68			341
<i>Listriella barnardi</i>					23
<i>Lyonsia hyalina</i>	114				
<i>Macoma mitchelli</i>	23				91
<i>Mediomastus ambiseta</i>		159		182	
<i>Mercenaria mercenaria</i>				23	
<i>Micrura leidyi</i>	23	23			
<i>Molgula manhattensis</i> (Epi.)	1818	977			
<i>Mulinia lateralis</i>					45
<i>Neanthes succinea</i>	341	295		68	
<i>Parahesionia luteola</i>	45				
<i>Paraprionospio pinnata</i>			273	182	23
<i>Parvilucina crenella</i>	273	386	45	159	23
<i>Pectinaria gouldii</i>		45	23		
<i>Phoronis</i> spp.	318	636		1681	318
<i>Phyllodoce arenae</i>	45				
<i>Podarkeopsis levifuscina</i>	45	68		250	45
<i>Polydora cornuta</i>	364				
<i>Polynoidae</i> (Epi.)	23				
<i>Pseudeurythoe paucibranchiata</i>				23	
<i>Rictaxis punctostriatus</i>	91				
<i>Scoloplos rubra</i>		23			
<i>Sigambra tentaculata</i>	23		68	45	
<i>Spiochaetopterus costarum</i>	23	568	45	68	
<i>Spiophanes bombyx</i>	68	886			
<i>Streblospio benedicti</i>				409	23
<i>Stylochus ellipticus</i> (Epi.)		68			23
<i>Tubificoides</i> spp.	182	1522		1113	91
Total Abundance w/ Epifauna	5180	7180	568	4362	1727
Total Abundance w/o Epifauna	3294	5862	568	4362	1704
Number of Taxa w/ Epifauna	25	23	7	14	18
Number of Taxa w/o Epifauna	22	19	7	14	17

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	23501	23502	23503	23504	23505
Acteocina canaliculata	0.1636	0.0204	0.0182	0.0091	0.0636
Amerocolodes species complex					0.0068
Ampelisca abdita	0.0159				
Ampelisca verrilli		0.0204			
Amphiporus bioculatus	0.0114	0.0454			
Arcuatula papyria (Epi.)		0.0523			
Branchiostoma caribaeum	0.0432	0.0432			
Cyathura polita		0.1000			
Edotea triloba (Epi.)	0.0068	0.0068			
Edwardsia elegans		0.0068			
Glycera dibranchiata	0.0204				
Glycera spp.					0.0409
Glycinde solitaria	0.0454	0.1068		0.0091	0.0023
Haminoea solitaria					0.0045
Heteromastus filiformis					0.0636
Leitoscoloplos spp.			0.0114		0.0227
Leptosynapta tenuis	0.0023	0.2772			0.2772
Listriella barnardi					0.0011
Lyonsia hyalina	0.0227				
Macoma mitchelli	0.0613				0.0045
Mediomastus ambiseta		0.0023		0.0068	
Mercenaria mercenaria				0.0432	
Micrura leidyi	0.0795	1.0179			
Molgula manhattensis (Epi.)	8.7517	5.7118			
Mulinia lateralis					0.0045
Neanthes succinea	0.1136	0.0977		0.0227	
Parahesionia luteola	0.0011				
Paraprionospio pinnata			0.1999	0.0386	0.0613
Parvilucina crenella	0.7588	2.8173	0.0204	0.0886	0.0068
Pectinaria gouldii		0.0023	0.0136		
Phoronis spp.	0.0954	0.3794		1.7517	0.0204
Phyllodoce arenae	0.0227				
Podarkeopsis levifuscina	0.0045	0.0114		0.0114	0.0023
Polydora cornuta	0.0204				
Polynoidae (Epi.)	0.0045				
Pseudeurythoe paucibranchiata				0.1318	
Rictaxis punctostriatus	0.0091				
Scoloplos rubra		0.0568			
Sigambra tentaculata	0.0023		0.0045	0.0045	
Spiochaetopterus costarum	0.0045	0.6793	0.0318	0.0545	
Spiophanes bombyx	0.0545	0.9906			
Streblospio benedicti				0.0227	0.0045
Stylochus ellipticus (Epi.)		0.0159			0.0023
Tubificoides spp.	0.0068	0.1477		0.0386	0.0068
Total Biomass w/ Epifauna	10.3228	12.6096	0.2999	2.2334	0.5964
Total Biomass w/o Epifauna	1.5597	6.8228	0.2999	2.2334	0.5941

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23506	23507	23508	23509	23510
Watershed	Mainstem	Mainstem	Mainstem	Mainstem	Mainstem
Habitat	High Meso Sand	Polyhaline Mud	Polyhaline Mud	Polyhaline Mud	Polyhaline Sand
Date	08/17/16	08/17/16	08/17/16	08/17/16	09/13/16
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)	5.5	12.2	12.0	11.6	2.7
Salinity (ppt)	17.07	18.67	18.88	18.39	18.17
Temperature (C)	29.64	27.32	27.25	27.41	25.67
Dissolved Oxygen (mg/L)	6.6	0.4	0.4	0.6	7.0
Sediment Silt-Clay (%)	1.20	49.89	43.03	58.36	2.43
Total Carbon (%)	0.13	3.09	2.67	3.29	0.13
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	4.33	1.00	1.00	1.00	4.00
Condition	Meets Goal	Severely Degr.	Severely Degr.	Severely Degr.	Meets Goal
# Attributes Scored	6	6	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	3.17 3	0.00 1	0.00 1	0.00 1	3.66 5
Abundance (#/m2)	1908 5	23 1	0 1	0 1	3522 5
Biomass (g/m2)	2.07 3	0.03 1	0.00 1	0.00 1	1.98 3
Pollution Indicative Spp Abund (%)	2.38 5	100.00	100.00	100.00	2.58
Pollution Indicative Spp Biom (%)	7.48	100.00 1	100.00 1	100.00 1	1.89 5
Pollution Sensitive Spp Abund (%)	60.71 5	0.00	0.00	0.00	40.00 3
Pollution Sensitive Spp Biom (%)	19.79	0.00 1	0.00 1	0.00 1	37.21
Carnivore-Omnivore Abund (%)	36.90 5	0.00 1	0.00 1	0.00 1	36.77
Deep Deposit Feeder Abund (%)	5.95	0.00	0.00	0.00	20.00 3
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

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	23506	23507	23508	23509	23510
<i>Acteocina canaliculata</i>	432				523
<i>Ampelisca</i> spp.					23
<i>Arcuatula papyria</i> (Epi.)	45				
<i>Branchiostoma caribaeum</i>	68				
<i>Edwardsia elegans</i>					409
<i>Glycera dibranchiata</i>	23				159
<i>Glycinde solitaria</i>	182				23
<i>Haminoea solitaria</i>	45				
<i>Heteromastus filiformis</i>	45				
<i>Leitoscoloplos robustus</i>	45				
<i>Leptosynapta tenuis</i>					159
<i>Listriella barnardi</i>					114
<i>Loimia medusa</i>	23				45
<i>Lyonsia hyalina</i>	45				
<i>Macoma mitchelli</i>					432
<i>Marenzelleria viridis</i>					23
<i>Mediomastus ambiseta</i>					182
<i>Mulinia lateralis</i>					68
<i>Neanthes succinea</i>					23
<i>Paraprionospio pinnata</i>		23			
<i>Parvilucina crenella</i>	432				
<i>Phoronis</i> spp.	159				409
<i>Phyllodoce arenae</i>	23				
<i>Podarkeopsis levifuscina</i>					159
<i>Saccoglossus kowalevskii</i>					23
<i>Spiochaetopterus costarum</i>	68				136
<i>Spiophanes bombyx</i>	295				68
<i>Streblospio benedicti</i>					23
<i>Tubificoides</i> spp.	23				523
Total Abundance w/ Epifauna	1954	23	0	0	3522
Total Abundance w/o Epifauna	1908	23			3522
Number of Taxa w/ Epifauna	16	1	0	0	20
Number of Taxa w/o Epifauna	15	1	0	0	20
BENTHIC BIOMASS (Grams per sq. meter)					
Site	23506	23507	23508	23509	23510
<i>Acteocina canaliculata</i>	0.0523				0.0795
<i>Ampelisca</i> spp.					0.0091
<i>Arcuatula papyria</i> (Epi.)	0.0023				
<i>Branchiostoma caribaeum</i>	0.0795				
<i>Edwardsia elegans</i>					0.0545
<i>Glycera dibranchiata</i>	0.9565				0.5975
<i>Glycinde solitaria</i>	0.0591				0.0114
<i>Haminoea solitaria</i>	0.0023				
<i>Heteromastus filiformis</i>	0.0114				
<i>Leitoscoloplos robustus</i>	0.1545				
<i>Leptosynapta tenuis</i>					0.3976
<i>Listriella barnardi</i>					0.0091
<i>Loimia medusa</i>	0.0068				0.3249
<i>Lyonsia hyalina</i>	0.0295				
<i>Macoma mitchelli</i>					0.0727
<i>Marenzelleria viridis</i>					0.0341
<i>Mediomastus ambiseta</i>					0.0091
<i>Mulinia lateralis</i>					0.0364
<i>Neanthes succinea</i>					0.0295
<i>Paraprionospio pinnata</i>		0.0341			
<i>Parvilucina crenella</i>	0.3976				
<i>Phoronis</i> spp.	0.0545				0.0841
<i>Phyllodoce arenae</i>	0.0250				
<i>Podarkeopsis levifuscina</i>					0.0204
<i>Saccoglossus kowalevskii</i>					0.0045
<i>Spiochaetopterus costarum</i>	0.0750				0.1022
<i>Spiophanes bombyx</i>	0.1613				0.0932
<i>Streblospio benedicti</i>					0.0011
<i>Tubificoides</i> spp.	0.0011				0.0136
Total Biomass w/ Epifauna	2.0687	0.0341	0.0000	0.0000	1.9846
Total Biomass w/o Epifauna	2.0664	0.0341	0.0000	0.0000	1.9846

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23511	23512	23513	23514	23516
Watershed	Mainstem	Mainstem	Mainstem	Mainstem	Mainstem
Habitat	Polyhaline Sand	Polyhaline Sand	High Meso Sand	High Meso Sand	High Meso Sand
Date	09/13/16	09/13/16	09/13/16	09/09/16	09/09/16
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)	3.1	2.7	2.5	5.1	9.3
Salinity (ppt)	18.08	18.06	17.68	16.11	17.30
Temperature (C)	26.16	26.16	25.45	26.33	25.89
Dissolved Oxygen (mg/L)	7.6	8.1	7.8	7.0	3.4
Sediment Silt-Clay (%)	3.11	2.06	32.97	1.12	15.24
Total Carbon (%)	0.13	0.13	0.55	0.13	0.65
=====					
BENTHIC INDEX OF BIOTIC INTEGRITY					
=====					
B-IBI Score	3.33	3.00	3.67	3.67	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	2.88 3	2.44 1	3.45 5	2.96 3	2.54 3
Abundance (#/m2)	4589 5	4112 5	4408 3	1363 3	1295 3
Biomass (g/m2)	0.76 1	3.38 3	1.08 3	1.75 3	2.16 3
Pollution Indicative Spp Abund (%)	1.98	2.76	5.67 5	0.00 5	40.35 1
Pollution Indicative Spp Biom (%)	5.41 3	10.60 3	15.29	0.00	32.25
Pollution Sensitive Spp Abund (%)	28.22 3	14.92 1	50.52 5	36.67 3	5.26 1
Pollution Sensitive Spp Biom (%)	25.53	28.30	49.21	7.40	3.47
Carnivore-Omnivore Abund (%)	25.25	14.92	18.04 1	50.00 5	47.37 5
Deep Deposit Feeder Abund (%)	54.95 5	66.85 5	31.96	3.33	8.77
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
=====					

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	23511	23512	23513	23514	23516
Acteocina canaliculata	727	273	273	204	
Amerocolodes species complex	23				
Ampelisca abdita			863		
Amphiporus bioculatus	23		23		
Arcuatula papyria (Epi.)	295	23		23	
Balanus improvisus (Epi.)		45			
Cassidinidea ovalis (Epi.)	23				
Doridella obscura (Epi.)		45			
Edotea triloba (Epi.)			68	23	
Edwardsia elegans	91	136	91	23	
Gemma gemma				23	
Glycera dibranchiata	45	68	23	23	
Glycinde solitaria	68	23	136	159	
Haminoea solitaria			45		
Heteromastus filiformis	91	68	45		
Leitoscoloplos robustus		23			
Leitoscoloplos spp.			45		
Leptosynapta tenuis	250	159	114	454	
Leucon americanus			250		
Listriella barnardi	45	91			
Loimia medusa	23	45			
Macoma mitchelli	45	114	136		
Marenzelleria viridis		23			
Mediomastus ambiseta	273	91	1318	45	23
Micrura leidyi	23			23	23
Mulinia lateralis	23	68	68		
Neanthes succinea	45	23	23	23	250
Parahesionia luteola					182
Paraonis fulgens				23	
Paraprionospio pinnata	68		136		523
Parvilucina crenella	227	68	136		
Pectinaria gouldii	23				
Phoronis spp.		91	364		45
Podarkeopsis levifuscina	114	91	91	227	114
Ptilanthura tenuis	23		68		
Rictaxis punctostriatus			23		23
Sigambra tentaculata					23
Spiochaetopterus costarum	204	23	136	68	
Spiophanes bombyx		45		23	
Streblospio benedicti		23			
Stylochus ellipticus (Epi.)			23		
Tharyx sp. A Morris				45	
Tubificoides spp.	2136	2567			91
Total Abundance w/ Epifauna	4908	4226	4499	1409	1295
Total Abundance w/o Epifauna	4589	4112	4408	1363	1295
Number of Taxa w/ Epifauna	24	24	24	16	10
Number of Taxa w/o Epifauna	22	21	22	14	10

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	23511	23512	23513	23514	23516
Acteocina canaliculata	0.0727	0.0818	0.0568	0.0591	
Amerocolodes species complex	0.0023				
Ampelisca abdita			0.1159		
Amphiporus bioculatus	0.0023		0.0011		
Arcuatula papyria (Epi.)	0.0227	0.0091		0.0364	
Balanus improvisus (Epi.)		0.0023			
Cassidinidea ovalis (Epi.)	0.0011				
Doridella obscura (Epi.)		0.0091			
Edotea triloba (Epi.)			0.0068	0.0011	
Edwardsia elegans	0.0045	0.0727	0.0091	0.0023	
Gemma gemma				0.0011	
Glycera dibranchiata	0.1204	1.6586	0.0795	0.4862	
Glycinde solitaria	0.0114	0.0011	0.0295	0.0204	
Haminoea solitaria			0.0023		
Heteromastus filiformis	0.0318	0.0364	0.1000		
Leitoscoloplos robustus		0.0364			
Leitoscoloplos spp.			0.0159		
Leptosynapta tenuis	0.1590	0.1590	0.0045	0.9520	
Leucon americanus			0.0114		
Listriella barnardi	0.0023	0.0068			
Loimia medusa	0.0023	0.6725			
Macoma mitchelli	0.0068	0.0136	0.0136		
Marenzelleria viridis		0.0068			
Mediomastus ambiseta	0.0091	0.0023	0.0545	0.0023	0.0023
Micrura leidyi	0.0204			0.1022	0.0954
Mulinia lateralis	0.0045	0.3204	0.0568		
Neanthes succinea	0.0091	0.0136	0.0068	0.0023	1.2428
Parahesionia luteola					0.0182
Paraonis fulgens				0.0068	
Paraprionospio pinnata	0.0364		0.0932		0.6975
Parvilucina crenella	0.0772	0.0386	0.0023		
Pectinaria gouldii	0.0045				
Phoronis spp.		0.0500	0.0954		0.0727
Podarkeopsis levifuscina	0.0136	0.0068	0.0091	0.0568	0.0159
Ptilanthura tenuis	0.0182		0.0273		
Rictaxis punctostriatus			0.0023		0.0068
Sigambra tentaculata					0.0068
Spiochaetopterus costarum	0.0977	0.0613	0.2976	0.0454	
Spiophanes bombyx		0.0795		0.0023	
Streblospio benedicti		0.0011			
Stylochus ellipticus (Epi.)			0.0114		
Tharyx sp. A Morris				0.0114	
Tubificoides spp.	0.0500	0.0568			0.0045
Total Biomass w/ Epifauna	0.7804	3.3966	1.1031	1.7881	2.1629
Total Biomass w/o Epifauna	0.7566	3.3762	1.0849	1.7506	2.1629

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23517	23518	23520	23521	23522
Watershed	Mainstem	Mainstem	Mainstem	Mainstem	Mainstem
Habitat	High Meso Mud	High Meso Sand	Polyhaline Sand	High Meso Mud	High Meso Sand
Date	08/17/16	08/17/16	09/09/16	08/17/16	09/08/16
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)	8.2	5.5	9.6	11.3	5.1
Salinity (ppt)	15.29	15.52	19.23	15.69	15.15
Temperature (C)	29.64	29.86	26.37	27.97	26.09
Dissolved Oxygen (mg/L)	5.6	6.8	1.7	1.6	6.5
Sediment Silt-Clay (%)	57.37	3.84	33.99	72.88	3.65
Total Carbon (%)	1.46	1.04	1.47	2.95	0.26
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	3.33	2.00	1.00	1.67	3.00
Condition	Meets Goal	Severely Degr.	Severely Degr.	Severely Degr.	Meets Goal
# Attributes Scored	6	6	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	3.41 5	1.04 1	0.88 1	1.81 1	2.73 3
Abundance (#/m2)	1272 3	11065 1	636 1	182 1	1795 5
Biomass (g/m2)	1.28 3	17.37 3	0.35 1	0.22 1	0.98 1
Pollution Indicative Spp Abund (%)	19.64	0.41 5	85.71	62.50	39.24 1
Pollution Indicative Spp Biom (%)	23.76 3	2.03	92.90 1	98.95 1	64.43
Pollution Sensitive Spp Abund (%)	19.64	2.46 1	3.57 1	0.00	10.13 3
Pollution Sensitive Spp Biom (%)	6.21 1	1.05	1.94	0.00 1	1.62
Carnivore-Omnivore Abund (%)	28.57 5	4.72 1	10.71	37.50 5	36.71 5
Deep Deposit Feeder Abund (%)	23.21	4.72	3.57 1	12.50	5.06
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

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	23517	23518	23520	23521	23522
Americamysis almyra (Epi.)		45			
Ampelisca abdita	114				
Carinoma tremaphoros		45			45
Cyathura polita		68			
Diadumene leucolela (Epi.)					45
Edotea triloba (Epi.)		23			
Edwardsia elegans					364
Eteone foliosa		23			
Gemma gemma		9474			91
Glycinde solitaria	114	159	23		182
Heteromastus filiformis		454			23
Leitoscoloplos robustus				23	23
Leitoscoloplos spp.	45				
Leptosynapta tenuis		23			
Leucon americanus	250				
Lyonsia hyalina		136			
Macoma mitchelli	23				273
Marenzelleria viridis		23			
Mediomastus ambiseta	136				
Micrura leidy	45	45			
Molgula manhattensis (Epi.)					23
Mulinia lateralis		45		23	636
Neanthes succinea	23	182	23		
Paraprionospio pinnata	204		545	68	23
Pectinaria gouldii	114	68			45
Phoronis spp.		23			
Podarkeopsis levifuscina	45				
Pseudeurythoe paucibranchiata	23				
Rictaxis punctostriatus					68
Saccoglossus kowalevskii	23				
Sigambra tentaculata	114		23	68	
Streblospio benedicti					23
Stylochus ellipticus (Epi.)		114			
Tharyx sp. A Morris		295			
Tubificoides spp.			23		
Total Abundance w/ Epifauna	1272	11246	636	182	1863
Total Abundance w/o Epifauna	1272	11065	636	182	1795
Number of Taxa w/ Epifauna	14	18	5	4	14
Number of Taxa w/o Epifauna	14	15	5	4	12

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	23517	23518	23520	23521	23522
Americamysis almyra (Epi.)		0.0204			
Ampelisca abdita	0.0182				
Carinoma tremaphoros		0.0204			0.0273
Cyathura polita		0.0954			
Diadumene leucolena (Epi.)					0.0159
Edotea triloba (Epi.)		0.0023			
Edwardsia elegans					0.2613
Eteone foliosa		0.0523			
Gemma gemma		15.5836			0.0182
Glycinde solitaria	0.0772	0.0704	0.0068		0.0159
Heteromastus filiformis		0.4044			0.0091
Leitoscoloplos robustus				0.0954	0.4476
Leitoscoloplos spp.	0.0591				
Leptosynapta tenuis		0.0204			
Leucon americanus	0.0250				
Lyonsia hyalina		0.0114			
Macoma mitchelli	0.1045				0.0091
Marenzelleria viridis		0.0136			
Mediomastus ambiseta	0.0023				
Micrura leidyi	0.5953	0.3726			
Molgula manhattensis (Epi.)					0.0011
Mulinia lateralis		0.3522		0.1022	0.0977
Neanthes succinea	0.0045	0.2090	0.0091		
Paraprionospio pinnata	0.2454		0.3272	0.0159	0.0818
Pectinaria gouldii	0.0568	0.1022			0.0023
Phoronis spp.		0.0023			
Podarkeopsis levifuscina	0.0023				
Pseudeurythoe paucibranchiata	0.0295				
Rictaxis punctostriatus					0.0068
Saccoglossus kowalevskii	0.0068				
Sigambra tentaculata	0.0545		0.0045	0.0023	
Streblospio benedicti					0.0068
Stylochus ellipticus (Epi.)		0.0204			
Tharyx sp. A Morris		0.0636			
Tubificoides spp.			0.0045		
Total Biomass w/ Epifauna	1.2814	17.4172	0.3522	0.2158	1.0008
Total Biomass w/o Epifauna	1.2814	17.3740	0.3522	0.2158	0.9838

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23523	23524	23525	23526	23527					
Watershed	Mainstem	Mainstem	Mainstem	Mainstem	Mainstem					
Habitat	High Meso Mud	High Meso Sand	High Meso Mud	Polyhaline Mud	High Meso Mud					
Date	08/17/16	08/17/16	08/17/16	09/13/16	08/17/16					
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)	9.1	1.7	6.2	2.2	5.9					
Salinity (ppt)	14.72	14.44	13.85	18.37	14.37					
Temperature (C)	28.68	30.33	29.02	25.27	29.81					
Dissolved Oxygen (mg/L)	3.9	6.2	4.9	7.7	6.3					
Sediment Silt-Clay (%)	64.88	1.32	62.20	63.82	53.27					
Total Carbon (%)	3.22	0.13	2.15	0.85	1.11					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	2.67		1.00		2.67		2.67		2.67	
Condition	Marginal		Severely Degr.		Marginal		Marginal		Marginal	
# Attributes Scored	6		6		6		6		6	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	3.16	5	2.43	1	2.75	3	2.81	3	3.19	5
Abundance (#/m2)	727	1	613	1	886	1	2113	5	932	1
Biomass (g/m2)	2.00	3	0.62	1	1.37	3	0.66	3	0.61	3
Pollution Indicative Spp Abund (%)	25.00		44.44	1	38.46		18.28		31.71	
Pollution Indicative Spp Biom (%)	36.61	1	68.98		8.43	3	39.03	1	44.30	1
Pollution Sensitive Spp Abund (%)	18.75		7.41	1	28.21		39.78		24.39	
Pollution Sensitive Spp Biom (%)	24.67	1	3.65		14.71	1	35.06	3	15.51	1
Carnivore-Omnivore Abund (%)	53.13	5	11.11	1	46.15	5	8.60	1	43.90	5
Deep Deposit Feeder Abund (%)	18.75		14.81		23.08		61.29		9.76	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		0.00		15.38		0.00		2.44	
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	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	23523	23524	23525	23526	23527
Acteocina canaliculata				23	
Americamysis almyra (Epi.)		45			
Ampelisca abdita				91	23
Gemma gemma		91			
Glycinde solitaria	68	45	204	45	182
Hamineoa solitaria				23	
Heteromastus filiformis		45	68		
Leitoscoloplos fragilis		45			
Leitoscoloplos robustus	45				
Leucon americanus				23	45
Macoma balthica	68		45		
Macoma mitchelli		136	23	91	91
Mediomastus ambiseta				727	45
Micrura leidyi		23			23
Mulinia lateralis	45	227	182	45	136
Neanthes succinea	204		182	68	
Parahesion luteola	45		23		45
Paraprionospio pinnata	68			159	136
Pectinaria gouldii					23
Phyllodoce arenae				23	
Podarkeopsis levifuscina	23				
Rictaxis punctostriatus					159
Sigambra tentaculata	45				
Spiochaetopterus costarum				45	
Streblospio benedicti	23		23	182	
Tubificidae imm w/o cap chaetae			136		23
Tubificoides spp.	91			568	
Total Abundance w/ Epifauna	727	659	886	2113	932
Total Abundance w/o Epifauna	727	613	886	2113	932
Number of Taxa w/ Epifauna	11	8	9	14	12
Number of Taxa w/o Epifauna	11	7	9	14	12
BENTHIC BIOMASS (Grams per sq. meter)					
Site	23523	23524	23525	23526	23527
Acteocina canaliculata				0.0011	
Americamysis almyra (Epi.)		0.0250			
Ampelisca abdita				0.0091	0.0068
Gemma gemma		0.0045			
Glycinde solitaria	0.0727	0.0227	0.1636	0.0159	0.0932
Hamineoa solitaria				0.0023	
Heteromastus filiformis		0.0295	0.0318		
Leitoscoloplos fragilis		0.0318			
Leitoscoloplos robustus	0.3044				
Leucon americanus				0.0023	0.0023
Macoma balthica	0.4203		0.0386		
Macoma mitchelli		0.0227	0.1000	0.0091	0.0023
Mediomastus ambiseta				0.0477	0.0011
Micrura leidyi		0.1136			0.2204
Mulinia lateralis	0.2726	0.3976	0.1136	0.0659	0.0023
Neanthes succinea	0.7407		0.9179	0.0954	
Oligochaeta			0.0011		0.0011
Parahesion luteola	0.0023		0.0068		0.0068
Paraprionospio pinnata	0.1522			0.1749	0.2658
Pectinaria gouldii					0.0011
Phyllodoce arenae				0.0091	
Podarkeopsis levifuscina	0.0011				
Rictaxis punctostriatus					0.0045
Sigambra tentaculata	0.0273				
Spiochaetopterus costarum				0.1659	
Streblospio benedicti	0.0023		0.0011	0.0159	
Tubificoides spp.	0.0023			0.0432	
Total Biomass w/ Epifauna	1.9982	0.6475	1.3746	0.6577	0.6078
Total Biomass w/o Epifauna	1.9982	0.6225	1.3746	0.6577	0.6078

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23301	23302	23303	23304	23306					
Watershed	Western Tribs	Western Tribs	Western Tribs	Western Tribs	Western Tribs					
Habitat	High Meso Mud	High Meso Mud	High Meso Sand	High Meso Mud	High Meso Sand					
Date	08/17/16	08/26/16	08/26/16	08/26/16	08/26/16					
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	4.2	1.9	6.2	6.4					
Salinity (ppt)	14.73	13.27	13.07	12.43	12.25					
Temperature (C)	28.59	27.85	27.96	28.39	28.01					
Dissolved Oxygen (mg/L)	3.1	5.6	7.3	2.9	2.6					
Sediment Silt-Clay (%)	51.38	64.68	4.03	40.25	35.14					
Total Carbon (%)	1.55	2.42	0.14	3.80	5.13					
=====										
BENTHIC INDEX OF BIOTIC INTEGRITY										
=====										
B-IBI Score	3.67		3.33		2.00		1.00		1.00	
Condition	Meets Goal		Meets Goal		Severely Degr.		Severely Degr.		Severely Degr.	
# Attributes Scored	6		6		6		6		6	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.44	3	2.58	3	2.07	1	0.00	1	0.00	1
Abundance (#/m2)	1272	3	977	1	1863	5	0	1	0	1
Biomass (g/m2)	2.16	5	3.76	5	0.73	1	0.00	1	0.00	1
Pollution Indicative Spp Abund (%)	5.36		0.00		21.95	3	100.00		100.00	1
Pollution Indicative Spp Biom (%)	2.53	5	0.00	5	14.95		100.00	1	100.00	
Pollution Sensitive Spp Abund (%)	26.79		13.95		1.22	1	0.00		0.00	1
Pollution Sensitive Spp Biom (%)	20.86	1	67.73	3	1.56		0.00	1	0.00	
Carnivore-Omnivore Abund (%)	53.57	5	23.26	3	6.10	1	0.00	1	0.00	1
Deep Deposit Feeder Abund (%)	28.57		55.81		59.76		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		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	
=====										

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	23301	23302	23303	23304	23306
Carinoma tremaphoros	45	45	23		
Cyathura polita			23		
Eteone heteropoda			45		
Glycinde solitaria	250	23			
Heteromastus filiformis	364	409	1045		
Laeonereis culveri			23		
Leitoscoloplos fragilis			45		
Leptocheirus plumulosus		23			
Macoma balthica	91	114			
Macoma mitchelli	68	68	318		
Melita nitida (Epi.)			23		
Mulinia lateralis	45		114		
Neanthes succinea	386	114			
Parahesion luteola		45			
Streblospio benedicti	23		204		
Tubificoides spp.		136	23		
Total Abundance w/ Epifauna	1272	977	1886	0	0
Total Abundance w/o Epifauna	1272	977	1863		
Number of Taxa w/ Epifauna	8	9	11	0	0
Number of Taxa w/o Epifauna	8	9	10	0	0
BENTHIC BIOMASS (Grams per sq. meter)					
Site	23301	23302	23303	23304	23306
Carinoma tremaphoros	0.0159	0.0318	0.0068		
Cyathura polita			0.0114		
Eteone heteropoda			0.0091		
Glycinde solitaria	0.1681	0.0477			
Heteromastus filiformis	0.1159	0.1068	0.5180		
Laeonereis culveri			0.0045		
Leitoscoloplos fragilis			0.0704		
Leptocheirus plumulosus		0.0091			
Macoma balthica	0.2817	2.4992			
Macoma mitchelli	0.0568	0.3862	0.0227		
Melita nitida (Epi.)			0.0045		
Mulinia lateralis	0.0523		0.0114		
Neanthes succinea	1.4632	0.6725			
Parahesion luteola		0.0023			
Streblospio benedicti	0.0023		0.0182		
Tubificoides spp.		0.0045	0.0568		
Total Biomass w/ Epifauna	2.1561	3.7602	0.7339	0.0000	0.0000
Total Biomass w/o Epifauna	2.1561	3.7602	0.7293	0.0000	0.0000

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23307	23308	23309	23310	23311					
Watershed	Western Tribs	Western Tribs	Western Tribs	Western Tribs	Western Tribs					
Habitat	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline					
Date	08/26/16	08/25/16	08/30/16	08/30/16	08/30/16					
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)	4.0	3.4	3.5	0.9	6.4					
Salinity (ppt)	11.99	11.29	10.03	10.32	11.96					
Temperature (C)	28.60	27.57	27.96	28.74	28.06					
Dissolved Oxygen (mg/L)	3.1	6.4	7.5	9.7	3.9					
Sediment Silt-Clay (%)	2.40	90.61	25.61	1.55	63.67					
Total Carbon (%)	0.26	2.02	1.12	0.13	3.08					
=====										
BENTHIC INDEX OF BIOTIC INTEGRITY										
=====										
B-IBI Score	1.00		1.40		2.60		3.40		1.80	
Condition	Severely Degr.		Severely Degr.		Degraded		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	1.84	3	2.41	3	2.96	5	2.20	3
Abundance (#/m2)	0	1	159	1	6566	1	2045	5	204	1
Biomass (g/m2)	0.00	1	0.11	1	10.63	3	2.64	3	0.83	1
Pollution Indicative Spp Abund (%)	100.00	1	42.86	1	17.65	3	43.33	1	44.44	1
Pollution Indicative Spp Biom (%)	100.00		4.08		1.05		6.36		40.87	
Pollution Sensitive Spp Abund (%)	0.00		0.00		3.81		18.89		33.33	
Pollution Sensitive Spp Biom (%)	0.00	1	0.00	1	65.79	3	51.57	3	53.68	3
Carnivore-Omnivore Abund (%)	0.00		28.57		10.38		23.33		11.11	
Deep Deposit Feeder Abund (%)	0.00		28.57		57.79		11.11		11.11	
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	
=====										

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	23307	23308	23309	23310	23311
Ameroculodes species complex				23	
Carinoma tremaphoros		23	68	45	
Cyathura polita				136	
Edotea triloba (Epi.)			23		
Eteone heteropoda				159	
Glycinde solitaria			23		
Heteromastus filiformis		45	863	159	
Laeonereis culveri				136	
Lepidactylus dytiscus				68	
Leptocheirus plumulosus			523		
Littoridinops tenuipes (Epi.)			23	91	
Macoma balthica			204	23	68
Macoma mitchelli			159	273	
Marenzelleria viridis				227	
Micrura leidyi					23
Mulinia lateralis			23		45
Mya arenaria			23		
Neanthes succinea		23	591		
Paraprionospio pinnata					45
Polydora cornuta			23		
Rhithropanopeus harrisi (Epi.)			45		
Streblospio benedicti		68	1136	727	
Tubificoides spp.			2931	68	23
Total Abundance w/ Epifauna	0	159	6657	2136	204
Total Abundance w/o Epifauna		159	6566	2045	204
Number of Taxa w/ Epifauna	0	4	15	13	5
Number of Taxa w/o Epifauna	0	4	12	12	5

BENTHIC BIOMASS (Grams per sq. meter)					
Site	23307	23308	23309	23310	23311
Ameroculodes species complex				0.0068	
Carinoma tremaphoros		0.0568	0.0273	0.0159	
Cyathura polita				0.1590	
Edotea triloba (Epi.)			0.0068		
Eteone heteropoda				0.1250	
Glycinde solitaria			0.0045		
Heteromastus filiformis		0.0432	0.6384	0.1500	
Laeonereis culveri				0.1749	
Lepidactylus dytiscus				0.0568	
Leptocheirus plumulosus			0.1250		
Littoridinops tenuipes (Epi.)			0.0045	0.0091	
Macoma balthica			5.3778	0.7997	0.4476
Macoma mitchelli			0.4771	0.7066	
Marenzelleria viridis				0.4044	
Micrura leidyi					0.0409
Mulinia lateralis			0.0772		0.3317
Mya arenaria			1.6108		
Neanthes succinea		0.0068	2.2061		
Paraprionospio pinnata					0.0091
Polydora cornuta			0.0011		
Rhithropanopeus harrisi (Epi.)			0.3181		
Streblospio benedicti		0.0045	0.0341	0.0432	
Tubificoides spp.			0.0500	0.0011	0.0045
Total Biomass w/ Epifauna	0.0000	0.1113	10.9590	2.6526	0.8338
Total Biomass w/o Epifauna	0.0000	0.1113	10.6296	2.6435	0.8338

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23312	23313	23314	23315	23316
Watershed	Western Tribs	Western Tribs	Western Tribs	Western Tribs	Western Tribs
Habitat	High Meso Mud	Low Mesohaline	High Meso Mud	High Meso Mud	High Meso Mud
Date	08/30/16	08/30/16	09/16/16	09/16/16	09/16/16
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)	6.0	5.7	5.4	14.1	11.4
Salinity (ppt)	12.19	10.91	13.12	16.10	14.57
Temperature (C)	28.03	28.20	25.71	26.88	26.85
Dissolved Oxygen (mg/L)	3.3	5.0	6.0	0.3	2.3
Sediment Silt-Clay (%)	66.38	51.05	42.55	89.21	88.59
Total Carbon (%)	2.74	2.83	4.48	2.97	3.43
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	2.67	1.00	1.33	1.00	1.00
Condition	Marginal	Severely Degr.	Severely Degr.	Severely Degr.	Severely Degr.
# Attributes Scored	6	5	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	2.43 3	1.00 1	1.12 1	0.00 1	0.00 1
Abundance (#/m2)	909 1	45 1	1409 3	0 1	68 1
Biomass (g/m2)	1.86 3	0.01 1	0.48 1	0.00 1	0.00 1
Pollution Indicative Spp Abund (%)	50.00	50.00 1	87.10	100.00	100.00
Pollution Indicative Spp Biom (%)	14.27 3	66.67	79.29 1	100.00 1	100.00 1
Pollution Sensitive Spp Abund (%)	5.00	0.00	0.00	0.00	0.00
Pollution Sensitive Spp Biom (%)	1.22 1	0.00 1	0.00 1	0.00 1	0.00 1
Carnivore-Omnivore Abund (%)	42.50 5	0.00	3.23 1	0.00 1	0.00 1
Deep Deposit Feeder Abund (%)	7.50	50.00	9.68	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	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

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	23312	23313	23314	23315	23316
Carinoma tremaphoros			23		
Eteone heteropoda	23				
Glycinde solitaria	45				
Heteromastus filiformis	45		23		
Macoma mitchelli	23				
Micrura leidyi			23		
Mulinia lateralis	91		45		
Neanthes succinea	273				
Parahesion luteola	45				
Paraprionospio pinnata			45		68
Streblospio benedicti	341	23	1136		
Tubificoides spp.	23	23	114		
Total Abundance w/ Epifauna	909	45	1409	0	68
Total Abundance w/o Epifauna	909	45	1409		68
Number of Taxa w/ Epifauna	9	2	7	0	1
Number of Taxa w/o Epifauna	9	2	7	0	1
BENTHIC BIOMASS (Grams per sq. meter)					
Site	23312	23313	23314	23315	23316
Carinoma tremaphoros			0.0477		
Eteone heteropoda	0.0045				
Glycinde solitaria	0.0227				
Heteromastus filiformis	0.0772		0.0409		
Macoma mitchelli	0.0704				
Micrura leidyi			0.0091		
Mulinia lateralis	0.2408		0.3431		
Neanthes succinea	1.4132				
Parahesion luteola	0.0114				
Paraprionospio pinnata			0.0011		0.0045
Streblospio benedicti	0.0204	0.0045	0.0386		
Tubificoides spp.	0.0023	0.0023	0.0023		
Total Biomass w/ Epifauna	1.8630	0.0068	0.4828	0.0000	0.0045
Total Biomass w/o Epifauna	1.8630	0.0068	0.4828	0.0000	0.0045

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23317	23318	23319	23320	23321
Watershed	Western Tribs	Western Tribs	Western Tribs	Western Tribs	Western Tribs
Habitat	High Meso Mud	High Meso Mud	Low Mesohaline	High Meso Mud	Low Mesohaline
Date	09/16/16	09/16/16	08/30/16	09/16/16	08/22/16
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)	3.3	6.6	0.6	13.8	2.7
Salinity (ppt)	12.95	13.26	8.47	15.25	6.14
Temperature (C)	25.64	26.04	27.23	26.92	27.62
Dissolved Oxygen (mg/L)	7.5	5.4	6.3	1.0	6.8
Sediment Silt-Clay (%)	51.04	66.89	57.58	48.14	68.98
Total Carbon (%)	1.28	3.70	3.25	2.77	2.18
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	3.33	1.00	1.80	1.00	1.80
Condition	Meets Goal	Severely Degr.	Severely Degr.	Severely Degr.	Severely Degr.
# Attributes Scored	6	6	5	6	5
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	2.01 3	1.65 1	0.72 1	1.00 1	1.81 3
Abundance (#/m2)	6612 1	613 1	17767 1	45 1	386 1
Biomass (g/m2)	5.87 5	0.24 1	2.13 3	0.00 1	0.40 1
Pollution Indicative Spp Abund (%)	52.23	81.48	89.64 1	50.00	29.41 1
Pollution Indicative Spp Biom (%)	6.23 3	99.05 1	51.68	33.33 1	4.57
Pollution Sensitive Spp Abund (%)	4.12	0.00	1.92	0.00	35.29
Pollution Sensitive Spp Biom (%)	60.99 5	0.00 1	41.54 3	0.00 1	82.86 3
Carnivore-Omnivore Abund (%)	15.12 3	0.00 1	2.30	0.00 1	35.29
Deep Deposit Feeder Abund (%)	30.24	22.22	5.88	50.00	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	6.20
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	100.00

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	23317	23318	23319	23320	23321
Carinoma tremaphoros	23		23		
Coelotanypus spp.					114
Cyathura polita			295		23
Edotea triloba (Epi.)			45		
Eteone heteropoda	68		23		
Gammarus daiberi (Epi.)			68		
Gemma gemma			23		
Glycinde solitaria	91				
Heteromastus filiformis	204		23		
Hobsonia florida			114		
Laeonereis culveri			45		
Leitoscoloplos robustus		23			
Leptocheirus plumulosus	45		23		136
Macoma balthica	182				
Macoma mitchelli			23		
Marenzelleria viridis			45		114
Mulinia lateralis	45				
Neanthes succinea	818		23		
Paraprionospio pinnata	45	295			
Polydora cornuta			182		
Streblospio benedicti	3294	182	15904	23	
Tubificoides spp.	1795	114	1022	23	
Total Abundance w/ Epifauna	6612	613	17881	45	386
Total Abundance w/o Epifauna	6612	613	17767	45	386
Number of Taxa w/ Epifauna	11	4	16	2	4
Number of Taxa w/o Epifauna	11	4	14	2	4

BENTHIC BIOMASS (Grams per sq. meter)					
Site	23317	23318	23319	23320	23321
Carinoma tremaphoros	0.0591		0.0045		
Coelotanypus spp.					0.0182
Cyathura polita			0.8202		0.0227
Edotea triloba (Epi.)			0.0250		
Eteone heteropoda	0.0068		0.0091		
Gammarus daiberi (Epi.)			0.0114		
Gemma gemma			0.0011		
Glycinde solitaria	0.0318				
Heteromastus filiformis	0.0636		0.0114		
Hobsonia florida			0.0182		
Laeonereis culveri			0.0386		
Leitoscoloplos robustus		0.0954			
Leptocheirus plumulosus	0.0045		0.0045		0.0500
Macoma balthica	3.5489				
Macoma mitchelli			0.0227		
Marenzelleria viridis			0.0636		0.3067
Mulinia lateralis	0.2204				
Neanthes succinea	1.7290		0.0114		
Paraprionospio pinnata	0.0182	0.1250			
Polydora cornuta			0.0068		
Streblospio benedicti	0.1204	0.0159	1.0906	0.0011	
Tubificoides spp.	0.0682	0.0023	0.0250	0.0023	
Total Biomass w/ Epifauna	5.8708	0.2386	2.1641	0.0034	0.3976
Total Biomass w/o Epifauna	5.8708	0.2386	2.1277	0.0034	0.3976

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23322	23323	23324	23325	23326
Watershed	Western Tribs	Western Tribs	Western Tribs	Western Tribs	Western Tribs
Habitat	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline
Date	08/22/16	08/22/16	09/23/16	09/23/16	09/23/16
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)	3.2	2.6	1.7	0.6	0.7
Salinity (ppt)	5.99	5.38	6.37	5.86	6.30
Temperature (C)	27.94	28.00	24.57	24.04	24.66
Dissolved Oxygen (mg/L)	6.3	5.3	8.1	7.8	8.4
Sediment Silt-Clay (%)	71.06	40.17	6.28	34.29	4.43
Total Carbon (%)	2.42	2.62	0.26	1.47	0.21
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	2.60	3.00	2.60	3.40	2.60
Condition	Degraded	Meets Goal	Degraded	Meets Goal	Degraded
# Attributes Scored	5	5	5	5	5
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	2.63 5	2.65 5	2.19 3	2.20 3	0.73 1
Abundance (#/m2)	273 1	227 1	7588 1	1977 5	727 3
Biomass (g/m2)	1.00 3	14.85 3	22.80 3	4.75 3	16.48 3
Pollution Indicative Spp Abund (%)	33.33 1	20.00 3	44.01 1	66.67 1	90.63 1
Pollution Indicative Spp Biom (%)	0.91	0.04	1.26	1.87	0.20
Pollution Sensitive Spp Abund (%)	25.00	60.00	9.58	12.64	3.13
Pollution Sensitive Spp Biom (%)	95.01 3	99.84 3	97.26 5	97.20 5	99.76 5
Carnivore-Omnivore Abund (%)	33.33	40.00	7.78	26.44	3.13
Deep Deposit Feeder Abund (%)	16.67	0.00	32.93	16.09	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	6.15	6.07	6.00	6.19	4.85
Tany./Chir. Abundance Ratio	100.00	100.00	0.00	100.00	0.00

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	23322	23323	23324	23325	23326
Ameroculodes species complex			23		
Apocorophium lacustre (Epi.)			2340		45
Carinoma tremaphoros			159	23	
Cladotanytarsus viridiventris					23
Coelotanypus spp.	68	23		364	
Cyathura polita	23	68	295	136	
Edotea triloba (Epi.)			68		
Eteone heteropoda			91		
Leptocheirus plumulosus	68	23	114	45	
Marenzelleria viridis	23	23	204	91	
Melita nitida (Epi.)	45	23			
Mytilopsis leucophaeata (Epi.)			295		
Neanthes succinea			45		
Polydora cornuta		23	682	23	45
Rangia cuneata	23	45	227	23	23
Streblospio benedicti	23	23	3249	954	636
Stylochus ellipticus (Epi.)			45		
Tubificoides spp.	45		2499	318	
Total Abundance w/ Epifauna	318	250	10338	1977	772
Total Abundance w/o Epifauna	273	227	7588	1977	727
Number of Taxa w/ Epifauna	8	8	15	9	5
Number of Taxa w/o Epifauna	7	7	11	9	4

BENTHIC BIOMASS (Grams per sq. meter)					
Site	23322	23323	23324	23325	23326
Ameroculodes species complex			0.0023		
Apocorophium lacustre (Epi.)			0.3340		0.0023
Carinoma tremaphoros			0.0818	0.0227	
Chironomidae					0.0011
Coelotanypus spp.	0.0045	0.0045		0.0704	
Cyathura polita	0.4112	0.0432	0.2454	0.0568	
Edotea triloba (Epi.)			0.0091		
Eteone heteropoda			0.0273		
Leptocheirus plumulosus	0.0364	0.0159	0.0250	0.0136	
Marenzelleria viridis	0.1886	0.0977	0.5975	0.4021	
Melita nitida (Epi.)	0.0045	0.0011			
Mytilopsis leucophaeata (Epi.)			2.4515		
Neanthes succinea			0.0386		
Polydora cornuta		0.0023	0.1590	0.0011	0.0068
Rangia cuneata	0.3522	14.6885	21.3364	4.1532	16.4425
Streblospio benedicti	0.0045	0.0011	0.2590	0.0182	0.0318
Stylochus ellipticus (Epi.)			0.0068		
Tubificoides spp.	0.0045		0.0318	0.0068	
Total Biomass w/ Epifauna	1.0065	14.8543	25.6054	4.7451	16.4845
Total Biomass w/o Epifauna	1.0020	14.8532	22.8041	4.7451	16.4822

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23102	23103	23104	23105	23106
Watershed	Potomac R	Potomac R	Potomac R	Potomac R	Potomac R
Habitat	High Meso Sand	Polyhaline Mud	Polyhaline Sand	Polyhaline Sand	High Meso Sand
Date	08/16/16	08/16/16	08/16/16	08/16/16	08/16/16
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)	8.0	13.9	14.6	16.1	2.8
Salinity (ppt)	17.81	21.15	21.23	21.21	14.37
Temperature (C)	27.98	27.36	27.37	27.39	30.30
Dissolved Oxygen (mg/L)	1.6	0.8	0.4	0.6	6.5
Sediment Silt-Clay (%)	12.22	61.31	21.05	11.60	4.47
Total Carbon (%)	0.49	2.75	0.92	0.32	1.08
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	3.00	1.00	2.00	1.00	2.33
Condition	Meets Goal	Severely Degr.	Severely Degr.	Severely Degr.	Degraded
# Attributes Scored	6	6	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	2.66 3	0.00 1	0.00 1	0.00 1	0.36 1
Abundance (#/m2)	1431 3	0 1	23 1	0 1	41987 1
Biomass (g/m2)	0.49 1	0.00 1	0.02 1	0.00 1	12.74 5
Pollution Indicative Spp Abund (%)	30.16 1	100.00	0.00	100.00	0.11 5
Pollution Indicative Spp Biom (%)	23.09	100.00 1	0.00 5	100.00 1	0.02
Pollution Sensitive Spp Abund (%)	42.86 5	0.00	100.00 3	0.00 1	0.43 1
Pollution Sensitive Spp Biom (%)	66.05	0.00 1	100.00	0.00	0.48
Carnivore-Omnivore Abund (%)	63.49 5	0.00 1	0.00	0.00	2.11 1
Deep Deposit Feeder Abund (%)	6.35	0.00	0.00 1	0.00 1	2.11
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

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	23102	23103	23104	23105	23106
Acteocina canaliculata	477				
Americamysis almyra (Epi.)					68
Arcuatula papyria (Epi.)					23
Carinoma tremaphoros					23
Edotea triloba (Epi.)	23				91
Eteone heteropoda	23				45
Gemma gemma					40169
Glycinde solitaria	45				182
Heteromastus filiformis					750
Macoma mitchelli					45
Mediomastus ambiseta	68				
Micrura leidy					23
Mulinia lateralis	114				
Neanthes succinea	45				545
Parahesion luteola	23				
Paraprionospio pinnata	295				
Pectinaria gouldii	23				23
Phoronis spp.	23		23		
Podarkeopsis levifuscina					68
Rictaxis punctostriatus	295				
Stylochus ellipticus (Epi.)					45
Tubificoides spp.					114
Total Abundance w/ Epifauna	1454	0	23	0	42214
Total Abundance w/o Epifauna	1431		23		41987
Number of Taxa w/ Epifauna	12	0	1	0	15
Number of Taxa w/o Epifauna	11	0	1	0	11

BENTHIC BIOMASS (Grams per sq. meter)					
Site	23102	23103	23104	23105	23106
Acteocina canaliculata	0.3067				
Americamysis almyra (Epi.)					0.0182
Arcuatula papyria (Epi.)					0.0591
Carinoma tremaphoros					0.0159
Edotea triloba (Epi.)	0.0011				0.0136
Eteone heteropoda	0.0045				0.0023
Gemma gemma					11.7780
Glycinde solitaria	0.0068				0.0613
Heteromastus filiformis					0.2317
Macoma mitchelli					0.0045
Mediomastus ambiseta	0.0068				
Micrura leidy					0.2386
Mulinia lateralis	0.0295				
Neanthes succinea	0.0204				0.3772
Parahesion luteola	0.0045				
Paraprionospio pinnata	0.0795				
Pectinaria gouldii	0.0011				0.0182
Phoronis spp.	0.0045		0.0250		
Podarkeopsis levifuscina					0.0045
Rictaxis punctostriatus	0.0273				
Stylochus ellipticus (Epi.)					0.0091
Tubificoides spp.					0.0091
Total Biomass w/ Epifauna	0.4930	0.0000	0.0250	0.0000	12.8413
Total Biomass w/o Epifauna	0.4919	0.0000	0.0250	0.0000	12.7414

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23107	23108	23109	23110	23111
Watershed	Potomac R	Potomac R	Potomac R	Potomac R	Potomac R
Habitat	High Meso Mud	High Meso Sand	High Meso Mud	Polyhaline Mud	Polyhaline Mud
Date	08/16/16	08/16/16	08/16/16	08/16/16	08/16/16
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)	12.9	2.5	12.1	7.8	8.0
Salinity (ppt)	17.17	13.90	16.87	18.50	18.24
Temperature (C)	27.44	31.00	24.37	27.56	27.57
Dissolved Oxygen (mg/L)	1.0	7.4	0.8	0.6	0.8
Sediment Silt-Clay (%)	58.64	2.17	63.24	63.35	58.37
Total Carbon (%)	3.61	0.13	2.55	3.33	3.37
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	1.00	4.00	1.67	1.00	1.00
Condition	Severely Degr.	Meets Goal	Severely Degr.	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	3.21 5	1.00 1	0.00 1	0.00 1
Abundance (#/m2)	0 1	3090 3	45 1	0 1	0 1
Biomass (g/m2)	0.00 1	1.07 3	0.00 1	0.00 1	0.00 1
Pollution Indicative Spp Abund (%)	100.00	0.74 5	0.00	100.00	100.00
Pollution Indicative Spp Biom (%)	100.00 1	0.85	0.00 5	100.00 1	100.00 1
Pollution Sensitive Spp Abund (%)	0.00	33.82 3	0.00	0.00	0.00
Pollution Sensitive Spp Biom (%)	0.00 1	45.74	0.00 1	0.00 1	0.00 1
Carnivore-Omnivore Abund (%)	0.00 1	40.44 5	0.00 1	0.00 1	0.00 1
Deep Deposit Feeder Abund (%)	0.00	9.56	50.00	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	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

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	23107	23108	23109	23110	23111
<i>Acteocina canaliculata</i>		250			
<i>Arcuatula papyria</i> (Epi.)		45			
<i>Carinoma tremaphoros</i>		23			
<i>Gemma gemma</i>		91	23		
<i>Geukensia demissa</i> (Epi.)		23			
<i>Glycinde solitaria</i>		227			
<i>Haminoea solitaria</i>		23			
<i>Heteromastus filiformis</i>		295	23		
<i>Leptosynapta tenuis</i>		68			
<i>Macoma mitchelli</i>		795			
<i>Micrura leidyi</i>		23			
<i>Mulinia lateralis</i>		23			
<i>Neanthes succinea</i>		295			
<i>Phoronis</i> spp.		477			
<i>Podarkeopsis levifuscina</i>		45			
<i>Rictaxis punctostriatus</i>		364			
<i>Spiochaetopterus costarum</i>		91			
Total Abundance w/ Epifauna	0	3158	45	0	0
Total Abundance w/o Epifauna		3090	45		
Number of Taxa w/ Epifauna	0	17	2	0	0
Number of Taxa w/o Epifauna	0	15	2	0	0
BENTHIC BIOMASS (Grams per sq. meter)					
Site	23107	23108	23109	23110	23111
<i>Acteocina canaliculata</i>		0.0364			
<i>Arcuatula papyria</i> (Epi.)		0.0045			
<i>Carinoma tremaphoros</i>		0.0091			
<i>Gemma gemma</i>		0.0091	0.0011		
<i>Geukensia demissa</i> (Epi.)		0.0023			
<i>Glycinde solitaria</i>		0.0432			
<i>Haminoea solitaria</i>		0.0023			
<i>Heteromastus filiformis</i>		0.1159	0.0023		
<i>Leptosynapta tenuis</i>		0.1091			
<i>Macoma mitchelli</i>		0.1795			
<i>Micrura leidyi</i>		0.0091			
<i>Mulinia lateralis</i>		0.0091			
<i>Neanthes succinea</i>		0.1045			
<i>Phoronis</i> spp.		0.2999			
<i>Podarkeopsis levifuscina</i>		0.0114			
<i>Rictaxis punctostriatus</i>		0.0204			
<i>Spiochaetopterus costarum</i>		0.1091			
Total Biomass w/ Epifauna	0.0000	1.0747	0.0034	0.0000	0.0000
Total Biomass w/o Epifauna	0.0000	1.0678	0.0034	0.0000	0.0000

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23112	23114	23115	23116	23117
Watershed	Potomac R	Potomac R	Potomac R	Potomac R	Potomac R
Habitat	High Meso Mud	High Meso Sand	High Meso Mud	High Meso Sand	High Meso Mud
Date	09/07/16	09/07/16	08/16/16	09/07/16	09/07/16
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)	5.0	4.8	7.0	1.0	12.6
Salinity (ppt)	12.57	15.88	16.13	14.12	13.58
Temperature (C)	25.57	25.93	27.51	26.08	26.12
Dissolved Oxygen (mg/L)	6.1	5.8	0.6	7.3	5.3
Sediment Silt-Clay (%)	70.16	36.78	72.55	2.05	72.08
Total Carbon (%)	2.16	1.70	3.00	0.13	2.29
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	1.00	1.00	1.00	2.33	1.67
Condition	Severely Degr.	Severely Degr.	Severely Degr.	Degraded	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	0.00 1	1.53 1	1.56 1
Abundance (#/m2)	23 1	0 1	0 1	1681 5	182 1
Biomass (g/m2)	0.00 1	0.00 1	0.00 1	0.52 1	0.01 1
Pollution Indicative Spp Abund (%)	100.00	100.00	100.00	5.41 5	37.50
Pollution Indicative Spp Biom (%)	100.00 1	100.00	100.00 1	5.64	50.00 1
Pollution Sensitive Spp Abund (%)	0.00	0.00 1	0.00	0.00 1	0.00
Pollution Sensitive Spp Biom (%)	0.00 1	0.00	0.00 1	0.00	0.00 1
Carnivore-Omnivore Abund (%)	0.00 1	0.00 1	0.00 1	13.51 1	62.50 5
Deep Deposit Feeder Abund (%)	0.00	0.00	0.00	6.76	37.50
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
BENTHIC ABUNDANCE (per sq. meter)					
Site	23112	23114	23115	23116	23117
Carinoma tremaphoros				23	
Eteone heteropoda					68
Gemma gemma				1181	
Heteromastus filiformis				23	68
Laeonereis culveri				182	
Leitoscoloplos spp.				91	
Lepidactylus dytiscus				23	
Macoma mitchelli				136	
Micrura leidy				23	
Neanthes succinea					45
Paraprionospio pinnata	23				
Total Abundance w/ Epifauna	23	0	0	1681	182
Total Abundance w/o Epifauna	23			1681	182
Number of Taxa w/ Epifauna	1	0	0	8	3
Number of Taxa w/o Epifauna	1	0	0	8	3
BENTHIC BIOMASS (Grams per sq. meter)					
Site	23112	23114	23115	23116	23117
Carinoma tremaphoros				0.0023	
Eteone heteropoda					0.0068
Gemma gemma				0.2090	
Heteromastus filiformis				0.0204	0.0045
Laeonereis culveri				0.1250	
Leitoscoloplos spp.				0.0295	
Lepidactylus dytiscus				0.0068	

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter) - Contd.					
Site	23112	23114	23115	23116	23117
Macoma mitchelli				0.0011	
Micrura leidyi				0.1295	
Neanthes succinea					0.0023
Paraprionospio pinnata	0.0023				
Total Biomass w/ Epifauna	0.0023	0.0000	0.0000	0.5237	0.0136
Total Biomass w/o Epifauna	0.0023	0.0000	0.0000	0.5237	0.0136

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23120	23121	23123	23124	23125
Watershed	Potomac R	Potomac R	Potomac R	Potomac R	Potomac R
Habitat	High Meso Mud	Low Mesohaline	Oligohaline	Low Mesohaline	Oligohaline
Date	09/07/16	09/20/16	09/20/16	09/20/16	09/20/16
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)	4.0	7.0	2.6	1.3	11.1
Salinity (ppt)	13.56	5.41	3.02	9.36	1.82
Temperature (C)	25.35	25.50	25.52	25.51	25.53
Dissolved Oxygen (mg/L)	6.6	5.2	6.8	7.5	7.1
Sediment Silt-Clay (%)	78.23	87.02	79.09	85.07	57.02
Total Carbon (%)	2.22	2.76	2.51	2.69	2.89

BENTHIC INDEX OF BIOTIC INTEGRITY

	2.67		3.80		2.00		1.40		1.33	
	Marginal		Meets Goal		Severely Degr.		Severely Degr.		Severely Degr.	
# Attributes Scored	6		5		6		5		6	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
B-IBI Score	2.67		3.80		2.00		1.40		1.33	
Condition	Marginal		Meets Goal		Severely Degr.		Severely Degr.		Severely Degr.	
Shannon-Wiener Index	1.94	1	1.61	1	2.07	3	1.75	3	1.64	
Abundance (#/m2)	1022	3	977	3	523	5	182	1	4158	1
Biomass (g/m2)	0.63	3	6.99	5	0.24		0.72	1	93.45	
Pollution Indicative Spp Abund (%)	0.00		0.00	5	86.96		50.00	1	96.17	
Pollution Indicative Spp Biom (%)	0.00	5	0.00		38.39		2.53		1.00	
Pollution Sensitive Spp Abund (%)	62.22		13.95		4.35		12.50		2.73	
Pollution Sensitive Spp Biom (%)	28.32	1	97.29	5	59.72		10.13	1	98.99	
Carnivore-Omnivore Abund (%)	22.22	3	18.60		8.70	1	62.50		2.73	1
Deep Deposit Feeder Abund (%)	68.89		69.77		43.48		25.00		32.79	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		0.00		43.48		0.00		32.79	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		95.65	1	0.00		96.72	1
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		4.35	3	0.00		1.09	3
Tolerance Score	0.00		6.00		9.20	1	6.20		9.52	1
Tany./Chir. Abundance Ratio	0.00		0.00		100.00	1	100.00		100.00	1

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	23120	23121	23123	23124	23125
Carinoma tremaphoros	91	159			23
Coelotanypus spp.			45	91	68
Cyathura polita		23		23	23
Glycinde solitaria	23				
Heteromastus filiformis	45	636		45	
Hydrobia truncata (Epi.)		23			
Leptocheirus plumulosus	91		45		
Limnodrilus hoffmeisteri			23		568
Macoma mitchelli				23	
Marenzelleria viridis		91	23		45
Mediomastus ambiseta	613				
Melita nitida (Epi.)	45				
Neanthes succinea	114				
Odostomia engonia (Epi.)		23			
Polydora cornuta					23
Rangia cuneata		23			45
Streblospio benedicti			182		2567
Tubificidae imm w/o cap chaetae *			204		795
Tubificoides spp.	45	45			
Total Abundance w/ Epifauna	1068	1022	523	182	4158
Total Abundance w/o Epifauna	1022	977	523	182	4158
Number of Taxa w/ Epifauna	8	8	5	4	8
Number of Taxa w/o Epifauna	7	6	5	4	8

*Indicates taxa is skipped in taxon counts

BENTHIC BIOMASS (Grams per sq. meter)					
Site	23120	23121	23123	23124	23125
Carinoma tremaphoros	0.0045	0.1545			0.0023
Coelotanypus spp.			0.0182	0.0182	0.0204
Cyathura polita		0.0114		0.0727	0.0682
Glycinde solitaria	0.0841				
Heteromastus filiformis	0.1431	0.0341		0.0068	
Hydrobia truncata (Epi.)		0.0091			
Leptocheirus plumulosus	0.0273		0.0045		
Macoma mitchelli				0.6203	
Marenzelleria viridis		0.7520	0.1431		0.2613
Mediomastus ambiseta	0.0954				
Melita nitida (Epi.)	0.0068				
Neanthes succinea	0.2772				
Odostomia engonia (Epi.)		0.0011			
Oligochaeta			0.0557		0.7816
Polydora cornuta					0.0023
Rangia cuneata		6.0390			92.1773
Streblospio benedicti			0.0182		0.1363
Tubificoides spp.	0.0023	0.0011			
Total Biomass w/ Epifauna	0.6407	7.0023	0.2397	0.7180	93.4496
Total Biomass w/o Epifauna	0.6339	6.9921	0.2397	0.7180	93.4496

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23126	23127	23128	23129	23130
Watershed	Potomac R	Potomac R	Potomac R	Potomac R	Potomac R
Habitat	High Meso Mud	High Meso Mud	High Meso Sand	Polyhaline Mud	High Meso Sand
Date	09/07/16	08/16/16	08/16/16	08/16/16	09/07/16
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)	10.2	6.9	9.0	9.6	4.9
Salinity (ppt)	15.60	14.79	17.36	19.92	12.55
Temperature (C)	26.05	27.65	28.31	27.45	25.57
Dissolved Oxygen (mg/L)	6.1	0.4	2.8	1.0	6.1
Sediment Silt-Clay (%)	53.52	88.69	3.21	69.91	9.28
Total Carbon (%)	2.75	2.65	0.16	2.90	0.37
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	2.33	1.00	4.00	1.67	1.33
Condition	Degraded	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	1.58 1	0.00 1	3.34 5	0.00 1	1.60 1
Abundance (#/m2)	68 1	0 1	1863 5	68 1	795 1
Biomass (g/m2)	0.01 1	0.00 1	1.09 3	0.01 1	0.11 1
Pollution Indicative Spp Abund (%)	0.00	100.00	10.98 3	0.00	40.00 1
Pollution Indicative Spp Biom (%)	0.00 5	100.00 1	3.13	0.00 5	23.40
Pollution Sensitive Spp Abund (%)	0.00	0.00	50.00 5	0.00	57.14 3
Pollution Sensitive Spp Biom (%)	0.00 1	0.00 1	42.96	0.00 1	63.83
Carnivore-Omnivore Abund (%)	66.67 5	0.00 1	32.93 3	0.00 1	8.57 1
Deep Deposit Feeder Abund (%)	0.00	0.00	19.51	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	0.00	0.00	0.00	0.00	0.00
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	23126	23127	23128	23129	23130
Acteocina canaliculata			159		
Ampelisca abdita			91		
Eteone heteropoda					45
Gastropoda (Epi.)					23
Gemma gemma	23			68	
Glycera dibranchiata			68		
Glycinde solitaria			250		
Heteromastus filiformis			114		
Laeonereis culveri	23				
Mediomastus ambiseta			68		454
Neanthes succinea	23		91		23
Paraprionospio pinnata			204		45
Parvilucina crenella			114		
Phoronis spp.			454		
Rictaxis punctostriatus			45		
Streblospio benedicti					227
Tharyx sp. A Morris			23		
Tubificoides spp.			182		
Total Abundance w/ Epifauna	68	0	1863	68	818
Total Abundance w/o Epifauna	68		1863	68	795
Number of Taxa w/ Epifauna	3	0	13	1	6
Number of Taxa w/o Epifauna	3	0	13	1	5

BENTHIC BIOMASS (Grams per sq. meter)					
Site	23126	23127	23128	23129	23130
Acteocina canaliculata			0.0500		
Ampelisca abdita			0.0159		
Eteone heteropoda					0.0023
Gastropoda (Epi.)					0.0068
Gemma gemma	0.0023			0.0068	
Glycera dibranchiata			0.2113		
Glycinde solitaria			0.0454		
Heteromastus filiformis			0.1113		
Laeonereis culveri	0.0068				
Mediomastus ambiseta			0.0159		0.0682
Neanthes succinea	0.0045		0.0727		0.0136
Paraprionospio pinnata			0.0341		0.0068
Parvilucina crenella			0.1522		
Phoronis spp.			0.3567		
Rictaxis punctostriatus			0.0011		
Streblospio benedicti					0.0159
Tharyx sp. A Morris			0.0068		
Tubificoides spp.			0.0159		
Total Biomass w/ Epifauna	0.0136	0.0000	1.0894	0.0068	0.1136
Total Biomass w/o Epifauna	0.0136	0.0000	1.0894	0.0068	0.1068

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23201	23202	23203	23204	23205
Watershed	Patuxent R	Patuxent R	Patuxent R	Patuxent R	Patuxent R
Habitat	High Meso Sand	High Meso Mud	High Meso Sand	High Meso Sand	High Meso Sand
Date	08/17/16	08/17/16	08/17/16	08/17/16	08/17/16
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)	8.2	9.7	8.2	7.8	7.5
Salinity (ppt)	16.32	16.38	16.66	16.65	16.51
Temperature (C)	28.77	28.81	28.70	28.74	28.99
Dissolved Oxygen (mg/L)	3.2	3.1	3.4	3.4	4.4
Sediment Silt-Clay (%)	15.84	46.99	27.02	32.22	7.45
Total Carbon (%)	1.17	2.59	1.71	2.09	0.30

BENTHIC INDEX OF BIOTIC INTEGRITY

B-IBI Score	3.67		3.33		3.67		4.33		3.67	
	Meets	Goal	Meets	Goal	Meets	Goal	Meets	Goal	Meets	Goal
# Attributes Scored	6		6		6		6		6	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.73	3	3.20	5	3.15	3	3.23	5	2.87	3
Abundance (#/m2)	1545	5	704	1	4612	3	1568	5	3022	3
Biomass (g/m2)	0.45	1	1.05	3	1.39	3	1.46	3	0.65	1
Pollution Indicative Spp Abund (%)	11.76	3	41.94		5.42	5	14.49	3	1.50	5
Pollution Indicative Spp Biom (%)	18.73		11.04	3	6.48		5.61		36.62	
Pollution Sensitive Spp Abund (%)	66.18	5	38.71		22.17	3	40.58	5	52.63	5
Pollution Sensitive Spp Biom (%)	68.86		54.44	3	14.10		6.54		34.15	
Carnivore-Omnivore Abund (%)	69.12	5	35.48	5	50.25	5	66.67	5	70.68	5
Deep Deposit Feeder Abund (%)	11.76		3.23		13.30		13.04		6.77	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		0.00		0.99		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		9.80		0.00		0.00	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		0.00		0.00	

BENTHIC ABUNDANCE (per sq. meter)

Site	23201	23202	23203	23204	23205
Acteocina canaliculata	500	68	682	500	1227
Americamysis almyra (Epi.)			204		
Americamysis bigelowi (Epi.)					23
Ameroculodes species complex					68
Ampelisca abdita	23	45	91	45	182
Ampelisca vadorum			23		
Arcuatula papyria (Epi.)			45		114
Edotea triloba (Epi.)			68		45
Gemma gemma					23
Geukensia demissa (Epi.)			68		23
Glycinde solitaria	409	91	318	136	227
Heteromastus filiformis				23	
Leitoscoloplos robustus					23
Leptosynapta tenuis					295
Leucon americanus	23		68	23	
Loimia medusa		23			
Macoma mitchelli	23		68	23	
Mediomastus ambiseta	114	23	23		68
Micrura leidy				45	
Molgula manhattensis (Epi.)			1431		
Mulinia lateralis		114	91	114	
Mya arenaria					23
Neanthes succinea		23	977	136	45
Parahesion luteola	91		45	91	
Paraprionospio pinnata	182	182	114	114	23
Pectinaria gouldii	68		523	182	114
Phoronis spp.		23			23
Podarkeopsis levifuscina		23		45	91

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter) - Contd.					
Site	23201	23202	23203	23204	23205
Polydora cornuta			1181		
Rictaxis punctostriatus	68		250	91	545
Saccoglossus kowalevskii	45		45		23
Sigambra tentaculata		45	45		
Spiochaetopterus costarum		45			23
Stylochus ellipticus (Epi.)				23	
Tubificidae imm w/o cap chaetae			45		
Tubificoides spp.			23		
Total Abundance w/ Epifauna	1545	704	6430	1590	3226
Total Abundance w/o Epifauna	1545	704	4612	1568	3022
Number of Taxa w/ Epifauna	11	12	23	15	21
Number of Taxa w/o Epifauna	11	12	18	14	17
BENTHIC BIOMASS (Grams per sq. meter)					
Site	23201	23202	23203	23204	23205
Acteocina canaliculata	0.1250	0.0182	0.0909	0.0659	0.1568
Americamysis almyra (Epi.)			0.0500		
Americamysis bigelowi (Epi.)					0.0023
Ameroculodes species complex					0.0068
Ampelisca abdita	0.0011	0.0045	0.0068	0.0011	0.0227
Ampelisca vadorum			0.0023		
Arcuatula papyria (Epi.)			0.0091		0.0091
Edotea triloba (Epi.)			0.0091		0.0023
Gemma gemma					0.0023
Geukensia demissa (Epi.)			0.1045		0.0023
Glycinde solitaria	0.1749	0.0523	0.1022	0.0295	0.0454
Heteromastus filiformis				0.0704	
Leitoscoloplos robustus					0.2113
Leptosynapta tenuis					0.0364
Leucon americanus	0.0045		0.0091	0.0045	
Loimia medusa		0.4817			
Macoma mitchelli	0.0023		0.0023	0.0011	
Mediomastus ambiseta	0.0091	0.0045	0.0023		0.0011
Micrura leidyi				0.2317	
Molgula manhattensis (Epi.)			4.2350		
Mulinia lateralis		0.0591	0.0091	0.0613	
Mya arenaria					0.0011
Neanthes succinea		0.3453	0.8384	0.9224	0.0500
Oligochaeta			0.0011		
Parahesionia luteola	0.0091		0.0045	0.0068	
Paraprionospio pinnata	0.0841	0.0568	0.0795	0.0204	0.0250
Pectinaria gouldii	0.0045		0.0454	0.0386	0.0227
Phoronis spp.		0.0011			0.0045
Podarkeopsis levifuscina		0.0011		0.0023	0.0159
Polydora cornuta			0.1204		
Rictaxis punctostriatus	0.0068		0.0023	0.0023	0.0227
Saccoglossus kowalevskii	0.0273		0.0454		0.0091
Sigambra tentaculata		0.0114	0.0227		
Spiochaetopterus costarum		0.0136			0.0114
Stylochus ellipticus (Epi.)				0.0011	
Tubificoides spp.			0.0011		
Total Biomass w/ Epifauna	0.4487	1.0497	5.7936	1.4598	0.6612
Total Biomass w/o Epifauna	0.4487	1.0497	1.3859	1.4586	0.6452

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23206	23208	23209	23210	23212
Watershed	Patuxent R	Patuxent R	Patuxent R	Patuxent R	Patuxent R
Habitat	High Meso Sand	High Meso Mud	High Meso Mud	High Meso Mud	High Meso Mud
Date	08/31/16	08/31/16	08/31/16	08/31/16	08/31/16
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)	2.8	8.2	7.0	8.2	5.3
Salinity (ppt)	15.36	15.66	15.68	15.63	15.43
Temperature (C)	29.02	28.92	28.91	28.90	28.92
Dissolved Oxygen (mg/L)	5.9	3.0	3.1	2.7	2.0
Sediment Silt-Clay (%)	3.91	52.67	53.09	69.06	73.40
Total Carbon (%)	0.20	3.32	2.95	3.43	2.73
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	4.00	2.67	1.67	2.00	1.00
Condition	Meets Goal	Marginal	Severely Degr.	Severely Degr.	Severely Degr.
# Attributes Scored	6	6	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	3.56 5	2.53 3	1.42 1	1.09 1	1.29 1
Abundance (#/m2)	1545 5	682 1	273 1	318 1	704 1
Biomass (g/m2)	0.88 1	0.78 3	0.42 1	0.51 3	0.20 1
Pollution Indicative Spp Abund (%)	16.18 3	50.00	66.67	78.57	87.10
Pollution Indicative Spp Biom (%)	46.25	23.19 3	34.97 1	26.05 3	88.37 1
Pollution Sensitive Spp Abund (%)	50.00 5	10.00	0.00	0.00	0.00
Pollution Sensitive Spp Biom (%)	35.92	14.78 1	0.00 1	0.00 1	0.00 1
Carnivore-Omnivore Abund (%)	38.24 5	36.67 5	33.33 5	14.29 3	0.00 1
Deep Deposit Feeder Abund (%)	5.88	0.00	0.00	0.00	12.90
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

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	23206	23208	23209	23210	23212
Acteocina canaliculata	364				
Americamysis almyra (Epi.)	23	23			
Ameroculodes species complex	68				
Ampelisca abdita	91	45			
Arcuatula papyria (Epi.)	136				
Edotea triloba (Epi.)	23				
Gemma gemma				23	
Glycinde solitaria	136	45			
Haminea solitaria	23				
Heteromastus filiformis	23				23
Leitoscoloplos robustus	23				
Leptosynapta tenuis	159				
Loimia medusa	23	23			
Macoma mitchelli	45	23			
Molgula manhattensis (Epi.)	23				
Mulinia lateralis	91				23
Neanthes succinea	45	45	23	23	
Parahesionia luteola		68	23	23	
Paraprionospio pinnata	136	341	182	250	523
Pectinaria gouldii	45				
Phoronis spp.	45				
Podarkeopsis levifuscina		23	45		
Rictaxis punctostriatus	23	45			
Sigambra tentaculata		23			
Spiochaetopterus costarum	204				
Streblospio benedicti					68
Tubificoides spp.					68
Total Abundance w/ Epifauna	1749	704	273	318	704
Total Abundance w/o Epifauna	1545	682	273	318	704
Number of Taxa w/ Epifauna	21	11	4	4	5
Number of Taxa w/o Epifauna	17	10	4	4	5
BENTHIC BIOMASS (Grams per sq. meter)					
Site	23206	23208	23209	23210	23212
Acteocina canaliculata	0.1340				
Americamysis almyra (Epi.)	0.0023	0.0091			
Ameroculodes species complex	0.0068				
Ampelisca abdita	0.0091	0.0023			
Arcuatula papyria (Epi.)	0.0068				
Edotea triloba (Epi.)	0.0023				
Gemma gemma				0.0011	
Glycinde solitaria	0.0318	0.0432			
Haminea solitaria	0.0011				
Heteromastus filiformis	0.0023				0.0204
Leitoscoloplos robustus	0.3204				
Leptosynapta tenuis	0.0818				
Loimia medusa	0.0136	0.0727			
Macoma mitchelli	0.0011	0.0091			
Molgula manhattensis (Epi.)	0.0114				
Mulinia lateralis	0.0068				0.0023
Neanthes succinea	0.0500	0.4521	0.2567	0.3772	
Parahesionia luteola		0.0091	0.0091	0.0023	
Paraprionospio pinnata	0.0795	0.1818	0.1454	0.1340	0.1659
Pectinaria gouldii	0.0023				
Phoronis spp.	0.0273				
Podarkeopsis levifuscina		0.0045	0.0045		
Rictaxis punctostriatus	0.0023	0.0045			
Sigambra tentaculata		0.0045			
Spiochaetopterus costarum	0.1091				
Streblospio benedicti					0.0045
Tubificoides spp.					0.0023
Total Biomass w/ Epifauna	0.9020	0.7929	0.4158	0.5146	0.1954
Total Biomass w/o Epifauna	0.8793	0.7838	0.4158	0.5146	0.1954

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23213	23214	23216	23217	23219
Watershed	Patuxent R	Patuxent R	Patuxent R	Patuxent R	Patuxent R
Habitat	High Meso Sand	High Meso Mud	High Meso Sand	High Meso Mud	High Meso Sand
Date	08/31/16	08/31/16	08/31/16	08/31/16	08/31/16
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)	3.0	7.5	0.5	8.2	2.0
Salinity (ppt)	14.82	15.45	14.29	15.50	13.29
Temperature (C)	28.82	28.89	29.31	28.82	29.70
Dissolved Oxygen (mg/L)	5.6	2.0	5.7	1.4	6.4
Sediment Silt-Clay (%)	11.83	63.92	2.07	73.63	6.49
Total Carbon (%)	0.49	3.26	0.13	3.49	0.25
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	2.33	1.33	3.33	1.00	3.33
Condition	Degraded	Severely Degr.	Meets Goal	Severely Degr.	Meets Goal
# Attributes Scored	6	6	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	2.36 1	0.82 1	2.81 3	0.81 1	3.33 5
Abundance (#/m2)	1863 5	750 1	2772 5	91 1	2227 5
Biomass (g/m2)	1.18 3	0.23 1	3.16 5	0.01 1	2.15 3
Pollution Indicative Spp Abund (%)	62.20 1	84.85 1	11.48 3	100.00 1	29.59 1
Pollution Indicative Spp Biom (%)	75.14 1	94.06 1	9.97 1	100.00 1	42.37 1
Pollution Sensitive Spp Abund (%)	12.20 3	0.00 1	9.02 1	0.00 1	10.20 3
Pollution Sensitive Spp Biom (%)	2.12 1	0.00 1	1.58 1	0.00 1	2.64 1
Carnivore-Omnivore Abund (%)	7.32 1	12.12 3	22.95 3	0.00 1	24.49 3
Deep Deposit Feeder Abund (%)	14.63 1	3.03 1	24.59 3	0.00 1	33.67 3
TF Poll. Indicative Spp Abund (%)	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0
Limnodrilus Abundance (%)	0.00 0	0.00 0	0.82 1	0.00 0	3.06 1
Oligo Poll. Indic. Spp Abund (%)	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0
Oligo Poll. Sens. Spp Abund (%)	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0
Tolerance Score	0.00 0	0.00 0	9.80 3	0.00 0	9.80 3
Tany./Chir. Abundance Ratio	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	23213	23214	23216	23217	23219
Carinoma tremaphoros					23
Gemma gemma	250		977		45
Glycinde solitaria	45		250		227
Heteromastus filiformis		23	636		318
Leitoscoloplos robustus	23				
Macoma mitchelli	68		182		295
Mediomastus ambiseta	182				
Micrura leidyi			45		68
Mulinia lateralis	977		204		114
Neanthes succinea	91		204		159
Parahesionia luteola					23
Paraprionospio pinnata	91	636	45	68	45
Pectinaria gouldii	68				23
Podarkeopsis levifuscina		68	45		23
Rictaxis punctostriatus			91		23
Sigambra tentaculata		23			
Streblospio benedicti	68		45	23	432
Stylochus ellipticus (Epi.)					23
Tubificidae imm w/o cap chaetae			23		68
Tubificoides spp.			23		341
Total Abundance w/ Epifauna	1863	750	2772	91	2249
Total Abundance w/o Epifauna	1863	750	2772	91	2227
Number of Taxa w/ Epifauna	10	4	13	2	17
Number of Taxa w/o Epifauna	10	4	13	2	16

BENTHIC BIOMASS (Grams per sq. meter)					
Site	23213	23214	23216	23217	23219
Carinoma tremaphoros					0.0159
Gemma gemma	0.1727		0.9656		0.0023
Glycinde solitaria	0.0159		0.0500		0.0568
Heteromastus filiformis		0.0068	0.5385		0.3476
Leitoscoloplos robustus	0.0909				
Macoma mitchelli	0.0250		0.2499		0.0182
Mediomastus ambiseta	0.0091				
Micrura leidyi			0.4953		0.6702
Mulinia lateralis	0.7225		0.2976		0.8838
Neanthes succinea	0.0636		0.5339		0.1068
Oligochaeta			0.0011		0.0011
Parahesionia luteola					0.0045
Paraprionospio pinnata	0.0682	0.2158	0.0114	0.0114	0.0136
Pectinaria gouldii	0.0068				0.0011
Podarkeopsis levifuscina		0.0045	0.0011		0.0011
Rictaxis punctostriatus			0.0068		0.0045
Sigambra tentaculata		0.0023			
Streblospio benedicti	0.0045		0.0045	0.0011	0.0136
Stylochus ellipticus (Epi.)					0.0523
Tubificoides spp.			0.0011		0.0114
Total Biomass w/ Epifauna	1.1792	0.2295	3.1569	0.0125	2.2050
Total Biomass w/o Epifauna	1.1792	0.2295	3.1569	0.0125	2.1527

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23220	23221	23222	23223	23224
Watershed	Patuxent R	Patuxent R	Patuxent R	Patuxent R	Patuxent R
Habitat	High Meso Sand	High Meso Mud	High Meso Mud	High Meso Mud	Low Mesohaline
Date	08/31/16	08/31/16	08/31/16	08/31/16	08/31/16
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)	2.3	1.9	5.0	2.5	2.6
Salinity (ppt)	13.78	13.59	12.21	12.93	11.97
Temperature (C)	29.08	29.01	29.21	29.18	29.79
Dissolved Oxygen (mg/L)	3.8	4.0	4.0	3.6	4.7
Sediment Silt-Clay (%)	8.12	73.33	74.71	78.90	65.67
Total Carbon (%)	0.35	2.98	2.28	1.82	3.06

BENTHIC INDEX OF BIOTIC INTEGRITY

B-IBI Score	3.33		1.00		1.00		3.67		3.40	
Condition	Meets Goal		Severely Degr.		Severely Degr.		Meets Goal		Meets Goal	
# Attributes Scored	6		6		6		6		5	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.77	3	0.37	1	0.92	1	2.32	3	2.02	3
Abundance (#/m2)	2022	5	636	1	68	1	409	1	2522	3
Biomass (g/m2)	0.82	1	0.06	1	0.01	1	3.47	5	3.11	3
Pollution Indicative Spp Abund (%)	16.85	3	92.86		66.67		0.00		9.01	5
Pollution Indicative Spp Biom (%)	3.90		96.43	1	80.00	1	0.00	5	0.26	
Pollution Sensitive Spp Abund (%)	33.71	3	0.00		0.00		16.67		10.81	
Pollution Sensitive Spp Biom (%)	11.98		0.00	1	0.00	1	82.20	3	59.88	3
Carnivore-Omnivore Abund (%)	35.96	5	0.00	1	0.00	1	50.00	5	16.22	
Deep Deposit Feeder Abund (%)	8.99		7.14		33.33		33.33		76.58	
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		8.11	
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		9.80	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		0.00		0.00	

BENTHIC ABUNDANCE (per sq. meter)

Site	23220	23221	23222	23223	23224
Acteocina canaliculata	45				
Arcuatula papyria (Epi.)	23				
Carinoma tremaphoros				23	159
Cyathura polita					227
Edwardsia elegans	91				
Gemma gemma	591				
Glycinde solitaria	545			23	
Heteromastus filiformis	91			23	204
Macoma balthica				45	45
Macoma mitchelli	182			23	114
Mediomastus ambiseta	91				
Micrura leidy	23				
Mulinia lateralis	68				
Neanthes succinea	23			159	23
Streblospio benedicti	273	591	45		23
Tubificidae imm w/o cap chaetae					204
Tubificoides spp.		45	23	114	1522
Total Abundance w/ Epifauna	2045	636	68	409	2522
Total Abundance w/o Epifauna	2022	636	68	409	2522
Number of Taxa w/ Epifauna	12	2	2	7	9
Number of Taxa w/o Epifauna	11	2	2	7	9

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	23220	23221	23222	23223	23224
Acteocina canaliculata	0.0204				
Arcuatula papyria (Epi.)	0.0182				
Carinoma tremaphoros				0.0341	0.0932
Cyathura polita					0.7793
Edwardsia elegans	0.0454				
Gemma gemma	0.3022				
Glycinde solitaria	0.0750			0.0114	
Heteromastus filiformis	0.0182			0.0136	0.3999
Macoma balthica				2.8423	1.0837
Macoma mitchelli	0.2249			0.0295	0.7248
Mediomastus ambiseta	0.0023				
Micrura leidyi	0.0636				
Mulinia lateralis	0.0204				
Neanthes succinea	0.0318			0.5316	0.0023
Oligochaeta					0.0057
Streblospio benedicti	0.0114	0.0613	0.0045		0.0023
Tubificoides spp.		0.0023	0.0011	0.0091	0.0204
Total Biomass w/ Epifauna	0.8338	0.0636	0.0057	3.4716	3.1115
Total Biomass w/o Epifauna	0.8156	0.0636	0.0057	3.4716	3.1115

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23225	23226	23227	23228	23229
Watershed	Patuxent R	Patuxent R	Patuxent R	Patuxent R	Patuxent R
Habitat	Freshwater	High Meso Sand	High Meso Mud	High Meso Mud	Low Mesohaline
Date	09/01/16	08/31/16	08/31/16	08/31/16	08/31/16
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	10.7	7.2	4.3	1.5
Salinity (ppt)	0.36	16.34	15.58	12.91	11.85
Temperature (C)	28.24	28.89	29.03	29.52	29.24
Dissolved Oxygen (mg/L)	4.8	5.2	3.8	4.8	4.9
Sediment Silt-Clay (%)	46.35	6.43	62.51	68.58	30.62
Total Carbon (%)	3.00	0.31	2.93	2.34	1.14

BENTHIC INDEX OF BIOTIC INTEGRITY

B-IBI Score	2.00		4.67		2.00		3.33		2.60	
	Severely Degr.		Meets Goal		Severely Degr.		Meets Goal		Degraded	
# Attributes Scored	4		6		6		6		5	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	1.28		3.35	5	2.00	3	2.64	3	2.98	5
Abundance (#/m2)	1636	5	2499	5	182	1	523	1	3317	3
Biomass (g/m2)	1.48		1.18	3	0.07	1	1.89	3	1.75	3
Pollution Indicative Spp Abund (%)	98.61		8.18	5	50.00		4.35		21.23	1
Pollution Indicative Spp Biom (%)	99.69		19.02		49.18	1	0.24	5	1.24	
Pollution Sensitive Spp Abund (%)	0.00		46.36	5	12.50		13.04		10.27	
Pollution Sensitive Spp Biom (%)	0.00		27.76		1.64	1	67.83	3	32.40	1
Carnivore-Omnivore Abund (%)	4.17		61.82	5	50.00	5	30.43	5	24.66	
Deep Deposit Feeder Abund (%)	95.83	1	9.09		0.00		56.52		53.42	
TF Poll. Indicative Spp Abund (%)	94.44	1	0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	94.44		0.00		0.00		0.00		7.53	
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	9.63	1	0.00		0.00		0.00		9.80	
Tany./Chir. Abundance Ratio	100.00		0.00		0.00		0.00		0.00	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	23225	23226	23227	23228	23229
Acteocina canaliculata		682	23		
Ampelisca abdita		273			
Arcuatula papyria (Epi.)		250			
Balanus improvisus (Epi.)		23			
Branchiura sowerbyi	23				
Carinoma tremaphoros				68	45
Coelotanypus spp.	68				
Cyathura polita				23	
Edotea triloba (Epi.)		182			
Eteone heteropoda				23	68
Gemma gemma		23			
Geukensia demissa (Epi.)		45			
Glycinde solitaria		318			250
Heteromastus filiformis				91	432
Leitoscoloplos robustus		45			
Leptosynapta tenuis		45			
Leucon americanus		23			
Limnodrilus hoffmeisteri	636				
Loimia medusa		68			
Macoma balthica				45	91
Macoma mitchelli		23		23	227
Mediomastus ambiseta		68			
Molgula manhattensis (Epi.)		250			
Mulinia lateralis		114			23
Neanthes succinea		432	23	23	454
Parahesion luteola			23		
Paraprionospio pinnata		45	91		45
Pectinaria gouldii		114			
Podarkeopsis levifuscina		45	23		
Polydora cornuta		91			23
Rictaxis punctostriatus		68			
Sigambra tentaculata				23	
Spiochaetopterus costarum		23			
Streblospio benedicti					318
Tubificidae imm w/o cap chaetae					250
Tubificidae imm w/o cap chaetae *	909				
Tubificoides spp.				204	1091
Total Abundance w/ Epifauna	1636	3249	182	523	3317
Total Abundance w/o Epifauna	1636	2499	182	523	3317
Number of Taxa w/ Epifauna	3	23	5	9	13
Number of Taxa w/o Epifauna	3	18	5	9	13

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	23225	23226	23227	23228	23229
Acteocina canaliculata		0.0977	0.0011		
Ampelisca abdita		0.0364			
Arcuatula papyria (Epi.)		0.0364			
Balanus improvisus (Epi.)		0.2817			
Branchiura sowerbyi	0.0045				
Carinoma tremaphoros				0.0727	0.0432
Coelotanypus spp.	0.0023				
Cyathura polita				0.1272	
Edotea triloba (Epi.)		0.0136			
Eteone heteropoda				0.0045	0.0045
Gemma gemma		0.0068			
Geukensia demissa (Epi.)		0.3862			
Glycinde solitaria		0.0409			0.0863
Heteromastus filiformis				0.0454	0.1386
Leitoscoloplos robustus		0.1886			
Leptosynapta tenuis		0.0045			
Leucon americanus		0.0011			
Loimia medusa		0.1840			
Macoma balthica				1.1564	0.4794
Macoma mitchelli		0.0011		0.3363	0.2476
Mediomastus ambiseta		0.0045			
Molgula manhattensis (Epi.)		1.3541			
Mulinia lateralis		0.0068			0.0023
Neanthes succinea		0.3408	0.0273	0.1409	0.7043
Oligochaeta	1.4753				0.0080
Parahesionia luteola			0.0045		
Paraprionospio pinnata		0.0295	0.0341		0.0023
Pectinaria gouldii		0.2181			
Podarkeopsis levifuscina		0.0114	0.0023		
Polydora cornuta		0.0068			0.0023
Rictaxis punctostriatus		0.0023			
Sigambra tentaculata				0.0045	
Spiochaetopterus costarum		0.0011			
Streblospio benedicti					0.0045
Tubificoides spp.				0.0045	0.0227
Total Biomass w/ Epifauna	1.4821	3.2546	0.0693	1.8926	1.7460
Total Biomass w/o Epifauna	1.4821	1.1826	0.0693	1.8926	1.7460

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23601	23602	23603	23604	23605
Watershed	Upper Bay	Upper Bay	Upper Bay	Upper Bay	Upper Bay
Habitat	Polyhaline Mud	High Meso Mud	High Meso Sand	High Meso Mud	Low Mesohaline
Date	08/18/16	08/18/16	08/25/16	08/18/16	08/18/16
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)	14.3	13.2	1.9	8.0	5.9
Salinity (ppt)	19.17	17.89	12.79	15.23	11.21
Temperature (C)	26.34	26.73	27.17	27.79	29.24
Dissolved Oxygen (mg/L)	0.4	0.4	5.8	0.8	3.9
Sediment Silt-Clay (%)	47.47	84.55	1.61	69.22	78.26
Total Carbon (%)	2.42	3.69	0.13	2.30	3.73
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	2.00	1.00	2.33	2.33	3.00
Condition	Severely Degr.	Severely Degr.	Degraded	Degraded	Meets Goal
# Attributes Scored	6	6	6	6	5
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	2.63 3	0.00 1	1.89 1	2.61 3	2.69 5
Abundance (#/m2)	273 1	23 1	1091 3	432 1	2613 3
Biomass (g/m2)	0.12 1	0.00 1	5.06 5	0.84 3	24.95 3
Pollution Indicative Spp Abund (%)	33.33	100.00	37.50 1	52.63	26.96 1
Pollution Indicative Spp Biom (%)	19.27 3	100.00 1	10.34	37.23 1	17.48
Pollution Sensitive Spp Abund (%)	25.00	0.00	10.42 3	10.53	14.78
Pollution Sensitive Spp Biom (%)	18.35 1	0.00 1	77.21	2.72 1	70.84 3
Carnivore-Omnivore Abund (%)	33.33 3	0.00 1	8.33 1	31.58 5	22.61
Deep Deposit Feeder Abund (%)	25.00	0.00	45.83	21.05	37.39
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	0.87
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	9.80
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	23601	23602	23603	23604	23605
Carinoma tremaphoros					23
Edwardsia elegans	23			23	
Glycinde solitaria			23		68
Heteromastus filiformis			500	23	227
Leitoscoloplos robustus	45			68	
Macoma balthica					250
Macoma mitchelli					45
Micrura leidyi			23	23	23
Mulinia lateralis			386		659
Mya arenaria			91		68
Neanthes succinea			45	68	477
Paraprionospio pinnata	23	23		159	
Pectinaria gouldii	23				
Phoronis spp.	68			45	
Sigambra tentaculata	68			23	
Streblospio benedicti	23		23		23
Tubificidae imm w/o cap chaetae					23
Tubificoides spp.					727
Total Abundance w/ Epifauna	273	23	1091	432	2613
Total Abundance w/o Epifauna	273	23	1091	432	2613
Number of Taxa w/ Epifauna	7	1	7	8	12
Number of Taxa w/o Epifauna	7	1	7	8	12

BENTHIC BIOMASS (Grams per sq. meter)					
Site	23601	23602	23603	23604	23605
Carinoma tremaphoros					0.0182
Edwardsia elegans	0.0704			0.0250	
Glycinde solitaria			0.0068		0.0409
Heteromastus filiformis			0.2499	0.0045	0.0636
Leitoscoloplos robustus	0.0159			0.2340	
Macoma balthica					7.0182
Macoma mitchelli					0.0954
Micrura leidyi			0.3567	0.1022	0.0273
Mulinia lateralis			0.5021		4.3600
Mya arenaria			3.8965		10.6171
Neanthes succinea			0.0227	0.3635	2.6923
Oligochaeta					0.0011
Paraprionospio pinnata	0.0068	0.0045		0.0772	
Pectinaria gouldii	0.0045				
Phoronis spp.	0.0227			0.0227	
Sigambra tentaculata	0.0023			0.0068	
Streblospio benedicti	0.0011		0.0204		0.0011
Tubificoides spp.					0.0182
Total Biomass w/ Epifauna	0.1238	0.0045	5.0552	0.8361	24.9534
Total Biomass w/o Epifauna	0.1238	0.0045	5.0552	0.8361	24.9534



BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23606	23607	23608	23609	23610
Watershed	Upper Bay	Upper Bay	Upper Bay	Upper Bay	Upper Bay
Habitat	Low Mesohaline	High Meso Mud	High Meso Mud	Low Mesohaline	Low Mesohaline
Date	08/18/16	08/18/16	08/18/16	08/18/16	08/18/16
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)	6.3	6.6	6.1	5.4	5.6
Salinity (ppt)	11.02	12.58	12.18	10.61	11.13
Temperature (C)	29.27	28.64	28.73	29.22	28.89
Dissolved Oxygen (mg/L)	4.3	2.5	2.8	4.5	3.5
Sediment Silt-Clay (%)	61.75	94.00	88.72	40.74	72.46
Total Carbon (%)	2.34	1.87	1.60	2.48	1.97
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	3.80	3.00	3.33	3.40	3.80
Condition	Meets Goal	Meets Goal	Meets Goal	Meets Goal	Meets Goal
# Attributes Scored	5	6	6	5	5
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	2.76 5	2.18 3	2.57 3	2.56 5	2.68 5
Abundance (#/m2)	1545 5	386 1	409 1	4908 3	1977 5
Biomass (g/m2)	21.60 3	5.41 5	4.08 5	39.17 1	20.39 3
Pollution Indicative Spp Abund (%)	20.59 1	11.76	11.11	12.04 3	19.54 3
Pollution Indicative Spp Biom (%)	5.27	7.57 3	7.19 3	4.39	8.41
Pollution Sensitive Spp Abund (%)	22.06	23.53	22.22	9.72	12.64
Pollution Sensitive Spp Biom (%)	83.20 5	82.26 3	84.34 3	82.35 5	74.20 3
Carnivore-Omnivore Abund (%)	20.59	23.53 3	33.33 5	21.76	32.18
Deep Deposit Feeder Abund (%)	41.18	47.06	38.89	56.94	36.78
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	2.94	0.00	0.00	0.00	2.30
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	9.80
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	23606	23607	23608	23609	23610
Carinoma tremaphoros	23			23	23
Diadumene leucolena (Epi.)					45
Edwardsia elegans				114	
Eteone heteropoda			23		
Glycinde solitaria	23			68	
Heteromastus filiformis	136	159	68	704	454
Leitoscoloplos spp.		23			
Macoma balthica	227	91	91	182	159
Macoma mitchelli				45	23
Marenzelleria viridis				23	23
Micrura leidyi		23	23		
Mulinia lateralis	250	23	23	364	318
Mya arenaria	91			204	68
Neanthes succinea	273	68	91	863	613
Streblospio benedicti	23			227	23
Tubificidae imm w/o cap chaetae	45				45
Tubificoides spp.	454		91	2090	227
Total Abundance w/ Epifauna	1545	386	409	4908	2022
Total Abundance w/o Epifauna	1545	386	409	4908	1977
Number of Taxa w/ Epifauna	10	6	7	12	12
Number of Taxa w/o Epifauna	10	6	7	12	11
BENTHIC BIOMASS (Grams per sq. meter)					
Site	23606	23607	23608	23609	23610
Carinoma tremaphoros	0.0182			0.0182	0.0136
Diadumene leucolena (Epi.)					0.5067
Edwardsia elegans				0.1727	
Eteone heteropoda			0.0591		
Glycinde solitaria	0.0114			0.0159	
Heteromastus filiformis	0.1886	0.1409	0.0454	0.4499	0.3204
Leitoscoloplos spp.		0.0409			
Macoma balthica	5.6414	4.4463	3.4375	1.2882	5.0188
Macoma mitchelli				0.0954	0.0295
Marenzelleria viridis				0.1431	0.0227
Micrura leidyi		0.0204	0.0318		
Mulinia lateralis	1.1360	0.3681	0.2340	1.6881	1.7085
Mya arenaria	12.3211			30.8129	10.0854
Neanthes succinea	2.2765	0.3885	0.2613	4.4259	3.1763
Oligochaeta	0.0011				0.0034
Streblospio benedicti	0.0023			0.0318	0.0023
Tubificoides spp.	0.0068		0.0068	0.0318	0.0068
Total Biomass w/ Epifauna	21.6033	5.4051	4.0760	39.1738	20.8944
Total Biomass w/o Epifauna	21.6033	5.4051	4.0760	39.1738	20.3878

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23611	23612	23613	23614	23615
Watershed	Upper Bay	Upper Bay	Upper Bay	Upper Bay	Upper Bay
Habitat	High Meso Mud	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline
Date	08/18/16	08/18/16	08/18/16	08/18/16	08/18/16
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)	10.1	1.8	5.1	13.5	10.2
Salinity (ppt)	13.07	10.58	10.97	11.59	10.80
Temperature (C)	28.39	29.16	29.20	29.14	29.37
Dissolved Oxygen (mg/L)	1.5	6.4	3.8	3.4	4.2
Sediment Silt-Clay (%)	94.62	2.20	87.20	93.53	88.84
Total Carbon (%)	2.91	0.13	1.98	2.31	1.94
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	2.33	3.00	3.00	2.60	2.60
Condition	Degraded	Meets Goal	Meets Goal	Degraded	Degraded
# Attributes Scored	6	5	5	5	5
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	2.61 3	3.00 5	2.33 3	1.71 3	2.24 3
Abundance (#/m2)	500 1	841 3	1295 3	2113 5	2931 3
Biomass (g/m2)	1.45 3	1.51 3	14.51 3	10.92 3	24.03 3
Pollution Indicative Spp Abund (%)	18.18	24.32 1	12.28 3	86.02 1	56.59 1
Pollution Indicative Spp Biom (%)	25.80 3	13.08	9.90	89.20	50.65
Pollution Sensitive Spp Abund (%)	22.73	21.62	24.56	2.15	20.16
Pollution Sensitive Spp Biom (%)	43.92 3	70.38 3	77.00 3	5.95 1	43.58 3
Carnivore-Omnivore Abund (%)	9.09 1	32.43	8.77	3.23	14.73
Deep Deposit Feeder Abund (%)	54.55	18.92	47.37	32.26	18.60
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	6.00	0.00	6.00
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00
BENTHIC ABUNDANCE (per sq. meter)					
Site	23611	23612	23613	23614	23615
Amphiporus bioculatus		23			
Carinoma tremaphoros	23	68	23		45
Cyathura polita		91	23		68
Edotea triloba (Epi.)				45	
Glycinde solitaria		45			114
Heteromastus filiformis	114	159	613	45	432
Laeonereis culveri		23			
Leitoscoloplos robustus				500	114
Leitoscoloplos spp.	23				
Lepidactylus dytiscus		136			
Macoma balthica	114		227	45	386
Macoma mitchelli		23	114		
Marenzelleria viridis		23	23		
Mulinia lateralis	45	204	159	1295	1522
Mya arenaria		23			
Neanthes succinea	23	23	68	68	204
Paraprionospio pinnata	23				
Pectinaria gouldii				68	
Rangia cuneata			45		23
Streblospio benedicti				23	23
Tubificoides spp.	136			68	
Total Abundance w/ Epifauna	500	841	1295	2158	2931
Total Abundance w/o Epifauna	500	841	1295	2113	2931
Number of Taxa w/ Epifauna	8	12	9	9	10
Number of Taxa w/o Epifauna	8	12	9	8	10

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	23611	23612	23613	23614	23615
Amphiporus bioculatus		0.0136			
Carinoma tremaphoros	0.0818	0.0159	0.0250		0.0409
Cyathura polita		0.1363	0.1795		0.1636
Edotea triloba (Epi.)				0.0159	
Glycinde solitaria		0.0477			0.0500
Heteromastus filiformis	0.0772	0.1181	0.7202	0.0045	0.3726
Laeonereis culveri		0.0182			
Leitoscoloplos robustus				1.3109	0.2885
Leitoscoloplos spp.	0.0386				
Lepidactylus dytiscus		0.0591			
Macoma balthica	0.6362		6.3980	0.6498	7.8975
Macoma mitchelli		0.0114	0.8543		
Marenzelleria viridis		0.0204	0.0409		
Mulinia lateralis	0.3340	0.1977	1.4359	8.4246	11.8780
Mya arenaria		0.8588			
Neanthes succinea	0.2749	0.0136	0.3022	0.0636	0.9747
Paraprionospio pinnata	0.0011				
Pectinaria gouldii				0.4589	
Rangia cuneata			4.5554		2.3583
Streblospio benedicti				0.0023	0.0011
Tubificoides spp.	0.0045			0.0023	
Total Biomass w/ Epifauna	1.4484	1.5109	14.5113	10.9329	24.0253
Total Biomass w/o Epifauna	1.4484	1.5109	14.5113	10.9170	24.0253

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23616	23617	23618	23619	23620
Watershed	Upper Bay	Upper Bay	Upper Bay	Upper Bay	Upper Bay
Habitat	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline
Date	08/18/16	08/18/16	08/18/16	08/22/16	08/22/16
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)	4.3	3.1	6.1	3.1	3.2
Salinity (ppt)	7.77	7.94	9.55	6.84	6.91
Temperature (C)	29.50	29.80	29.59	27.23	27.03
Dissolved Oxygen (mg/L)	6.2	5.9	4.7	6.4	6.6
Sediment Silt-Clay (%)	78.18	74.09	74.26	82.20	76.97
Total Carbon (%)	3.57	1.85	1.77	1.76	2.30
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	4.20	3.80	3.80	3.40	2.60
Condition	Meets Goal	Meets Goal	Meets Goal	Meets Goal	Degraded
# Attributes Scored	5	5	5	5	5
	Value	Score	Value	Score	Value
Shannon-Wiener Index	3.08	5	2.94	5	2.10
Abundance (#/m2)	1727	5	1409	3	2636
Biomass (g/m2)	127.35	1	69.26	1	28.53
Pollution Indicative Spp Abund (%)	5.26	5	1.61	5	0.00
Pollution Indicative Spp Biom (%)	0.02		0.00		0.00
Pollution Sensitive Spp Abund (%)	48.68		64.52		74.14
Pollution Sensitive Spp Biom (%)	98.36	5	98.82	5	99.63
Carnivore-Omnivore Abund (%)	17.11		16.13		24.14
Deep Deposit Feeder Abund (%)	27.63		20.97		19.83
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00
Limnodrilus Abundance (%)	0.00		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	6.01		6.00		6.00
Tany./Chir. Abundance Ratio	100.00		0.00		0.00

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	23616	23617	23618	23619	23620
Apocorophium lacustre (Epi.)		45			
Carinoma tremaphoros	23	45	136	23	
Coelotanypus spp.	23			136	114
Cyathura polita	227	159	500	68	45
Edotea triloba (Epi.)			23		
Eteone heteropoda	23	23			
Heteromastus filiformis	159	182	91		
Hobsonia florida			23		
Leptocheirus plumulosus	114	23		45	23
Macoma balthica	91	295	1318		68
Macoma mitchelli	182	114			
Marenzelleria viridis	91	114	91		23
Melita nitida (Epi.)	68				
Mytilopsis leucophaeata (Epi.)		45			
Polydora cornuta				68	
Rangia cuneata	432	341	45	45	
Streblospio benedicti	45			136	227
Tubificoides spp.	318	114	432	159	477
Total Abundance w/ Epifauna	1795	1500	2658	682	977
Total Abundance w/o Epifauna	1727	1409	2636	682	977
Number of Taxa w/ Epifauna	13	12	9	8	7
Number of Taxa w/o Epifauna	12	10	8	8	7

BENTHIC BIOMASS (Grams per sq. meter)					
Site	23616	23617	23618	23619	23620
Apocorophium lacustre (Epi.)		0.0023			
Carinoma tremaphoros	0.0045	0.0500	0.0409	0.0227	
Coelotanypus spp.	0.0023			0.0114	0.0159
Cyathura polita	0.3817	0.4612	1.4268	0.1500	0.1908
Edotea triloba (Epi.)			0.0023		
Eteone heteropoda	0.0204	0.0023			
Heteromastus filiformis	0.1000	0.1227	0.0454		
Hobsonia florida			0.0068		
Leptocheirus plumulosus	0.0409	0.0023		0.0068	0.0011
Macoma balthica	0.6634	5.1075	25.4805		0.6339
Macoma mitchelli	1.9085	0.6384			
Marenzelleria viridis	0.5226	0.3249	0.3135		0.0136
Melita nitida (Epi.)	0.0068				
Mytilopsis leucophaeata (Epi.)		0.0500			
Polydora cornuta				0.0091	
Rangia cuneata	123.7036	62.5482	1.2019	28.1978	
Streblospio benedicti	0.0011			0.0045	0.0114
Tubificoides spp.	0.0045	0.0011	0.0114	0.0045	0.0068
Total Biomass w/ Epifauna	127.3604	69.3108	28.5295	28.4068	0.8736
Total Biomass w/o Epifauna	127.3536	69.2585	28.5272	28.4068	0.8736

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

Site	23621	23622	23623	23624	23625
Watershed	Upper Bay	Upper Bay	Upper Bay	Upper Bay	Upper Bay
Habitat	Low Mesohaline	Low Mesohaline	Oligohaline	Freshwater	Freshwater
Date	08/22/16	09/23/16	08/24/16	08/24/16	08/24/16
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)	3.2	2.8	3.9	3.6	2.1
Salinity (ppt)	6.70	8.44	0.53	0.40	0.17
Temperature (C)	27.19	24.53	27.28	27.55	27.31
Dissolved Oxygen (mg/L)	6.8	6.5	6.6	6.7	9.5
Sediment Silt-Clay (%)	78.55	84.31	32.64	38.80	9.84
Total Carbon (%)	2.74	3.20	4.46	3.30	1.56
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	1.40	3.00	2.00	3.50	2.00
Condition	Severely Degr.	Meets Goal	Severely Degr.	Meets Goal	Severely Degr.
# Attributes Scored	5	5	6	4	4
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	2.41 3	2.10 3	2.53 3	2.27 5	2.07 1
Abundance (#/m2)	295 1	1159 3	4817 1	2567 5	5816 1
Biomass (g/m2)	0.25 1	36.47 1	124.37 1	85.10 3	0.96 3
Pollution Indicative Spp Abund (%)	38.46 1	15.69 3	66.51 1	75.22 5	83.98 3
Pollution Indicative Spp Biom (%)	7.21 1	0.14 3	0.25 1	0.33 3	43.07 3
Pollution Sensitive Spp Abund (%)	0.00 1	60.78 5	20.75 1	15.04 3	7.03 3
Pollution Sensitive Spp Biom (%)	0.00 1	98.49 5	62.63 1	86.21 3	44.17 3
Carnivore-Omnivore Abund (%)	46.15 1	17.65 3	8.96 1	7.96 3	12.11 3
Deep Deposit Feeder Abund (%)	38.46 1	15.69 3	63.68 1	76.99 3	80.47 3
TF Poll. Indicative Spp Abund (%)	0.00 1	0.00 3	0.00 1	72.57 3	80.08 3
Limnodrilus Abundance (%)	0.00 1	0.00 3	63.68 1	72.57 3	80.08 3
Oligo Poll. Indic. Spp Abund (%)	0.00 1	0.00 3	77.36 1	0.00 3	0.00 3
Oligo Poll. Sens. Spp Abund (%)	0.00 1	0.00 3	10.38 1	0.00 3	0.00 3
Tolerance Score	6.20 1	6.04 3	9.19 1	9.19 3	9.44 1
Tany./Chir. Abundance Ratio	100.00 1	100.00 3	33.33 1	100.00 3	37.50 1

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2016 (CRUISE 01:2016/2017) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	23621	23622	23623	23624	23625
Ameroculodes species complex			45	23	
Apocorophium lacustre (Epi.)		23			
Branchiura sowerbyi				114	
Carinoma tremaphoros	45				
Cladotanytarsus viridiventris					23
Coelotanypus spp.	91	159	23	68	204
Corbicula fluminea			454	114	182
Cryptochironomus spp.			23		136
Cyathura polita		23	364	136	159
Edotea triloba (Epi.)			23		
Eteone heteropoda		23			
Harnischia spp.					23
Heteromastus filiformis	45				
Hobsonia florida			23		
Leptocheirus plumulosus	23	23	45		
Limnodrilus hoffmeisteri			1727	704	1999
Macoma mitchelli		23			
Marenzelleria viridis		45	500	91	250
Polydora cornuta		45			
Polypedilum halterale group			23		159
Rangia cuneata		636	136	159	
Rhithropanopeus harrisi (Epi.)				23	
Streblospio benedicti	23		114		
Tubificidae imm w/o cap chaetae *			1340	1159	2658
Tubificoides spp.	68	182			23
Total Abundance w/ Epifauna	295	1181	4839	2590	5816
Total Abundance w/o Epifauna	295	1159	4817	2567	5816
Number of Taxa w/ Epifauna	6	10	13	9	10
Number of Taxa w/o Epifauna	6	9	12	8	10

*Indicates taxa is skipped in taxon counts

BENTHIC BIOMASS (Grams per sq. meter)					
Site	23621	23622	23623	23624	23625
Ameroculodes species complex			0.0091	0.0023	
Apocorophium lacustre (Epi.)		0.0011			
Branchiura sowerbyi				0.1749	
Carinoma tremaphoros	0.1863				
Chironomidae			0.0011		0.0011
Coelotanypus spp.	0.0159	0.0364	0.0011	0.0045	0.0204
Corbicula fluminea			46.1216	11.2714	0.1204
Cyathura polita		0.1000	0.3158	0.1295	0.0977
Edotea triloba (Epi.)			0.0068		
Eteone heteropoda		0.0159			
Heteromastus filiformis	0.0432				
Hobsonia florida			0.0204		
Leptocheirus plumulosus	0.0023	0.0068	0.0136		
Macoma mitchelli		0.4453			
Marenzelleria viridis		0.2113	1.2087	0.1840	0.3272
Oligochaeta			0.3065	0.2787	0.3938
Polydora cornuta		0.0045			
Rangia cuneata		35.6091	76.3665	73.0584	
Rhithropanopeus harrisi (Epi.)				1.4109	
Streblospio benedicti	0.0023		0.0045		
Tubificoides spp.	0.0023	0.0409			0.0011
Total Biomass w/ Epifauna	0.2522	36.4713	124.3758	86.5147	0.9618
Total Biomass w/o Epifauna	0.2522	36.4701	124.3690	85.1038	0.9618