



VERSAR

Final Report

Chesapeake Bay Water Quality Monitoring Program

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

July 1984 – December 2015
(Volume 2)

Prepared for

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

Prepared by

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January 2017

**CHESAPEAKE BAY WATER QUALITY
MONITORING PROGRAM**

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

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TABLE OF CONTENTS

VOLUME 2

	Page
DATA SUMMARIES	
A BENTHIC ENVIRONMENT AND COMMUNITY COMPOSITION AT FIXED SITES: SUMMER 2015.....	A-1
B BENTHIC ENVIRONMENT AND COMMUNITY COMPOSITION AT THE MARYLAND BAY RANDOM SITES: SUMMER 2015	B-1

DATA SUMMARY A

**BENTHIC ENVIRONMENT AND COMMUNITY
COMPOSITION AT FIXED SITES:
SUMMER 2015**

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Mainstem		Station: 001		Rep: 01	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 29SEP15	
		Sampled Area: 0.025 sq.m		Time: 9:06:00	
BOTTOM ENVIRONMENT					
Depth (m): 1.5		Salinity (ppt): 14.97		Temperature (C): 23.40	
Dissolved Oxygen (mg/l): 6.5		Sediment Silt-Clay (%): 1.82		Total Carbon (%): 0.16	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.67		Condition: Meets Goal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.85	3	Pollution Indicative Species Abundance (%)	3.16	5
Abundance (#/m2)	3800	3	Pollution Indicative Species Biomass (%)	12.19	
Biomass (g/m2)	1.71	3	Pollution Sensitive Species Abundance (%)	15.79	3
Carnivore-Omnivore Abundance (%)	49.47	5	Pollution Sensitive Species Biomass (%)	14.89	
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Acteocina canaliculata	40		0.00200		
Ameroculodes species complex	40		0.00800		
Edotea triloba (Epi)	40		0.00400		
Edwardsia elegans	80		0.01200		
Gemma gemma	880		0.14400		
Glycinde solitaria	320		0.02000		
Haminoea solitaria	1360		0.08000		
Leptosynapta tenuis	120		0.03200		
Macoma mitchelli	440		0.01200		
Micrura leidyi	80		0.94800		
Mulinia lateralis	120		0.20800		
Paraonis fulgens	80		0.00800		
Phoronis spp.	120		0.01600		
Spiochaetopterus costarum	40		0.01600		
Spiophanes bombyx	40		0.13200		
Stylochus ellipticus (Epi)	40		0.04000		
Tagelus plebeius	40		0.06800		
Total Abundance w/ Epi.	3880				
Total Abundance w/o Epi.	3800				
Number of Taxa w/ Epi.	17				
Number of Taxa w/o Epi.	15				
Total Biomass w/ Epi.			1.75000		
Total Biomass w/o Epi.			1.70600		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Station: 001		Rep: 02
Watershed: Mainstem	Habitat: High Mesohaline Sand	Date: 29SEP15
Gear: Modified Box Corer	Sampled Area: 0.025 sq.m	Time: 9:06:00
BOTTOM ENVIRONMENT		
Depth (m): 1.5	Salinity (ppt): 14.97	Temperature (C): 23.40
Dissolved Oxygen (mg/l): 6.5	Sediment Silt-Clay (%): 1.82	Total Carbon (%): 0.16
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.67	Condition: Meets Goal	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	2.68 3	Pollution Indicative Species Abundance (%) 1.67 5
Abundance (#/m2)	2400 5	Pollution Indicative Species Biomass (%) 24.58
Biomass (g/m2)	0.36 1	Pollution Sensitive Species Abundance (%) 28.33 3
Carnivore-Omnivore Abundance (%)	60.00 5	Pollution Sensitive Species Biomass (%) 13.41
Deep Deposit Feeder Abundance (%)	3.33	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Acteocina canaliculata	120	0.01600
Edwardsia elegans	80	0.00800
Gemma gemma	640	0.09600
Glycinde solitaria	440	0.01600
Haminoea solitaria	760	0.05600
Heteromastus filiformis	80	0.03200
Macoma mitchelli	40	0.01200
Micrura leidyi	40	0.01600
Mulinia lateralis	40	0.08800
Paraonis fulgens	40	0.00200
Phoronis spp.	80	0.00800
Spiochaetopterus costarum	40	0.00800
Total Abundance w/ Epi.	2400	
Total Abundance w/o Epi.	2400	
Number of Taxa w/ Epi.	12	
Number of Taxa w/o Epi.	12	
Total Biomass w/ Epi.		0.35800
Total Biomass w/o Epi.		0.35800

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Mainstem		Station: 001		Rep: 03	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 29SEP15	
		Sampled Area: 0.025 sq.m		Time: 9:06:00	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.67		Condition: Meets Goal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	3.12	3	Pollution Indicative Species Abundance (%)	0.99	5
Abundance (#/m2)	4040	3	Pollution Indicative Species Biomass (%)	10.34	
Biomass (g/m2)	2.48	3	Pollution Sensitive Species Abundance (%)	21.78	3
Carnivore-Omnivore Abundance (%)	54.46	5	Pollution Sensitive Species Biomass (%)	7.92	
Deep Deposit Feeder Abundance (%)	2.97				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Acteocina canaliculata	80		0.00400		
Ameroculodes species complex	40		0.01200		
Amphiporus bioculatus	40		0.00800		
Edwardsia elegans	40		0.00800		
Gemma gemma	600		0.06000		
Glycinde solitaria	640		0.07200		
Haminoea solitaria	1160		0.13200		
Heteromastus filiformis	80		0.02000		
Leptosynapta tenuis	240		0.07200		
Macoma mitchelli	480		0.06800		
Micrura leidyi	200		1.61200		
Mulinia lateralis	40		0.25600		
Paraonis fulgens	160		0.02000		
Pectinaria gouldii	40		0.00800		
Phoronis spp.	160		0.12000		
Podarkeopsis levifuscina	40		0.00400		
Total Abundance w/ Epi.	4040				
Total Abundance w/o Epi.	4040				
Number of Taxa w/ Epi.	16				
Number of Taxa w/o Epi.	16				
Total Biomass w/ Epi.			2.47600		
Total Biomass w/o Epi.			2.47600		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Calvert Cliffs Discharge		Station: 006		Rep: 01	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 29SEP15	
		Sampled Area: 0.025 sq.m		Time: 8:26:00	
BOTTOM ENVIRONMENT					
Depth (m): 1.4		Salinity (ppt): 14.81		Temperature (C): 24.05	
Dissolved Oxygen (mg/l): 7.3		Sediment Silt-Clay (%): 2.33		Total Carbon (%): 0.02	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.67		Condition: Meets Goal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.94	3	Pollution Indicative Species Abundance (%)	12.68	3
Abundance (#/m2)	2840	5	Pollution Indicative Species Biomass (%)	1.77	
Biomass (g/m2)	2.03	3	Pollution Sensitive Species Abundance (%)	18.31	3
Carnivore-Omnivore Abundance (%)	47.89	5	Pollution Sensitive Species Biomass (%)	15.35	
Deep Deposit Feeder Abundance (%)	1.41				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Ameroculodes species complex	240		0.05200		
Edwardsia elegans	960		0.08400		
Gemma gemma	280		0.15200		
Glycinde solitaria	320		0.04000		
Heteromastus filiformis	40		0.02000		
Macoma mitchelli	280		0.02800		
Micrura leidyi	80		1.32800		
Mulinia lateralis	360		0.03600		
Paraonis fulgens	80		0.02000		
Phoronis spp.	80		0.04000		
Spiophanes bombyx	120		0.23200		
Total Abundance w/ Epi.	2840				
Total Abundance w/o Epi.	2840				
Number of Taxa w/ Epi.	11				
Number of Taxa w/o Epi.	11				
Total Biomass w/ Epi.			2.03200		
Total Biomass w/o Epi.			2.03200		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Calvert Cliffs Discharge		Station: 006		Rep: 02	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 29SEP15	
		Sampled Area: 0.025 sq.m		Time: 8:26:00	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.33		Condition: Meets Goal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	3.25	5	Pollution Indicative Species Abundance (%)	12.12	3
Abundance (#/m2)	1320	3	Pollution Indicative Species Biomass (%)	8.84	
Biomass (g/m2)	1.72	3	Pollution Sensitive Species Abundance (%)	30.30	3
Carnivore-Omnivore Abundance (%)	21.21	3	Pollution Sensitive Species Biomass (%)	12.79	
Deep Deposit Feeder Abundance (%)	9.09				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	40		0.04400		
Gemma gemma	360		0.16000		
Glycinde solitaria	120		0.01600		
Haminoea solitaria	40		0.21200		
Heteromastus filiformis	80		0.03600		
Macoma mitchelli	120		0.10000		
Micrura leidyi	80		0.78800		
Mulinia lateralis	120		0.14400		
Phoronis spp.	40		0.01600		
Spiochaetopterus costarum	120		0.05200		
Spiophanes bombyx	120		0.13600		
Streblospio benedicti	40		0.00800		
Tubificoides spp.	40		0.00800		
Total Abundance w/ Epi.	1320				
Total Abundance w/o Epi.	1320				
Number of Taxa w/ Epi.	13				
Number of Taxa w/o Epi.	13				
Total Biomass w/ Epi.			1.72000		
Total Biomass w/o Epi.			1.72000		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Station: 006		Rep: 03
Watershed: Calvert Cliffs Discharge	Habitat: High Mesohaline Sand	Date: 29SEP15
Gear: Modified Box Corer	Sampled Area: 0.025 sq.m	Time: 8:26:00
BOTTOM ENVIRONMENT		
Depth (m): 1.4	Salinity (ppt): 14.81	Temperature (C): 24.05
Dissolved Oxygen (mg/l): 7.3	Sediment Silt-Clay (%): 2.33	Total Carbon (%): 0.02
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.67	Condition: Meets Goal	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	3.10 3	Pollution Indicative Species Abundance (%) 6.45 5
Abundance (#/m2)	1240 3	Pollution Indicative Species Biomass (%) 46.12
Biomass (g/m2)	2.47 3	Pollution Sensitive Species Abundance (%) 25.81 3
Carnivore-Omnivore Abundance (%)	45.16 5	Pollution Sensitive Species Biomass (%) 5.18
Deep Deposit Feeder Abundance (%)	6.45	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Carinoma tremaphoros	160	0.04400
Edwardsia elegans	160	0.02000
Gemma gemma	120	0.05600
Glycinde solitaria	200	0.03200
Heteromastus filiformis	80	0.02800
Leptosynapta tenuis	40	0.01200
Macoma mitchelli	240	0.20400
Micrura leidyi	40	0.84000
Mulinia lateralis	80	1.14000
Phoronis spp.	40	0.04800
Spiochaetopterus costarum	80	0.04800
Total Abundance w/ Epi.	1240	
Total Abundance w/o Epi.	1240	
Number of Taxa w/ Epi.	11	
Number of Taxa w/o Epi.	11	
Total Biomass w/ Epi.		2.47200
Total Biomass w/o Epi.		2.47200

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Mainstem		Station: 015		Rep: 01	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 29SEP15	
		Sampled Area: 0.025 sq.m		Time: 11:28:00	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.67		Condition: Marginal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.30	1	Pollution Indicative Species Abundance (%)	7.96	5
Abundance (#/m2)	4520	3	Pollution Indicative Species Biomass (%)	11.62	
Biomass (g/m2)	9.02	5	Pollution Sensitive Species Abundance (%)	7.08	1
Carnivore-Omnivore Abundance (%)	12.39	1	Pollution Sensitive Species Biomass (%)	32.79	
Deep Deposit Feeder Abundance (%)	19.47				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Ameroculodes species complex	40		0.01600		
Amphiporus bioculatus	40		0.01200		
Carinoma tremaphoros	40		0.03200		
Edwardsia elegans	120		0.14800		
Gemma gemma	2120		0.46800		
Glycinde solitaria	280		0.06800		
Heteromastus filiformis	880		0.22400		
Macoma balthica	40		2.88800		
Macoma mitchelli	520		2.30000		
Micrura leidyi	80		1.81200		
Mulinia lateralis	360		1.04800		
Total Abundance w/ Epi.	4520				
Total Abundance w/o Epi.	4520				
Number of Taxa w/ Epi.	11				
Number of Taxa w/o Epi.	11				
Total Biomass w/ Epi.			9.01600		
Total Biomass w/o Epi.			9.01600		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Mainstem		Station: 015		Rep: 02	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 29SEP15	
		Sampled Area: 0.025 sq.m		Time: 11:28:00	
BOTTOM ENVIRONMENT					
Depth (m): 1.9		Salinity (ppt): 13.47		Temperature (C): 21.24	
Dissolved Oxygen (mg/l): 8.3		Sediment Silt-Clay (%): 4.06		Total Carbon (%): 0.09	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.67		Condition: Marginal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	1.78	1	Pollution Indicative Species Abundance (%)	6.45	5
Abundance (#/m2)	2480	5	Pollution Indicative Species Biomass (%)	61.83	
Biomass (g/m2)	2.67	3	Pollution Sensitive Species Abundance (%)	1.61	1
Carnivore-Omnivore Abundance (%)	3.23	1	Pollution Sensitive Species Biomass (%)	0.15	
Deep Deposit Feeder Abundance (%)	19.35				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Edwardsia elegans	40		0.03600		
Gemma gemma	1400		0.17600		
Glycinde solitaria	40		0.00400		
Heteromastus filiformis	480		0.10800		
Macoma mitchelli	360		0.69600		
Mulinia lateralis	160		1.65200		
Total Abundance w/ Epi.	2480				
Total Abundance w/o Epi.	2480				
Number of Taxa w/ Epi.	6				
Number of Taxa w/o Epi.	6				
Total Biomass w/ Epi.			2.67200		
Total Biomass w/o Epi.			2.67200		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Mainstem		Station: 015		Rep: 03	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 29SEP15	
		Sampled Area: 0.025 sq.m		Time: 11:28:00	
BOTTOM ENVIRONMENT					
Depth (m): 1.9		Salinity (ppt): 13.47		Temperature (C): 21.24	
Dissolved Oxygen (mg/l): 8.3		Sediment Silt-Clay (%): 4.06		Total Carbon (%): 0.09	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.67		Condition: Marginal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	1.73	1	Pollution Indicative Species Abundance (%)	2.78	5
Abundance (#/m2)	4320	3	Pollution Indicative Species Biomass (%)	56.94	
Biomass (g/m2)	11.53	5	Pollution Sensitive Species Abundance (%)	2.78	1
Carnivore-Omnivore Abundance (%)	8.33	1	Pollution Sensitive Species Biomass (%)	0.24	
Deep Deposit Feeder Abundance (%)	11.11				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Ameroculodes species complex	80		0.01600		
Carinoma tremaphoros	40		0.01200		
Cyathura polita	40		0.00800		
Gemma gemma	2960		0.44000		
Glycinde solitaria	80		0.02000		
Haminoea solitaria	40		0.08000		
Heteromastus filiformis	480		0.15200		
Lepidactylus dytiscus	40		0.02000		
Macoma mitchelli	280		0.98000		
Micrura leidyi	160		3.23600		
Mulinia lateralis	120		6.56400		
Stylochus ellipticus (Epi)	40		0.01200		
Total Abundance w/ Epi.	4360				
Total Abundance w/o Epi.	4320				
Number of Taxa w/ Epi.	12				
Number of Taxa w/o Epi.	11				
Total Biomass w/ Epi.			11.54000		
Total Biomass w/o Epi.			11.52800		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Station: 022						Rep: 01
Watershed: Patapsco & Back Rivers		Habitat: Low Mesohaline		Date: 21SEP15		
Gear: Wildco Box Corer		Sampled Area: 0.022 sq.m		Time: 15:20:00		
BOTTOM ENVIRONMENT						
Depth (m): 4.9		Salinity (ppt): 10.81		Temperature (C): 24.27		
Dissolved Oxygen (mg/l): 6.3		Sediment Silt-Clay (%): 88.81		Total Carbon (%): 3.31		
BENTHIC INDEX OF BIOTIC INTEGRITY						
B-IBI Score: 1.40		Condition: Severely Degr.		# Attributes Scored: 5		
	Value	Score		Value	Score	
Shannon-Wiener Index	0.99	1	Pollution Indicative Species Abundance (%)	78.95	1	
Abundance (#/m2)	2591	3	Pollution Indicative Species Biomass (%)	30.38		
Biomass (g/m2)	0.36	1	Pollution Sensitive Species Abundance (%)	0.00		
Carnivore-Omnivore Abundance (%)	5.26		Pollution Sensitive Species Biomass (%)	0.00	1	
Deep Deposit Feeder Abundance (%)	15.79					
BENTHIC ABUNDANCE (per sq. meter)						
TAXA	Abundance (#/m2)		Biomass (g/m2)			
Heteromastus filiformis	45		0.10908			
Littoridinops tenuipes (Epi)	91		0.01364			
Micrura leidyi	136		0.12726			
Streblospio benedicti	2045		0.10908			
Tubificoides spp.	364		0.01364			
Total Abundance w/ Epi.		2682				
Total Abundance w/o Epi.		2591				
Number of Taxa w/ Epi.		5				
Number of Taxa w/o Epi.		4				
Total Biomass w/ Epi.				0.37269		
Total Biomass w/o Epi.				0.35906		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Station: 022						Rep: 02
Watershed: Patapsco & Back Rivers		Habitat: Low Mesohaline		Date: 21SEP15		
Gear: Wildco Box Corer		Sampled Area: 0.022 sq.m		Time: 15:20:00		
BOTTOM ENVIRONMENT						
Depth (m): 4.9		Salinity (ppt): 10.81		Temperature (C): 24.27		
Dissolved Oxygen (mg/l): 6.3		Sediment Silt-Clay (%): 88.81		Total Carbon (%): 3.31		
BENTHIC INDEX OF BIOTIC INTEGRITY						
B-IBI Score: 2.60		Condition: Degraded		# Attributes Scored: 5		
	Value	Score		Value	Score	
Shannon-Wiener Index	0.85	1	Pollution Indicative Species Abundance (%)	85.92	1	
Abundance (#/m2)	3227	3	Pollution Indicative Species Biomass (%)	3.23		
Biomass (g/m2)	2.54	3	Pollution Sensitive Species Abundance (%)	4.23		
Carnivore-Omnivore Abundance (%)	2.82		Pollution Sensitive Species Biomass (%)	90.32	5	
Deep Deposit Feeder Abundance (%)	7.04					
BENTHIC ABUNDANCE (per sq. meter)						
TAXA	Abundance (#/m2)		Biomass (g/m2)			
Carinoma tremaphoros	45		0.12726			
Heteromastus filiformis	45		0.00909			
Macoma balthica	136		2.29068			
Micrura leidyi	45		0.02273			
Streblospio benedicti	2772		0.08181			
Tubificoides spp.	182		0.00454			
Total Abundance w/ Epi.		3227				
Total Abundance w/o Epi.		3227				
Number of Taxa w/ Epi.		6				
Number of Taxa w/o Epi.		6				
Total Biomass w/ Epi.				2.53611		
Total Biomass w/o Epi.				2.53611		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 022		Rep: 03	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 21SEP15	
		Sampled Area: 0.022 sq.m		Time: 15:20:00	
BOTTOM ENVIRONMENT					
Depth (m): 4.9		Salinity (ppt): 10.81		Temperature (C): 24.27	
Dissolved Oxygen (mg/l): 6.3		Sediment Silt-Clay (%): 88.81		Total Carbon (%): 3.31	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.00		Condition: Severely Degr.		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	0.46	1	Pollution Indicative Species Abundance (%)	93.94	1
Abundance (#/m2)	7499	1	Pollution Indicative Species Biomass (%)	53.39	
Biomass (g/m2)	0.50	1	Pollution Sensitive Species Abundance (%)	0.61	
Carnivore-Omnivore Abundance (%)	1.82		Pollution Sensitive Species Biomass (%)	1.81	1
Deep Deposit Feeder Abundance (%)	4.85				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Chironomus spp.	45		0.00454		
Glycinde solitaria	45		0.00909		
Heteromastus filiformis	45		0.21816		
Neanthes succinea	45		0.00227		
Streblospio benedicti	6999		0.26361		
Tubificoides spp.	318		0.00455		
Total Abundance w/ Epi.	7499				
Total Abundance w/o Epi.	7499				
Number of Taxa w/ Epi.	6				
Number of Taxa w/o Epi.	6				
Total Biomass w/ Epi.			0.50222		
Total Biomass w/o Epi.			0.50222		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 023		Rep: 01	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 21SEP15	
		Sampled Area: 0.022 sq.m		Time: 12:55:00	
BOTTOM ENVIRONMENT					
Depth (m): 5.7		Salinity (ppt): 10.57		Temperature (C): 24.23	
Dissolved Oxygen (mg/l): 6.8		Sediment Silt-Clay (%): 82.32		Total Carbon (%): 2.06	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.60		Condition: Degraded		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.03	3	Pollution Indicative Species Abundance (%)	61.29	1
Abundance (#/m2)	2818	3	Pollution Indicative Species Biomass (%)	2.41	
Biomass (g/m2)	2.26	3	Pollution Sensitive Species Abundance (%)	11.29	
Carnivore-Omnivore Abundance (%)	19.35		Pollution Sensitive Species Biomass (%)	52.52	3
Deep Deposit Feeder Abundance (%)	6.45				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	91		0.07727		
Eteone heteropoda	45		0.00455		
Hargeria rapax	45		0.02727		
Heteromastus filiformis	45		0.00909		
Macoma balthica	273		1.02717		
Macoma mitchelli	45		0.18634		
Neanthes succinea	409		0.70902		
Rangia cuneata	45		0.15908		
Streblospio benedicti	1682		0.04999		
Tubificoides spp.	136		0.00909		
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.			2.25886		
Total Biomass w/o Epi.			2.25886		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 023		Rep: 02	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 21SEP15	
		Sampled Area: 0.022 sq.m		Time: 12:55:00	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.00		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.43	3	Pollution Indicative Species Abundance (%)	34.88	1
Abundance (#/m2)	1954	5	Pollution Indicative Species Biomass (%)	0.49	
Biomass (g/m2)	3.75	3	Pollution Sensitive Species Abundance (%)	27.91	
Carnivore-Omnivore Abundance (%)	20.93		Pollution Sensitive Species Biomass (%)	75.24	3
Deep Deposit Feeder Abundance (%)	16.28				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	227		0.11817		
Heteromastus filiformis	136		0.05000		
Macoma balthica	500		2.70882		
Mya arenaria	45		0.10908		
Mytilopsis leucophaeata (Epi)	45		0.01818		
Neanthes succinea	182		0.72266		
Streblospio benedicti	682		0.01818		
Tubificoides spp.	182		0.01818		
Total Abundance w/ Epi.	2000				
Total Abundance w/o Epi.	1954				
Number of Taxa w/ Epi.	8				
Number of Taxa w/o Epi.	7				
Total Biomass w/ Epi.			3.76326		
Total Biomass w/o Epi.			3.74508		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Patapsco & Back Rivers	Station: 023	Rep: 03
Gear: Wildco Box Corer	Habitat: Low Mesohaline	Date: 21SEP15
	Sampled Area: 0.022 sq.m	Time: 12:55:00
BOTTOM ENVIRONMENT		
Depth (m): 5.7	Salinity (ppt): 10.57	Temperature (C): 24.23
Dissolved Oxygen (mg/l): 6.8	Sediment Silt-Clay (%): 82.32	Total Carbon (%): 2.06
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.00	Condition: Meets Goal	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	1.80 3	Pollution Indicative Species Abundance (%) 67.59 1
Abundance (#/m2)	4909 3	Pollution Indicative Species Biomass (%) 6.46
Biomass (g/m2)	6.47 5	Pollution Sensitive Species Abundance (%) 15.74
Carnivore-Omnivore Abundance (%)	13.89	Pollution Sensitive Species Biomass (%) 79.01 3
Deep Deposit Feeder Abundance (%)	5.56	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Carinoma tremaphoros	273	0.19089
Eteone heteropoda	136	0.32724
Glycinde solitaria	45	0.00227
Heteromastus filiformis	91	0.02273
Leptocheirus plumulosus	45	0.02727
Macoma balthica	727	5.11313
Neanthes succinea	227	0.69084
Streblospio benedicti	3182	0.09090
Tubificoides spp.	182	0.00909
Total Abundance w/ Epi.	4909	
Total Abundance w/o Epi.	4909	
Number of Taxa w/ Epi.	9	
Number of Taxa w/o Epi.	9	
Total Biomass w/ Epi.		6.47435
Total Biomass w/o Epi.		6.47435

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Mainstem		Station: 024		Rep: 01	
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud		Date: 20AUG15	
		Sampled Area: 0.022 sq.m		Time: 13:20:00	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.67		Condition: Meets Goal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.27	3	Pollution Indicative Species Abundance (%)	4.55	
Abundance (#/m2)	2000	5	Pollution Indicative Species Biomass (%)	6.65	3
Biomass (g/m2)	20.00	3	Pollution Sensitive Species Abundance (%)	40.91	
Carnivore-Omnivore Abundance (%)	25.00	3	Pollution Sensitive Species Biomass (%)	83.55	5
Deep Deposit Feeder Abundance (%)	27.27				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	45		0.01818		
Heteromastus filiformis	182		0.09999		
Leptocheirus plumulosus	45		0.02727		
Macoma balthica	818		16.70742		
Mulinia lateralis	45		1.32714		
Neanthes succinea	455		1.79528		
Streblospio benedicti	45		0.00227		
Tubificoides spp.	364		0.01818		
Total Abundance w/ Epi.	2000				
Total Abundance w/o Epi.	2000				
Number of Taxa w/ Epi.	8				
Number of Taxa w/o Epi.	8				
Total Biomass w/ Epi.			19.99573		
Total Biomass w/o Epi.			19.99573		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Station: 024		Rep: 02	
Watershed: Mainstem		Date: 20AUG15	
Gear: Wildco Box Corer		Time: 13:20:00	
Habitat: High Mesohaline Mud			
Sampled Area: 0.022 sq.m			
BOTTOM ENVIRONMENT			
Depth (m): 6.1		Salinity (ppt): 9.05	
Dissolved Oxygen (mg/l): 6.1		Temperature (C): 26.98	
		Sediment Silt-Clay (%): 95.27	
		Total Carbon (%): 1.96	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 4.00		Condition: Meets Goal	
		# Attributes Scored: 6	
	Value	Score	
Shannon-Wiener Index	2.54	3	Pollution Indicative Species Abundance (%)
Abundance (#/m2)	2409	5	Pollution Indicative Species Biomass (%)
Biomass (g/m2)	15.78	3	Pollution Sensitive Species Abundance (%)
Carnivore-Omnivore Abundance (%)	26.42	5	Pollution Sensitive Species Biomass (%)
Deep Deposit Feeder Abundance (%)	26.42		
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)		Biomass (g/m2)
Carinoma tremaphoros	45		0.01818
Edwardsia elegans	45		0.03636
Heteromastus filiformis	136		0.08635
Leptocheirus plumulosus	45		0.02273
Macoma balthica	773		13.06688
Mulinia lateralis	91		1.65438
Neanthes succinea	545		0.88173
Streblospio benedicti	227		0.00454
Tubificoides spp.	500		0.00909
Total Abundance w/ Epi.	2409		
Total Abundance w/o Epi.	2409		
Number of Taxa w/ Epi.	9		
Number of Taxa w/o Epi.	9		
Total Biomass w/ Epi.			15.78024
Total Biomass w/o Epi.			15.78024

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Mainstem	Station: 024	Rep: 03
Gear: Wildco Box Corer	Habitat: High Mesohaline Mud	Date: 20AUG15
	Sampled Area: 0.022 sq.m	Time: 13:20:00
BOTTOM ENVIRONMENT		
Depth (m): 6.1	Salinity (ppt): 9.05	Temperature (C): 26.98
Dissolved Oxygen (mg/l): 6.1	Sediment Silt-Clay (%): 95.27	Total Carbon (%): 1.96
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.67	Condition: Meets Goal	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	2.33 3	Pollution Indicative Species Abundance (%) 1.56
Abundance (#/m2)	2909 3	Pollution Indicative Species Biomass (%) 0.01 5
Biomass (g/m2)	18.09 3	Pollution Sensitive Species Abundance (%) 34.38
Carnivore-Omnivore Abundance (%)	18.75 3	Pollution Sensitive Species Biomass (%) 93.78 5
Deep Deposit Feeder Abundance (%)	45.31	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Carinoma tremaphoros	91	0.05909
Edwardsia elegans	91	0.03181
Heteromastus filiformis	364	0.15453
Macoma balthica	954	16.57562
Micrura leidyi	45	0.00909
Mya arenaria	45	0.39087
Neanthes succinea	318	0.85446
Streblospio benedicti	45	0.00227
Tubificoides spp.	954	0.01364
Total Abundance w/ Epi.	2909	
Total Abundance w/o Epi.	2909	
Number of Taxa w/ Epi.	9	
Number of Taxa w/o Epi.	9	
Total Biomass w/ Epi.		18.09137
Total Biomass w/o Epi.		18.09137

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Upper Western Shore		Station: 026		Rep: 01	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 08SEP15	
		Sampled Area: 0.022 sq.m		Time: 13:00:00	
BOTTOM ENVIRONMENT					
Depth (m): 3.3		Salinity (ppt): 6.29		Temperature (C): 26.62	
Dissolved Oxygen (mg/l): 6.4		Sediment Silt-Clay (%): 86.59		Total Carbon (%): 2	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.40		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.24	3	Pollution Indicative Species Abundance (%)	24.39	1
Abundance (#/m2)	5590	3	Pollution Indicative Species Biomass (%)	0.57	
Biomass (g/m2)	7.98	5	Pollution Sensitive Species Abundance (%)	21.14	
Carnivore-Omnivore Abundance (%)	10.57		Pollution Sensitive Species Biomass (%)	84.96	5
Deep Deposit Feeder Abundance (%)	3.25				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Ameroculodes species complex	91		0.02273		
Carinoma tremaphoros	45		0.01818		
Cyathura polita	545		0.70448		
Heteromastus filiformis	45		0.01363		
Leptocheirus plumulosus	2636		0.42268		
Macoma balthica	45		0.19544		
Macoma mitchelli	91		0.67266		
Marenzelleria viridis	500		2.16342		
Melita nitida (Epi)	909		0.05908		
Rangia cuneata	91		3.71327		
Streblospio benedicti	1364		0.04545		
Tubificoides spp.	136		0.00455		
Total Abundance w/ Epi.	6499				
Total Abundance w/o Epi.	5590				
Number of Taxa w/ Epi.	12				
Number of Taxa w/o Epi.	11				
Total Biomass w/ Epi.			8.03556		
Total Biomass w/o Epi.			7.97648		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Upper Western Shore		Station: 026		Rep: 02	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 08SEP15	
		Sampled Area: 0.022 sq.m		Time: 13:00:00	
BOTTOM ENVIRONMENT					
Depth (m): 3.3		Salinity (ppt): 6.29		Temperature (C): 26.62	
Dissolved Oxygen (mg/l): 6.4		Sediment Silt-Clay (%): 86.59		Total Carbon (%): 2	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.60		Condition: Degraded		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.23	3	Pollution Indicative Species Abundance (%)	36.94	1
Abundance (#/m2)	7136	1	Pollution Indicative Species Biomass (%)	1.60	
Biomass (g/m2)	5.10	5	Pollution Sensitive Species Abundance (%)	14.01	
Carnivore-Omnivore Abundance (%)	9.55		Pollution Sensitive Species Biomass (%)	72.99	3
Deep Deposit Feeder Abundance (%)	10.19				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	91		0.02727		
Cyathura polita	591		0.68630		
Heteromastus filiformis	91		0.19998		
Leptocheirus plumulosus	2591		0.52722		
Macoma balthica	136		0.96808		
Macoma mitchelli	91		0.53177		
Marenzelleria viridis	182		0.69084		
Melita nitida (Epi)	1091		0.06818		
Rangia cuneata	91		1.37714		
Streblospio benedicti	2636		0.08181		
Tubificoides spp.	636		0.00909		
Total Abundance w/ Epi.	8226				
Total Abundance w/o Epi.	7136				
Number of Taxa w/ Epi.	11				
Number of Taxa w/o Epi.	10				
Total Biomass w/ Epi.			5.16767		
Total Biomass w/o Epi.			5.09949		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Upper Western Shore		Station: 026		Rep: 03	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 08SEP15	
		Sampled Area: 0.022 sq.m		Time: 13:00:00	
BOTTOM ENVIRONMENT					
Depth (m): 3.3		Salinity (ppt): 6.29		Temperature (C): 26.62	
Dissolved Oxygen (mg/l): 6.4		Sediment Silt-Clay (%): 86.59		Total Carbon (%): 2	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.20		Condition: Degraded		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.20	3	Pollution Indicative Species Abundance (%)	44.52	1
Abundance (#/m2)	7045	1	Pollution Indicative Species Biomass (%)	3.34	
Biomass (g/m2)	3.40	3	Pollution Sensitive Species Abundance (%)	16.13	
Carnivore-Omnivore Abundance (%)	11.61		Pollution Sensitive Species Biomass (%)	73.83	3
Deep Deposit Feeder Abundance (%)	1.94				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Amerocolodes species complex	91		0.01363		
Carinoma tremaphoros	182		0.04091		
Coelotanypus spp.	45		0.01364		
Cyathura polita	591		0.67266		
Leptocheirus plumulosus	2227		0.29088		
Macoma balthica	45		0.23180		
Macoma mitchelli	136		0.42723		
Marenzelleria viridis	409		1.58166		
Melita nitida (Epi)	591		0.02727		
Rangia cuneata	91		0.02727		
Streblospio benedicti	3091		0.09999		
Tubificoides spp.	136		0.00454		
Total Abundance w/ Epi.	7636				
Total Abundance w/o Epi.	7045				
Number of Taxa w/ Epi.	12				
Number of Taxa w/o Epi.	11				
Total Biomass w/ Epi.			3.43148		
Total Biomass w/o Epi.			3.40421		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Upper Eastern Shore		Station: 029		Rep: 01	
Gear: Wildco Box Corer		Habitat: Oligohaline		Date: 24AUG15	
		Sampled Area: 0.022 sq.m		Time: 10:00:00	
BOTTOM ENVIRONMENT					
Depth (m): 4.4		Salinity (ppt): 0.78		Temperature (C): 26.90	
Dissolved Oxygen (mg/l): 6.5		Sediment Silt-Clay (%): 60.82		Total Carbon (%): 1.54	
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.	60.18	3
Abundance (#/m2)	5136	1	Tolerance Score	8.76	3
Deep Deposit Feeder Abundance (%)	46.90		Oligohaline Pollution Sensitive Spp. Abund.	16.81	3
Carnivore-Omnivore Abundance (%)	23.01	3	Tanypodinae/Chironomidae Abundance Ratio	33.33	3
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Chironomidae			0.00227		
Coelotanypus spp.	227		0.02727		
Cryptochironomus spp.	91				
Cyathura polita	364		0.35906		
Dicrotendipes spp.	45				
Gammarus spp. (Epi)	136		0.00909		
Limnodrilus hoffmeisteri	591				
Marenzelleria viridis	864		2.08616		
Oligochaeta			0.24455		
Parachironomus monochromus/tenuicadatus	45				
Polypedilum halterale group	318				
Polypedilum illinoense group	45				
Rangia cuneata	636		115.06122		
Streblospio benedicti	45		0.00455		
Tanypus neopunctipennis	45				
Tubificidae imm w/o cap chaetae *	1773				
Tubificoides spp.	45		0.00227		
Total Abundance w/ Epi.	5272				
Total Abundance w/o Epi.	5136				
Number of Taxa w/ Epi.	14				
Number of Taxa w/o Epi.	13				
Total Biomass w/ Epi.			117.79643		
Total Biomass w/o Epi.			117.78734		

*Asterisk indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Upper Eastern Shore		Station: 029		Rep: 03	
Gear: Wildco Box Corer		Habitat: Oligohaline		Date: 24AUG15	
		Sampled Area: 0.022 sq.m		Time: 10:00:00	
BOTTOM ENVIRONMENT					
Depth (m): 4.4		Salinity (ppt): 0.78		Temperature (C): 26.90	
Dissolved Oxygen (mg/l): 6.5		Sediment Silt-Clay (%): 60.82		Total Carbon (%): 1.54	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.00		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.51		Oligohaline Pollution Indicative Spp. Abund.	60.83	3
Abundance (#/m2)	5454	1	Tolerance Score	8.59	3
Deep Deposit Feeder Abundance (%)	54.17		Oligohaline Pollution Sensitive Spp. Abund.	15.00	3
Carnivore-Omnivore Abundance (%)	10.00	1	Tanypodinae/Chironomidae Abundance Ratio	100.00	1
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Apocorophium lacustre (Epi)		45		0.00227	
Coelotanypus spp.		227		0.01818	
Corbicula fluminea		136		0.00454	
Cyathura polita		318		0.20907	
Gammarus spp. (Epi)		773		0.05000	
Limnodrilus hoffmeisteri		1091			
Marenzelleria viridis		818		1.40440	
Oligochaeta				0.18112	
Rangia cuneata		1000		125.75560	
Rhithropanopeus harrisii (Epi)		45		0.18635	
Tubificidae imm w/o cap chaetae *		1773			
Tubificoides spp.		91		0.00454	
Total Abundance w/ Epi.		6318			
Total Abundance w/o Epi.		5454			
Number of Taxa w/ Epi.		10			
Number of Taxa w/o Epi.		7			
Total Biomass w/ Epi.				127.81608	
Total Biomass w/o Epi.				127.57747	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Potomac River		Station: 036		Rep: 01	
Gear: Wildco Box Corer		Habitat: Tidal Freshwater		Date: 01SEP15	
		Sampled Area: 0.022 sq.m		Time: 10:15:00	
BOTTOM ENVIRONMENT					
Depth (m): 1.4		Salinity (ppt): 0.20		Temperature (C): 26.44	
Dissolved Oxygen (mg/l): 6.4		Sediment Silt-Clay (%): 70.47		Total Carbon (%): 2.66	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.50		Condition: Degraded		# Attributes Scored: 3	
	Value	Score		Value	Score
Shannon-Wiener Index	2.07		T.F. Pollution Indicative Spp. Abund. (%)	70.59	3
Abundance (#/m2)	7727	1	Tolerance Score	9.28	3
Deep Deposit Feeder Abundance (%)	89.41	3	Limnodrilus Abundance (%)	70.59	
Carnivore-Omnivore Abundance (%)	3.53				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Aulodrilus pigueti	364				
Branchiura sowerbyi	727		2.05889		
Chironomidae			0.00227		
Chironomus spp.	45				
Coelotanypus spp.	136		0.00455		
Cryptochironomus spp.	91				
Limnodrilus hoffmeisteri	727				
Musculium spp.	136		0.01363		
Oligochaeta			0.63795		
Pisidium spp.	364		0.05000		
Streblospio benedicti	45		0.00227		
Tubificidae imm w cap chaetae	364				
Tubificidae imm w/o cap chaetae *	4727				
Total Abundance w/ Epi.	7727				
Total Abundance w/o Epi.	7727				
Number of Taxa w/ Epi.	10				
Number of Taxa w/o Epi.	10				
Total Biomass w/ Epi.			2.76956		
Total Biomass w/o Epi.			2.76956		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Potomac River	Station: 036	Rep: 02
Gear: Wildco Box Corer	Habitat: Tidal Freshwater	Date: 01SEP15
	Sampled Area: 0.022 sq.m	Time: 10:15:00
BOTTOM ENVIRONMENT		
Depth (m): 1.4	Salinity (ppt): 0.20	Temperature (C): 26.44
Dissolved Oxygen (mg/l): 6.4	Sediment Silt-Clay (%): 70.47	Total Carbon (%): 2.66
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.00	Condition: Meets Goal	# Attributes Scored: 3
Shannon-Wiener Index	Value	Score
Abundance (#/m2)	4954	3
Deep Deposit Feeder Abundance (%)	82.57	3
Carnivore-Omnivore Abundance (%)	7.34	
	T.F. Pollution Indicative Spp. Abund. (%)	44.95
	Tolerance Score	9.03
	Limnodrilus Abundance (%)	44.95
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Amnicola limosa (Epi)	45	0.03181
Aulodrilus pigueti	409	
Branchiura sowerbyi	545	0.90446
Chironomus spp.	318	0.00909
Coelotanypus spp.	45	0.00455
Dugesia spp. (Epi)	45	0.00454
Gammarus spp. (Epi)	1591	0.16362
Ilyodrilus templetoni	409	
Limnodrilus hoffmeisteri	818	
Musculium spp.	182	0.03181
Oligochaeta		0.32750
Pisidium spp.	318	0.12726
Tubificidae imm w cap chaetae *	409	
Tubificidae imm w/o cap chaetae *	1409	
Tubificoides spp.	91	0.00454
Total Abundance w/ Epi.	6636	
Total Abundance w/o Epi.	4954	
Number of Taxa w/ Epi.	12	
Number of Taxa w/o Epi.	9	
Total Biomass w/ Epi.		1.60919
Total Biomass w/o Epi.		1.40921

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Station: 040		Rep: 01		
Watershed: Potomac River	Habitat: Oligohaline	Date: 03SEP15		
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 12:00:00		
BOTTOM ENVIRONMENT				
Depth (m): 6.4	Salinity (ppt): 5.86	Temperature (C): 27.03		
Dissolved Oxygen (mg/l): 5.3	Sediment Silt-Clay (%): 97.14	Total Carbon (%): 2.54		
BENTHIC INDEX OF BIOTIC INTEGRITY				
B-IBI Score: 2.60	Condition: Degraded	# Attributes Scored: 5		
	Value Score	Value Score		
Shannon-Wiener Index	1.97	Oligohaline Pollution Indicative Spp. Abund.	81.82	3
Abundance (#/m2)	1500	Tolerance Score	6.00	3
Deep Deposit Feeder Abundance (%)	6.06	Oligohaline Pollution Sensitive Spp. Abund.	0.00	1
Carnivore-Omnivore Abundance (%)	12.12	Tanypodinae/Chironomidae Abundance Ratio	0.00	
BENTHIC ABUNDANCE (per sq. meter)				
TAXA	Abundance (#/m2)	Biomass (g/m2)		
Carinoma tremaphoros	91	0.51813		
Cyathura polita	91	0.00455		
Leptocheirus plumulosus	364	0.05454		
Rangia cuneata	91	0.10908		
Streblospio benedicti	773	0.02727		
Tubificoides spp.	91	0.00455		
Total Abundance w/ Epi.	1500			
Total Abundance w/o Epi.	1500			
Number of Taxa w/ Epi.	6			
Number of Taxa w/o Epi.	6			
Total Biomass w/ Epi.		0.71811		
Total Biomass w/o Epi.		0.71811		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Station: 040		Rep: 02		
Watershed: Potomac River	Habitat: Oligohaline	Date: 03SEP15		
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 12:00:00		
BOTTOM ENVIRONMENT				
Depth (m): 6.4	Salinity (ppt): 5.86	Temperature (C): 27.03		
Dissolved Oxygen (mg/l): 5.3	Sediment Silt-Clay (%): 97.14	Total Carbon (%): 2.54		
BENTHIC INDEX OF BIOTIC INTEGRITY				
B-IBI Score: 2.67	Condition: Marginal	# Attributes Scored: 6		
	Value Score	Value Score		
Shannon-Wiener Index	1.70	Oligohaline Pollution Indicative Spp. Abund.	89.58	3
Abundance (#/m2)	2182	Tolerance Score	6.34	3
Deep Deposit Feeder Abundance (%)	2.08	Oligohaline Pollution Sensitive Spp. Abund.	0.00	1
Carnivore-Omnivore Abundance (%)	6.25	Tanypodinae/Chironomidae Abundance Ratio	50.00	3
BENTHIC ABUNDANCE (per sq. meter)				
TAXA	Abundance (#/m2)	Biomass (g/m2)		
Carinoma tremaphoros	45	0.00909		
Coelotanypus spp.	45	0.01364		
Harnischia spp.	45	0.00227		
Leptocheirus plumulosus	636	0.12272		
Melita nitida (Epi)	45	0.01818		
Rangia cuneata	136	42.00489		
Streblospio benedicti	1227	0.04545		
Tubificoides spp.	45	0.00227		
Total Abundance w/ Epi.	2227			
Total Abundance w/o Epi.	2182			
Number of Taxa w/ Epi.	8			
Number of Taxa w/o Epi.	7			
Total Biomass w/ Epi.		42.21850		
Total Biomass w/o Epi.		42.20032		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Potomac River	Station: 040	Rep: 03
Gear: Wildco Box Corer	Habitat: Oligohaline	Date: 03SEP15
	Sampled Area: 0.022 sq.m	Time: 12:00:00
BOTTOM ENVIRONMENT		
Depth (m): 6.4	Salinity (ppt): 5.86	Temperature (C): 27.03
Dissolved Oxygen (mg/l): 5.3	Sediment Silt-Clay (%): 97.14	Total Carbon (%): 2.54
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 2.33	Condition: Degraded	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	2.20	Oligohaline Pollution Indicative Spp. Abund. 88.16 3
Abundance (#/m2)	3454 3	Tolerance Score 7.92 3
Deep Deposit Feeder Abundance (%)	17.11	Oligohaline Pollution Sensitive Spp. Abund. 0.00 1
Carnivore-Omnivore Abundance (%)	11.84 1	Tanypodinae/Chironomidae Abundance Ratio 50.00 3
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Carinoma tremaphoros	91	0.01818
Chironomidae		0.00227
Cyathura polita	136	0.09090
Harnischia spp.	91	
Hobsonia florida	45	0.00455
Leptocheirus plumulosus	773	0.11817
Melita nitida (Epi)	45	0.00455
Procladius spp.	91	
Rangia cuneata	45	0.02272
Streblospio benedicti	1591	0.06818
Tubificoides spp.	591	0.01364
Total Abundance w/ Epi.	3500	
Total Abundance w/o Epi.	3454	
Number of Taxa w/ Epi.	10	
Number of Taxa w/o Epi.	9	
Total Biomass w/ Epi.		0.34315
Total Biomass w/o Epi.		0.33860

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Potomac River	Station: 043	Rep: 01
Gear: Modified Box Corer	Habitat: Low Mesohaline	Date: 02SEP15
	Sampled Area: 0.025 sq.m	Time: 9:00:00
BOTTOM ENVIRONMENT		
Depth (m): 2.0	Salinity (ppt): 9.55	Temperature (C): 26.94
Dissolved Oxygen (mg/l): 4.7	Sediment Silt-Clay (%): 4.06	Total Carbon (%): 0.11
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.00	Condition: Meets Goal	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	3.03 5	Pollution Indicative Species Abundance (%) 40.83 1
Abundance (#/m2)	4800 3	Pollution Indicative Species Biomass (%) 5.25
Biomass (g/m2)	1.49 3	Pollution Sensitive Species Abundance (%) 26.67
Carnivore-Omnivore Abundance (%)	11.67	Pollution Sensitive Species Biomass (%) 57.60 3
Deep Deposit Feeder Abundance (%)	25.83	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Cyathura polita	80	0.07600
Eteone heteropoda	360	0.03200
Heteromastus filiformis	240	0.38800
Leptocheirus plumulosus	720	0.11200
Macoma balthica	40	0.08400
Macoma mitchelli	200	0.02800
Marenzelleria viridis	1120	0.68800
Neanthes succinea	120	0.01600
Oligochaeta		0.02000
Rangia cuneata	40	0.00800
Streblospio benedicti	880	0.02400
Tubificidae imm w/o cap chaetae	720	0.00200
Tubificoides spp.	280	0.00800
Total Abundance w/ Epi.	4800	
Total Abundance w/o Epi.	4800	
Number of Taxa w/ Epi.	12	
Number of Taxa w/o Epi.	12	
Total Biomass w/ Epi.		1.48600
Total Biomass w/o Epi.		1.48600

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Potomac River	Station: 043	Rep: 02
Gear: Modified Box Corer	Habitat: Low Mesohaline	Date: 02SEP15
	Sampled Area: 0.025 sq.m	Time: 9:00:00
BOTTOM ENVIRONMENT		
Depth (m): 2.0	Salinity (ppt): 9.55	Temperature (C): 26.94
Dissolved Oxygen (mg/l): 4.7	Sediment Silt-Clay (%): 4.06	Total Carbon (%): 0.11
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.00	Condition: Meets Goal	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	2.85 5	Pollution Indicative Species Abundance (%) 39.42 1
Abundance (#/m2)	4160 3	Pollution Indicative Species Biomass (%) 2.43
Biomass (g/m2)	2.88 3	Pollution Sensitive Species Abundance (%) 31.73
Carnivore-Omnivore Abundance (%)	7.69	Pollution Sensitive Species Biomass (%) 64.63 3
Deep Deposit Feeder Abundance (%)	33.65	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Apocorophium lacustre (Epi)	80	0.00400
Cyathura polita	40	0.00400
Eteone heteropoda	80	0.02400
Heteromastus filiformis	240	0.69200
Leptocheirus plumulosus	360	0.07200
Macoma balthica	40	0.34000
Macoma mitchelli	240	0.12800
Marenzelleria viridis	1240	1.51600
Melita nitida (Epi)	40	0.00400
Neanthes succinea	40	0.04000
Nemertina	160	0.01200
Oligochaeta		0.02800
Streblospio benedicti	560	0.01600
Tubificidae imm w/o cap chaetae	1000	0.00200
Tubificoides spp.	160	0.00400
Total Abundance w/ Epi.	4280	
Total Abundance w/o Epi.	4160	
Number of Taxa w/ Epi.	14	
Number of Taxa w/o Epi.	12	
Total Biomass w/ Epi.		2.88600
Total Biomass w/o Epi.		2.87800

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Potomac River	Station: 043	Rep: 03
Gear: Modified Box Corer	Habitat: Low Mesohaline	Date: 02SEP15
	Sampled Area: 0.025 sq.m	Time: 9:00:00
BOTTOM ENVIRONMENT		
Depth (m): 2.0	Salinity (ppt): 9.55	Temperature (C): 26.94
Dissolved Oxygen (mg/l): 4.7	Sediment Silt-Clay (%): 4.06	Total Carbon (%): 0.11
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.00	Condition: Meets Goal	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	3.26 5	Pollution Indicative Species Abundance (%) 41.74 1
Abundance (#/m2)	4600 3	Pollution Indicative Species Biomass (%) 10.41
Biomass (g/m2)	1.21 3	Pollution Sensitive Species Abundance (%) 21.74
Carnivore-Omnivore Abundance (%)	13.91	Pollution Sensitive Species Biomass (%) 69.09 3
Deep Deposit Feeder Abundance (%)	33.91	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Ameroculodes species complex	120	0.00800
Cyathura polita	40	0.02800
Eteone heteropoda	520	0.08000
Heteromastus filiformis	160	0.06000
Leptocheirus plumulosus	440	0.09200
Littoridinops tenuipes (Epi)	80	0.03600
Macoma mitchelli	280	0.05200
Marenzelleria viridis	800	0.79200
Neanthes succinea	40	0.02400
Nemertina	40	0.00400
Oligochaeta		0.03600
Polydora cornuta	40	0.00400
Rangia cuneata	160	0.01600
Streblospio benedicti	560	0.00800
Tubificidae imm w/o cap chaetae	840	0.00200
Tubificoides spp.	560	0.00400
Total Abundance w/ Epi.	4680	
Total Abundance w/o Epi.	4600	
Number of Taxa w/ Epi.	15	
Number of Taxa w/o Epi.	14	
Total Biomass w/ Epi.		1.24600
Total Biomass w/o Epi.		1.21000

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Potomac River		Station: 044		Rep: 01	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 02SEP15	
		Sampled Area: 0.022 sq.m		Time: 14:00:00	
BOTTOM ENVIRONMENT					
Depth (m): 12.0		Salinity (ppt): 8.93		Temperature (C): 27.05	
Dissolved Oxygen (mg/l): 4.8		Sediment Silt-Clay (%): 85.00		Total Carbon (%): 2.12	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.00		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.21	3	Pollution Indicative Species Abundance (%)	11.11	3
Abundance (#/m2)	818	3	Pollution Indicative Species Biomass (%)	0.70	
Biomass (g/m2)	1.29	3	Pollution Sensitive Species Abundance (%)	5.56	
Carnivore-Omnivore Abundance (%)	33.33		Pollution Sensitive Species Biomass (%)	78.52	3
Deep Deposit Feeder Abundance (%)	55.56				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	136		0.09544		
Eteone heteropoda	91		0.00909		
Heteromastus filiformis	409		0.11363		
Leptocheirus plumulosus	45		0.00909		
Macoma balthica	45		1.01353		
Melita nitida (Epi)	45		0.01364		
Mysidae (Epi)	45		0.03636		
Neanthes succinea	45		0.04091		
Tubificoides spp.	45		0.00909		
Total Abundance w/ Epi.	909				
Total Abundance w/o Epi.	818				
Number of Taxa w/ Epi.	9				
Number of Taxa w/o Epi.	7				
Total Biomass w/ Epi.			1.34077		
Total Biomass w/o Epi.			1.29078		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Potomac River	Station: 044	Rep: 02
Gear: Wildco Box Corer	Habitat: Low Mesohaline	Date: 02SEP15
	Sampled Area: 0.022 sq.m	Time: 14:00:00

BOTTOM ENVIRONMENT		

Depth (m): 12.0	Salinity (ppt): 8.93	Temperature (C): 27.05
Dissolved Oxygen (mg/l): 4.8	Sediment Silt-Clay (%): 85.00	Total Carbon (%): 2.12

BENTHIC INDEX OF BIOTIC INTEGRITY		

B-IBI Score: 4.20	Condition: Meets Goal	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	2.20 3	Pollution Indicative Species Abundance (%) 0.00 5
Abundance (#/m2)	591 3	Pollution Indicative Species Biomass (%) 0.00
Biomass (g/m2)	9.82 5	Pollution Sensitive Species Abundance (%) 15.38
Carnivore-Omnivore Abundance (%)	53.85	Pollution Sensitive Species Biomass (%) 98.66 5
Deep Deposit Feeder Abundance (%)	30.77	

BENTHIC ABUNDANCE (per sq. meter)		

TAXA	Abundance (#/m2)	Biomass (g/m2)
Carinoma tremaphoros	273	0.11817
Heteromastus filiformis	91	0.00454
Macoma balthica	45	9.30362
Neanthes succinea	45	0.00454
Rangia cuneata	45	0.38178
Tubificoides spp.	91	0.00454

Total Abundance w/ Epi.	591	
Total Abundance w/o Epi.	591	
Number of Taxa w/ Epi.	6	
Number of Taxa w/o Epi.	6	
Total Biomass w/ Epi.		9.81720
Total Biomass w/o Epi.		9.81720

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Morgantown Discharge		Station: 047		Rep: 01	
Gear: Modified Box Corer		Habitat: Low Mesohaline		Date: 02SEP15	
		Sampled Area: 0.025 sq.m		Time: 9:15:00	
BOTTOM ENVIRONMENT					
Depth (m): 1.6		Salinity (ppt): 9.51		Temperature (C): 27.01	
Dissolved Oxygen (mg/l): 4.7		Sediment Silt-Clay (%): 9.17		Total Carbon (%): 0.16	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.80		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.54	5	Pollution Indicative Species Abundance (%)	4.00	5
Abundance (#/m2)	2000	5	Pollution Indicative Species Biomass (%)	1.60	
Biomass (g/m2)	1.75	3	Pollution Sensitive Species Abundance (%)	20.00	
Carnivore-Omnivore Abundance (%)	12.00		Pollution Sensitive Species Biomass (%)	21.46	1
Deep Deposit Feeder Abundance (%)	18.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Edotea triloba (Epi)	40		0.01600		
Edwardsia elegans	40		0.03200		
Eteone heteropoda	40		0.01200		
Heteromastus filiformis	360		0.89200		
Leptocheirus plumulosus	800		0.14000		
Macoma balthica	40		0.16400		
Macoma mitchelli	160		0.21600		
Marenzelleria viridis	320		0.16800		
Neanthes succinea	160		0.06800		
Rangia cuneata	40		0.04400		
Streblospio benedicti	40		0.01600		
Total Abundance w/ Epi.	2040				
Total Abundance w/o Epi.	2000				
Number of Taxa w/ Epi.	11				
Number of Taxa w/o Epi.	10				
Total Biomass w/ Epi.			1.76800		
Total Biomass w/o Epi.			1.75200		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Morgantown Discharge	Station: 047	Rep: 02
Gear: Modified Box Corer	Habitat: Low Mesohaline	Date: 02SEP15
	Sampled Area: 0.025 sq.m	Time: 9:15:00
BOTTOM ENVIRONMENT		
Depth (m): 1.6	Salinity (ppt): 9.51	Temperature (C): 27.01
Dissolved Oxygen (mg/l): 4.7	Sediment Silt-Clay (%): 9.17	Total Carbon (%): 0.16
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.40	Condition: Meets Goal	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	2.54 5	Pollution Indicative Species Abundance (%) 8.73 5
Abundance (#/m2)	5040 3	Pollution Indicative Species Biomass (%) 2.20
Biomass (g/m2)	2.18 3	Pollution Sensitive Species Abundance (%) 5.56
Carnivore-Omnivore Abundance (%)	16.67	Pollution Sensitive Species Biomass (%) 11.01 1
Deep Deposit Feeder Abundance (%)	23.02	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Edwardsia elegans	360	0.03600
Eteone heteropoda	160	0.02800
Heteromastus filiformis	1120	0.73600
Leptocheirus plumulosus	2160	0.46000
Macoma mitchelli	320	0.34000
Marenzelleria viridis	200	0.14400
Micrura leidyi	40	0.22800
Neanthes succinea	280	0.08400
Rangia cuneata	80	0.09600
Streblospio benedicti	280	0.02000
Tubificoides spp.	40	0.00800
Total Abundance w/ Epi.	5040	
Total Abundance w/o Epi.	5040	
Number of Taxa w/ Epi.	11	
Number of Taxa w/o Epi.	11	
Total Biomass w/ Epi.		2.18000
Total Biomass w/o Epi.		2.18000

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Station: 047		Rep: 03	
Watershed: Morgantown Discharge		Date: 02SEP15	
Gear: Modified Box Corer		Time: 9:15:00	
Habitat: Low Mesohaline			
Sampled Area: 0.025 sq.m			
BOTTOM ENVIRONMENT			
Depth (m): 1.6		Salinity (ppt): 9.51	
Dissolved Oxygen (mg/l): 4.7		Temperature (C): 27.01	
		Sediment Silt-Clay (%): 9.17	
		Total Carbon (%): 0.16	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 4.20		Condition: Meets Goal	
		# Attributes Scored: 5	
	Value	Score	
Shannon-Wiener Index	2.51	5	Pollution Indicative Species Abundance (%)
Abundance (#/m2)	2640	3	Pollution Indicative Species Biomass (%)
Biomass (g/m2)	11.07	3	Pollution Sensitive Species Abundance (%)
Carnivore-Omnivore Abundance (%)	6.06		Pollution Sensitive Species Biomass (%)
Deep Deposit Feeder Abundance (%)	10.61		
			Value
			Score
			7.58
			0.25
			27.27
			94.29
			5
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)		Biomass (g/m2)
Eteone heteropoda	80		0.01200
Heteromastus filiformis	280		0.33200
Leptocheirus plumulosus	1240		0.22000
Macoma balthica	160		1.36400
Macoma mitchelli	120		0.00800
Marenzelleria viridis	400		0.31200
Mulinia lateralis	40		0.00400
Neanthes succinea	80		0.04400
Rangia cuneata	160		8.76400
Streblospio benedicti	80		0.01200
Total Abundance w/ Epi.	2640		
Total Abundance w/o Epi.	2640		
Number of Taxa w/ Epi.	10		
Number of Taxa w/o Epi.	10		
Total Biomass w/ Epi.			11.07200
Total Biomass w/o Epi.			11.07200

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Potomac River			Station: 051			Rep: 01		
Gear: Modified Box Corer			Habitat: High Mesohaline Sand			Date: 02SEP15		
			Sampled Area: 0.025 sq.m			Time: 10:42:00		
BOTTOM ENVIRONMENT								
Depth (m): 1.6			Salinity (ppt): 11.97			Temperature (C): 26.56		
Dissolved Oxygen (mg/l): 5.6			Sediment Silt-Clay (%): 3.32			Total Carbon (%): 0.15		
BENTHIC INDEX OF BIOTIC INTEGRITY								
B-IBI Score: 3.00			Condition: Meets Goal			# Attributes Scored: 6		
	Value	Score			Value	Score		
Shannon-Wiener Index	2.99	3	Pollution Indicative Species Abundance (%)		21.28	3		
Abundance (#/m2)	1880	5	Pollution Indicative Species Biomass (%)		1.52			
Biomass (g/m2)	1.31	3	Pollution Sensitive Species Abundance (%)		6.38	1		
Carnivore-Omnivore Abundance (%)	27.66	3	Pollution Sensitive Species Biomass (%)		11.28			
Deep Deposit Feeder Abundance (%)	6.38							
BENTHIC ABUNDANCE (per sq. meter)								
TAXA	Abundance (#/m2)			Biomass (g/m2)				
Carinoma tremaphoros	40			0.01200				
Edwardsia elegans	80			0.01200				
Gemma gemma	240			0.01200				
Glycinde solitaria	80			0.02400				
Heteromastus filiformis	120			0.10800				
Laeonereis culveri	120			0.08400				
Macoma mitchelli	560			0.21600				
Marenzelleria viridis	40			0.12400				
Micrura leidyi	80			0.62400				
Mulinia lateralis	360			0.01600				
Neanthes succinea	120			0.07600				
Streblospio benedicti	40			0.00400				
Total Abundance w/ Epi.	1880							
Total Abundance w/o Epi.	1880							
Number of Taxa w/ Epi.	12							
Number of Taxa w/o Epi.	12							
Total Biomass w/ Epi.				1.31200				
Total Biomass w/o Epi.				1.31200				

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Potomac River		Station: 051		Rep: 02	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 02SEP15	
		Sampled Area: 0.025 sq.m		Time: 10:42:00	
BENTHIC INDEX OF BIOTIC INTEGRITY					
Depth (m): 1.6		Salinity (ppt): 11.97		Temperature (C): 26.56	
Dissolved Oxygen (mg/l): 5.6		Sediment Silt-Clay (%): 3.32		Total Carbon (%): 0.15	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.33		Condition: Degraded		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.57	3	Pollution Indicative Species Abundance (%)	25.00	3
Abundance (#/m2)	1440	3	Pollution Indicative Species Biomass (%)	18.52	
Biomass (g/m2)	0.32	1	Pollution Sensitive Species Abundance (%)	2.78	1
Carnivore-Omnivore Abundance (%)	22.22	3	Pollution Sensitive Species Biomass (%)	6.17	
Deep Deposit Feeder Abundance (%)	8.33				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Edwardsia elegans	200		0.07200		
Gemma gemma	400		0.02400		
Glycinde solitaria	40		0.02000		
Heteromastus filiformis	120		0.04000		
Laeonereis culveri	40		0.01600		
Macoma mitchelli	240		0.07600		
Mulinia lateralis	360		0.06000		
Rictaxis punctostriatus	40		0.01600		
Total Abundance w/ Epi.	1440				
Total Abundance w/o Epi.	1440				
Number of Taxa w/ Epi.	8				
Number of Taxa w/o Epi.	8				
Total Biomass w/ Epi.			0.32400		
Total Biomass w/o Epi.			0.32400		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Potomac River	Station: 051	Rep: 03
Gear: Modified Box Corer	Habitat: High Mesohaline Sand	Date: 02SEP15
	Sampled Area: 0.025 sq.m	Time: 10:42:00
BOTTOM ENVIRONMENT		
Depth (m): 1.6	Salinity (ppt): 11.97	Temperature (C): 26.56
Dissolved Oxygen (mg/l): 5.6	Sediment Silt-Clay (%): 3.32	Total Carbon (%): 0.15
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 2.67	Condition: Marginal	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	2.90 3	Pollution Indicative Species Abundance (%) 20.83 3
Abundance (#/m2)	960 1	Pollution Indicative Species Biomass (%) 11.11
Biomass (g/m2)	0.40 1	Pollution Sensitive Species Abundance (%) 16.67 3
Carnivore-Omnivore Abundance (%)	37.50 5	Pollution Sensitive Species Biomass (%) 5.05
Deep Deposit Feeder Abundance (%)	4.17	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Edwardsia elegans	120	0.02400
Gemma gemma	200	0.01600
Glycinde solitaria	160	0.02000
Heteromastus filiformis	40	0.04000
Laeonereis culveri	40	0.07600
Macoma mitchelli	160	0.11600
Micrura leidyi	40	0.06000
Mulinia lateralis	160	0.03600
Streblospio benedicti	40	0.00800
Total Abundance w/ Epi.	960	
Total Abundance w/o Epi.	960	
Number of Taxa w/ Epi.	9	
Number of Taxa w/o Epi.	9	
Total Biomass w/ Epi.		0.39600
Total Biomass w/o Epi.		0.39600

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Station: 052		Rep: 01
Watershed: Potomac River	Habitat: High Mesohaline Mud	Date: 18AUG15
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 13:00:00
BOTTOM ENVIRONMENT		
Depth (m): 11.0	Salinity (ppt): 12.99	Temperature (C): 26.52
Dissolved Oxygen (mg/l): 1.7	Sediment Silt-Clay (%): 95.78	Total Carbon (%): 3.07
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 1.33	Condition: Severely Degr.	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	1.25 1	Pollution Indicative Species Abundance (%) 83.33
Abundance (#/m2)	273 1	Pollution Indicative Species Biomass (%) 70.00 1
Biomass (g/m2)	0.05 1	Pollution Sensitive Species Abundance (%) 0.00
Carnivore-Omnivore Abundance (%)	16.67 3	Pollution Sensitive Species Biomass (%) 0.00 1
Deep Deposit Feeder Abundance (%)	0.00	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Neanthes succinea	45	0.01363
Paraprionospio pinnata	45	0.01818
Streblospio benedicti	182	0.01364
Total Abundance w/ Epi.	273	
Total Abundance w/o Epi.	273	
Number of Taxa w/ Epi.	3	
Number of Taxa w/o Epi.	3	
Total Biomass w/ Epi.		0.04545
Total Biomass w/o Epi.		0.04545

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Station: 052		Rep: 02
Watershed: Potomac River	Habitat: High Mesohaline Mud	Date: 18AUG15
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 13:00:00
BOTTOM ENVIRONMENT		
Depth (m): 11.0	Salinity (ppt): 12.99	Temperature (C): 26.52
Dissolved Oxygen (mg/l): 1.7	Sediment Silt-Clay (%): 95.78	Total Carbon (%): 3.07
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)	136 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)
Streblospio benedicti	136	0.00455
Total Abundance w/ Epi.	136	
Total Abundance w/o Epi.	136	
Number of Taxa w/ Epi.	1	
Number of Taxa w/o Epi.	1	
Total Biomass w/ Epi.		0.00455
Total Biomass w/o Epi.		0.00455

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Potomac River	Station: 052	Rep: 03
Gear: Wildco Box Corer	Habitat: High Mesohaline Mud	Date: 18AUG15
	Sampled Area: 0.022 sq.m	Time: 13:00:00
BOTTOM ENVIRONMENT		
Depth (m): 11.0	Salinity (ppt): 12.99	Temperature (C): 26.52
Dissolved Oxygen (mg/l): 1.7	Sediment Silt-Clay (%): 95.78	Total Carbon (%): 3.07
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 1.67	Condition: Severely Degr.	# Attributes Scored: 6
	Value	Score
Shannon-Wiener Index	0.99	1
Abundance (#/m2)	500	1
Biomass (g/m2)	0.06	1
Carnivore-Omnivore Abundance (%)	45.45	5
Deep Deposit Feeder Abundance (%)	0.00	1
	Value	Score
Pollution Indicative Species Abundance (%)	54.55	
Pollution Indicative Species Biomass (%)	30.77	1
Pollution Sensitive Species Abundance (%)	0.00	
Pollution Sensitive Species Biomass (%)	0.00	1
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
<i>Neanthes succinea</i>	227	0.04090
<i>Streblospio benedicti</i>	273	0.01818
Total Abundance w/ Epi.	500	
Total Abundance w/o Epi.	500	
Number of Taxa w/ Epi.	2	
Number of Taxa w/o Epi.	2	
Total Biomass w/ Epi.		0.05908
Total Biomass w/o Epi.		0.05908

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Station: 062			Rep: 01		
Watershed: Lower Eastern Shore		Habitat: Low Mesohaline		Date: 14SEP15	
Gear: Petite Ponar		Sampled Area: 0.025 sq.m		Time: 16:40:00	
BOTTOM ENVIRONMENT					
Depth (m): 4.2		Salinity (ppt): 8.54		Temperature (C): 24.61	
Dissolved Oxygen (mg/l): 6.8		Sediment Silt-Clay (%): 84.91		Total Carbon (%): 2.3	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.60		Condition: Degraded		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	1.54	1	Pollution Indicative Species Abundance (%)	3.57	5
Abundance (#/m2)	10080	1	Pollution Indicative Species Biomass (%)	1.93	
Biomass (g/m2)	1.35	3	Pollution Sensitive Species Abundance (%)	4.37	
Carnivore-Omnivore Abundance (%)	3.17		Pollution Sensitive Species Biomass (%)	74.37	3
Deep Deposit Feeder Abundance (%)	75.40				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Ameroculodes species complex	360		0.02800		
Carinoma tremaphoros	40		0.02000		
Cyathura polita	280		0.33600		
Cyclaspis varians	40		0.00200		
Edotea triloba (Epi)	40		0.00400		
Gammarus daiberi (Epi)	160		0.06800		
Heteromastus filiformis	80		0.00800		
Leptocheirus plumulosus	1360		0.16400		
Leucon americanus	40		0.00200		
Macoma balthica	80		0.48400		
Macoma mitchelli	40		0.01200		
Marenzelleria viridis	80		0.18400		
Oligochaeta			0.01600		
Streblospio benedicti	160		0.00800		
Tubificidae imm w/o cap chaetae	200		0.00200		
Tubificoides spp.	7320		0.08400		
Total Abundance w/ Epi.	10280				
Total Abundance w/o Epi.	10080				
Number of Taxa w/ Epi.	15				
Number of Taxa w/o Epi.	13				
Total Biomass w/ Epi.			1.42200		
Total Biomass w/o Epi.			1.35000		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Lower Eastern Shore		Station: 062		Rep: 02	
Gear: Petite Ponar		Habitat: Low Mesohaline		Date: 14SEP15	
		Sampled Area: 0.025 sq.m		Time: 16:40:00	
BOTTOM ENVIRONMENT					
Depth (m): 4.2		Salinity (ppt): 8.54		Temperature (C): 24.61	
Dissolved Oxygen (mg/l): 6.8		Sediment Silt-Clay (%): 84.91		Total Carbon (%): 2.3	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.60		Condition: Degraded		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	1.64	1	Pollution Indicative Species Abundance (%)	6.61	5
Abundance (#/m2)	10280	1	Pollution Indicative Species Biomass (%)	5.94	
Biomass (g/m2)	1.99	3	Pollution Sensitive Species Abundance (%)	4.28	
Carnivore-Omnivore Abundance (%)	3.11		Pollution Sensitive Species Biomass (%)	75.93	3
Deep Deposit Feeder Abundance (%)	72.76				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Amerocolodes species complex	720		0.06000		
Carinoma tremaphoros	80		0.03600		
Cyathura polita	240		0.37200		
Edotea triloba (Epi)	40		0.00800		
Gammarus daiberi (Epi)	440		0.14400		
Heteromastus filiformis	80		0.00800		
Leptocheirus plumulosus	1000		0.22800		
Macoma balthica	200		1.13600		
Macoma mitchelli	40		0.01200		
Melita nitida (Epi)	40		0.00800		
Oligochaeta			0.02000		
Streblospio benedicti	520		0.09600		
Tubificidae imm w/o cap chaetae	160		0.00200		
Tubificoides spp.	7240		0.01600		
Total Abundance w/ Epi.	10800				
Total Abundance w/o Epi.	10280				
Number of Taxa w/ Epi.	13				
Number of Taxa w/o Epi.	10				
Total Biomass w/ Epi.			2.14600		
Total Biomass w/o Epi.			1.98600		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Station: 062			Rep: 03		
Watershed: Lower Eastern Shore		Habitat: Low Mesohaline		Date: 14SEP15	
Gear: Petite Ponar		Sampled Area: 0.025 sq.m		Time: 16:40:00	
BOTTOM ENVIRONMENT					
Depth (m): 4.2		Salinity (ppt): 8.54		Temperature (C): 24.61	
Dissolved Oxygen (mg/l): 6.8		Sediment Silt-Clay (%): 84.91		Total Carbon (%): 2.3	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.00		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.03	3	Pollution Indicative Species Abundance (%)	6.94	5
Abundance (#/m2)	8640	1	Pollution Indicative Species Biomass (%)	1.60	
Biomass (g/m2)	1.38	3	Pollution Sensitive Species Abundance (%)	5.56	
Carnivore-Omnivore Abundance (%)	3.24		Pollution Sensitive Species Biomass (%)	68.51	3
Deep Deposit Feeder Abundance (%)	62.50				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Amerocolodes species complex	720		0.06000		
Carinoma tremaphoros	120		0.04800		
Cyathura polita	160		0.19200		
Cyclaspis varians	40		0.01600		
Edotea triloba (Epi)	40		0.00400		
Gammarus daiberi (Epi)	320		0.06400		
Leptocheirus plumulosus	1360		0.20800		
Leucon americanus	40		0.00400		
Macoma balthica	200		0.54000		
Macoma mitchelli	80		0.01600		
Marenzelleria viridis	120		0.21200		
Oligochaeta			0.00800		
Streblospio benedicti	400		0.01200		
Tubificidae imm w/o cap chaetae	200		0.00200		
Tubificoides spp.	5200		0.06000		
Total Abundance w/ Epi.	9000				
Total Abundance w/o Epi.	8640				
Number of Taxa w/ Epi.	14				
Number of Taxa w/o Epi.	12				
Total Biomass w/ Epi.			1.44600		
Total Biomass w/o Epi.			1.37800		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Choptank River		Station: 064		Rep: 01	
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud		Date: 27AUG15	
		Sampled Area: 0.022 sq.m		Time: 10:30:00	
BOTTOM ENVIRONMENT					
Depth (m): 8.5		Salinity (ppt): 11.00		Temperature (C): 26.96	
Dissolved Oxygen (mg/l): 4.8		Sediment Silt-Clay (%): 91.12		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	2.33	3	Pollution Indicative Species Abundance (%)	36.36	
Abundance (#/m2)	1500	3	Pollution Indicative Species Biomass (%)	1.74	5
Biomass (g/m2)	21.52	3	Pollution Sensitive Species Abundance (%)	39.39	
Carnivore-Omnivore Abundance (%)	6.06	1	Pollution Sensitive Species Biomass (%)	97.22	5
Deep Deposit Feeder Abundance (%)	3.03				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Ameroculodes species complex	91		0.00454		
Edwardsia elegans	45		0.02273		
Glycinde solitaria	45		0.00909		
Macoma balthica	500		20.59794		
Macoma mitchelli	227		0.19544		
Marenzelleria viridis	45		0.31361		
Mulinia lateralis	500		0.36360		
Oligochaeta			0.00909		
Tubificidae imm w/o cap chaetae	45		0.00227		
Total Abundance w/ Epi.	1500				
Total Abundance w/o Epi.	1500				
Number of Taxa w/ Epi.	8				
Number of Taxa w/o Epi.	8				
Total Biomass w/ Epi.			21.51830		
Total Biomass w/o Epi.			21.51830		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Choptank River	Station: 064	Rep: 02
Gear: Wildco Box Corer	Habitat: High Mesohaline Mud	Date: 27AUG15
	Sampled Area: 0.022 sq.m	Time: 10:30:00
BOTTOM ENVIRONMENT		
Depth (m): 8.5	Salinity (ppt): 11.00	Temperature (C): 26.96
Dissolved Oxygen (mg/l): 4.8	Sediment Silt-Clay (%): 91.12	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	1.86 1	Pollution Indicative Species Abundance (%) 63.77
Abundance (#/m2)	3136 3	Pollution Indicative Species Biomass (%) 4.07 5
Biomass (g/m2)	26.52 3	Pollution Sensitive Species Abundance (%) 27.54
Carnivore-Omnivore Abundance (%)	18.84 3	Pollution Sensitive Species Biomass (%) 95.40 5
Deep Deposit Feeder Abundance (%)	1.45	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Carinoma tremaphoros	45	0.11363
Cyathura polita	45	0.01818
Edwardsia elegans	182	0.01818
Glycinde solitaria	273	0.19998
Macoma balthica	545	25.08386
Mulinia lateralis	1909	1.06807
Podarkeopsis levifuscina	45	0.00909
Streblospio benedicti	45	0.00909
Tubificidae imm w/o cap chaetae	45	0.00227
Total Abundance w/ Epi.	3136	
Total Abundance w/o Epi.	3136	
Number of Taxa w/ Epi.	9	
Number of Taxa w/o Epi.	9	
Total Biomass w/ Epi.		26.52235
Total Biomass w/o Epi.		26.52235

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Choptank River			Station: 064			Rep: 03		
Gear: Wildco Box Corer			Habitat: High Mesohaline Mud			Date: 27AUG15		
			Sampled Area: 0.022 sq.m			Time: 10:30:00		
BOTTOM ENVIRONMENT								
Depth (m): 8.5			Salinity (ppt): 11.00			Temperature (C): 26.96		
Dissolved Oxygen (mg/l): 4.8			Sediment Silt-Clay (%): 91.12			Total Carbon (%): 1.97		
BENTHIC INDEX OF BIOTIC INTEGRITY								
B-IBI Score: 4.33			Condition: Meets Goal			# Attributes Scored: 6		
	Value	Score			Value	Score		
Shannon-Wiener Index	2.36	3	Pollution Indicative Species Abundance (%)		32.08			
Abundance (#/m2)	2409	5	Pollution Indicative Species Biomass (%)		3.97	5		
Biomass (g/m2)	18.64	3	Pollution Sensitive Species Abundance (%)		56.60			
Carnivore-Omnivore Abundance (%)	30.19	5	Pollution Sensitive Species Biomass (%)		93.00	5		
Deep Deposit Feeder Abundance (%)	0.00							
BENTHIC ABUNDANCE (per sq. meter)								
TAXA	Abundance (#/m2)		Biomass (g/m2)					
Carinoma tremaphoros	136		0.20907					
Edwardsia elegans	45		0.02272					
Glycinde solitaria	500		0.22725					
Macoma balthica	773		16.21656					
Macoma mitchelli	45		0.05000					
Marenzelleria viridis	91		0.89082					
Mulinia lateralis	727		0.73629					
Neanthes succinea	45		0.28179					
Streblospio benedicti	45		0.00455					
Total Abundance w/ Epi.	2409							
Total Abundance w/o Epi.	2409							
Number of Taxa w/ Epi.	9							
Number of Taxa w/o Epi.	9							
Total Biomass w/ Epi.			18.63904					
Total Biomass w/o Epi.			18.63904					

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Station: 066		Rep: 01		
Watershed: Choptank River	Habitat: Oligohaline	Date: 14SEP15		
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 10:25:00		
BOTTOM ENVIRONMENT				
Depth (m): 3.6	Salinity (ppt): 2.95	Temperature (C): 24.71		
Dissolved Oxygen (mg/l): 5.0	Sediment Silt-Clay (%): 62.80	Total Carbon (%): 3.07		
BENTHIC INDEX OF BIOTIC INTEGRITY				
B-IBI Score: 2.60	Condition: Degraded	# Attributes Scored: 5		
	Value Score	Value Score		
Shannon-Wiener Index	2.00	Oligohaline Pollution Indicative Spp. Abund.	84.75	3
Abundance (#/m2)	2682	Tolerance Score	9.80	1
Deep Deposit Feeder Abundance (%)	57.63	Oligohaline Pollution Sensitive Spp. Abund.	1.69	3
Carnivore-Omnivore Abundance (%)	1.69	Tanypodinae/Chironomidae Abundance Ratio	0.00	
BENTHIC ABUNDANCE (per sq. meter)				
TAXA	Abundance (#/m2)	Biomass (g/m2)		
Ameroculodes species complex	182	0.02273		
Cyathura polita	45	0.19998		
Gammarus spp. (Epi)	227	0.01818		
Hobsonia florida	136	0.04090		
Leptocheirus plumulosus	500	0.06363		
Littoridinops tenuipes (Epi)	91	0.01818		
Marenzelleria viridis	45	0.24089		
Neomysis americana (Epi)	45	0.00455		
Oligochaeta		0.01818		
Streblospio benedicti	227	0.01364		
Tubificidae imm w/o cap chaetae	1500	0.27813		
Tubificoides spp.	45	0.00227		
Total Abundance w/ Epi.	3045			
Total Abundance w/o Epi.	2682			
Number of Taxa w/ Epi.	11			
Number of Taxa w/o Epi.	8			
Total Biomass w/ Epi.		0.92124		
Total Biomass w/o Epi.		0.88034		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Choptank River	Station: 066	Rep: 02
Gear: Wildco Box Corer	Habitat: Oligohaline	Date: 14SEP15
	Sampled Area: 0.022 sq.m	Time: 10:25:00
BOTTOM ENVIRONMENT		
Depth (m): 3.6	Salinity (ppt): 2.95	Temperature (C): 24.71
Dissolved Oxygen (mg/l): 5.0	Sediment Silt-Clay (%): 62.80	Total Carbon (%): 3.07
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 2.33	Condition: Degraded	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	2.19	Oligohaline Pollution Indicative Spp. Abund.
Abundance (#/m2)	2863	5
Deep Deposit Feeder Abundance (%)	65.08	Tolerance Score
Carnivore-Omnivore Abundance (%)	4.76	1
		Oligohaline Pollution Sensitive Spp. Abund.
		7.94
		Tanypodinae/Chironomidae Abundance Ratio
		100.00
		1
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Ameroculodes species complex	136	0.01364
Coelotanypus spp.	91	0.02272
Cyathura polita	45	0.01364
Leptocheirus plumulosus	318	0.03636
Limnodrilus hoffmeisteri	136	
Littoridinops tenuipes (Epi)	545	0.07272
Marenzelleria viridis	227	2.39431
Melita nitida (Epi)	45	0.00455
Neomysis americana (Epi)	45	0.00455
Oligochaeta		0.30777
Streblospio benedicti	182	0.00909
Tubificidae imm w/o cap chaetae *	1636	
Tubificoides spp.	91	0.00909
Total Abundance w/ Epi.	3500	
Total Abundance w/o Epi.	2863	
Number of Taxa w/ Epi.	11	
Number of Taxa w/o Epi.	8	
Total Biomass w/ Epi.		2.88842
Total Biomass w/o Epi.		2.80661

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Choptank River	Station: 066	Rep: 03
Gear: Wildco Box Corer	Habitat: Oligohaline	Date: 14SEP15
	Sampled Area: 0.022 sq.m	Time: 10:25:00
BOTTOM ENVIRONMENT		
Depth (m): 3.6	Salinity (ppt): 2.95	Temperature (C): 24.71
Dissolved Oxygen (mg/l): 5.0	Sediment Silt-Clay (%): 62.80	Total Carbon (%): 3.07
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 2.20	Condition: Degraded	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	2.53	Oligohaline Pollution Indicative Spp. Abund. 86.67 3
Abundance (#/m2)	3409 3	Tolerance Score 9.80 1
Deep Deposit Feeder Abundance (%)	66.67	Oligohaline Pollution Sensitive Spp. Abund. 9.33 3
Carnivore-Omnivore Abundance (%)	1.33 1	Tanypodinae/Chironomidae Abundance Ratio 0.00
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Ameroculodes species complex	91	0.00909
Cyathura polita	45	0.00909
Gammarus daiberi (Epi)	227	0.03636
Leptocheirus plumulosus	273	0.04090
Limnodrilus hoffmeisteri	909	
Marenzelleria viridis	318	1.32260
Melita nitida (Epi)	136	0.00454
Oligochaeta		0.22725
Streblospio benedicti	409	0.01818
Tubificidae imm w/o cap chaetae *	1091	
Tubificoides spp.	273	0.00909
Total Abundance w/ Epi.	3772	
Total Abundance w/o Epi.	3409	
Number of Taxa w/ Epi.	9	
Number of Taxa w/o Epi.	7	
Total Biomass w/ Epi.		1.67711
Total Biomass w/o Epi.		1.63620

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Upper Eastern Shore		Station: 068		Rep: 01	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 26AUG15	
		Sampled Area: 0.022 sq.m		Time: 11:35:00	
BOTTOM ENVIRONMENT					
Depth (m): 4.7		Salinity (ppt): 6.55		Temperature (C): 27.41	
Dissolved Oxygen (mg/l): 5.2		Sediment Silt-Clay (%): 85.15		Total Carbon (%): 3.08	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.40		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.46	3	Pollution Indicative Species Abundance (%)	14.58	3
Abundance (#/m2)	4363	3	Pollution Indicative Species Biomass (%)	0.14	
Biomass (g/m2)	29.98	3	Pollution Sensitive Species Abundance (%)	17.71	
Carnivore-Omnivore Abundance (%)	10.42		Pollution Sensitive Species Biomass (%)	98.80	5
Deep Deposit Feeder Abundance (%)	42.71				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Coelotanypus spp.	45		0.00909		
Cyathura polita	227		1.11353		
Edwardsia elegans	45		0.02273		
Eteone heteropoda	91		0.02727		
Heteromastus filiformis	45		0.04091		
Leptocheirus plumulosus	1000		0.16817		
Macoma balthica	455		27.95175		
Marenzelleria viridis	45		0.06363		
Melita nitida (Epi)	727		0.03636		
Neanthes succinea	45		0.06363		
Rangia cuneata	45		0.49086		
Streblospio benedicti	500		0.00454		
Tubificoides spp.	1818		0.02273		
Total Abundance w/ Epi.	5090				
Total Abundance w/o Epi.	4363				
Number of Taxa w/ Epi.	13				
Number of Taxa w/o Epi.	12				
Total Biomass w/ Epi.			30.01518		
Total Biomass w/o Epi.			29.97882		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Upper Eastern Shore		Station: 068		Rep: 02	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 26AUG15	
		Sampled Area: 0.022 sq.m		Time: 11:35:00	
BOTTOM ENVIRONMENT					
Depth (m): 4.7		Salinity (ppt): 6.55		Temperature (C): 27.41	
Dissolved Oxygen (mg/l): 5.2		Sediment Silt-Clay (%): 85.15		Total Carbon (%): 3.08	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.60		Condition: Degraded		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.24	3	Pollution Indicative Species Abundance (%)	17.14	3
Abundance (#/m2)	6363	1	Pollution Indicative Species Biomass (%)	0.11	
Biomass (g/m2)	38.46	1	Pollution Sensitive Species Abundance (%)	13.57	
Carnivore-Omnivore Abundance (%)	5.71		Pollution Sensitive Species Biomass (%)	97.19	5
Deep Deposit Feeder Abundance (%)	51.43				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Coelotanypus spp.	45		0.01818		
Cyathura polita	91		0.33633		
Edwardsia elegans	136		0.13181		
Glycinde solitaria	45		0.05454		
Heteromastus filiformis	227		0.09545		
Leptocheirus plumulosus	954		0.14089		
Macoma balthica	727		36.98267		
Melita nitida (Epi)	136		0.00454		
Neanthes succinea	45		0.64085		
Streblospio benedicti	1045		0.02273		
Tubificoides spp.	3045		0.03181		
Total Abundance w/ Epi.	6499				
Total Abundance w/o Epi.	6363				
Number of Taxa w/ Epi.	11				
Number of Taxa w/o Epi.	10				
Total Biomass w/ Epi.			38.45979		
Total Biomass w/o Epi.			38.45525		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Upper Eastern Shore	Station: 068	Rep: 03
Gear: Wildco Box Corer	Habitat: Low Mesohaline	Date: 26AUG15
	Sampled Area: 0.022 sq.m	Time: 11:35:00
BOTTOM ENVIRONMENT		
Depth (m): 4.7	Salinity (ppt): 6.55	Temperature (C): 27.41
Dissolved Oxygen (mg/l): 5.2	Sediment Silt-Clay (%): 85.15	Total Carbon (%): 3.08
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 1.80	Condition: Severely Degr.	# Attributes Scored: 5
	Value	Score
Shannon-Wiener Index	1.70	1
Abundance (#/m2)	17907	1
Biomass (g/m2)	31.82	1
Carnivore-Omnivore Abundance (%)	4.31	
Deep Deposit Feeder Abundance (%)	61.42	
		Value
		Score
	Pollution Indicative Species Abundance (%)	27.92
	Pollution Indicative Species Biomass (%)	0.69
	Pollution Sensitive Species Abundance (%)	4.06
	Pollution Sensitive Species Biomass (%)	98.12
		5
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Coelotanypus spp.	45	0.01363
Cyathura polita	136	0.47723
Edwardsia elegans	91	0.01364
Eteone heteropoda	500	0.12272
Heteromastus filiformis	45	0.00909
Leptocheirus plumulosus	1227	0.20907
Macoma balthica	591	30.74693
Melita nitida (Epi)	1000	0.05000
Oligochaeta		0.00454
Streblospio benedicti	4318	0.07727
Tubificidae imm w/o cap chaetae	136	0.00227
Tubificoides spp.	10817	0.14544
Total Abundance w/ Epi.	18907	
Total Abundance w/o Epi.	17907	
Number of Taxa w/ Epi.	11	
Number of Taxa w/o Epi.	10	
Total Biomass w/ Epi.		31.87181
Total Biomass w/o Epi.		31.82182

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Station: 071		Rep: 01
Watershed: Patuxent River	Habitat: High Mesohaline Mud	Date: 23SEP15
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 9:30:00
BOTTOM ENVIRONMENT		
Depth (m): 12.6	Salinity (ppt): 15.93	Temperature (C): 24.98
Dissolved Oxygen (mg/l): 3.4	Sediment Silt-Clay (%): 82.61	Total Carbon (%): 3.41
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 2.00	Condition: Severely Degr.	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	1.50 1	Pollution Indicative Species Abundance (%) 50.00
Abundance (#/m2)	182 1	Pollution Indicative Species Biomass (%) 57.89 1
Biomass (g/m2)	0.09 1	Pollution Sensitive Species Abundance (%) 50.00
Carnivore-Omnivore Abundance (%)	50.00 5	Pollution Sensitive Species Biomass (%) 42.11 3
Deep Deposit Feeder Abundance (%)	0.00	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Glycinde solitaria	91	0.03636
Paraprionospio pinnata	45	0.04091
Streblospio benedicti	45	0.00909
Total Abundance w/ Epi.	182	
Total Abundance w/o Epi.	182	
Number of Taxa w/ Epi.	3	
Number of Taxa w/o Epi.	3	
Total Biomass w/ Epi.		0.08636
Total Biomass w/o Epi.		0.08636

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Station: 071		Rep: 02
Watershed: Patuxent River	Habitat: High Mesohaline Mud	Date: 23SEP15
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 9:30:00
BOTTOM ENVIRONMENT		
Depth (m): 12.6	Salinity (ppt): 15.93	Temperature (C): 24.98
Dissolved Oxygen (mg/l): 3.4	Sediment Silt-Clay (%): 82.61	Total Carbon (%): 3.41
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 1.67	Condition: Severely Degr.	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	1.78 1	Pollution Indicative Species Abundance (%) 88.24
Abundance (#/m2)	773 1	Pollution Indicative Species Biomass (%) 57.89 1
Biomass (g/m2)	0.09 1	Pollution Sensitive Species Abundance (%) 11.76
Carnivore-Omnivore Abundance (%)	11.76 3	Pollution Sensitive Species Biomass (%) 42.11 3
Deep Deposit Feeder Abundance (%)	0.00	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Glycinde solitaria	91	0.01363
Mulinia lateralis	91	0.08181
Paraprionospio pinnata	318	0.22725
Streblospio benedicti	273	0.01818
Total Abundance w/ Epi.	773	
Total Abundance w/o Epi.	773	
Number of Taxa w/ Epi.	4	
Number of Taxa w/o Epi.	4	
Total Biomass w/ Epi.		0.34087
Total Biomass w/o Epi.		0.34087

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Patuxent River		Station: 071		Rep: 03	
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud		Date: 23SEP15	
		Sampled Area: 0.022 sq.m		Time: 9:30:00	
BOTTOM ENVIRONMENT					
Depth (m): 12.6		Salinity (ppt): 15.93		Temperature (C): 24.98	
Dissolved Oxygen (mg/l): 3.4		Sediment Silt-Clay (%): 82.61		Total Carbon (%): 3.41	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.00		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.16	3	Pollution Indicative Species Abundance (%)	78.57	
Abundance (#/m2)	636	1	Pollution Indicative Species Biomass (%)	57.89	1
Biomass (g/m2)	0.09	1	Pollution Sensitive Species Abundance (%)	7.14	
Carnivore-Omnivore Abundance (%)	21.43	3	Pollution Sensitive Species Biomass (%)	42.11	3
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Glycinde solitaria	45		0.01364		
Haminoea solitaria	91		0.01818		
Mulinia lateralis	227		0.40450		
Paraprionospio pinnata	136		0.05909		
Streblospio benedicti	136		0.00455		
Total Abundance w/ Epi.	636				
Total Abundance w/o Epi.	636				
Number of Taxa w/ Epi.	5				
Number of Taxa w/o Epi.	5				
Total Biomass w/ Epi.			0.49995		
Total Biomass w/o Epi.			0.49995		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Chalk Point Discharge		Station: 074		Rep: 01	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 22SEP15	
		Sampled Area: 0.022 sq.m		Time: 15:32:00	
BOTTOM ENVIRONMENT					
Depth (m): 1.3		Salinity (ppt): 10.32		Temperature (C): 23.45	
Dissolved Oxygen (mg/l): 7.1		Sediment Silt-Clay (%): 85.71		Total Carbon (%): 2.59	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.80		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.95	5	Pollution Indicative Species Abundance (%)	13.04	3
Abundance (#/m2)	4181	3	Pollution Indicative Species Biomass (%)	0.07	
Biomass (g/m2)	24.29	3	Pollution Sensitive Species Abundance (%)	29.35	
Carnivore-Omnivore Abundance (%)	9.78		Pollution Sensitive Species Biomass (%)	94.78	5
Deep Deposit Feeder Abundance (%)	33.70				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	91		0.03181		
Cyathura polita	91		0.60903		
Eteone heteropoda	45		0.01364		
Glycinde solitaria	136		0.00454		
Heteromastus filiformis	409		0.39996		
Leptocheirus plumulosus	682		0.27270		
Macoma balthica	909		22.30686		
Macoma mitchelli	182		0.51359		
Melita nitida (Epi)	636		0.02727		
Neanthes succinea	45		0.00909		
Rangia cuneata	91		0.10454		
Streblospio benedicti	500		0.00455		
Tubificoides spp.	1000		0.02273		
Total Abundance w/ Epi.	4818				
Total Abundance w/o Epi.	4181				
Number of Taxa w/ Epi.	13				
Number of Taxa w/o Epi.	12				
Total Biomass w/ Epi.			24.32030		
Total Biomass w/o Epi.			24.29303		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Chalk Point Discharge	Station: 074	Rep: 02
Gear: Wildco Box Corer	Habitat: Low Mesohaline	Date: 22SEP15
	Sampled Area: 0.022 sq.m	Time: 15:32:00
BOTTOM ENVIRONMENT		
Depth (m): 1.3	Salinity (ppt): 10.32	Temperature (C): 23.45
Dissolved Oxygen (mg/l): 7.1	Sediment Silt-Clay (%): 85.71	Total Carbon (%): 2.59
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.00	Condition: Meets Goal	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	2.05 3	Pollution Indicative Species Abundance (%) 12.44 3
Abundance (#/m2)	9499 1	Pollution Indicative Species Biomass (%) 0.14
Biomass (g/m2)	24.46 3	Pollution Sensitive Species Abundance (%) 13.88
Carnivore-Omnivore Abundance (%)	5.74	Pollution Sensitive Species Biomass (%) 97.13 5
Deep Deposit Feeder Abundance (%)	68.90	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Carinoma tremaphoros	91	0.05454
Cyathura polita	273	1.18170
Eteone heteropoda	45	0.00909
Glycinde solitaria	136	0.01364
Heteromastus filiformis	545	0.32724
Leptocheirus plumulosus	364	0.06818
Macoma balthica	864	22.41594
Macoma mitchelli	136	0.09999
Marenzelleria viridis	45	0.14998
Melita nitida (Epi)	91	0.01363
Streblospio benedicti	1000	0.02273
Tubificidae imm w/o cap chaetae	136	0.00227
Tubificoides spp.	5863	0.11817
Total Abundance w/ Epi.	9590	
Total Abundance w/o Epi.	9499	
Number of Taxa w/ Epi.	13	
Number of Taxa w/o Epi.	12	
Total Biomass w/ Epi.		24.47710
Total Biomass w/o Epi.		24.46346

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Chalk Point Discharge	Station: 074	Rep: 03
Gear: Wildco Box Corer	Habitat: Low Mesohaline	Date: 22SEP15
	Sampled Area: 0.022 sq.m	Time: 15:32:00
BOTTOM ENVIRONMENT		
Depth (m): 1.3	Salinity (ppt): 10.32	Temperature (C): 23.45
Dissolved Oxygen (mg/l): 7.1	Sediment Silt-Clay (%): 85.71	Total Carbon (%): 2.59
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.80	Condition: Meets Goal	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	2.66 5	Pollution Indicative Species Abundance (%) 7.69 5
Abundance (#/m2)	5909 3	Pollution Indicative Species Biomass (%) 0.10
Biomass (g/m2)	41.37 1	Pollution Sensitive Species Abundance (%) 26.92
Carnivore-Omnivore Abundance (%)	9.23	Pollution Sensitive Species Biomass (%) 97.13 5
Deep Deposit Feeder Abundance (%)	46.15	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Carinoma tremaphoros	45	0.02727
Cyathura polita	227	0.49541
Eteone heteropoda	91	0.03181
Glycinde solitaria	45	0.00909
Heteromastus filiformis	636	0.56813
Leptocheirus plumulosus	909	0.23180
Macoma balthica	1227	39.50969
Macoma mitchelli	45	0.12272
Melita nitida (Epi)	45	0.00227
Neanthes succinea	136	0.15908
Rangia cuneata	91	0.16817
Streblospio benedicti	364	0.00909
Tubificoides spp.	2091	0.03636
Total Abundance w/ Epi.	5954	
Total Abundance w/o Epi.	5909	
Number of Taxa w/ Epi.	13	
Number of Taxa w/o Epi.	12	
Total Biomass w/ Epi.		41.37086
Total Biomass w/o Epi.		41.36859

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Station: 077		Rep: 01
Watershed: Patuxent River	Habitat: Low Mesohaline	Date: 22SEP15
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 14:46:00
BOTTOM ENVIRONMENT		
Depth (m): 1.7	Salinity (ppt): 8.26	Temperature (C): 23.54
Dissolved Oxygen (mg/l): 6.2	Sediment Silt-Clay (%): 80.60	Total Carbon (%): 6.38
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.00	Condition: Meets Goal	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	2.18 3	Pollution Indicative Species Abundance (%) 56.76 1
Abundance (#/m2)	1682 5	Pollution Indicative Species Biomass (%) 5.24
Biomass (g/m2)	0.52 1	Pollution Sensitive Species Abundance (%) 29.73
Carnivore-Omnivore Abundance (%)	21.62	Pollution Sensitive Species Biomass (%) 84.72 5
Deep Deposit Feeder Abundance (%)	2.70	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Carinoma tremaphoros	45	0.01818
Cyathura polita	273	0.27725
Eteone heteropoda	45	0.01364
Macoma mitchelli	91	0.02273
Marenzelleria viridis	45	0.11817
Mytilopsis leucophaeata (Epi)	45	0.00909
Polydora cornuta	45	0.00227
Rangia cuneata	182	0.04545
Streblospio benedicti	909	0.01363
Tubificoides spp.	45	0.00909
Total Abundance w/ Epi.	1727	
Total Abundance w/o Epi.	1682	
Number of Taxa w/ Epi.	10	
Number of Taxa w/o Epi.	9	
Total Biomass w/ Epi.		0.52949
Total Biomass w/o Epi.		0.52040

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Station: 077		Rep: 02
Watershed: Patuxent River	Habitat: Low Mesohaline	Date: 22SEP15
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 14:46:00
BOTTOM ENVIRONMENT		
Depth (m): 1.7	Salinity (ppt): 8.26	Temperature (C): 23.54
Dissolved Oxygen (mg/l): 6.2	Sediment Silt-Clay (%): 80.60	Total Carbon (%): 6.38
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 2.20	Condition: Degraded	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	2.13 3	Pollution Indicative Species Abundance (%) 57.81 1
Abundance (#/m2)	2909 3	Pollution Indicative Species Biomass (%) 18.18
Biomass (g/m2)	0.32 1	Pollution Sensitive Species Abundance (%) 25.00
Carnivore-Omnivore Abundance (%)	14.06	Pollution Sensitive Species Biomass (%) 76.92 3
Deep Deposit Feeder Abundance (%)	7.81	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Cyathura polita	273	0.15453
Eteone heteropoda	136	0.01364
Macoma mitchelli	136	0.00909
Polydora cornuta	136	0.00454
Rangia cuneata	455	0.09545
Streblospio benedicti	1545	0.04545
Tubificoides spp.	227	0.00227
Total Abundance w/ Epi.	2909	
Total Abundance w/o Epi.	2909	
Number of Taxa w/ Epi.	7	
Number of Taxa w/o Epi.	7	
Total Biomass w/ Epi.		0.32497
Total Biomass w/o Epi.		0.32497

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Station: 077		Rep: 03
Watershed: Patuxent River	Habitat: Low Mesohaline	Date: 22SEP15
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 14:46:00
BOTTOM ENVIRONMENT		
Depth (m): 1.7	Salinity (ppt): 8.26	Temperature (C): 23.54
Dissolved Oxygen (mg/l): 6.2	Sediment Silt-Clay (%): 80.60	Total Carbon (%): 6.38
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 1.80	Condition: Severely Degr.	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	1.02 1	Pollution Indicative Species Abundance (%) 90.00 1
Abundance (#/m2)	909 3	Pollution Indicative Species Biomass (%) 36.84
Biomass (g/m2)	0.17 1	Pollution Sensitive Species Abundance (%) 5.00
Carnivore-Omnivore Abundance (%)	15.00	Pollution Sensitive Species Biomass (%) 57.89 3
Deep Deposit Feeder Abundance (%)	0.00	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Cyathura polita	45	0.09999
Eteone heteropoda	91	0.05000
Polydora cornuta	45	0.00909
Streblospio benedicti	727	0.01364
Total Abundance w/ Epi.	909	
Total Abundance w/o Epi.	909	
Number of Taxa w/ Epi.	4	
Number of Taxa w/o Epi.	4	
Total Biomass w/ Epi.		0.17271
Total Biomass w/o Epi.		0.17271

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Patuxent River	Station: 079	Rep: 01
Gear: Wildco Box Corer	Habitat: Tidal Freshwater	Date: 22SEP15
	Sampled Area: 0.022 sq.m	Time: 8:45:00
BOTTOM ENVIRONMENT		
Depth (m): 0.5	Salinity (ppt): 0.92	Temperature (C): 22.49
Dissolved Oxygen (mg/l): 6.3	Sediment Silt-Clay (%): 82.60	Total Carbon (%): 4.37
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.00	Condition: Meets Goal	# Attributes Scored: 3
Shannon-Wiener Index	Value	Score
Abundance (#/m2)	2091	5
Deep Deposit Feeder Abundance (%)	82.61	3
Carnivore-Omnivore Abundance (%)	17.39	
	T.F. Pollution Indicative Spp. Abund. (%)	Value
	Tolerance Score	Score
	Limnodrilus Abundance (%)	Value
		Score
		82.61
		9.74
		82.61
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Chironomidae		0.00909
Chironomus spp.	273	0.12726
Gammarus spp. (Epi)	91	0.01364
Harnischia spp.	45	
Oligochaeta		0.04545
Procladius spp.	45	
Tubificidae imm w/o cap chaetae	1727	0.12726
Total Abundance w/ Epi.	2182	
Total Abundance w/o Epi.	2091	
Number of Taxa w/ Epi.	5	
Number of Taxa w/o Epi.	4	
Total Biomass w/ Epi.		0.32269
Total Biomass w/o Epi.		0.30906

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Patuxent River		Station: 079		Rep: 02	
Gear: Wildco Box Corer		Habitat: Tidal Freshwater		Date: 22SEP15	
		Sampled Area: 0.022 sq.m		Time: 8:45:00	
BOTTOM ENVIRONMENT					
Depth (m): 0.5		Salinity (ppt): 0.92		Temperature (C): 22.49	
Dissolved Oxygen (mg/l): 6.3		Sediment Silt-Clay (%): 82.60		Total Carbon (%): 4.37	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.00		Condition: Meets Goal		# Attributes Scored: 3	
	Value	Score		Value	Score
Shannon-Wiener Index	1.17		T.F. Pollution Indicative Spp. Abund. (%)	84.85	3
Abundance (#/m2)	3000	5	Tolerance Score	9.72	1
Deep Deposit Feeder Abundance (%)	92.42	3	Limnodrilus Abundance (%)	84.85	
Carnivore-Omnivore Abundance (%)	6.06				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Branchiura sowerbyi	45		0.00454		
Chironomidae			0.00227		
Chironomus spp.	136				
Cryptochironomus spp.	45				
Ilyodrilus templetoni	91				
Limnodrilus hoffmeisteri	91				
Oligochaeta			0.50904		
Streblospio benedicti	45		0.00909		
Tubificidae imm w cap chaetae *	91				
Tubificidae imm w/o cap chaetae *	2454				
Total Abundance w/ Epi.	3000				
Total Abundance w/o Epi.	3000				
Number of Taxa w/ Epi.	6				
Number of Taxa w/o Epi.	6				
Total Biomass w/ Epi.			0.52495		
Total Biomass w/o Epi.			0.52495		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Patuxent River	Station: 079	Rep: 03
Gear: Wildco Box Corer	Habitat: Tidal Freshwater	Date: 22SEP15
	Sampled Area: 0.022 sq.m	Time: 8:45:00
BOTTOM ENVIRONMENT		
Depth (m): 0.5	Salinity (ppt): 0.92	Temperature (C): 22.49
Dissolved Oxygen (mg/l): 6.3	Sediment Silt-Clay (%): 82.60	Total Carbon (%): 4.37
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 2.50	Condition: Degraded	# Attributes Scored: 3
	Value Score	Value Score
Shannon-Wiener Index	1.40	T.F. Pollution Indicative Spp. Abund. (%) 90.00 1
Abundance (#/m2)	2727 5	Tolerance Score 9.76 1
Deep Deposit Feeder Abundance (%)	90.00 3	Limnodrilus Abundance (%) 90.00
Carnivore-Omnivore Abundance (%)	10.00	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Chironomidae		0.00227
Chironomus spp.	227	
Cryptochironomus spp.	45	
Limnodrilus hoffmeisteri	954	
Oligochaeta		0.40057
Tubificidae imm w/o cap chaetae *	1500	
Total Abundance w/ Epi.	2727	
Total Abundance w/o Epi.	2727	
Number of Taxa w/ Epi.	3	
Number of Taxa w/o Epi.	3	
Total Biomass w/ Epi.		0.40284
Total Biomass w/o Epi.		0.40284

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Station: 201			Rep: 01		
Watershed: Patapsco & Back Rivers			Habitat: Low Mesohaline		
Gear: Wildco Box Corer			Sampled Area: 0.022 sq.m		
			Date: 21SEP15		
			Time: 13:34:00		
BOTTOM ENVIRONMENT					
Depth (m): 3.2		Salinity (ppt): 10.38		Temperature (C): 23.86	
Dissolved Oxygen (mg/l): 5.9		Sediment Silt-Clay (%): 84.41		Total Carbon (%): 3.4	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.20		Condition: Degraded		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	0.39	1	Pollution Indicative Species Abundance (%)	92.31	1
Abundance (#/m2)	591	3	Pollution Indicative Species Biomass (%)	2.79	
Biomass (g/m2)	0.81	1	Pollution Sensitive Species Abundance (%)	7.69	
Carnivore-Omnivore Abundance (%)	0.00		Pollution Sensitive Species Biomass (%)	97.21	5
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Littoridinops tenuipes (Epi)	455		0.05454		
Macoma balthica	45		0.79083		
Streblospio benedicti	545		0.02273		
Total Abundance w/ Epi.	1045				
Total Abundance w/o Epi.	591				
Number of Taxa w/ Epi.	3				
Number of Taxa w/o Epi.	2				
Total Biomass w/ Epi.			0.86810		
Total Biomass w/o Epi.			0.81356		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Station: 201			Rep: 02		
Watershed: Patapsco & Back Rivers			Habitat: Low Mesohaline		
Gear: Wildco Box Corer			Sampled Area: 0.022 sq.m		
			Date: 21SEP15		
			Time: 13:34:00		
BOTTOM ENVIRONMENT					
Depth (m): 3.2		Salinity (ppt): 10.38		Temperature (C): 23.86	
Dissolved Oxygen (mg/l): 5.9		Sediment Silt-Clay (%): 84.41		Total Carbon (%): 3.4	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.40		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	0.77	1	Pollution Indicative Species Abundance (%)	89.80	1
Abundance (#/m2)	2227	5	Pollution Indicative Species Biomass (%)	0.64	
Biomass (g/m2)	7.86	5	Pollution Sensitive Species Abundance (%)	4.08	
Carnivore-Omnivore Abundance (%)	2.04		Pollution Sensitive Species Biomass (%)	88.90	5
Deep Deposit Feeder Abundance (%)	2.04				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Eteone heteropoda	45		0.00455		
Macoma balthica	91		6.98567		
Macoma mitchelli	91		0.81810		
Streblospio benedicti	1954		0.04545		
Tubificoides spp.	45		0.00454		
Total Abundance w/ Epi.	2227				
Total Abundance w/o Epi.	2227				
Number of Taxa w/ Epi.	5				
Number of Taxa w/o Epi.	5				
Total Biomass w/ Epi.			7.85831		
Total Biomass w/o Epi.			7.85831		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 201		Rep: 03	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 21SEP15	
		Sampled Area: 0.022 sq.m		Time: 13:34:00	
BOTTOM ENVIRONMENT					
Depth (m): 3.2		Salinity (ppt): 10.38		Temperature (C): 23.86	
Dissolved Oxygen (mg/l): 5.9		Sediment Silt-Clay (%): 84.41		Total Carbon (%): 3.4	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.00		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.02	3	Pollution Indicative Species Abundance (%)	55.00	1
Abundance (#/m2)	909	3	Pollution Indicative Species Biomass (%)	0.29	
Biomass (g/m2)	17.18	3	Pollution Sensitive Species Abundance (%)	20.00	
Carnivore-Omnivore Abundance (%)	10.00		Pollution Sensitive Species Biomass (%)	95.24	5
Deep Deposit Feeder Abundance (%)	15.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Apocorophium lacustre (Epi)		45		0.00454	
Carinoma tremaphoros		45		0.26361	
Eteone heteropoda		45		0.02727	
Macoma balthica		182		16.36200	
Macoma mitchelli		45		0.49995	
Streblospio benedicti		455		0.02273	
Tubificoides spp.		136		0.00454	
Total Abundance w/ Epi.		954			
Total Abundance w/o Epi.		909			
Number of Taxa w/ Epi.		7			
Number of Taxa w/o Epi.		6			
Total Biomass w/ Epi.				17.18465	
Total Biomass w/o Epi.				17.18010	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 202		Rep: 01	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 21SEP15	
		Sampled Area: 0.022 sq.m		Time: 14:48:00	
BOTTOM ENVIRONMENT					
Depth (m): 5.2		Salinity (ppt): 10.53		Temperature (C): 24.07	
Dissolved Oxygen (mg/l): 8.0		Sediment Silt-Clay (%): 85.25		Total Carbon (%): 4.77	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.00		Condition: Severely Degr.		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	0.00	1	Pollution Indicative Species Abundance (%)	100.00	1
Abundance (#/m2)	364	1	Pollution Indicative Species Biomass (%)	100.00	
Biomass (g/m2)	0.02	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		364		0.01818	
Total Abundance w/ Epi.		364			
Total Abundance w/o Epi.		364			
Number of Taxa w/ Epi.		1			
Number of Taxa w/o Epi.		1			
Total Biomass w/ Epi.				0.01818	
Total Biomass w/o Epi.				0.01818	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 202		Rep: 02	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 21SEP15	
		Sampled Area: 0.022 sq.m		Time: 14:48:00	
BOTTOM ENVIRONMENT					
Depth (m): 5.2		Salinity (ppt): 10.53		Temperature (C): 24.07	
Dissolved Oxygen (mg/l): 8.0		Sediment Silt-Clay (%): 85.25		Total Carbon (%): 4.77	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.00		Condition: Severely Degr.		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	0.44	1	Pollution Indicative Species Abundance (%)	90.91	1
Abundance (#/m2)	500	1	Pollution Indicative Species Biomass (%)	83.33	
Biomass (g/m2)	0.03	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	0.00		Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Cyclaspis varians		45		0.00454	
Streblospio benedicti		455		0.02273	
Total Abundance w/ Epi.		500			
Total Abundance w/o Epi.		500			
Number of Taxa w/ Epi.		2			
Number of Taxa w/o Epi.		2			
Total Biomass w/ Epi.				0.02727	
Total Biomass w/o Epi.				0.02727	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 202		Rep: 03	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 21SEP15	
		Sampled Area: 0.022 sq.m		Time: 14:48:00	
BOTTOM ENVIRONMENT					
Depth (m): 5.2		Salinity (ppt): 10.53		Temperature (C): 24.07	
Dissolved Oxygen (mg/l): 8.0		Sediment Silt-Clay (%): 85.25		Total Carbon (%): 4.77	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.80		Condition: Severely Degr.		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	0.00	1	Pollution Indicative Species Abundance (%)	100.00	1
Abundance (#/m2)	2454	5	Pollution Indicative Species Biomass (%)	100.00	
Biomass (g/m2)	0.08	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		2454		0.07727	
Total Abundance w/ Epi.		2454			
Total Abundance w/o Epi.		2454			
Number of Taxa w/ Epi.		1			
Number of Taxa w/o Epi.		1			
Total Biomass w/ Epi.				0.07727	
Total Biomass w/o Epi.				0.07727	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Patapsco & Back Rivers	Station: 203	Rep: 01
Gear: Young Grab	Habitat: Oligohaline	Date: 12AUG15
	Sampled Area: 0.044 sq.m	Time: 9:37:00
BENTHIC INDEX OF BIOTIC INTEGRITY		
Depth (m): 1.8	Salinity (ppt): 1.10	Temperature (C): 25.30
Dissolved Oxygen (mg/l): 6.4	Sediment Silt-Clay (%): 93.63	Total Carbon (%): 3.86
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.33	Condition: Meets Goal	# Attributes Scored: 6
Shannon-Wiener Index	Value	Score
Abundance (#/m2)	1.40	5
Deep Deposit Feeder Abundance (%)	1908	3
Carnivore-Omnivore Abundance (%)	75.00	1
	16.67	3
	3	5
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Chironomus spp.	273	0.27718
Coelotanypus spp.	45	0.01363
Marenzelleria viridis	159	0.16586
Oligochaeta		0.03181
Tubificidae imm w/o cap chaetae	1340	0.14921
Tubificoides spp.	91	0.00454
Total Abundance w/ Epi.	1908	
Total Abundance w/o Epi.	1908	
Number of Taxa w/ Epi.	5	
Number of Taxa w/o Epi.	5	
Total Biomass w/ Epi.		0.64223
Total Biomass w/o Epi.		0.64223

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 203	Rep: 02
Gear: Young Grab		Habitat: Oligohaline	Date: 12AUG15
		Sampled Area: 0.044 sq.m	Time: 9:37:00
BOTTOM ENVIRONMENT			
Depth (m): 1.8	Salinity (ppt): 1.10	Temperature (C): 25.30	
Dissolved Oxygen (mg/l): 6.4	Sediment Silt-Clay (%): 93.63	Total Carbon (%): 3.86	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 3.33	Condition: Meets Goal		# Attributes Scored: 6
	Value	Score	Value Score
Shannon-Wiener Index	2.33		Oligohaline Pollution Indicative Spp. Abund. 90.08 3
Abundance (#/m2)	2976	5	Tolerance Score 9.50 1
Deep Deposit Feeder Abundance (%)	80.15		Oligohaline Pollution Sensitive Spp. Abund. 2.29 3
Carnivore-Omnivore Abundance (%)	17.56	3	Tanypodinae/Chironomidae Abundance Ratio 4.35 5
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)		Biomass (g/m2)
Aulodrilus pigueti	114		
Chironomus spp.	500		0.17494
Coelotanypus spp.	23		0.01590
Ilyodrilus templetoni	114		
Limnodrilus hoffmeisteri	114		
Marenzelleria viridis	68		0.11814
Nais spp.	227		
Oligochaeta			0.36409
Tubificidae imm w cap chaetae *	114		
Tubificidae imm w/o cap chaetae *	1545		
Tubificoides spp.	159		0.00454
Total Abundance w/ Epi.	2976		
Total Abundance w/o Epi.	2976		
Number of Taxa w/ Epi.	8		
Number of Taxa w/o Epi.	8		
Total Biomass w/ Epi.			0.67762
Total Biomass w/o Epi.			0.67762

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Patapsco & Back Rivers	Station: 203	Rep: 03
Gear: Young Grab	Habitat: Oligohaline	Date: 12AUG15
	Sampled Area: 0.044 sq.m	Time: 9:37:00
BOTTOM ENVIRONMENT		
Depth (m): 1.8	Salinity (ppt): 1.10	Temperature (C): 25.30
Dissolved Oxygen (mg/l): 6.4	Sediment Silt-Clay (%): 93.63	Total Carbon (%): 3.86
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.00	Condition: Meets Goal	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	1.23	Oligohaline Pollution Indicative Spp. Abund. 95.24 1
Abundance (#/m2)	954 5	Tolerance Score 9.71 1
Deep Deposit Feeder Abundance (%)	66.67	Oligohaline Pollution Sensitive Spp. Abund. 4.76 3
Carnivore-Omnivore Abundance (%)	28.57 3	Tanypodinae/Chironomidae Abundance Ratio 8.33 5
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Chironomus spp.	250	0.31354
Coelotanypus spp.	23	0.01818
Marenzelleria viridis	45	0.02954
Oligochaeta		0.01363
Tubificidae imm w/o cap chaetae	636	0.07270
Total Abundance w/ Epi.	954	
Total Abundance w/o Epi.	954	
Number of Taxa w/ Epi.	4	
Number of Taxa w/o Epi.	4	
Total Biomass w/ Epi.		0.44758
Total Biomass w/o Epi.		0.44758

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Lower Western Shore		Station: 204		Rep: 01	
Gear: Young Grab		Habitat: High Mesohaline Mud		Date: 23SEP15	
		Sampled Area: 0.044 sq.m		Time: 11:42:00	
BOTTOM ENVIRONMENT					
Depth (m): 6.6		Salinity (ppt): 12.59		Temperature (C): 23.10	
Dissolved Oxygen (mg/l): 4.5		Sediment Silt-Clay (%): 66.40		Total Carbon (%): 1.92	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 4.33		Condition: Meets Goal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.25	3	Pollution Indicative Species Abundance (%)	5.75	
Abundance (#/m2)	1977	5	Pollution Indicative Species Biomass (%)	0.41	5
Biomass (g/m2)	9.73	5	Pollution Sensitive Species Abundance (%)	12.64	
Carnivore-Omnivore Abundance (%)	11.49	3	Pollution Sensitive Species Biomass (%)	90.11	5
Deep Deposit Feeder Abundance (%)	29.89				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Eteone heteropoda	68		0.03635		
Heteromastus filiformis	432		0.35443		
Leptocheirus plumulosus	886		0.25901		
Macoma balthica	250		8.76765		
Neanthes succinea	159		0.30445		
Streblospio benedicti	23		0.00227		
Tubificidae imm w/o cap chaetae	23		0.00114		
Tubificoides spp.	136		0.00454		
Total Abundance w/ Epi.	1977				
Total Abundance w/o Epi.	1977				
Number of Taxa w/ Epi.	8				
Number of Taxa w/o Epi.	8				
Total Biomass w/ Epi.			9.72984		
Total Biomass w/o Epi.			9.72984		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Lower Western Shore	Station: 204	Rep: 02
Gear: Young Grab	Habitat: High Mesohaline Mud	Date: 23SEP15
	Sampled Area: 0.044 sq.m	Time: 11:42:00
BOTTOM ENVIRONMENT		
Depth (m): 6.6	Salinity (ppt): 12.59	Temperature (C): 23.10
Dissolved Oxygen (mg/l): 4.5	Sediment Silt-Clay (%): 66.40	Total Carbon (%): 1.92
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.67	Condition: Meets Goal	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	2.58 3	Pollution Indicative Species Abundance (%) 11.11
Abundance (#/m2)	2863 3	Pollution Indicative Species Biomass (%) 1.19 5
Biomass (g/m2)	2.40 5	Pollution Sensitive Species Abundance (%) 3.97
Carnivore-Omnivore Abundance (%)	16.67 3	Pollution Sensitive Species Biomass (%) 59.27 3
Deep Deposit Feeder Abundance (%)	38.89	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Eteone heteropoda	45	0.01590
Heteromastus filiformis	318	0.19766
Leptocheirus plumulosus	954	0.38170
Macoma balthica	114	1.42000
Macoma mitchelli	45	0.02726
Neanthes succinea	432	0.32717
Oligochaeta		0.00682
Streblospio benedicti	159	0.00454
Tubificidae imm w/o cap chaetae	114	0.00114
Tubificoides spp.	682	0.01363
Total Abundance w/ Epi.	2863	
Total Abundance w/o Epi.	2863	
Number of Taxa w/ Epi.	9	
Number of Taxa w/o Epi.	9	
Total Biomass w/ Epi.		2.39582
Total Biomass w/o Epi.		2.39582

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) FIXED STATIONS

Watershed: Lower Western Shore	Station: 204	Rep: 03
Gear: Young Grab	Habitat: High Mesohaline Mud	Date: 23SEP15
	Sampled Area: 0.044 sq.m	Time: 11:42:00
BOTTOM ENVIRONMENT		
Depth (m): 6.6	Salinity (ppt): 12.59	Temperature (C): 23.10
Dissolved Oxygen (mg/l): 4.5	Sediment Silt-Clay (%): 66.40	Total Carbon (%): 1.92
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.33	Condition: Meets Goal	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	2.17 3	Pollution Indicative Species Abundance (%) 13.06
Abundance (#/m2)	6089 1	Pollution Indicative Species Biomass (%) 0.96 5
Biomass (g/m2)	4.87 5	Pollution Sensitive Species Abundance (%) 5.22
Carnivore-Omnivore Abundance (%)	7.09 1	Pollution Sensitive Species Biomass (%) 67.96 5
Deep Deposit Feeder Abundance (%)	22.01	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Eteone heteropoda	91	0.02045
Glycinde solitaria	23	0.00682
Heteromastus filiformis	545	0.31126
Leptocheirus plumulosus	3363	0.65661
Macoma balthica	273	3.26259
Macoma mitchelli	23	0.02272
Marenzelleria viridis	23	0.04317
Neanthes succinea	318	0.51347
Oligochaeta		0.00682
Streblospio benedicti	636	0.01818
Stylochus ellipticus (Epi)	23	0.00454
Tubificidae imm w/o cap chaetae	68	0.00114
Tubificoides spp.	727	0.01136
Total Abundance w/ Epi.	6112	
Total Abundance w/o Epi.	6089	
Number of Taxa w/ Epi.	12	
Number of Taxa w/o Epi.	11	
Total Biomass w/ Epi.		4.87912
Total Biomass w/o Epi.		4.87458

DATA SUMMARY B

**BENTHIC ENVIRONMENT AND COMMUNITY
COMPOSITION AT RANDOM SITES:
SUMMER 2015**

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22401	22402	22404	22405	22406
Watershed	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs
Habitat	High Meso Sand	High Meso Mud	High Meso Mud	High Meso Sand	High Meso Sand
Date	09/16/15	09/16/15	09/15/15	09/15/15	09/15/15
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)	1.1	1.0	2.9	0.5	1.0
Salinity (ppt)	16.57	16.69	16.61	16.75	16.48
Temperature (C)	22.80	22.80	22.01	21.85	21.52
Dissolved Oxygen (mg/L)	7.9	8.5	7.5	7.9	8.0
Sediment Silt-Clay (%)	20.33	80.86	86.20	4.78	9.57
Total Carbon (%)	0.74	1.78	2.76	0.11	0.21
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	2.67	3.00	2.00	3.67	4.67
Condition	Marginal	Meets Goal	Severely Degr.	Meets Goal	Meets Goal
# Attributes Scored	6	6	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	2.41 1	3.65 5	2.52 3	3.81 5	3.72 5
Abundance (#/m2)	9565 1	818 1	159 1	3817 3	4112 3
Biomass (g/m2)	5.56 5	0.72 3	0.05 1	1.11 3	6.32 5
Pollution Indicative Spp Abund (%)	0.95 5	5.56 5	28.57 5	1.19 5	4.97 5
Pollution Indicative Spp Biom (%)	2.13 3	6.29 3	59.52 1	32.11 5	5.10 5
Pollution Sensitive Spp Abund (%)	17.58 3	30.56 5	42.86 5	25.00 3	56.35 5
Pollution Sensitive Spp Biom (%)	61.04 1	5.82 1	11.90 1	14.72 3	67.66 5
Carnivore-Omnivore Abund (%)	11.64 1	33.33 5	42.86 5	30.36 3	42.54 5
Deep Deposit Feeder Abund (%)	12.11 3	16.67 3	14.29 3	17.26 3	16.57 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	0.00 0	0.00 0	0.00 0
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	0.00 0	0.00 0	0.00 0
Tany./Chir. Abundance Ratio	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	22401	22402	22404	22405	22406
<i>Acteocina canaliculata</i>	159	23	45	704	1250
<i>Ameroculodes species complex</i>				227	
<i>Ampelisca abdita</i>	68				68
<i>Ampelisca verrilli</i>				182	
<i>Amphiporus bioculatus</i>	68				45
<i>Arcuatula papyria</i> (Epi.)	114			45	23
<i>Cerapus tubularis</i> (Epi.)				23	
<i>Clymenella torquata</i>	114				432
<i>Demonax microphthalmus</i>	23				
<i>Edotea triloba</i> (Epi.)				23	23
<i>Edwardsia elegans</i>	68			45	23
<i>Gemma gemma</i>	6180				23
<i>Glycera dibranchiata</i>	91	45		23	68
<i>Glycinde solitaria</i>	204	23		91	114
<i>Haminoea solitaria</i>				182	
<i>Heteromastus filiformis</i>				250	23
<i>Leitoscoloplos robustus</i>			23	23	45
<i>Leitoscoloplos spp.</i>	23	23			
<i>Leptocheirus plumulosus</i>				204	
<i>Leptosynapta tenuis</i>	227	159	23	591	227
<i>Leucon americanus</i>	23				45
<i>Listriella barnardi</i>	68	45			45
<i>Listriella clymenellae</i>	204				
<i>Loimia medusa</i>				23	45
<i>Lyonsia hyalina</i>				45	
<i>Macoma mitchelli</i>	45	45		386	114
<i>Mediomastus ambiseta</i>	841	114			23
<i>Melinna maculata</i>	68	23			
<i>Molgula manhattensis</i> (Epi.)	23				
<i>Mulinia lateralis</i>	23			23	114
<i>Neanthes succinea</i>	136	68			136
<i>Oxyurostylis smithi</i>		23		114	91
<i>Parahesion luteola</i>		23			
<i>Paraprionospio pinnata</i>	45	23	23		45
<i>Pectinaria gouldii</i>	68			45	45
<i>Phoronis spp.</i>	91	23		114	364
<i>Podarkeopsis levifuscina</i>	159	91	23	114	114
<i>Polydora cornuta</i>	45				
<i>Ptilanthura tenuis</i>	204				
<i>Rictaxis punctostriatus</i>	23				
<i>Saccoglossus kowalevskii</i>	114				409
<i>Scolelepis texana</i>				45	
<i>Spiochaetopterus costarum</i>	68	68	23	23	91
<i>Tharyx spp.</i>				23	
<i>Tubificoides spp.</i>	114			341	114
Total Abundance w/ Epifauna	9701	818	159	3908	4158
Total Abundance w/o Epifauna	9565	818	159	3817	4112
Number of Taxa w/ Epifauna	31	16	6	26	28
Number of Taxa w/o Epifauna	29	16	6	23	26

Continued . . .



BENTHIC BIOMASS (Grams per sq. meter)					
Site	22401	22402	22404	22405	22406
Acteocina canaliculata	0.0114	0.0011	0.0011	0.0818	0.1045
Ameroculodes species complex				0.0454	
Ampelisca abdita	0.0068				0.0045
Ampelisca verrilli				0.0409	
Amphiporus bioculatus	0.0045				0.0023
Arcuatula papyria (Epi.)	0.0545			0.0114	0.0023
Cerapus tubularis (Epi.)				0.0023	
Clymenella torquata	3.2285				3.9942
Demonax microphthalmus	0.0500				
Edotea triloba (Epi.)				0.0023	0.0023
Edwardsia elegans	0.0250			0.0295	0.0091
Gemma gemma	0.6430				0.0091
Glycera dibranchiata	0.8156	0.3204		0.0613	0.9951
Glycinde solitaria	0.0227	0.0023		0.0045	0.0182
Haminoea solitaria				0.0364	
Heteromastus filiformis				0.0545	0.0045
Leitoscoloplos robustus			0.0273	0.3363	0.0772
Leitoscoloplos spp.	0.0159	0.0136			
Leptocheirus plumulosus				0.0068	
Leptosynapta tenuis	0.0909	0.1000	0.0068	0.1931	0.1908
Leucon americanus	0.0068				0.0045
Listriella barnardi	0.0068	0.0011			0.0023
Listriella clymenellae	0.0227				
Loimia medusa				0.0318	0.0068
Lyonsia hyalina				0.0136	
Macoma mitchelli	0.0045	0.1250		0.0250	0.0045
Mediomastus ambiseta	0.0227	0.0068			0.0068
Melinna maculata	0.1068	0.0273			
Molgula manhattensis (Epi.)	0.0091				
Mulinia lateralis	0.0568			0.0204	0.1409
Neanthes succinea	0.0727	0.0273			0.0477
Oxyurostylis smithi		0.0023		0.0114	0.0114
Parahesion luteola		0.0045			
Paraprionospio pinnata	0.0454	0.0318	0.0011		0.1045
Pectinaria gouldii	0.0364			0.0068	0.0136
Phoronis spp.	0.0659	0.0045		0.0295	0.0545
Podarkeopsis levifuscina	0.0227	0.0273	0.0068	0.0159	0.0182
Polydora cornuta	0.0023				
Ptilanthura tenuis	0.0568				
Rictaxis punctostriatus	0.0045				
Saccoglossus kowalevskii	0.0886				0.3999
Scoelelepis texana				0.0182	
Spiochaetopterus costarum	0.0182	0.0273	0.0045	0.0159	0.0932
Tharyx spp.				0.0159	
Tubificoides spp.	0.0023			0.0159	0.0045
Total Biomass w/ Epifauna	5.6209	0.7225	0.0477	1.1269	6.3275
Total Biomass w/o Epifauna	5.5573	0.7225	0.0477	1.1110	6.3230

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22407	22408	22409	22410	22411					
Watershed	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs					
Habitat	High Meso Mud	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline					
Date	09/15/15	09/15/15	09/14/15	09/14/15	09/14/15					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	0.6	1.0	10.2	0.6	0.6					
Salinity (ppt)	13.71	9.04	8.70	8.68	7.73					
Temperature (C)	21.19	24.27	24.62	25.00	24.75					
Dissolved Oxygen (mg/L)	7.3	7.8	6.9	7.2	7.0					
Sediment Silt-Clay (%)	40.88	28.20	22.10	13.27	35.12					
Total Carbon (%)	2.26	1.81	0.36	0.25	2.35					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	3.00		3.40		4.20		2.60		3.00	
Condition	Meets Goal		Meets Goal		Meets Goal		Degraded		Meets Goal	
# Attributes Scored	6		5		5		5		5	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.76	3	2.92	5	2.16	3	2.57	5	2.48	3
Abundance (#/m2)	568	1	2454	5	1749	5	14109	1	795	3
Biomass (g/m2)	1.29	3	1.56	3	3.23	3	2.57	3	11.69	3
Pollution Indicative Spp Abund (%)	4.00		13.89	3	0.00	5	51.69	1	25.71	1
Pollution Indicative Spp Biom (%)	5.82	3	9.17		0.00		9.27		0.33	
Pollution Sensitive Spp Abund (%)	28.00		10.19		54.55		14.98		5.71	
Pollution Sensitive Spp Biom (%)	31.22	3	38.57	1	81.30	5	69.55	3	98.67	5
Carnivore-Omnivore Abund (%)	56.00	5	48.15		25.97		11.92		34.29	
Deep Deposit Feeder Abund (%)	32.00		15.74		18.18		14.81		31.43	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Tolerance Score	0.00		0.00		0.00		6.02		6.20	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		100.00		100.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	22407	22408	22409	22410	22411
Ameroculodes species complex			23	23	
Arcuatula papyria (Epi.)		182		23	
Asciacea (Epi.)		45			
Carinoma tremaphoros	45	45	91		159
Chiridotea almyra			318		
Coelotanypus spp.				23	91
Cyathura polita	91	182	45	568	23
Diadumene leucolena (Epi.)		432			
Doridella obscura (Epi.)		68			
Edotea triloba (Epi.)				23	
Edwardsia elegans				273	
Eteone heteropoda		23		659	
Geukensia demissa (Epi.)		23			
Glycinde solitaria	23	68			
Heteromastus filiformis	23	273	273	318	
Laeonereis culveri				68	
Leitoscoloplos robustus	23				
Lepidactylus dytiscus			45		
Leptocheirus plumulosus				1749	136
Macoma balthica			23		23
Macoma mitchelli	23	545		409	
Marenzelleria viridis	45		886	1272	
Melita nitida (Epi.)					23
Mulinia lateralis		318			
Neanthes succinea	159	704		91	
Nucula proxima		23			
Pectinaria gouldii		45			
Polydora cornuta		23			
Rangia cuneata				273	
Rhithropanopeus harrisii (Epi.)		23			
Rictaxis punctostriatus		159			
Streblospio benedicti				6612	114
Stylochus ellipticus (Epi.)		45			
Tubificoides spp.	136	45	45	1772	250
Total Abundance w/ Epifauna	568	3272	1749	14155	818
Total Abundance w/o Epifauna	568	2454	1749	14109	795
Number of Taxa w/ Epifauna	9	20	9	16	8
Number of Taxa w/o Epifauna	9	13	9	14	7

BENTHIC BIOMASS (Grams per sq. meter)					
Site	22407	22408	22409	22410	22411
Ameroculodes species complex			0.0045	0.0023	
Arcuatula papyria (Epi.)		0.0091		0.0068	
Asciacea (Epi.)		0.0114			
Carinoma tremaphoros	0.0364	0.0068	0.2567		0.0523
Chiridotea almyra			0.0613		
Coelotanypus spp.				0.0068	0.0341
Cyathura polita	0.1454	0.5975	0.0818	0.3067	0.0250
Diadumene leucolena (Epi.)		0.0636			
Doridella obscura (Epi.)		0.0091			
Edotea triloba (Epi.)				0.0045	
Edwardsia elegans				0.0114	
Eteone heteropoda		0.0023		0.0841	

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter) - Contd.					
Site	22407	22408	22409	22410	22411
<i>Geukensia demissa</i> (Epi.)		0.0023			
<i>Glycinde solitaria</i>	0.0045	0.0045			
<i>Heteromastus filiformis</i>	0.0841	0.1931	0.2476	0.1931	
<i>Laeonereis culveri</i>				0.0250	
<i>Leitoscoloplos robustus</i>	0.0750				
<i>Lepidactylus dytiscus</i>			0.0318		
<i>Leptocheirus plumulosus</i>				0.2158	0.0636
<i>Macoma balthica</i>			0.1818		11.5077
<i>Macoma mitchelli</i>	0.0091	0.2363		0.0227	
<i>Marenzelleria viridis</i>	0.2522		2.3583	1.4245	
<i>Melita nitida</i> (Epi.)					0.0045
<i>Mulinia lateralis</i>		0.1409			
<i>Neanthes succinea</i>	0.6748	0.3635		0.0364	
<i>Nucula proxima</i>		0.0011			
<i>Pectinaria gouldii</i>		0.0023			
<i>Polydora cornuta</i>		0.0045			
<i>Rangia cuneata</i>				0.0591	
<i>Rhithropanopeus harrisii</i> (Epi.)		0.1727			
<i>Rictaxis punctostriatus</i>		0.0068			
<i>Streblospio benedicti</i>				0.1477	0.0045
<i>Stylochus ellipticus</i> (Epi.)		0.0295			
<i>Tubificoides</i> spp.	0.0068	0.0011	0.0011	0.0386	0.0011
Total Biomass w/ Epifauna	1.2882	1.8585	3.2251	2.5855	11.6928
Total Biomass w/o Epifauna	1.2882	1.5609	3.2251	2.5742	11.6883

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22412	22413	22414	22415	22416
Watershed	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs
Habitat	Low Mesohaline	Low Mesohaline	Freshwater	Low Mesohaline	High Meso Mud
Date	09/14/15	08/27/15	09/14/15	08/26/15	08/26/15
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)	2.6	2.6	0.5	1.2	14.6
Salinity (ppt)	7.25	11.14	0.34	9.66	13.54
Temperature (C)	24.93	26.51	23.37	26.76	26.30
Dissolved Oxygen (mg/L)	5.8	8.3	8.3	9.3	0.5
Sediment Silt-Clay (%)	84.86	84.83	41.92	4.15	96.02
Total Carbon (%)	4.88	1.04	4.26	0.06	2.93
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	2.20	3.00	3.00	2.20	1.67
Condition	Degraded	Meets Goal	Meets Goal	Degraded	Severely Degr.
# Attributes Scored	5	5	4	5	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	1.23 1	3.03 5	2.63 3	2.45 3	1.00 1
Abundance (#/m2)	4453 3	2090 5	5157 3	10974 1	45 1
Biomass (g/m2)	0.67 1	4.43 3	8.07 3	4.66 3	0.03 1
Pollution Indicative Spp Abund (%)	12.76 3	34.78 1	71.81 3	16.15 3	0.00 1
Pollution Indicative Spp Biom (%)	3.70 3	41.68 5	14.61 3	28.24 3	0.00 5
Pollution Sensitive Spp Abund (%)	3.06 3	36.96 1	0.44 3	0.83 3	0.00 1
Pollution Sensitive Spp Biom (%)	54.88 3	39.65 1	0.06 3	0.20 1	0.00 1
Carnivore-Omnivore Abund (%)	2.55 3	38.04 1	14.98 3	4.35 3	0.00 1
Deep Deposit Feeder Abund (%)	76.53 3	9.78 3	82.82 3	6.21 3	50.00 3
TF Poll. Indicative Spp Abund (%)	0.00 3	0.00 3	47.58 3	0.00 3	0.00 3
Limnodrilus Abundance (%)	0.00 3	4.35 3	47.58 3	0.00 3	0.00 3
Oligo Poll. Indic. Spp Abund (%)	0.00 3	0.00 3	0.00 3	0.00 3	0.00 3
Oligo Poll. Sens. Spp Abund (%)	0.00 3	0.00 3	0.00 3	0.00 3	0.00 3
Tolerance Score	0.00 3	9.80 3	8.86 3	0.00 3	0.00 3
Tany./Chir. Abundance Ratio	0.00 3	0.00 3	21.21 3	0.00 3	0.00 3
BENTHIC ABUNDANCE (per sq. meter)					
Site	22412	22413	22414	22415	22416
Ameroculodes species complex				68	
Aulodrilus pigueti			591		
Branchiura sowerbyi			273		
Carinoma tremaphoros	45	45		204	
Chiridotea almyra				23	
Chironomus spp.			523		
Coelotanypus spp.			136		
Corbicula fluminea			91		
Cryptochironomus spp.			45		
Cyathura polita	68	45	23	23	
Cyclaspis varians				45	
Edotea triloba (Epi.)				23	
Edwardsia elegans		23		91	
Eteone heteropoda				23	
Gemma gemma		23			
Glycinde solitaria		477		68	
Heteromastus filiformis		114		568	23
Laeonereis culveri				23	
Leitoscoloplos fragilis				114	
Lepidactylus dytiscus				4499	
Leptocheirus plumulosus	273			2545	23
Limnodrilus hoffmeisteri			409		
Macoma balthica	45	250			
Macoma mitchelli	23	182		1022	
Marenzelleria viridis	23				
Micrura leidyi		23			
Mulinia lateralis		591		1568	
Neanthes succinea		114		23	

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter) - Contd.					
Site	22412	22413	22414	22415	22416
Parahesionia luteola		68			
Pisidium spp.			23		
Procladius spp.			23		
Streblospio benedicti	568	45		68	
Tanytarsus spp.			23		
Trichoptera (Epi.)			23		
Tubificidae imm w cap chaetae			954		
Tubificidae imm w/o cap chaetae		91			
Tubificidae imm w/o cap chaetae *			2045		
Tubificoides spp.	3408				
Total Abundance w/ Epifauna	4453	2090	5180	10996	45
Total Abundance w/o Epifauna	4453	2090	5157	10974	45
Number of Taxa w/ Epifauna	8	14	13	18	2
Number of Taxa w/o Epifauna	8	14	12	17	2
BENTHIC BIOMASS (Grams per sq. meter)					
Site	22412	22413	22414	22415	22416
Ameroculodes species complex				0.0136	
Branchiura sowerbyi			0.1727		
Carinoma tremaphoros	0.0250	0.0954		0.0250	
Chiridotea almyra				0.0045	
Chironomidae			0.0011		
Chironomus spp.			0.3544		
Coelotanypus spp.			0.0182		
Corbicula fluminea			6.6956		
Cyathura polita	0.1477	0.1068	0.0045	0.0045	
Cyclaspis varians				0.0023	
Edotea triloba (Epi.)				0.0045	
Edwardsia elegans		0.0023		0.0114	
Eteone heteropoda				0.0023	
Gemma gemma		0.0023			
Glycinde solitaria		0.1204		0.0045	
Heteromastus filiformis		0.0477		0.2363	0.0159
Laeonereis culveri				0.0023	
Leitoscoloplos fragilis				0.0523	
Lepidactylus dytiscus				1.5336	
Leptocheirus plumulosus	0.1250			0.7543	0.0136
Macoma balthica	0.1545	1.5291			
Macoma mitchelli	0.0682	0.2204		0.7293	
Marenzelleria viridis	0.0682				
Micrura leidyi		0.0023			
Mulinia lateralis		1.8403		1.2564	
Neanthes succinea		0.4499		0.0204	
Oligochaeta			0.8051		
Parahesionia luteola		0.0068			
Pisidium spp.			0.0159		
Streblospio benedicti	0.0250	0.0045		0.0045	
Trichoptera (Epi.)			0.0114		
Tubificidae imm w/o cap chaetae		0.0011			
Tubificoides spp.	0.0613				
Total Biomass w/ Epifauna	0.6748	4.4293	8.0789	4.6621	0.0295
Total Biomass w/o Epifauna	0.6748	4.4293	8.0676	4.6576	0.0295

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22417	22418	22419	22420	22421	
Watershed	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs	
Habitat	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline	Oligohaline	
Date	08/26/15	08/26/15	08/26/15	08/26/15	08/26/15	
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab	
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044	
BOTTOM ENVIRONMENT						
Depth (m)	2.5	1.3	2.6	1.2	1.0	
Salinity (ppt)	9.20	9.36	9.11	6.11	3.81	
Temperature (C)	26.92	27.31	26.82	28.46	28.06	
Dissolved Oxygen (mg/L)	9.3	8.9	7.6	12.4	9.3	
Sediment Silt-Clay (%)	15.81	3.87	4.70	87.71	93.08	
Total Carbon (%)	0.34	0.08	0.14	4.32	3.97	
BENTHIC INDEX OF BIOTIC INTEGRITY						
B-IBI Score	3.00	3.00	3.00	2.20	2.00	
Condition	Meets Goal	Meets Goal	Meets Goal	Degraded	Severely Degr.	
# Attributes Scored	5	5	5	5	6	
	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.52	5	2.92	5	2.61	5
Abundance (#/m2)	14086	1	3272	3	4090	3
Biomass (g/m2)	8.81	5	2.95	3	5.39	5
Pollution Indicative Spp Abund (%)	11.61	3	11.11	3	21.67	1
Pollution Indicative Spp Biom (%)	38.15		19.92		78.15	
Pollution Sensitive Spp Abund (%)	1.29		3.47		5.00	
Pollution Sensitive Spp Biom (%)	4.18	1	2.46	1	4.76	1
Carnivore-Omnivore Abund (%)	10.16		15.28		13.33	
Deep Deposit Feeder Abund (%)	43.23		33.33		28.33	
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	0.00		7.30		0.00	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00	
BENTHIC ABUNDANCE (per sq. meter)						
Site	22417	22418	22419	22420	22421	
Ameroculodes species complex	23		23			
Carinoma tremaphoros	136	23				
Chironomus spp.					23	
Coelotanypus spp.					68	
Cryptochironomus spp.		23		136		
Cyathura polita		23				
Cyclaspis varians	45					
Edotea triloba (Epi.)	91					
Edwardsia elegans	136	182	295			
Eteone heteropoda	250		159			
Heteromastus filiformis	5930	977	1113			
Laeonereis culveri	114	227				
Leitoscoloplos fragilis	68	114				
Leitoscoloplos spp.			23			
Lepidactylus dytiscus	23	818				
Leptocheirus plumulosus	3726	409	1340			
Macoma balthica	68		45	23		
Macoma mitchelli	1250	114	114			
Marenzelleria viridis	114	91	159			
Micrura leidyi	114	23				
Mulinia lateralis	886	91	682			
Mytilopsis leucophaeata (Epi.)	23					
Neanthes succinea	682		91			
Streblospio benedicti	432	159	23	545	1000	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter) - Contd.					
Site	22417	22418	22419	22420	22421
Tubificoides spp.	91		23		
Total Abundance w/ Epifauna	14200	3272	4090	704	1091
Total Abundance w/o Epifauna	14086	3272	4090	704	1091
Number of Taxa w/ Epifauna	20	14	13	3	3
Number of Taxa w/o Epifauna	18	14	13	3	3
BENTHIC BIOMASS (Grams per sq. meter)					
Site	22417	22418	22419	22420	22421
Ameroculodes species complex	0.0011		0.0023		
Carinoma tremaphoros	0.0432	0.0011			
Chironomus spp.					0.0114
Coelotanypus spp.					0.0136
Cryptochironomus spp.		0.0011		0.0011	
Cyathura polita		0.0023			
Cyclaspis varians	0.0023				
Edotea triloba (Epi.)	0.0068				
Edwardsia elegans	0.0477	0.1613	0.0568		
Eteone heteropoda	0.0136		0.0136		
Heteromastus filiformis	2.0584	0.3249	0.5067		
Laeonereis culveri	0.0273	0.2045			
Leitoscoloplos fragilis	0.0818	0.2045			
Leitoscoloplos spp.			0.0011		
Lepidactylus dytiscus	0.0114	0.4839			
Leptocheirus plumulosus	0.9043	0.0841	0.2136		
Macoma balthica	0.2522		0.1318	0.4930	
Macoma mitchelli	1.3473	0.7588	0.1091		
Marenzelleria viridis	0.1159	0.0704	0.1250		
Micrura leidyi	0.2590	0.2726			
Mulinia lateralis	3.2512	0.3794	4.1964		
Mytilopsis leucophaeata (Epi.)	0.0068				
Neanthes succinea	0.3749		0.0318		
Streblospio benedicti	0.0136	0.0045	0.0023	0.0182	0.0250
Tubificoides spp.	0.0023		0.0011		
Total Biomass w/ Epifauna	8.8210	2.9536	5.3915	0.5123	0.0500
Total Biomass w/o Epifauna	8.8074	2.9536	5.3915	0.5123	0.0500

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22422	22423	22424	22425	22426
Watershed	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs
Habitat	Oligohaline	Oligohaline	Oligohaline	Oligohaline	Oligohaline
Date	08/26/15	08/24/15	08/24/15	08/24/15	08/24/15
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)	4.1	3.6	3.7	6.6	2.5
Salinity (ppt)	4.06	0.93	0.75	0.62	0.87
Temperature (C)	27.40	26.63	27.10	26.95	27.38
Dissolved Oxygen (mg/L)	6.0	7.4	6.4	6.6	10.7
Sediment Silt-Clay (%)	78.79	90.75	91.72	56.73	69.57
Total Carbon (%)	2.71	3.00	3.42	0.98	2.15
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	3.00	3.33	3.00	3.00	3.33
Condition	Meets Goal	Meets Goal	Meets Goal	Meets Goal	Meets Goal
# Attributes Scored	6	6	6	6	6
	Value	Score	Value	Score	Value
Shannon-Wiener Index	2.82	2.24	0.97	2.41	2.33
Abundance (#/m2)	1840	5	591	5	2272
Biomass (g/m2)	3.21	1.36	2.53	184.11	43.75
Pollution Indicative Spp Abund (%)	38.27	38.46	100.00	52.79	62.69
Pollution Indicative Spp Biom (%)	0.85	2.26	100.00	0.11	0.58
Pollution Sensitive Spp Abund (%)	33.33	57.69	0.00	43.78	37.31
Pollution Sensitive Spp Biom (%)	83.99	96.90	0.00	99.89	99.42
Carnivore-Omnivore Abund (%)	22.22	3	30.77	3	93.00
Deep Deposit Feeder Abund (%)	18.52	23.08	7.00	17.60	3
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	52.36	16.42
Limnodrilus Abundance (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	0.00	15.38	7.00	52.36	16.42
Oligo Poll. Indic. Spp Abund (%)	58.02	3	42.31	3	100.00
Oligo Poll. Sens. Spp Abund (%)	4.94	3	42.31	5	0.00
Tolerance Score	6.17	3	7.34	3	9.33
Tany./Chir. Abundance Ratio	75.00	1	100.00	1	13.98
	5	5	12.50	5	87.10
	1	1	5	5	1
BENTHIC ABUNDANCE (per sq. meter)					
Site	22422	22423	22424	22425	22426
Apocorophium lacustre (Epi.)	159			432	
Aulodrilus pigueti		45			
Carinoma tremaphoros	114				
Chironomus spp.			1818		91
Coelotanypus spp.	68	91	295	23	613
Corbicula fluminea				23	
Cryptochironomus spp.	23			159	
Cyathura polita	182	91		750	114
Edotea triloba (Epi.)	23				
Gammarus daiberi (Epi.)	23		23	750	
Leptocheirus plumulosus		23			
Limnodrilus hoffmeisteri			114	954	45
Macoma balthica	182				
Macoma mitchelli	23				
Marenzelleria viridis	91	250		772	364
Melita nitida (Epi.)	23			45	
Mytilopsis leucophaea (Epi.)	523				
Neanthes succinea	23				
Rangia cuneata	159			795	91
Rhithropanopeus harrisi (Epi.)	91				
Streblospio benedicti	636				
Tubificidae imm w/o cap chaetae		91			
Tubificidae imm w/o cap chaetae *			45	1818	204
Tubificoides spp.	341				
Total Abundance w/ Epifauna	2681	591	2295	6521	1522
Total Abundance w/o Epifauna	1840	591	2272	5294	1522
Number of Taxa w/ Epifauna	17	6	4	10	6
Number of Taxa w/o Epifauna	11	6	3	7	6

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	22422	22423	22424	22425	22426
Apocorophium lacustre (Epi.)	0.0136			0.0386	
Carinoma tremaphoros	0.0341				
Chironomus spp.			2.2675		0.0114
Coelotanypus spp.	0.0136	0.0250	0.2431	0.0011	0.2363
Corbicula fluminea				0.0011	
Cryptochironomus spp.	0.0011			0.0011	
Cyathura polita	0.1749	0.1636		0.4839	0.2386
Edotea triloba (Epi.)	0.0068				
Gammarus daiberi (Epi.)	0.0045		0.0068	0.2772	
Leptocheirus plumulosus		0.0114			
Macoma balthica	1.3246				
Macoma mitchelli	0.0011				
Marenzelleria viridis	0.1022	1.1496		0.9020	1.4950
Melita nitida (Epi.)	0.0023			0.0045	
Mytilopsis leucophaeata (Epi.)	2.1220				
Neanthes succinea	0.4476				
Oligochaeta		0.0057	0.0148	0.1969	0.0057
Rangia cuneata	1.0928			182.5234	41.7662
Rhithropanopeus harrisii (Epi.)	0.0863				
Streblospio benedicti	0.0136				
Tubificoides spp.	0.0023				
Total Biomass w/ Epifauna	5.4437	1.3552	2.5321	184.4300	43.7530
Total Biomass w/o Epifauna	3.2081	1.3552	2.5253	184.1096	43.7530

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22501	22502	22503	22504	22505
Watershed	Mainstem	Mainstem	Mainstem	Mainstem	Mainstem
Habitat	Polyhaline Sand	Polyhaline Sand	High Meso Sand	High Meso Sand	High Meso Sand
Date	09/16/15	09/16/15	09/16/15	09/15/15	09/16/15
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044
BOTTOM ENVIRONMENT					
Depth (m)	0.7	4.8	14.5	4.2	1.1
Salinity (ppt)	18.38	18.50	17.96	15.68	16.87
Temperature (C)	22.84	24.92	24.61	23.24	22.83
Dissolved Oxygen (mg/L)	8.6	7.6	6.2	7.5	8.1
Sediment Silt-Clay (%)	4.01	3.55	11.26	5.73	3.55
Total Carbon (%)	0.17	0.05	0.16	0.15	0.05
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	2.00	4.67	4.67	3.67	2.67
Condition	Severely Degr.	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	3.18 3	4.21 5	3.48 5	3.06 3	2.71 3
Abundance (#/m2)	1113 1	3749 5	2817 5	3317 3	5339 1
Biomass (g/m2)	1.36 3	6.89 5	3.62 5	1.00 1	1.55 3
Pollution Indicative Spp Abund (%)	10.20	10.91	1.61 5	2.05 5	7.66 5
Pollution Indicative Spp Biom (%)	10.79 3	0.48 5	0.25	8.09	17.34
Pollution Sensitive Spp Abund (%)	22.45 1	50.30 5	65.32 5	46.58 5	13.62 3
Pollution Sensitive Spp Biom (%)	19.75	15.76	94.42	22.78	15.22
Carnivore-Omnivore Abund (%)	30.61	32.73	30.65 3	49.32 5	12.77 1
Deep Deposit Feeder Abund (%)	6.12 1	22.42 3	34.68	12.33	74.47
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	6.12	9.09	0.00	0.00	6.81
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	9.80	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	22501	22502	22503	22504	22505
Acteocina canaliculata	114	341	659	1409	273
Aligena elevata		45			
Ameroculodes species complex	23	23		45	45
Ampelisca spp.			45		
Ampelisca verrilli		341		91	
Amphiporus bioculatus					68
Arcuatula papyria (Epi.)		136		45	45
Ascidiacea (Epi.)	23	23			
Bivalvia		23			
Branchiostoma caribaeum		23			
Clymenella torquata		45	500		
Cyathura polita		250			
Cyclaspis varians	23				
Edotea triloba (Epi.)					23
Edwardsia elegans		295			
Eteone heteropoda					23
Gemma gemma	23				
Glycera dibranchiata	23	23		68	
Glycinde solitaria	23	159	23	68	250
Haminoea solitaria	182			23	
Heteromastus filiformis		91		295	977
Leitoscoloplos robustus				23	23
Leitoscoloplos spp.		23			
Leptocheirus plumulosus				68	
Leptosynapta tenuis	364	23		409	227
Leucon americanus			23		
Listriella barnardi	23		227	45	68
Listriella clymenellae		68	341		

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter) - Contd.					
Site	22501	22502	22503	22504	22505
Loimia medusa			136		
Lyonsia hyalina		23			
Macoma mitchelli				68	
Maldanidae *		68			
Marenzelleria viridis					23
Mediomastus ambiseta		273	91		114
Mercenaria mercenaria			68		
Microprotopus raneyi (Epi.)					114
Molgula manhattensis (Epi.)				341	
Mucrogammarus mucronatus (Epi.)				23	
Mulinia lateralis	45	45		45	
Neanthes succinea			68	23	
Nemertina			23		
Nephtys picta			23		
Odostomia engonia (Epi.)					45
Oxyurostylis smithi				341	45
Parapionosyllis longicirrata		114			
Paraprionospio pinnata			45		
Parvilucina crenella		250	23	91	
Pectinaria gouldii			68	45	
Phoronis spp.	23	204			23
Podarkeopsis levifusca		45	23	45	68
Ptilanthura tenuis			23		
Saccoglossus kowalevskii			68		23
Sigambra tentaculata			23		
Spio setosa		23			
Spiochaetopterus costarum		136		68	45
Spiophanes bombyx	68	409			
Stylochus ellipticus (Epi.)	23	23	23		
Tagelus plebeius	23				
Tharyx sp. A Morris	91				182
Tubificidae imm w/o cap chaetae	68	341			364
Tubificoides spp.			318	45	2499
Turbonilla interrupta (Epi.)			23		
Turbonilla spp. (Epi.)					23
Unciola dissimilis		45			
Total Abundance w/ Epifauna	1159	3931	2863	3726	5589
Total Abundance w/o Epifauna	1113	3749	2817	3317	5339
Number of Taxa w/ Epifauna	17	30	23	23	24
Number of Taxa w/o Epifauna	15	27	21	20	19
BENTHIC BIOMASS (Grams per sq. meter)					
Site	22501	22502	22503	22504	22505
Acteocina canaliculata	0.0091	0.0341	0.0818	0.1681	0.0386
Aligena elevata		0.0114			
Amerocolodes species complex	0.0045	0.0045		0.0023	0.0273
Ampelisca spp.			0.0023		
Ampelisca verrilli		0.1000		0.0409	
Amphiporus bioculatus					0.0114
Arcuatula papyria (Epi.)		0.0091		0.0613	0.0114
Ascidacea (Epi.)	0.0011	0.0011			
Bivalvia		0.0011			
Branchiostoma caribaeum		0.0159			

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter) - Contd.					
Site	22501	22502	22503	22504	22505
Clymenella torquata		0.3862	2.5310		
Cyathura polita		0.2158			
Cyclaspis varians	0.0011				
Edotea triloba (Epi.)					0.0068
Edwardsia elegans		0.0545			
Eteone heteropoda					0.0045
Gemma gemma	0.0023				
Glycera dibranchiata	0.0136	0.1431		0.2908	
Glycinde solitaria	0.0023	0.0409	0.0023	0.0114	0.0772
Haminoea solitaria	0.0136			0.0011	
Heteromastus filiformis		0.0704		0.0636	0.5407
Leitoscoloplos robustus				0.0795	0.2636
Leitoscoloplos spp.		0.0114			
Leptocheirus plumulosus				0.0023	
Leptosynapta tenuis	0.8884	0.0091		0.0727	0.2386
Leucon americanus			0.0023		
Listriella barnardi	0.0011		0.0091	0.0023	0.0023
Listriella clymenellae		0.0023	0.0318		
Loimia medusa			0.5362		
Lyonsia hyalina		0.0023			
Macoma mitchelli				0.0045	
Maldanidae *		0.0841			
Marenzelleria viridis					0.0364
Mediomastus ambiseta		0.0159	0.0045		0.0068
Mercenaria mercenaria			0.0454		
Microprotopus raneyi (Epi.)					0.0068
Molgula manhattensis (Epi.)				0.0954	
Mucrogammarus mucronatus (Epi.)				0.0023	
Mulinia lateralis	0.1454	0.0204		0.0011	
Neanthes succinea			0.0295	0.0023	
Nemertina			0.0068		
Nephtys picta			0.1863		
Odostomia engonia (Epi.)					0.0023
Oxyurostylis smithi				0.0386	0.0045
Parapionosyllis longicirrata		0.0136			
Paraprionospio pinnata			0.0091		
Parvilucina crenella		5.2474	0.0273	0.1500	
Pectinaria gouldii			0.0682	0.0136	
Phoronis spp.	0.0045	0.0250			0.0091
Podarkeopsis levifuscina		0.0045	0.0068	0.0023	0.0136
Ptilanthura tenuis			0.0091		
Saccoglossus kowalevskii			0.0114		0.0182
Sigambra tentaculata			0.0114		
Spio setosa		0.0068			
Spiochaetopterus costarum		0.1454		0.0477	0.0682
Spiophanes bombyx	0.1250	0.2204			
Stylochus ellipticus (Epi.)	0.0023	0.0023	0.0114		
Tagelus plebeius	0.1272				
Tharyx sp. A Morris	0.0182				0.1545
Tubificidae imm w/o cap chaetae	0.0011	0.0011			0.0011
Tubificoides spp.			0.0091	0.0023	0.0364
Turbonilla interrupta (Epi.)			0.0204		
Turbonilla spp. (Epi.)					0.0091
Unciola dissimilis		0.0023			
Total Biomass w/ Epifauna	1.3609	6.9026	3.6534	1.1564	1.5893
Total Biomass w/o Epifauna	1.3575	6.8901	3.6216	0.9974	1.5529

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22506	22507	22508	22509	22510
Watershed	Mainstem	Mainstem	Mainstem	Mainstem	Mainstem
Habitat	High Meso Sand	High Meso Mud	High Meso Sand	High Meso Sand	High Meso Sand
Date	09/15/15	09/15/15	09/15/15	08/19/15	09/15/15
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)	4.5	8.4	1.1	5.7	1.6
Salinity (ppt)	17.24	16.70	15.66	13.64	15.71
Temperature (C)	24.73	24.70	22.64	27.14	23.01
Dissolved Oxygen (mg/L)	6.1	6.0	7.4	7.2	7.6
Sediment Silt-Clay (%)	5.31	57.44	10.48	7.09	5.65
Total Carbon (%)	0.12	1.13	0.13	0.21	0.10
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	4.00	4.00	3.33	3.67	4.00
Condition	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	3.95 5	3.76 5	3.27 5	3.13 3	3.41 5
Abundance (#/m2)	3862 3	1318 3	3204 3	3658 3	2567 5
Biomass (g/m2)	1.79 3	5.77 5	2.12 3	2.42 3	1.47 3
Pollution Indicative Spp Abund (%)	2.94 5	12.07 5	7.09 5	0.00 5	1.77 5
Pollution Indicative Spp Biom (%)	11.20	3.78 5	11.39	0.00	21.40
Pollution Sensitive Spp Abund (%)	45.29 5	50.00	14.89 3	62.11 5	37.17 3
Pollution Sensitive Spp Biom (%)	60.69	19.24 1	3.44	41.65	17.05
Carnivore-Omnivore Abund (%)	30.00 3	34.48 5	19.86 1	21.74 3	31.86 3
Deep Deposit Feeder Abund (%)	14.12	13.79	35.46	5.59	11.50
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	0.00	0.00	2.13	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	22506	22507	22508	22509	22510
<i>Acteocina canaliculata</i>	613	250	273	477	364
<i>Americamysis bigelowi</i> (Epi.)			23		
<i>Ameroculodes species complex</i>			250		
<i>Ampelisca abdita</i>	250	23			23
<i>Ampelisca verrilli</i>	318				
<i>Amphiporus bioculatus</i>	68				
<i>Arcuatula papyria</i> (Epi.)	45				
<i>Carinoma tremaphoros</i>			23		
<i>Carinomella lactea</i>		23			
<i>Cerapus tubularis</i> (Epi.)	23				
<i>Clymenella torquata</i>		23			
<i>Cymadusa compta</i> (Epi.)			23		
<i>Edotea triloba</i> (Epi.)	23		91		
<i>Edwardsia elegans</i>		23	45		45
<i>Glycera dibranchiata</i>	68	23	23		23
<i>Glycinde solitaria</i>	136	23	45	68	159
<i>Haminoea solitaria</i>			45		182
<i>Heteromastus filiformis</i>	136		1022	159	204
<i>Leitoscoloplos robustus</i>	23				
<i>Leitoscoloplos spp.</i>			23		
<i>Leptosynapta tenuis</i>	295	23	591	364	591
<i>Listriella barnardi</i>	23	114	45	45	
<i>Listriella clymenellae</i>		23			
<i>Loimia medusa</i>	68	114		23	23
<i>Macoma mitchelli</i>			91		159
Maldanidae	23				
<i>Micrura leidyi</i>	23				
<i>Molgula manhattensis</i> (Epi.)	250				

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter) - Contd.					
Site	22506	22507	22508	22509	22510
Mulinia lateralis	45	23	136		45
Neanthes succinea	45	23		45	23
Odostomia engonia (Epi.)			91		
Ogyrides alphaerostris		23			
Oxyurostylis smithi			136		204
Paraprionospio pinnata	45	136			
Parvilucina crenella	136			364	
Pectinaria gouldii	45	159	23	45	23
Petricola pholadiformis			23		
Phoronis spp.	273	114	159	1204	386
Pinnixa spp.		45			
Podarkeopsis levifuscina	204	23	182		23
Ptilanthura tenuis				45	
Rictaxis punctostriatus				159	
Saccoglossus kowalevskii	23			91	
Spiochaetopterus costarum	568	114		45	23
Spiophanes bombyx	91			454	
Stylochus ellipticus (Epi.)				45	
Tharyx spp.				68	
Tubificidae imm w/o cap chaetae			68		
Tubificoides spp.	318				68
Unciola spp.	23				
Total Abundance w/ Epifauna	4203	1318	3431	3703	2567
Total Abundance w/o Epifauna	3862	1318	3204	3658	2567
Number of Taxa w/ Epifauna	29	20	23	17	18
Number of Taxa w/o Epifauna	25	20	19	16	18
BENTHIC BIOMASS (Grams per sq. meter)					
Site	22506	22507	22508	22509	22510
Acteocina canaliculata	0.0841	0.0250	0.0273	0.0341	0.0591
Americamysis bigelowi (Epi.)			0.0023		
Ameroculodes species complex			0.0250		
Ampelisca abdita	0.0182	0.0045			0.0045
Ampelisca verrilli	0.0954				
Amphiporus bioculatus	0.0023				
Arcuatula papyria (Epi.)	0.0295				
Carinoma tremaphoros			0.0182		
Carinomella lactea		0.0159			
Cerapus tubularis (Epi.)	0.0011				
Clymenella torquata		0.1931			
Cymadusa compta (Epi.)			0.0023		
Edotea triloba (Epi.)	0.0023		0.0045		
Edwardsia elegans		0.0068	0.0182		0.0045
Glycera dibranchiata	0.1045	4.1123	0.2704		0.1431
Glycinde solitaria	0.0114	0.0045	0.0136	0.0159	0.0364
Haminoea solitaria			0.0011		0.0136
Heteromastus filiformis	0.0159		0.2295	0.0659	0.0500
Leitoscoloplos robustus	0.1840				
Leitoscoloplos spp.			0.0011		
Leptosynapta tenuis	0.1022	0.0114	1.1246	0.1659	0.6134
Listriella barnardi	0.0023	0.0136	0.0045	0.0091	
Listriella clymenellae		0.0023			
Loimia medusa	0.4998	0.7429		0.2227	0.0114
Macoma mitchelli			0.0273		0.0136
Maldanidae	0.0863				
Micrura leidyi	0.0227				
Molgula manhattensis (Epi.)	1.7744				

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter) - Contd.					
Site	22506	22507	22508	22509	22510
Mulinia lateralis	0.0068	0.0682	0.2386		0.3135
Neanthes succinea	0.0114	0.0068		0.0159	0.0295
Odostomia engonia (Epi.)			0.0045		
Ogyrides alphaerostris		0.0204			
Oxyurostylis smithi			0.0136		0.0159
Paraprionospio pinnata	0.0091	0.1500			
Parvilucina crenella	0.0045			1.0951	
Pectinaria gouldii	0.0011	0.2204	0.0011	0.0045	0.0023
Petricola pholadiformis			0.0364		
Phoronis spp.	0.0727	0.0136	0.0318	0.5112	0.1204
Pinnixa spp.		0.0273			
Podarkeopsis levifuscina	0.0250	0.0045	0.0318		0.0068
Ptilanthura tenuis				0.0114	
Rictaxis punctostriatus				0.0011	
Saccoglossus kowalevskii	0.0011			0.0318	
Spiochaetopterus costarum	0.3067	0.1295		0.0068	0.0227
Spiophanes bombyx	0.1091			0.2158	
Stylochus ellipticus (Epi.)				0.0091	
Tharyx spp.				0.0091	
Tubificidae imm w/o cap chaetae			0.0011		
Tubificoides spp.	0.0068				0.0045
Unciola spp.	0.0023				
Total Biomass w/ Epifauna	3.5932	5.7732	2.1289	2.4254	1.4654
Total Biomass w/o Epifauna	1.7858	5.7732	2.1152	2.4163	1.4654

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22511	22512	22513	22514	22515
Watershed	Mainstem	Mainstem	Mainstem	Mainstem	Mainstem
Habitat	High Meso Sand	High Meso Sand	High Meso Sand	High Meso Mud	High Meso Sand
Date	08/19/15	08/19/15	08/19/15	09/14/15	08/19/15
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)	6.1	5.3	11.2	2.9	5.4
Salinity (ppt)	13.36	13.34	17.71	14.57	13.85
Temperature (C)	26.97	26.99	26.69	21.04	26.85
Dissolved Oxygen (mg/L)	7.3	7.6	0.7	8.2	6.1
Sediment Silt-Clay (%)	6.94	2.76	9.28	86.87	30.69
Total Carbon (%)	0.17	0.08	0.32	0.97	1.00
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	3.67	4.00	2.33	2.33	2.00
Condition	Meets Goal	Meets Goal	Degraded	Degraded	Severely Degr.
# Attributes Scored	6	6	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	3.16 3	3.58 5	2.53 3	2.13 3	1.87 1
Abundance (#/m2)	2863 5	3340 3	454 1	318 1	386 1
Biomass (g/m2)	0.81 1	3.42 5	0.44 1	0.26 1	0.38 1
Pollution Indicative Spp Abund (%)	0.00 5	1.36 5	20.00 3	7.14 1	52.94 1
Pollution Indicative Spp Biom (%)	0.00	2.19	4.64	2.59 5	55.36
Pollution Sensitive Spp Abund (%)	30.16 3	35.37 3	20.00 3	42.86	11.76 3
Pollution Sensitive Spp Biom (%)	27.04	18.88	6.70	76.72 3	2.98
Carnivore-Omnivore Abund (%)	55.56 5	26.53 3	30.00 3	7.14 1	35.29 5
Deep Deposit Feeder Abund (%)	14.29	20.41	5.00	28.57	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
BENTHIC ABUNDANCE (per sq. meter)					
Site	22511	22512	22513	22514	22515
Acteocina canaliculata	318	91			
Arcuatula papyria (Epi.)	23	68			
Ascidacea (Epi.)	91				
Chiridotea caeca		91			
Edwardsia elegans		23			
Gastropoda (Epi.)					23
Gemma gemma		204			
Glycinde solitaria	182	204		23	
Haminoea solitaria		45			
Heteromastus filiformis	182	591			
Lepidactylus dytiscus		45			
Leptosynapta tenuis	68	204			
Leucon americanus				136	
Macoma mitchelli				23	
Marenzelleria viridis				23	
Mediomastus ambiseta			23	91	
Micrura leidyi		23	114		
Mulinia lateralis		45		23	68
Neanthes succinea	45	45	23		136
Odostomia engonia (Epi.)	23				
Paraonis fulgens		68			
Paraprionospio pinnata			45		136
Parvilucina crenella	250	182			
Pectinaria gouldii	227				
Phoronis spp.	45	114	68		45
Ptilanthura tenuis	68				
Rictaxis punctostriatus	977	364			
Saccoglossus kowalevskii	91				

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter) - Contd.					
Site	22511	22512	22513	22514	22515
<i>Spiochaetopterus costarum</i>	45				
<i>Spiophanes bombyx</i>	273	772			
<i>Streblospio benedicti</i>			45		
<i>Tharyx</i> sp. A Morris	91		136		
<i>Tharyx</i> spp.		136			
<i>Tubificoides</i> spp.		91			
Total Abundance w/ Epifauna	2999	3408	454	318	409
Total Abundance w/o Epifauna	2863	3340	454	318	386
Number of Taxa w/ Epifauna	17	20	7	6	5
Number of Taxa w/o Epifauna	14	19	7	6	4
BENTHIC BIOMASS (Grams per sq. meter)					
Site	22511	22512	22513	22514	22515
<i>Acteocina canaliculata</i>	0.0341	0.0136			
<i>Arcuatula papyria</i> (Epi.)	0.0364	0.0091			
Ascidacea (Epi.)	0.0023				
Chiridotea caeca		0.1386			
<i>Edwardsia elegans</i>		0.0250			
Gastropoda (Epi.)					0.0045
<i>Gemma gemma</i>		0.0659			
<i>Glycinde solitaria</i>	0.0727	0.2386		0.0045	
<i>Haminoea solitaria</i>		0.0023			
<i>Heteromastus filiformis</i>	0.0727	0.1454			
<i>Lepidactylus dytiscus</i>		0.0227			
<i>Leptosynapta tenuis</i>	0.0136	1.3632			
<i>Leucon americanus</i>				0.0091	
<i>Macoma mitchelli</i>				0.0454	
<i>Marenzelleria viridis</i>				0.1931	
<i>Mediomastus ambiseta</i>				0.0045	
<i>Micrura leidyi</i>		0.0045	0.0023		
<i>Mulinia lateralis</i>		0.0750			
<i>Neanthes succinea</i>	0.0136	0.0204		0.0068	0.1795
<i>Odostomia engonia</i> (Epi.)	0.0023		0.0295		0.1590
<i>Paraonis fulgens</i>		0.0091			
<i>Paraprionospio pinnata</i>			0.0114		0.0318
<i>Parvilucina crenella</i>	0.3726	0.8656			
<i>Pectinaria gouldii</i>	0.0204				
<i>Phoronis</i> spp.	0.0159	0.0591	0.0273		0.0114
<i>Ptilanthura tenuis</i>	0.0318				
<i>Rictaxis punctostriatus</i>	0.0182	0.0091			
<i>Saccoglossus kowalevskii</i>	0.0364				
<i>Spiochaetopterus costarum</i>	0.0136				
<i>Spiophanes bombyx</i>	0.0818	0.3340			
<i>Streblospio benedicti</i>			0.0091		
<i>Tharyx</i> sp. A Morris	0.0091		0.0909		
<i>Tharyx</i> spp.		0.0182			
<i>Tubificoides</i> spp.		0.0068			
Total Biomass w/ Epifauna	0.8475	3.4262	0.4408	0.2636	0.3862
Total Biomass w/o Epifauna	0.8066	3.4171	0.4408	0.2636	0.3817

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22516	22517	22518	22520	22521
Watershed	Mainstem	Mainstem	Mainstem	Mainstem	Mainstem
Habitat	High Meso Sand	High Meso Mud	High Meso Sand	High Meso Sand	High Meso Mud
Date	08/19/15	08/19/15	08/19/15	08/31/15	08/27/15
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)	2.2	8.1	7.7	6.7	7.2
Salinity (ppt)	12.94	16.50	12.56	16.20	13.97
Temperature (C)	27.91	26.28	26.85	26.27	26.48
Dissolved Oxygen (mg/L)	6.6	1.5	6.9	1.4	3.3
Sediment Silt-Clay (%)	9.40	77.13	8.60	9.77	60.49
Total Carbon (%)	0.18	2.85	0.32	0.42	1.14
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	2.33	1.00	4.00	1.33	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	2.32 1	0.44 1	3.56 5	0.84 1	3.06 5
Abundance (#/m2)	3749 3	250 1	3158 3	15336 1	818 1
Biomass (g/m2)	0.67 1	0.01 1	2.07 3	1.57 3	3.33 5
Pollution Indicative Spp Abund (%)	17.58 3	90.91	8.63 5	91.56 1	16.67
Pollution Indicative Spp Biom (%)	32.65	88.89 1	37.36	65.07	6.10 3
Pollution Sensitive Spp Abund (%)	4.85 1	0.00	36.69 3	5.19 1	8.33
Pollution Sensitive Spp Biom (%)	14.63	0.00 1	11.87	4.64	3.20 1
Carnivore-Omnivore Abund (%)	46.06 5	0.00 1	46.04 5	7.41 1	47.22 5
Deep Deposit Feeder Abund (%)	9.70	0.00	28.78	1.48	47.22
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	11.11
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	22516	22517	22518	22520	22521
<i>Acteocina canaliculata</i>			136	23	
<i>Americamysis bigelowi</i> (Epi.)	23				
<i>Ameroculodes species complex</i>	91				
<i>Arcuatula papyria</i> (Epi.)	318				
<i>Carinoma tremaphoros</i>					23
<i>Carinomella lactea</i>			23		
<i>Cyathura polita</i>	23				23
<i>Edotea triloba</i> (Epi.)	68				
<i>Eteone heteropoda</i>				114	
<i>Glycera dibranchiata</i>				23	
<i>Glycinde solitaria</i>			613	613	23
<i>Haminoea solitaria</i>	159				
<i>Heteromastus filiformis</i>	114		23	91	159
<i>Leitoscoloplos robustus</i>					23
<i>Leitoscoloplos spp.</i>	23				
<i>Loimia medusa</i>				45	
<i>Macoma balthica</i>					23
<i>Macoma mitchelli</i>	932	23			
Maldanidae			23		
<i>Mediomastus ambiseta</i>			386	114	
<i>Micrura leidyi</i>				45	45
<i>Mulinia lateralis</i>	636		23	204	
<i>Neanthes succinea</i>	23		341	295	182
<i>Parahesion luteola</i>			68		91
<i>Paraprionospio pinnata</i>			250	114	23
<i>Parvilucina crenella</i>			114		
<i>Pectinaria gouldii</i>	227		409	23	
<i>Phoronis spp.</i>			23		

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter) - Contd.					
Site	22516	22517	22518	22520	22521
<i>Podarkeopsis levifuscina</i>			45		
<i>Rictaxis punctostriatus</i>			182	23	
<i>Saccoglossus kowalevskii</i>			341		
<i>Sigambra tentaculata</i>			23		
<i>Streblospio benedicti</i>		227		13609	
Tharyx spp.			45		
Tubificidae imm w/o cap chaetae					91
Tubificoides spp.			68		114
Total Abundance w/ Epifauna	4158	250	3158	15336	818
Total Abundance w/o Epifauna	3749	250	3158	15336	818
Number of Taxa w/ Epifauna	13	2	20	14	12
Number of Taxa w/o Epifauna	10	2	20	14	12
BENTHIC BIOMASS (Grams per sq. meter)					
Site	22516	22517	22518	22520	22521
<i>Acteocina canaliculata</i>			0.0886	0.0204	
<i>Americamysis bigelowi</i> (Epi.)	0.0091				
<i>Ameroculodes species complex</i>	0.0114				
<i>Arcuatula papyria</i> (Epi.)	0.0250				
<i>Carinoma tremaphoros</i>			0.0114		0.0341
<i>Carinomella lactea</i>			0.0068		
<i>Cyathura polita</i>	0.0477				0.0023
<i>Edotea triloba</i> (Epi.)	0.0045				
<i>Eteone heteropoda</i>				0.0045	
<i>Glycera dibranchiata</i>				0.0977	
<i>Glycinde solitaria</i>	0.0500		0.1091	0.0454	0.0091
<i>Haminoea solitaria</i>	0.2249				
<i>Heteromastus filiformis</i>	0.0341		0.0023	0.0432	0.0659
<i>Leitoscoloplos robustus</i>					0.1295
<i>Leitoscoloplos spp.</i>	0.0068				
<i>Loimia medusa</i>				0.0023	
<i>Macoma balthica</i>					0.0954
<i>Macoma mitchelli</i>	0.0727	0.0011			
Maldanidae			0.0909		
<i>Mediomastus ambiseta</i>			0.0159	0.0045	
<i>Micrura leidy</i>				0.1250	0.4953
<i>Mulinia lateralis</i>	0.2113		0.4658	0.1091	
<i>Neanthes succinea</i>	0.0045		0.2772	0.2022	2.4129
<i>Parahesione luteola</i>			0.0045		0.0114
<i>Paraprionospio pinnata</i>			0.3067	0.0545	0.0727
<i>Parvilucina crenella</i>			0.0068		
<i>Pectinaria gouldii</i>	0.0045		0.5135	0.0023	
Phoronis spp.			0.0318		
<i>Podarkeopsis levifuscina</i>			0.0204		
<i>Rictaxis punctostriatus</i>			0.0045	0.0045	
<i>Saccoglossus kowalevskii</i>			0.1022		
<i>Sigambra tentaculata</i>			0.0023		
<i>Streblospio benedicti</i>		0.0091		0.8520	
Tharyx spp.			0.0045		
Tubificidae imm w/o cap chaetae					0.0011
Tubificoides spp.			0.0023		0.0023
Total Biomass w/ Epifauna	0.7066	0.0102	2.0675	1.5677	3.3319
Total Biomass w/o Epifauna	0.6680	0.0102	2.0675	1.5677	3.3319

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22522	22523	22524	22525	22526
Watershed	Mainstem	Mainstem	Mainstem	Mainstem	Mainstem
Habitat	High Meso Mud	High Meso Mud	High Meso Sand	Low Mesohaline	High Meso Mud
Date	08/27/15	08/27/15	08/19/15	08/19/15	08/27/15
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)	7.9	5.6	10.3	3.5	5.6
Salinity (ppt)	14.42	12.09	13.18	11.40	13.48
Temperature (C)	26.51	26.64	26.56	27.32	26.50
Dissolved Oxygen (mg/L)	1.4	5.3	3.3	7.8	4.2
Sediment Silt-Clay (%)	92.42	77.17	10.13	3.01	77.68
Total Carbon (%)	1.63	1.08	0.27	0.18	1.16
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	3.33	4.00	1.00	2.20	3.00
Condition	Meets Goal	Meets Goal	Severely Degr.	Degraded	Meets Goal
# Attributes Scored	6	6	6	5	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	1.50 1	2.63 3	1.75 1	1.27 1	2.49 3
Abundance (#/m2)	91 1	1772 5	182 1	9088 1	477 1
Biomass (g/m2)	2.02 5	1.98 3	0.28 1	4.11 3	1.18 3
Pollution Indicative Spp Abund (%)	0.00	29.49	50.00 1	9.75 5	9.52
Pollution Indicative Spp Biom (%)	0.00 5	7.19 3	98.37	1.44	4.73 5
Pollution Sensitive Spp Abund (%)	50.00	30.77	0.00 1	1.00	4.76
Pollution Sensitive Spp Biom (%)	97.76 3	64.52 5	0.00	2.60 1	0.58 1
Carnivore-Omnivore Abund (%)	25.00 5	42.31 5	0.00 1	7.25	33.33 5
Deep Deposit Feeder Abund (%)	25.00	6.41	62.50	3.25	52.38
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	22522	22523	22524	22525	22526
Amphiporus bioculatus				23	
Carinoma tremaphoros		23		23	
Chiridotea caeca				68	
Cyathura polita		136		23	
Edwardsia elegans		23			
Gemma gemma				7180	
Glycinde solitaria		409			23
Heteromastus filiformis	23	114		250	204
Leitoscoloplos robustus			23		
Macoma balthica	45				
Macoma mitchelli		386			
Micrura leidyi				227	68
Mulinia lateralis		500	45	114	23
Mya arenaria				68	
Neanthes succinea		23		295	68
Parahesion luteola	23	136			
Paraprionospio pinnata			23		23
Streblospio benedicti		23		772	
Tharyx sp. A Morris					23
Tubificoides spp.			91	45	45
Total Abundance w/ Epifauna	91	1772	182	9088	477
Total Abundance w/o Epifauna	91	1772	182	9088	477
Number of Taxa w/ Epifauna	3	10	4	12	8
Number of Taxa w/o Epifauna	3	10	4	12	8

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	22522	22523	22524	22525	22526
Amphiporus bioculatus				0.0159	
Carinoma tremaphoros		0.0545		0.0023	
Chiridotea caeca				0.2113	
Cyathura polita		1.1315		0.0727	
Edwardsia elegans		0.0045			
Gemma gemma				2.9604	
Glycinde solitaria		0.1431			0.0068
Heteromastus filiformis	0.0432	0.0613		0.1545	0.0954
Leitoscoloplos robustus			0.0568		
Macoma balthica	1.9789				
Macoma mitchelli		0.2068			
Micrura leidyi				0.2476	0.5839
Mulinia lateralis		0.1409	0.1818	0.0454	0.0011
Mya arenaria				0.0341	
Neanthes succinea		0.2068		0.3522	0.4294
Parahelesione luteola	0.0023	0.0250			
Paraprionospio pinnata			0.0364		0.0545
Streblospio benedicti		0.0011		0.0136	
Tharyx sp. A Morris					0.0045
Tubificoides spp.			0.0045	0.0045	0.0023
Total Biomass w/ Epifauna	2.0244	1.9755	0.2795	4.1146	1.1780
Total Biomass w/o Epifauna	2.0244	1.9755	0.2795	4.1146	1.1780

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22301	22302	22303	22304	22305
Watershed	Western Tribs	Western Tribs	Western Tribs	Western Tribs	Western Tribs
Habitat	High Meso Sand	High Meso Sand	High Meso Mud	Low Mesohaline	Low Mesohaline
Date	09/23/15	09/23/15	09/23/15	09/23/15	09/23/15
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)	2.4	1.6	4.1	3.3	1.2
Salinity (ppt)	12.06	13.04	12.94	11.71	10.15
Temperature (C)	22.00	22.00	23.00	24.10	23.30
Dissolved Oxygen (mg/L)	7.0	7.1	4.4	2.7	4.7
Sediment Silt-Clay (%)	23.39	3.32	83.11	76.40	42.25
Total Carbon (%)	0.84	0.06	1.92	4.96	3.05
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	3.00	2.00	2.67	1.40	1.40
Condition	Meets Goal	Severely Degr.	Marginal	Severely Degr.	Severely Degr.
# Attributes Scored	6	6	6	5	5
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	2.56 3	2.69 3	1.95 1	1.37 1	0.96 1
Abundance (#/m2)	3658 3	4612 3	1159 3	114 1	23265 1
Biomass (g/m2)	3.06 5	1.78 3	1.54 3	0.02 1	1.08 3
Pollution Indicative Spp Abund (%)	18.01 3	46.80 1	0.00	60.00 1	87.79 1
Pollution Indicative Spp Biom (%)	0.82	23.13	0.00 5	30.00	47.52
Pollution Sensitive Spp Abund (%)	30.43 3	7.88 1	7.84	20.00	0.00
Pollution Sensitive Spp Biom (%)	71.02	30.42	39.50 3	60.00 3	0.00 1
Carnivore-Omnivore Abund (%)	9.94 1	13.30 1	9.80 1	0.00	5.37
Deep Deposit Feeder Abund (%)	42.86	10.84	25.49	0.00	11.33
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	0.00	0.00	0.00	0.00	0.98
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	22301	22302	22303	22304	22305
Ameroculodes species complex	23	45			
Chironomus spp.					23
Cyathura polita	273	227			
Edotea triloba (Epi.)					23
Edwardsia elegans	45	341			
Eteone heteropoda					909
Gammarus daiberi (Epi.)					45
Hargeria rapax					23
Heteromastus filiformis	1409	204	114		23
Idotea spp. (Epi.)		23			
Laeonereis culveri		23			
Leitoscoloplos fragilis		159			
Lepidactylus dytiscus		636	23		
Leptocheirus plumulosus	114	136	636	23	23
Macoma balthica	68		91		
Macoma mitchelli	91	613			68
Marenzelleria viridis	772				
Mediomastus ambiseta		136			
Melita nitida (Epi.)			45		
Mulinia lateralis	23				
Neanthes succinea	45	23	114		318
Neomysis americana (Epi.)					23
Phoronis spp.				23	
Polydora cornuta		68			
Rhithropanopeus harrisi (Epi.)	23				
Streblospio benedicti	636	1999		68	19267
Tubificidae imm w/o cap chaetae					227

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter) - Contd.					
Site	22301	22302	22303	22304	22305
Tubificoides spp.	159		182		2386
Total Abundance w/ Epifauna	3681	4635	1204	114	23356
Total Abundance w/o Epifauna	3658	4612	1159	114	23265
Number of Taxa w/ Epifauna	13	14	7	3	13
Number of Taxa w/o Epifauna	12	13	6	3	10
BENTHIC BIOMASS (Grams per sq. meter)					
Site	22301	22302	22303	22304	22305
Ameroculodes species complex	0.0045	0.0023			
Chironomus spp.					0.0114
Cyathura polita	0.3703	0.3794			
Edotea triloba (Epi.)					0.0045
Edwardsia elegans	0.0364	0.0091			
Eteone heteropoda					0.0795
Gammarus daiberi (Epi.)					0.0045
Hargeria rapax					0.0023
Heteromastus filiformis	0.5930	0.0818	0.1931		0.0091
Idotea spp. (Epi.)		0.0023			
Laeonereis culveri		0.0977			
Leitoscoloplos fragilis		0.3204			
Lepidactylus dytiscus		0.3999	0.0182		
Leptocheirus plumulosus	0.0091	0.0273	0.2795	0.0023	0.0114
Macoma balthica	0.5498		0.6066		
Macoma mitchelli	0.1113	0.2022			0.0727
Marenzelleria viridis	1.2564				
BENTHIC BIOMASS (Grams per sq. meter) - Contd.					
Site	22301	22302	22303	22304	22305
Mediomastus ambiseta		0.1613			
Melita nitida (Epi.)			0.0068		
Mulinia lateralis	0.0023				
Neanthes succinea	0.1045	0.0045	0.4317		0.4317
Neomysis americana (Epi.)					0.0023
Phoronis spp.				0.0136	
Polydora cornuta		0.0011			
Rhithropanopeus harrisi (Epi.)	2.3879				
Streblospio benedicti	0.0227	0.0909		0.0068	0.4203
Tubificidae imm w/o cap chaetae					0.0011
Tubificoides spp.	0.0045		0.0068		0.0386
Total Biomass w/ Epifauna	5.4528	1.7801	1.5427	0.0227	1.0894
Total Biomass w/o Epifauna	3.0649	1.7778	1.5359	0.0227	1.0781

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22306	22307	22308	22309	22310
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	09/23/15	09/23/15	09/23/15	09/23/15	09/23/15
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	7.1	0.8	5.3	3.9
Salinity (ppt)	12.81	12.80	10.62	12.69	10.94
Temperature (C)	22.30	23.80	21.90	24.90	22.20
Dissolved Oxygen (mg/L)	6.4	3.7	8.5	0.4	6.7
Sediment Silt-Clay (%)	89.29	64.39	3.21	71.10	88.97
Total Carbon (%)	1.82	2.31	0.05	6.24	1.96
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	4.00	1.67	3.00	1.67	3.40
Condition	Meets Goal	Severely Degr.	Meets Goal	Severely Degr.	Meets Goal
# Attributes Scored	6	6	5	6	5
	Value	Score	Value	Score	Value
Shannon-Wiener Index	2.05	3	1.52	1	1.73
Abundance (#/m2)	2317	5	114	1	3022
Biomass (g/m2)	4.05	5	0.06	1	2.61
Pollution Indicative Spp Abund (%)	3.92	5	40.00	1	1.50
Pollution Indicative Spp Biom (%)	0.08	5	71.43	1	4.09
Pollution Sensitive Spp Abund (%)	7.84	3	0.00	1	12.03
Pollution Sensitive Spp Biom (%)	50.10	3	0.00	1	25.26
Carnivore-Omnivore Abund (%)	15.69	3	40.00	5	3.01
Deep Deposit Feeder Abund (%)	54.90	3	40.00	5	1.50
TF Poll. Indicative Spp Abund (%)	0.00	5	0.00	1	0.00
Limnodrilus Abundance (%)	0.98	5	0.00	1	0.00
Oligo Poll. Indic. Spp Abund (%)	0.00	5	0.00	1	0.00
Oligo Poll. Sens. Spp Abund (%)	0.00	5	0.00	1	0.00
Tolerance Score	9.80	5	9.80	5	0.00
Tany./Chir. Abundance Ratio	0.00	5	0.00	1	0.00
BENTHIC ABUNDANCE (per sq. meter)					
Site	22306	22307	22308	22309	22310
Ameroculodes species complex			23		
Carinoma tremaphoros	91				23
Chiridotea almyra			45		
Chironomus spp.		45			
Heteromastus filiformis	1227		45		341
Laeonereis culveri			45		
Lepidactylus dytiscus			1999		
Leptocheirus plumulosus	432	23	159	23	
Macoma balthica	182				159
Macoma mitchelli			295		
Marenzelleria viridis			364		45
Mulinia lateralis			45		
Neanthes succinea	273				318
Streblospio benedicti	68				45
Tubificidae imm w/o cap chaetae	23				
Tubificoides spp.	23	45			
Total Abundance w/ Epifauna	2317	114	3022	23	932
Total Abundance w/o Epifauna	2317	114	3022	23	932
Number of Taxa w/ Epifauna	8	3	9	1	6
Number of Taxa w/o Epifauna	8	3	9	1	6
BENTHIC BIOMASS (Grams per sq. meter)					
Site	22306	22307	22308	22309	22310
Ameroculodes species complex			0.0023		
Carinoma tremaphoros	0.0477				0.0136

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter) - Contd.					
Site	22306	22307	22308	22309	22310
Chiridotea almyra			0.0318		
Chironomus spp.		0.0454			
Heteromastus filiformis	0.9065		0.0477		0.2249
Laonereis culveri			0.0727		
Lepidactylus dytiscus			1.0996		
Leptocheirus plumulosus	0.3431	0.0136	0.0818	0.0114	
Macoma balthica	2.0312				3.7193
Macoma mitchelli			0.5067		
Marenzelleria viridis			0.6589		0.0932
Mulinia lateralis			0.1068		
Neanthes succinea	0.7202				0.7884
Streblospio benedicti	0.0023				0.0011
Tubificidae imm w/o cap chaetae	0.0011				
Tubificoides spp.	0.0023	0.0045			
Total Biomass w/ Epifauna	4.0544	0.0636	2.6083	0.0114	4.8405
Total Biomass w/o Epifauna	4.0544	0.0636	2.6083	0.0114	4.8405

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22311	22312	22313	22314	22315
Watershed	Western Tribs	Western Tribs	Western Tribs	Western Tribs	Western Tribs
Habitat	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline
Date	09/23/15	08/28/15	09/08/15	08/13/15	08/13/15
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044
BOTTOM ENVIRONMENT					
Depth (m)	3.9	1.2	1.0	8.9	7.0
Salinity (ppt)	10.94	6.41	8.69	10.20	9.57
Temperature (C)	22.30	25.73	28.10	25.80	25.80
Dissolved Oxygen (mg/L)	6.9	3.9	9.0	2.2	2.5
Sediment Silt-Clay (%)	85.08	4.62	2.76	95.82	61.51
Total Carbon (%)	1.82	0.21	0.07	1.79	2.22
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	4.20	1.00	2.60	3.00	3.00
Condition	Meets Goal	Severely Degr.	Degraded	Meets Goal	Meets Goal
# Attributes Scored	5	5	5	5	5
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	2.29 3	0.00 1	1.83 3	2.17 3	1.97 3
Abundance (#/m2)	636 3	0 1	7566 1	1409 3	2181 5
Biomass (g/m2)	6.79 5	0.00 1	4.04 3	7.09 5	8.68 5
Pollution Indicative Spp Abund (%)	0.00 5	100.00 1	5.41 5	33.87 1	29.17 1
Pollution Indicative Spp Biom (%)	0.00	100.00	1.60	13.53	4.49
Pollution Sensitive Spp Abund (%)	50.00	0.00	10.21	29.03	11.46
Pollution Sensitive Spp Biom (%)	93.99 5	0.00 1	22.40 1	56.85 3	31.82 1
Carnivore-Omnivore Abund (%)	10.71	0.00	5.11	32.26	55.21
Deep Deposit Feeder Abund (%)	35.71	0.00	1.20	4.84	8.33
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	0.00	0.00	0.30	0.00	4.17
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	6.38	0.00	9.80
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	22311	22312	22313	22314	22315
Apocorophium lacustre (Epi.)			250		23
Carinoma tremaphoros				23	23
Diadumene leucolena (Epi.)				68	
Eteone heteropoda			386		
Heteromastus filiformis	136		68	68	
Lepidactylus dytiscus			4180		
Leptocheirus plumulosus	23		1954		
Macoma balthica	273			409	204
Macoma mitchelli			182		
Marenzelleria viridis	45		568		
Micrura leidyi	45				
Mulinia lateralis				136	45
Mya arenaria					45
Mytilopsis leucophaeata (Epi.)			114		68
Neanthes succinea	23			432	1181
Rangia cuneata			204		
Streblospio benedicti				341	500
Tubificidae imm w/o cap chaetae			23		91
Tubificoides spp.	91				91
Total Abundance w/ Epifauna	636	0	7929	1477	2272
Total Abundance w/o Epifauna	636		7566	1409	2181
Number of Taxa w/ Epifauna	7	0	10	7	10
Number of Taxa w/o Epifauna	7	0	8	6	8
BENTHIC BIOMASS (Grams per sq. meter)					
Site	22311	22312	22313	22314	22315
Apocorophium lacustre (Epi.)			0.0250		0.0091
Carinoma tremaphoros				0.0386	0.0204
Diadumene leucolena (Epi.)				0.3908	
Eteone heteropoda			0.0636		
Heteromastus filiformis	0.1091		0.1091	0.0341	
Lepidactylus dytiscus			2.5310		
Leptocheirus plumulosus	0.0068		0.3999		
Macoma balthica	6.2707			4.0283	1.4018
Macoma mitchelli			0.0273		
Marenzelleria viridis	0.1113		0.6793		
Micrura leidyi	0.0954				
Mulinia lateralis				0.9497	0.3817
Mya arenaria					1.3609
Mytilopsis leucophaeata (Epi.)			0.0364		0.0023
Neanthes succinea	0.1954			2.0266	5.5096
Rangia cuneata			0.2249		
Streblospio benedicti				0.0091	0.0068
Tubificidae imm w/o cap chaetae			0.0011		0.0011
Tubificoides spp.	0.0011				0.0011
Total Biomass w/ Epifauna	6.7899	0.0000	4.0976	7.4772	8.6949
Total Biomass w/o Epifauna	6.7899	0.0000	4.0362	7.0864	8.6836

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22316	22317	22318	22319	22320
Watershed	Western Tribs	Western Tribs	Western Tribs	Western Tribs	Western Tribs
Habitat	Low Mesohaline	Low Mesohaline	High Meso Mud	Oligohaline	Oligohaline
Date	08/13/15	08/13/15	09/02/15	09/09/15	09/09/15
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)	6.1	6.1	8.2	1.6	0.8
Salinity (ppt)	8.60	8.56	13.25	4.69	4.32
Temperature (C)	25.80	25.80	25.29	28.61	29.80
Dissolved Oxygen (mg/L)	2.6	2.7	1.7	8.4	8.7
Sediment Silt-Clay (%)	97.23	85.57	95.60	60.52	80.11
Total Carbon (%)	2.63	3.04	3.88	2.77	3.06
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	2.60	3.40	1.00	2.00	3.00
Condition	Degraded	Meets Goal	Severely Degr.	Severely Degr.	Meets Goal
# Attributes Scored	5	5	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	0.99 1	1.90 3	0.00 1	2.18 1	1.58 1
Abundance (#/m2)	295 1	682 3	23 1	10292 1	68 1
Biomass (g/m2)	3.26 3	2.73 3	0.00 1	1.58 1	0.19 1
Pollution Indicative Spp Abund (%)	0.00 5	3.33 5	100.00 1	38.41 3	33.33 3
Pollution Indicative Spp Biom (%)	0.00 5	7.74 3	100.00 1	11.80 3	2.38 3
Pollution Sensitive Spp Abund (%)	76.92 3	36.67 3	0.00 1	9.93 3	66.67 3
Pollution Sensitive Spp Biom (%)	99.30 3	64.09 3	0.00 1	69.78 3	97.62 3
Carnivore-Omnivore Abund (%)	7.69 3	50.00 3	0.00 1	8.83 1	66.67 5
Deep Deposit Feeder Abund (%)	15.38 3	10.00 3	0.00 1	4.64 3	0.00 3
TF Poll. Indicative Spp Abund (%)	0.00 3	0.00 3	0.00 1	0.00 3	0.00 3
Limnodrilus Abundance (%)	0.00 3	0.00 3	0.00 1	0.00 3	0.00 3
Oligo Poll. Indic. Spp Abund (%)	0.00 3	0.00 3	0.00 1	80.79 3	33.33 3
Oligo Poll. Sens. Spp Abund (%)	0.00 3	0.00 3	0.00 1	1.99 3	33.33 5
Tolerance Score	0.00 3	0.00 3	0.00 1	6.20 3	6.20 3
Tany./Chir. Abundance Ratio	0.00 3	0.00 3	0.00 1	100.00 1	100.00 1
BENTHIC ABUNDANCE (per sq. meter)					
Site	22316	22317	22318	22319	22320
Apocorophium lacustre (Epi.)				4271	
Boccardiella ligERICA				909	
Carinoma tremaphoros		45		23	
Coelotanypus spp.				114	23
Cyathura polita				772	23
Edotea triloba (Epi.)				23	
Heteromastus filiformis		23			
Hobsonia florida				23	
Leptocheirus plumulosus				68	
Macoma balthica	227	250			
Marenzelleria viridis				204	23
Melita nitida (Epi.)				204	
Mulinia lateralis		23			
Mytilopsis leucophaeata (Epi.)				10088	
Neanthes succinea	23	295			
Paraprionospio pinnata				23	
Polydora cornuta				3817	
Rhithropanopeus harrisi (Epi.)				68	
Sayella chesapeakea (Epi.)				318	
Spiochaetopterus costarum				45	
Streblospio benedicti			23	3817	
Stylochus ellipticus (Epi.)				136	
Tubificoides spp.	45	45		477	
Total Abundance w/ Epifauna	295	682	23	25401	68
Total Abundance w/o Epifauna	295	682	23	10292	68
Number of Taxa w/ Epifauna	3	6	1	19	3
Number of Taxa w/o Epifauna	3	6	1	12	3

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	22316	22317	22318	22319	22320
Apocorophium lacustre (Epi.)				0.4408	
Boccardiella ligerica				0.0636	
Carinoma tremaphoros		0.0091		0.0023	
Coelotanypus spp.				0.0182	0.0045
Cyathura polita				0.7884	0.1045
Edotea triloba (Epi.)				0.0068	
Heteromastus filiformis		0.0114			
Hobsonia florida				0.0250	
Leptocheirus plumulosus				0.0045	
Macoma balthica	3.2331	1.7494			
Marenzelleria viridis				0.2908	0.0818
Melita nitida (Epi.)				0.0114	
Mulinia lateralis		0.2113			
Mytilopsis leucophaeata (Epi.)				3.1376	
Neanthes succinea	0.0204	0.7475			
Paraprionospio pinnata				0.0568	
Polydora cornuta				0.1908	
Rhithropanopeus harrisi (Epi.)				0.5089	
Sayella chesapeakea (Epi.)				0.0045	
Spiochaetopterus costarum				0.0227	
Streblospio benedicti			0.0023	0.1113	
Stylochus ellipticus (Epi.)				0.0114	
Tubificoides spp.	0.0023	0.0011		0.0045	
Total Biomass w/ Epifauna	3.2558	2.7298	0.0023	5.7004	0.1908
Total Biomass w/o Epifauna	3.2558	2.7298	0.0023	1.5790	0.1908

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22321	22322	22323	22324	22325
Watershed	Western Tribs	Western Tribs	Western Tribs	Western Tribs	Western Tribs
Habitat	Oligohaline	Oligohaline	Oligohaline	Oligohaline	Oligohaline
Date	09/09/15	09/09/15	09/09/15	09/09/15	09/09/15
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	0.5	0.5	0.5	2.5
Salinity (ppt)	2.68	2.90	1.68	3.20	2.28
Temperature (C)	28.99	27.83	28.65	28.89	27.57
Dissolved Oxygen (mg/L)	8.2	8.4	8.0	8.4	6.8
Sediment Silt-Clay (%)	96.77	4.87	2.79	51.37	97.94
Total Carbon (%)	2.81	0.10	0.06	2.02	2.21
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	3.00	3.67	2.33	2.00	3.00
Condition	Meets Goal	Meets Goal	Degraded	Severely Degr.	Meets Goal
# Attributes Scored	6	6	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	2.25	2.52	1.48	3.60	1.49
Abundance (#/m2)	182 3	2158 5	9224 1	5544 1	3385 3
Biomass (g/m2)	9.27	0.51	1.22	257.53	2.12
Pollution Indicative Spp Abund (%)	37.50	32.63	75.62	42.62	93.96
Pollution Indicative Spp Biom (%)	0.09	40.36	14.42	0.08	94.52
Pollution Sensitive Spp Abund (%)	62.50	11.58	7.88	34.02	1.34
Pollution Sensitive Spp Biom (%)	99.91	10.31	36.63	99.89	4.83
Carnivore-Omnivore Abund (%)	50.00 5	36.84 5	12.32 1	11.89 1	39.60 5
Deep Deposit Feeder Abund (%)	12.50	4.21	78.08	30.74	58.39
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	12.50	0.00	75.37	13.52	54.36
Oligo Poll. Indic. Spp Abund (%)	37.50 3	78.95 3	89.90 3	51.23 3	98.66 1
Oligo Poll. Sens. Spp Abund (%)	25.00 3	0.00 1	3.94 3	12.70 3	1.34 3
Tolerance Score	7.05 3	8.86 3	9.50 1	7.50 3	9.67 1
Tany./Chir. Abundance Ratio	100.00 1	0.00 5	0.00 5	85.71 1	8.47 5
BENTHIC ABUNDANCE (per sq. meter)					
Site	22321	22322	22323	22324	22325
Apocorophium lacustre (Epi.)				772	
Aulodrilus pigueti				409	
Boccardiella ligERICA				227	
Chironomini *			23		
Chironomus spp.		545		23	1227
Cladotanytarsus viridiventris			23		
Coelotanypus spp.	45			273	114
Corbicula fluminea		23	523		
Cricotopus spp.			45		
Cryptochironomus spp.			91	23	
Cyathura polita	45	91	364	341	
Dero digitata				341	
Gammarus daiberi (Epi.)			114		23
Hobsonia florida		23		204	
Lepidactylus dytiscus		23		23	
Leptocheirus plumulosus		863		45	23
Limnodrilus hoffmeisteri				136	
Lipiniella spp.		159	45		
Marenzelleria viridis	45		364	704	45
Mytilopsis leucophaeata (Epi.)		45		23	
Polydora cornuta		23		227	
Polypedilum halterale group			545		
Rangia cuneata	23	159		841	
Streblospio benedicti		159		909	
Tubificidae imm w cap chaetae			250	68	
Tubificidae imm w/o cap chaetae	23		6952		1840
Tubificidae imm w/o cap chaetae *				613	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter) - Contd.					
Site	22321	22322	22323	22324	22325
Tubificoides spp.		91		136	136
Total Abundance w/ Epifauna	182	2204	9338	6339	3408
Total Abundance w/o Epifauna	182	2158	9224	5544	3385
Number of Taxa w/ Epifauna	5	12	11	19	7
Number of Taxa w/o Epifauna	5	11	10	17	6
BENTHIC BIOMASS (Grams per sq. meter)					
Site	22321	22322	22323	22324	22325
Apocorophium lacustre (Epi.)				0.1000	
Boccardiella ligerica				0.0182	
Chironomidae			0.0454		
Chironomini *			0.0023		
Chironomus spp.		0.1977		0.0114	1.6290
Coelotanypus spp.	0.0068			0.0841	0.0341
Corbicula fluminea		0.0886	0.5930		
Cryptochironomus spp.				0.0011	
Cyathura polita	0.2136	0.0114	0.2567	0.2249	
Gammarus daiberi (Epi.)			0.0159		0.0011
Hobsonia florida		0.0011		0.0227	
Lepidactylus dytiscus		0.0011		0.0023	
Leptocheirus plumulosus		0.1522		0.0023	0.0114
Lipiniella spp.		0.0011			
Marenzelleria viridis	0.0523		0.1886	3.4239	0.1022
Mytilopsis leucophaeata (Epi.)		0.0011		0.0023	
Oligochaeta			0.1298	0.0600	0.0727
Polydora cornuta		0.0011		0.0295	
Rangia cuneata	8.9948	0.0409		253.6052	
Streblospio benedicti		0.0068		0.0409	
Tubificidae imm w/o cap chaetae	0.0011				0.2645
Tubificoides spp.		0.0045		0.0023	0.0023
Total Biomass w/ Epifauna	9.2686	0.5078	1.2317	257.6309	2.1173
Total Biomass w/o Epifauna	9.2686	0.5067	1.2158	257.5287	2.1162

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22101	22102	22103	22104	22105
Watershed	Potomac R	Potomac R	Potomac R	Potomac R	Potomac R
Habitat	High Meso Sand	High Meso Sand	Polyhaline Mud	High Meso Mud	High Meso Mud
Date	08/18/15	08/18/15	08/18/15	08/18/15	08/18/15
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044
BOTTOM ENVIRONMENT					
Depth (m)	2.5	2.1	11.2	12.1	11.2
Salinity (ppt)	13.77	13.38	18.12	16.62	13.88
Temperature (C)	26.89	26.77	26.54	26.56	26.61
Dissolved Oxygen (mg/L)	5.5	5.4	0.4	0.6	
Sediment Silt-Clay (%)	3.70	8.22	92.99	91.15	93.15
Total Carbon (%)	0.10	0.20	3.65	3.45	3.45
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	3.00	3.67	1.67	1.00	2.33
Condition	Meets Goal	Meets Goal	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	3.04 3	2.86 3	0.00 1	0.00 1	0.00 1
Abundance (#/m2)	432 1	3953 3	23 1	0 1	23 1
Biomass (g/m2)	0.52 1	1.07 3	0.00 1	0.00 1	0.00 1
Pollution Indicative Spp Abund (%)	5.26 5	5.17 5	0.00	100.00	0.00
Pollution Indicative Spp Biom (%)	32.02	43.71	0.00 5	100.00 1	0.00 5
Pollution Sensitive Spp Abund (%)	31.58 3	14.37 3	0.00	0.00	0.00
Pollution Sensitive Spp Biom (%)	7.89	24.09	0.00 1	0.00 1	0.00 1
Carnivore-Omnivore Abund (%)	42.11 5	69.54 5	0.00 1	0.00 1	100.00 5
Deep Deposit Feeder Abund (%)	26.32	5.17	0.00	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
BENTHIC ABUNDANCE (per sq. meter)					
Site	22101	22102	22103	22104	22105
Acteocina canaliculata	68	273			
Arcuatula papyria (Epi.)	23	23			
Carinoma tremaphoros		23			
Gemma gemma		636	23		
Glycinde solitaria	68	204			
Haminoea solitaria		1000			23
Heteromastus filiformis	68	136			
Leitoscoloplos robustus	23				
Leitoscoloplos spp.		68			
Lepidactylus dytiscus	45				
Leptosynapta tenuis	68				
Macoma mitchelli		136			
Micrura leidy	45	23			
Mulinia lateralis		136			
Neanthes succinea		68			
Pectinaria gouldii	23				
Phoronis spp.		45			
Rictaxis punctostriatus		1159			
Scolecopsis spp.	23				
Spiochaetopterus costarum		45			
Total Abundance w/ Epifauna	454	3976	23	0	23
Total Abundance w/o Epifauna	432	3953	23		23
Number of Taxa w/ Epifauna	10	15	1	0	1
Number of Taxa w/o Epifauna	9	14	1	0	1

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	22101	22102	22103	22104	22105
<i>Acteocina canaliculata</i>	0.0341	0.1000			
<i>Arcuatula papyria</i> (Epi.)	0.0068	0.0068			
<i>Carinoma tremaphoros</i>		0.0114			
<i>Gemma gemma</i>		0.0204	0.0011		
<i>Glycinde solitaria</i>	0.0068	0.0795			
<i>Haminoea solitaria</i>		0.0613			0.0045
<i>Heteromastus filiformis</i>	0.0250	0.0341			
<i>Leitoscoloplos robustus</i>	0.1659				
<i>Leitoscoloplos</i> spp.		0.1704			
<i>Lepidactylus dytiscus</i>	0.0182				
<i>Leptosynapta tenuis</i>	0.0682				
<i>Macoma mitchelli</i>		0.0068			
<i>Micrura leidyi</i>	0.1636	0.1022			
<i>Mulinia lateralis</i>		0.2954			
<i>Neanthes succinea</i>		0.0772			
<i>Pectinaria gouldii</i>	0.0318				
<i>Phoronis</i> spp.		0.0273			
<i>Rictaxis punctostriatus</i>		0.0295			
<i>Scolelepis</i> spp.	0.0045				
<i>Spiochaetopterus costarum</i>		0.0500			
Total Biomass w/ Epifauna	0.5248	1.0724	0.0011	0.0000	0.0045
Total Biomass w/o Epifauna	0.5180	1.0656	0.0011	0.0000	0.0045

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22106	22107	22108	22109	22110
Watershed	Potomac R	Potomac R	Potomac R	Potomac R	Potomac R
Habitat	High Meso Mud	High Meso Mud	High Meso Mud	High Meso Mud	High Meso Mud
Date	08/18/15	08/18/15	08/18/15	08/18/15	08/18/15
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)	6.6	5.5	7.1	7.3	12.1
Salinity (ppt)	13.50	12.30	12.88	12.69	13.24
Temperature (C)	27.38	26.36	26.64	26.63	26.54
Dissolved Oxygen (mg/L)	6.3	3.9	3.1	3.8	1.4
Sediment Silt-Clay (%)	93.85	88.62	96.06	97.09	74.77
Total Carbon (%)	2.92	3.56	3.67	3.58	2.80
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	1.00	1.33	2.33	1.00	1.67
Condition	Severely Degr.	Severely Degr.	Degraded	Severely Degr.	Severely Degr.
# Attributes Scored	6	6	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	0.00 1	0.50 1	1.92 1	0.00 1	1.00 1
Abundance (#/m2)	0 1	204 1	114 1	0 1	45 1
Biomass (g/m2)	0.00 1	0.02 1	0.01 1	0.00 1	0.00 1
Pollution Indicative Spp Abund (%)	100.00	88.89	0.00	100.00	50.00
Pollution Indicative Spp Biom (%)	100.00 1	42.86 1	0.00 5	100.00 1	50.00 1
Pollution Sensitive Spp Abund (%)	0.00	0.00	20.00	0.00	0.00
Pollution Sensitive Spp Biom (%)	0.00 1	0.00 1	18.18 1	0.00 1	0.00 1
Carnivore-Omnivore Abund (%)	0.00 1	11.11 3	80.00 5	0.00 1	50.00 5
Deep Deposit Feeder Abund (%)	0.00	0.00	20.00	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
BENTHIC ABUNDANCE (per sq. meter)					
Site	22106	22107	22108	22109	22110
Glycinde solitaria			23		
Haminoea solitaria			23		
Heteromastus filiformis			23		
Neanthes succinea		23			23
Rictaxis punctostriatus			45		
Streblospio benedicti		182			23
Total Abundance w/ Epifauna	0	204	114	0	45
Total Abundance w/o Epifauna		204	114		45
Number of Taxa w/ Epifauna	0	2	4	0	2
Number of Taxa w/o Epifauna	0	2	4	0	2
BENTHIC BIOMASS (Grams per sq. meter)					
Site	22106	22107	22108	22109	22110
Glycinde solitaria			0.0023		
Haminoea solitaria			0.0045		
Heteromastus filiformis			0.0045		
Neanthes succinea		0.0091			0.0023
Rictaxis punctostriatus			0.0011		
Streblospio benedicti		0.0068			0.0023
Total Biomass w/ Epifauna	0.0000	0.0159	0.0125	0.0000	0.0045
Total Biomass w/o Epifauna	0.0000	0.0159	0.0125	0.0000	0.0045

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22111	22112	22113	22114	22115
Watershed	Potomac R	Potomac R	Potomac R	Potomac R	Potomac R
Habitat	High Meso Mud	High Meso Sand	Low Mesohaline	High Meso Mud	High Meso Sand
Date	08/18/15	09/02/15	09/02/15	08/18/15	08/18/15
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)	6.8	4.2	4.0	7.0	5.6
Salinity (ppt)	12.46	12.65	11.87	12.48	12.58
Temperature (C)	26.53	26.45	26.56	26.47	26.51
Dissolved Oxygen (mg/L)	2.5	4.3	5.8	1.8	1.9
Sediment Silt-Clay (%)	94.84	5.21	89.50	96.44	8.34
Total Carbon (%)	3.24	0.39	2.92	3.46	0.44
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	2.33	2.33	1.40	1.00	1.33
Condition	Degraded	Degraded	Severely Degr.	Severely Degr.	Severely Degr.
# Attributes Scored	6	6	5	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	0.00 1	2.44 1	2.00 3	0.00 1	2.03 1
Abundance (#/m2)	23 1	1772 5	182 1	23 1	1000 1
Biomass (g/m2)	0.00 1	0.46 1	0.03 1	0.00 1	0.26 1
Pollution Indicative Spp Abund (%)	0.00	64.10 1	62.50 1	100.00	59.09 1
Pollution Indicative Spp Biom (%)	0.00 5	11.25	46.15	100.00 1	9.48
Pollution Sensitive Spp Abund (%)	0.00	11.54 3	25.00	0.00	20.45 3
Pollution Sensitive Spp Biom (%)	0.00 1	10.27	38.46 1	0.00 1	3.88
Carnivore-Omnivore Abund (%)	100.00 5	23.08 3	25.00	0.00 1	15.91 1
Deep Deposit Feeder Abund (%)	0.00	7.69	12.50	0.00	27.27
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	7.30	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	22111	22112	22113	22114	22115
Acteocina canaliculata		23			
Carinoma tremaphoros		91			23
Chironomus spp.			23		
Cryptochironomus spp.		45			
Eteone heteropoda					23
Glycinde solitaria		114	23		23
Heteromastus filiformis		68			45
Leptocheirus plumulosus			23		
Macoma mitchelli		91			
Mediomastus ambiseta		68	23		182
Micrura leidyi		23			23
Mulinia lateralis		182			
Neanthes succinea	23	45			68
Rictaxis punctostriatus		68			
Streblospio benedicti		954	91	23	568
Tubificoides spp.					45
Total Abundance w/ Epifauna	23	1772	182	23	1000
Total Abundance w/o Epifauna	23	1772	182	23	1000
Number of Taxa w/ Epifauna	1	12	5	1	9
Number of Taxa w/o Epifauna	1	12	5	1	9
BENTHIC BIOMASS (Grams per sq. meter)					
Site	22111	22112	22113	22114	22115
Acteocina canaliculata		0.0045			
Carinoma tremaphoros		0.0795			0.0023

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter) - Contd.					
Site	22111	22112	22113	22114	22115
Chironomus spp.			0.0091		
Cryptochironomus spp.		0.0011			
Eteone heteropoda					0.0023
Glycinde solitaria		0.0386	0.0091		0.0091
Heteromastus filiformis		0.1522			0.0591
Leptocheirus plumulosus			0.0045		
Macoma mitchelli		0.0613			
Mediomastus ambiseta		0.0045	0.0023		0.0011
Micrura leidyi		0.0613			0.1477
Mulinia lateralis		0.0068			
Neanthes succinea	0.0045	0.0023			0.0182
Rictaxis punctostriatus		0.0068			
Streblospio benedicti		0.0454	0.0045	0.0011	0.0227
Tubificoides spp.					0.0011
Total Biomass w/ Epifauna	0.0045	0.4646	0.0295	0.0011	0.2636
Total Biomass w/o Epifauna	0.0045	0.4646	0.0295	0.0011	0.2636

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22116	22117	22118	22119	22120					
Watershed	Potomac R	Potomac R	Potomac R	Potomac R	Potomac R					
Habitat	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline					
Date	08/18/15	08/18/15	09/02/15	09/03/15	09/02/15					
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)	6.7	2.2	4.5	4.6	1.1					
Salinity (ppt)	11.94	9.81	11.28	6.38	8.92					
Temperature (C)	26.44	27.65	26.53	27.00	27.55					
Dissolved Oxygen (mg/L)	2.6	9.3	5.2	5.3	5.0					
Sediment Silt-Clay (%)	96.11	4.33	43.41	40.40	79.03					
Total Carbon (%)	3.12	0.11	1.20	0.89	2.19					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	1.00		2.20		3.00		2.60		3.80	
Condition	Severely Degr.		Degraded		Meets Goal		Degraded		Meets Goal	
# Attributes Scored	5		5		5		5		5	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	0.00	1	2.70	5	2.48	3	2.29	3	2.44	3
Abundance (#/m2)	0	1	954	3	1522	5	3022	3	1568	5
Biomass (g/m2)	0.00	1	0.52	1	0.79	1	61.53	1	172.38	1
Pollution Indicative Spp Abund (%)	100.00	1	21.43	1	8.96	5	49.62	1	1.45	5
Pollution Indicative Spp Biom (%)	100.00		45.95		1.45		0.11		0.00	
Pollution Sensitive Spp Abund (%)	0.00		16.67		19.40		23.31		44.93	
Pollution Sensitive Spp Biom (%)	0.00	1	4.16	1	34.68	1	99.81	5	99.58	5
Carnivore-Omnivore Abund (%)	0.00		7.14		11.94		11.28		11.59	
Deep Deposit Feeder Abund (%)	0.00		38.10		76.12		20.30		43.48	
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		6.00		0.00		6.12		6.05	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		100.00		100.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	22116	22117	22118	22119	22120
Amerocolodes species complex		23			
Carinoma tremaphoros		23		23	45
Coelotanypus spp.				68	23
Cyathura polita				250	114
Eteone heteropoda		23	23		
Glycinde solitaria			23		
Heteromastus filiformis		204	500	45	91
Leitoscoloplos fragilis		159			
Leptocheirus plumulosus				159	68
Littoridinops tenuipes (Epi.)		45			
Macoma balthica			23		500
Macoma mitchelli		318	45	23	45
Marenzelleria viridis		68		409	23
Mediomastus ambiseta			250		
Melita nitida (Epi.)					23
Micrura leidyi		23			
Mulinia lateralis		23			
Mya arenaria		68			
Mytilopsis leucophaeata (Epi.)		23			
Neanthes succinea			136		
Rangia cuneata		23		45	68
Streblospio benedicti			114	1431	
Tubificoides spp.			409	568	591
Total Abundance w/ Epifauna	0	1022	1522	3022	1590
Total Abundance w/o Epifauna		954	1522	3022	1568
Number of Taxa w/ Epifauna	0	13	9	10	11
Number of Taxa w/o Epifauna	0	11	9	10	10

BENTHIC BIOMASS (Grams per sq. meter)					
Site	22116	22117	22118	22119	22120
Amerocolodes species complex		0.0011			
Carinoma tremaphoros		0.0011		0.0091	0.0273
Coelotanypus spp.				0.0159	0.0068
Cyathura polita				0.1590	0.8452
Eteone heteropoda		0.0500	0.0045		
Glycinde solitaria			0.0045		
Heteromastus filiformis		0.0659	0.2636	0.0023	0.0659
Leitoscoloplos fragilis		0.1840			
Leptocheirus plumulosus				0.0227	0.0159
Littoridinops tenuipes (Epi.)		0.0045			
Macoma balthica			0.2522		43.1884
Macoma mitchelli		0.0932	0.0795	0.0011	0.5862
Marenzelleria viridis		0.0114		0.8338	0.2522
Mediomastus ambiseta			0.0159		
Melita nitida (Epi.)					0.0011
Micrura leidyi		0.0977			
Mulinia lateralis		0.0045			
Mya arenaria		0.0091			
Mytilopsis leucophaeata (Epi.)		0.0011			
Neanthes succinea			0.1522		
Rangia cuneata		0.0011		60.4193	127.3774
Streblospio benedicti			0.0068	0.0545	
Tubificoides spp.			0.0068	0.0091	0.0136
Total Biomass w/ Epifauna	0.0000	0.5248	0.7861	61.5269	172.3800
Total Biomass w/o Epifauna	0.0000	0.5192	0.7861	61.5269	172.3789

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22121	22122	22123	22124	22125
Watershed	Potomac R	Potomac R	Potomac R	Potomac R	Potomac R
Habitat	Low Mesohaline	Low Mesohaline	Oligohaline	Oligohaline	Freshwater
Date	09/03/15	09/03/15	09/01/15	09/01/15	09/01/15
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	2.0	6.2	6.4	1.1
Salinity (ppt)	7.29	8.05	1.31	0.56	0.19
Temperature (C)	26.95	26.87	26.44	26.34	27.78
Dissolved Oxygen (mg/L)	4.8	5.4	6.6	6.7	10.6
Sediment Silt-Clay (%)	94.91	93.80	95.39	92.92	95.02
Total Carbon (%)	1.31	2.08	3.17	2.61	2.52
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	2.60	2.60	2.67	2.33	4.00
Condition	Degraded	Degraded	Marginal	Degraded	Meets Goal
# Attributes Scored	5	5	6	6	4
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	2.94 5	2.00 3	1.46 3	2.49 3	2.16 5
Abundance (#/m2)	1363 3	4908 3	454 5	1340 5	2658 5
Biomass (g/m2)	0.50 1	1.50 3	59.21 3	44.15 3	0.74 3
Pollution Indicative Spp Abund (%)	30.00 1	51.39 1	55.00 1	62.71 1	70.09 1
Pollution Indicative Spp Biom (%)	8.22 1	5.59 1	0.07 1	0.64 1	97.22 1
Pollution Sensitive Spp Abund (%)	31.67 1	9.72 1	45.00 1	27.12 1	2.56 1
Pollution Sensitive Spp Biom (%)	72.15 3	69.49 3	99.93 3	98.84 3	2.78 3
Carnivore-Omnivore Abund (%)	28.33 1	12.96 1	5.00 1	13.56 1	35.04 1
Deep Deposit Feeder Abund (%)	0.00 1	23.15 1	50.00 1	64.41 1	64.96 5
TF Poll. Indicative Spp Abund (%)	0.00 1	0.00 1	0.00 1	0.00 1	62.39 3
Limnodrilus Abundance (%)	0.00 1	0.00 1	50.00 1	57.63 1	62.39 1
Oligo Poll. Indic. Spp Abund (%)	0.00 1	0.00 1	55.00 3	71.19 3	0.00 1
Oligo Poll. Sens. Spp Abund (%)	0.00 1	0.00 1	40.00 5	20.34 3	0.00 1
Tolerance Score	6.00 1	0.00 1	9.18 1	9.30 1	8.95 3
Tany./Chir. Abundance Ratio	0.00 1	0.00 1	100.00 1	100.00 1	15.79 1
BENTHIC ABUNDANCE (per sq. meter)					
Site	22121	22122	22123	22124	22125
Apocorophium lacustre (Epi.)	204	2068			
Aulodrilus pigueti					68
Boccardiella ligERICA	45	23			
Branchiura sowerbyi				91	
Carinoma tremaphoros	23				
Chaoborus punctipennis				23	
Coelotanypus spp.			23	68	136
Cryptochironomus spp.					454
Cyathura polita	295	295		68	68
Gammarus daiberi (Epi.)					591
Hirudinea (Epi.)					68
Leptocheirus plumulosus	136				
Limnodrilus hoffmeisteri				318	364
Macoma balthica	23	182			
Marenzelleria viridis	91		182	273	
Melita nitida (Epi.)	23				
Mytilopsis leucophaeata (Epi.)	23	23			
Neanthes succinea	68	341		23	
Paraprionospio pinnata	91				
Polydora cornuta	250	409			
Polypedilum halterale group					273
Rangia cuneata	23		23	23	
Rhithropanopeus harrisi (Epi.)	23	45			
Streblospio benedicti	318	2522			
Tubificidae imm w/o cap chaetae			227		
Tubificidae imm w/o cap chaetae *				454	1295

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter) - Contd.					
Site	22121	22122	22123	22124	22125
Tubificoides spp.		1136			
Total Abundance w/ Epifauna	1636	7043	454	1340	3317
Total Abundance w/o Epifauna	1363	4908	454	1340	2658
Number of Taxa w/ Epifauna	15	10	4	8	8
Number of Taxa w/o Epifauna	11	7	4	8	6
BENTHIC BIOMASS (Grams per sq. meter)					
Site	22121	22122	22123	22124	22125
Apocorophium lacustre (Epi.)	0.0227	0.1454			
Boccardiella ligerica	0.0023	0.0023			
Branchiura sowerbyi				0.2227	
Carinoma tremaphoros	0.0045				
Chaoborus punctipennis				0.0045	
Chironomidae					0.0409
Coelotanypus spp.			0.0068	0.0409	0.0182
Cyathura polita	0.2068	0.0659		0.0182	0.0204
Gammarus daiberi (Epi.)					0.2499
Hirudinea (Epi.)					0.0204
Leptocheirus plumulosus	0.0227				
Macoma balthica	0.0591	0.9792			
Marenzelleria viridis	0.0386		0.6612	0.4430	
Melita nitida (Epi.)	0.0023				
Mytilopsis leucophaeata (Epi.)	0.0386	0.5294			
Neanthes succinea	0.0591	0.3522		0.0045	
Oligochaeta			0.0318	0.2408	0.6566
Paraprionospio pinnata	0.0273				
Polydora cornuta	0.0091	0.0091			
Rangia cuneata	0.0545		58.5085	43.1771	
Rhithropanopeus harrisi (Epi.)	0.0636	0.2658			
Streblospio benedicti	0.0136	0.0841			
Tubificidae imm w/o cap chaetae			0.0011		
Tubificoides spp.		0.0114			
Total Biomass w/ Epifauna	0.6248	2.4447	59.2095	44.1518	1.0065
Total Biomass w/o Epifauna	0.4976	1.5041	59.2095	44.1518	0.7361

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22201	22202	22203	22204	22205
Watershed	Patuxent R	Patuxent R	Patuxent R	Patuxent R	Patuxent R
Habitat	High Meso Sand	High Meso Sand	High Meso Mud	High Meso Sand	High Meso Sand
Date	09/01/15	09/23/15	09/23/15	09/23/15	09/23/15
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)	5.6	0.8	14.1	12.5	1.1
Salinity (ppt)	15.31	15.38	15.67	15.62	14.99
Temperature (C)	23.93	23.78	23.43	24.02	23.45
Dissolved Oxygen (mg/L)	6.4	7.0	6.3	5.6	7.3
Sediment Silt-Clay (%)	6.38	1.74	93.73	32.13	4.42
Total Carbon (%)	0.13	0.18	3.41	1.28	0.21
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	4.00	2.67	2.33	1.67	2.33
Condition	Meets Goal	Marginal	Degraded	Severely Degr.	Degraded
# Attributes Scored	6	6	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	3.32 5	2.63 3	0.00 1	2.69 3	0.93 1
Abundance (#/m2)	1840 5	1136 3	23 1	863 1	8588 1
Biomass (g/m2)	0.28 1	0.66 1	0.09 1	0.96 1	3.12 5
Pollution Indicative Spp Abund (%)	12.35 3	18.00 3	0.00	57.89 1	2.12 5
Pollution Indicative Spp Biom (%)	7.60	8.62	0.00 5	53.62	0.29
Pollution Sensitive Spp Abund (%)	40.74 5	18.00 3	0.00	7.89 1	2.38 1
Pollution Sensitive Spp Biom (%)	32.80	2.41	0.00 1	29.18	0.58
Carnivore-Omnivore Abund (%)	53.09 5	28.00 3	100.00 5	23.68 3	6.35 1
Deep Deposit Feeder Abund (%)	7.41	2.00	0.00	18.42	2.91
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	22201	22202	22203	22204	22205
Acteocina canaliculata	23				
Americamysis bigelowi (Epi.)		23			
Ameroculodes species complex					23
Arcuatula papyria (Epi.)	114				
Carinoma tremaphoros					91
Edotea triloba (Epi.)	23				
Edwardsia elegans	136	45			114
Gemma gemma	114	477			7520
Geukensia demissa (Epi.)	114				
Glycera dibranchiata		23			
Glycinde solitaria	568	204		45	204
Haminoea solitaria	45				23
Hargeria rapax		45			23
Heteromastus filiformis	68	23			250
Ilyanassa trivittata					23
Leitoscoloplos robustus				45	
Leptocheirus plumulosus		23			
Lyonsia hyalina	23				
Macoma mitchelli	204	45		23	23
Marenzelleria viridis				23	
Microdeutopus gryllotalpa (Epi.)		295			182
Micrura leidyi	45	23			23
Molgula manhattensis (Epi.)	23				
Mulinia lateralis	204	23		45	
Neanthes succinea	114	23	23	91	45
Parahesion luteola				23	
Paraprionospio pinnata				409	
Pectinaria gouldii	23			23	

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter) - Contd.					
Site	22201	22202	22203	22204	22205
Phoronis spp.	159				
Podarkeopsis levifuscina	45				
Polydora cornuta					23
Rictaxis punctostriatus				23	23
Sigambra tentaculata				23	
Streblospio benedicti	23	182			182
Tubificoides spp.	45			91	
Total Abundance w/ Epifauna	2113	1454	23	863	8770
Total Abundance w/o Epifauna	1840	1136	23	863	8588
Number of Taxa w/ Epifauna	20	14	1	12	16
Number of Taxa w/o Epifauna	16	12	1	12	15
BENTHIC BIOMASS (Grams per sq. meter)					
Site	22201	22202	22203	22204	22205
Acteocina canaliculata	0.0091				
Americamysis bigelowi (Epi.)		0.0068			
Ameroculodes species complex					0.0045
Arcuatula papyria (Epi.)	0.1250				
Carinoma tremaphoros					0.0863
Edotea triloba (Epi.)	0.0068				
Edwardsia elegans	0.0045	0.0114			0.0682
Gemma gemma	0.0250	0.0364			1.5018
Geukensia demissa (Epi.)	0.0091				
Glycera dibranchiata		0.3340			
Glycinde solitaria	0.0295	0.0159		0.0068	0.0182
Haminoea solitaria	0.0023				0.0136
Hargeria rapax		0.0045			0.0182
Heteromastus filiformis	0.0523	0.0364			0.1931
Ilyanassa trivittata					1.0815
Leitoscoloplos robustus				0.0886	
Leptocheirus plumulosus		0.0068			
Lyonsia hyalina	0.0023				
Macoma mitchelli	0.0045	0.0091		0.0091	0.0011
Marenzelleria viridis				0.2726	
Microdeutopus gryllotalpa (Epi.)		0.0545			0.0523
Micrura leidyi	0.0341	0.0886			0.0318
Molgula manhattensis (Epi.)	0.4021				
Mulinia lateralis	0.0204	0.0477		0.1045	
Neanthes succinea	0.0250	0.0591	0.0932	0.1409	0.0727
Parahesione luteola				0.0023	
Paraprionospio pinnata				0.3204	
Pectinaria gouldii	0.0159			0.0045	
Phoronis spp.	0.0545				
Podarkeopsis levifuscina	0.0023				
Polydora cornuta					0.0091
Rictaxis punctostriatus				0.0011	0.0068
Sigambra tentaculata				0.0023	
Streblospio benedicti	0.0011	0.0091			0.0091
Tubificoides spp.	0.0011			0.0045	
Total Biomass w/ Epifauna	0.8270	0.7202	0.0932	0.9576	3.1683
Total Biomass w/o Epifauna	0.2840	0.6589	0.0932	0.9576	3.1160

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22206	22207	22208	22209	22210
Watershed	Patuxent R	Patuxent R	Patuxent R	Patuxent R	Patuxent R
Habitat	High Meso Sand	High Meso Mud	High Meso Mud	High Meso Sand	High Meso Mud
Date	09/23/15	09/23/15	09/23/15	09/23/15	09/23/15
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	8.2	5.2	2.7	6.4
Salinity (ppt)	15.25	15.59	14.95	14.55	14.92
Temperature (C)	23.56	24.56	24.36	23.52	24.28
Dissolved Oxygen (mg/L)	6.6	4.9	5.1	6.6	6.2
Sediment Silt-Clay (%)	11.84	60.40	51.55	18.56	77.40
Total Carbon (%)	0.58	2.31	1.58	0.60	2.34
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	3.33	2.00	3.67	2.33	3.33
Condition	Meets Goal	Severely Degr.	Meets Goal	Degraded	Meets Goal
# Attributes Scored	6	6	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	2.78 3	1.98 1	2.02 3	2.86 3	2.96 3
Abundance (#/m2)	1136 3	432 1	727 1	3703 3	1363 3
Biomass (g/m2)	0.60 1	0.44 1	3.49 5	1.52 3	1.03 3
Pollution Indicative Spp Abund (%)	4.00 5	26.32	0.00	54.60 1	41.67
Pollution Indicative Spp Biom (%)	20.45	11.89 3	0.00 5	50.56	4.07 5
Pollution Sensitive Spp Abund (%)	20.00 3	0.00	34.38	14.11 3	20.00
Pollution Sensitive Spp Biom (%)	9.85	0.00 1	66.34 3	31.61	3.74 1
Carnivore-Omnivore Abund (%)	36.00 5	42.11 5	37.50 5	15.34 1	55.00 5
Deep Deposit Feeder Abund (%)	36.00	0.00	28.13	24.54	6.67
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	0.00	0.00	0.00	3.07	5.00
Oligo Poll. Indic. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Oligo Poll. Sens. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Tolerance Score	0.00	0.00	0.00	9.80	9.80
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00
BENTHIC ABUNDANCE (per sq. meter)					
Site	22206	22207	22208	22209	22210
Ameroculodes species complex	23				
Amphiporus bioculatus	23				
Carinoma tremaphoros	68		45		68
Edotea triloba (Epi.)				68	
Epitonium rupicola (Epi.)	23				
Gemma gemma	114	136			
Glycinde solitaria	227			454	273
Heteromastus filiformis	341			114	
Leitoscoloplos robustus	45			23	
Macoma balthica			250	23	
Macoma mitchelli	182			273	23
Marenzelleria viridis				45	
Microdeutopus gryllotalpa (Epi.)	45				
Micrura leidyi	23		23	23	
Molgula manhattensis (Epi.)	23				
Mulinia lateralis				682	68
Mytilidae (Epi.)	23	23		23	
Neanthes succinea	23	91	182	45	250
Parahesion luteola		91		45	159
Paraprionospio pinnata		114		45	204
Pectinaria gouldii	23			23	23
Podarkeopsis levifuscina			23		
Rictaxis punctostriatus	45				
Streblospio benedicti				1159	227
Tubificidae imm w/o cap chaetae				114	68

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter) - Contd.					
Site	22206	22207	22208	22209	22210
Tubificoides spp.			204	636	
Total Abundance w/ Epifauna	1250	454	727	3794	1363
Total Abundance w/o Epifauna	1136	432	727	3703	1363
Number of Taxa w/ Epifauna	16	5	6	17	10
Number of Taxa w/o Epifauna	12	4	6	15	10
BENTHIC BIOMASS (Grams per sq. meter)					
Site	22206	22207	22208	22209	22210
Ameroculodes species complex	0.0045				
Amphiporus bioculatus	0.0023				
Carinoma tremaphoros	0.0227		0.1113		0.0432
Edotea triloba (Epi.)				0.0091	
Epitonium rupicola (Epi.)	0.0341				
Gemma gemma	0.0318	0.0011			
Glycinde solitaria	0.0591			0.0750	0.0386
Heteromastus filiformis	0.2613			0.1091	
Leitoscoloplos robustus	0.1227			0.2976	
Macoma balthica			2.3129	0.0818	
Macoma mitchelli	0.0159			0.0704	0.0023
Marenzelleria viridis				0.3226	
Microdeutopus gryllotalpa (Epi.)	0.0068				
Micrura leidyi	0.0523		0.1409	0.0159	
Molgula manhattensis (Epi.)	0.0863				
Mulinia lateralis				0.4408	0.0182
Mytilidae (Epi.)	0.0023	0.0045		0.0011	
Neanthes succinea	0.0159	0.3794	0.9156	0.0477	0.8861
Parahesion luteola		0.0068		0.0114	0.0182
Paraprionospio pinnata		0.0523		0.0023	0.0159
Pectinaria gouldii	0.0068			0.0068	0.0023
Podarkeopsis levifuscina			0.0011		
Rictaxis punctostriatus	0.0045				
Streblospio benedicti				0.0250	0.0068
Tubificidae imm w/o cap chaetae				0.0011	0.0011
Tubificoides spp.			0.0045	0.0091	
Total Biomass w/ Epifauna	0.7293	0.4442	3.4864	1.5268	1.0326
Total Biomass w/o Epifauna	0.5998	0.4396	3.4864	1.5166	1.0326

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22211	22212	22213	22215	22216
Watershed	Patuxent R	Patuxent R	Patuxent R	Patuxent R	Patuxent R
Habitat	High Meso Mud	High Meso Mud	High Meso Mud	High Meso Mud	High Meso Sand
Date	09/23/15	09/23/15	09/22/15	09/22/15	09/22/15
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)	6.6	7.5	2.5	2.6	0.8
Salinity (ppt)	14.25	15.59	12.70	12.62	12.65
Temperature (C)	23.71	24.86	23.50	23.27	23.48
Dissolved Oxygen (mg/L)	6.5	3.5	7.3	7.2	7.3
Sediment Silt-Clay (%)	89.68	89.66	73.31	53.99	27.13
Total Carbon (%)	2.98	2.77	2.15	1.66	0.84
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	1.67	1.00	3.00	4.00	4.00
Condition	Severely Degr.	Severely Degr.	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	0.81 1	0.00 1	1.92 1	3.19 5	2.92 3
Abundance (#/m2)	91 1	23 1	409 1	1681 5	1772 5
Biomass (g/m2)	0.10 1	0.01 1	1.71 3	1.77 3	5.06 5
Pollution Indicative Spp Abund (%)	75.00	100.00	0.00	27.03	5.13 5
Pollution Indicative Spp Biom (%)	55.56 1	100.00 1	0.00 5	25.85 3	4.04
Pollution Sensitive Spp Abund (%)	0.00	0.00	50.00	24.32	23.08 3
Pollution Sensitive Spp Biom (%)	0.00 1	0.00 1	87.04 3	34.51 3	61.43
Carnivore-Omnivore Abund (%)	25.00 5	0.00 1	33.33 5	40.54 5	32.05 3
Deep Deposit Feeder Abund (%)	0.00	0.00	16.67	24.32	35.90
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	0.00	0.00	0.00	9.46	0.00
Oligo Poll. Indic. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Oligo Poll. Sens. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Tolerance Score	0.00	0.00	0.00	9.80	0.00
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00
BENTHIC ABUNDANCE (per sq. meter)					
Site	22211	22212	22213	22215	22216
Carinoma tremaphoros			45	91	91
Diadumene leucolena (Epi.)				45	
Eteone heteropoda					23
Glycinde solitaria				273	68
Heteromastus filiformis			45	182	364
Macoma balthica			204	136	318
Macoma mitchelli				159	159
Marenzelleria viridis					23
Micrura leidyi					23
Mulinia lateralis				114	23
Neanthes succinea	23		91	318	364
Paraprionospio pinnata	68	23			
Streblospio benedicti				182	45
Tubificidae imm w/o cap chaetae				159	
Tubificoides spp.			23	68	273
Total Abundance w/ Epifauna	91	23	409	1727	1772
Total Abundance w/o Epifauna	91	23	409	1681	1772
Number of Taxa w/ Epifauna	2	1	5	11	12
Number of Taxa w/o Epifauna	2	1	5	10	12
BENTHIC BIOMASS (Grams per sq. meter)					
Site	22211	22212	22213	22215	22216
Carinoma tremaphoros			0.0182	0.0364	0.0227
Diadumene leucolena (Epi.)				0.0011	
Eteone heteropoda					0.0023

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter) - Contd.					
Site	22211	22212	22213	22215	22216
Glycinde solitaria				0.0432	0.0159
Heteromastus filiformis			0.0364	0.1272	0.2613
Macoma balthica			1.4882	0.5680	2.8196
Macoma mitchelli				0.0500	0.6680
Marenzelleria viridis					0.2726
Micrura leidyi					0.2090
Mulinia lateralis				0.4453	0.1977
Neanthes succinea	0.0454		0.1659	0.4862	0.5794
Paraprionospio pinnata	0.0568	0.0114			
Streblospio benedicti				0.0114	0.0045
Tubificidae imm w/o cap chaetae				0.0011	
Tubificoides spp.			0.0011	0.0023	0.0068
Total Biomass w/ Epifauna	0.1022	0.0114	1.7097	1.7722	5.0597
Total Biomass w/o Epifauna	0.1022	0.0114	1.7097	1.7710	5.0597

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22217	22220	22221	22222	22223
Watershed	Patuxent R	Patuxent R	Patuxent R	Patuxent R	Patuxent R
Habitat	High Meso Sand	Low Mesohaline	Low Mesohaline	Low Mesohaline	Oligohaline
Date	09/22/15	09/22/15	09/22/15	09/22/15	09/22/15
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044

BOTTOM ENVIRONMENT

Depth (m)	1.5	1.3	1.9	2.5	0.5
Salinity (ppt)	12.94	11.01	11.50	10.26	2.12
Temperature (C)	23.77	23.46	23.50	23.42	22.76
Dissolved Oxygen (mg/L)	6.4	7.4	6.8	7.0	6.6
Sediment Silt-Clay (%)	14.28	90.26	71.35	80.66	87.34
Total Carbon (%)	0.48	2.53	2.43	2.86	3.99

BENTHIC INDEX OF BIOTIC INTEGRITY

B-IBI Score	3.00		3.40		4.20		3.80		1.80	
	Meets Goal		Meets Goal		Meets Goal		Meets Goal		Severely Degr.	
# Attributes Scored	6		5		5		5		5	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	3.08	3	2.54	5	2.18	3	2.35	3	1.02	
Abundance (#/m2)	2976	5	454	1	818	3	1045	3	636	5
Biomass (g/m2)	1.46	3	1.33	3	5.32	5	4.53	3	0.15	
Pollution Indicative Spp Abund (%)	36.64	1	5.00	5	0.00	5	0.00	5	96.43	
Pollution Indicative Spp Biom (%)	6.40		0.51		0.00		0.00		92.31	
Pollution Sensitive Spp Abund (%)	19.08	3	45.00		50.00		34.78		0.00	
Pollution Sensitive Spp Biom (%)	22.46		95.04	3	85.68	5	92.08	5	0.00	
Carnivore-Omnivore Abund (%)	27.48	3	45.00		25.00		30.43		0.00	1
Deep Deposit Feeder Abund (%)	48.09		25.00		33.33		39.13		96.43	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	21.37		0.00		0.00		0.00		96.43	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		0.00		100.00	1
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	1
Tolerance Score	9.80		6.20		0.00		0.00		9.80	1
Tany./Chir. Abundance Ratio	0.00		100.00		0.00		0.00		0.00	

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	22217	22220	22221	22222	22223
Amphiporus bioculatus	23				
Carinoma tremaphoros	68	91	91	227	
Coelotanypus spp.		23			
Cyathura polita		91	114	91	
Cyclaspis varians	91				
Edotea triloba (Epi.)	23				
Eteone heteropoda	68				
Glycinde solitaria	523				
Heteromastus filiformis	659		250	114	
Leptocheirus plumulosus		23			23
Limnodrilus hoffmeisteri					159
Macoma balthica	45	91	295	273	
Macoma mitchelli	204		45	45	
Marenzelleria viridis		23			
Melita nitida (Epi.)		23			
Mulinia lateralis	91				
Neanthes succinea	136				
Streblospio benedicti	295				
Tubificidae imm w/o cap chaetae	636				
Tubificidae imm w/o cap chaetae *					454
Tubificoides spp.	136	114	23	295	
Total Abundance w/ Epifauna	2999	477	818	1045	636
Total Abundance w/o Epifauna	2976	454	818	1045	636
Number of Taxa w/ Epifauna	14	8	6	6	2
Number of Taxa w/o Epifauna	13	7	6	6	2
BENTHIC BIOMASS (Grams per sq. meter)					
Site	22217	22220	22221	22222	22223
Amphiporus bioculatus	0.0023				
Carinoma tremaphoros	0.0682	0.0273	0.0273	0.1613	
Coelotanypus spp.		0.0068			
Cyathura polita		0.3294	0.6930	0.6066	
Cyclaspis varians	0.0023				
Edotea triloba (Epi.)	0.0011				
Eteone heteropoda	0.0159				
Glycinde solitaria	0.0318				
Heteromastus filiformis	0.7248		0.3885	0.0204	
Leptocheirus plumulosus		0.0273			0.0114
Macoma balthica	0.2954	0.7975	3.8669	3.5670	
Macoma mitchelli	0.0204		0.3453	0.1749	
Marenzelleria viridis		0.1363			
Melita nitida (Epi.)		0.0011			
Mulinia lateralis	0.0454				
Neanthes succinea	0.2158				
Oligochaeta					0.1363
Streblospio benedicti	0.0136				
Tubificidae imm w/o cap chaetae	0.0182				
Tubificoides spp.	0.0023	0.0045	0.0011	0.0023	
Total Biomass w/ Epifauna	1.4575	1.3303	5.3222	4.5326	0.1477
Total Biomass w/o Epifauna	1.4564	1.3291	5.3222	4.5326	0.1477

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22224	22225	22226	22227	22228
Watershed	Patuxent R	Patuxent R	Patuxent R	Patuxent R	Patuxent R
Habitat	Oligohaline	Oligohaline	High Meso Mud	High Meso Sand	High Meso Sand
Date	09/22/15	09/22/15	09/22/15	09/23/15	09/23/15
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)	4.5	3.3	3.5	2.2	0.8
Salinity (ppt)	1.26	1.19	13.17	15.37	15.41
Temperature (C)	22.64	22.60	23.72	24.17	23.98
Dissolved Oxygen (mg/L)	6.2	6.1	7.1	5.6	6.7
Sediment Silt-Clay (%)	57.18	49.89	47.79	5.06	4.01
Total Carbon (%)	6.19	4.53	1.31	0.68	0.25
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	2.00	2.33	4.33	1.67	3.33
Condition	Severely Degr.	Degraded	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	1.36	1.50	2.03	0.28	2.95
Abundance (#/m2)	4249	1977	1022	125619	1659
Biomass (g/m2)	0.55	0.82	6.38	55.33	1.11
Pollution Indicative Spp Abund (%)	96.26	95.40	8.89	0.04	4.11
Pollution Indicative Spp Biom (%)	84.35	100.00	0.12	0.12	18.16
Pollution Sensitive Spp Abund (%)	0.00	0.00	57.78	0.31	9.59
Pollution Sensitive Spp Biom (%)	0.00	0.00	88.22	0.05	3.47
Carnivore-Omnivore Abund (%)	1.07	1.15	28.89	2.95	20.55
Deep Deposit Feeder Abund (%)	96.79	98.85	8.89	0.14	13.70
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	92.51	89.66	4.44	0.00	0.00
Oligo Poll. Indic. Spp Abund (%)	97.33	100.00	0.00	0.00	0.00
Oligo Poll. Sens. Spp Abund (%)	0.53	0.00	0.00	0.00	0.00
Tolerance Score	9.60	9.79	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	22224	22225	22226	22227	22228
Ameroculodes species complex					45
Amphiporus bioculatus				45	
Arcuatula papyria (Epi.)				136	
Aulodrilus pigueti	159				
Boccardiella ligerica	45				
Branchiura sowerbyi	23				
Carinoma tremaphoros			91	23	
Chiridotea almyra	23				
Chironomus spp.		23			
Edotea triloba (Epi.)				91	
Edwardsia elegans				409	
Gammarus daiberi (Epi.)	1454				
Gemma gemma				121370	591
Geukensia demissa (Epi.)				204	
Glycinde solitaria				386	159
Haminoea solitaria					45
Heteromastus filiformis				91	227
Laeonereis culveri					68
Leptosynapta tenuis					23
Limnodrilus hoffmeisteri	1204	727			
Littoridinops tenuipes (Epi.)					23
Macoma balthica			591		
Macoma mitchelli				295	159
Microdeutopus gryllotalpa (Epi.)				114	
Microprotopus raneyi (Epi.)					136
Micrura leidy				45	23
Molgula manhattensis (Epi.)				91	136
Mulinia lateralis				45	68

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter) - Contd.					
Site	22224	22225	22226	22227	22228
<i>Neanthes succinea</i>			91	2772	23
<i>Parahelesione luteola</i>			114		23
<i>Parvilucina crenella</i>					204
<i>Pectinaria gouldii</i>				68	
<i>Pisidium</i> spp.	45				
<i>Podarkeopsis levifuscina</i>				23	
<i>Polydora cornuta</i>				23	
<i>Polypedilum halterale</i> group	23				
<i>Quistadrilus multisetosus</i>		91			
<i>Streblospio benedicti</i>			45		
<i>Stylochus ellipticus</i> (Epi.)				45	23
Tubificidae imm w cap chaetae		91			
Tubificidae imm w/o cap chaetae			45		
Tubificidae imm w/o cap chaetae *	2726	1045			
<i>Tubificoides</i> spp.			45	23	
Total Abundance w/ Epifauna	5703	1977	1022	126300	1977
Total Abundance w/o Epifauna	4249	1977	1022	125619	1659
Number of Taxa w/ Epifauna	8	4	7	20	17
Number of Taxa w/o Epifauna	7	4	7	14	13
BENTHIC BIOMASS (Grams per sq. meter)					
Site	22224	22225	22226	22227	22228
<i>Ameroculodes</i> species complex					0.0114
<i>Amphiporus bioculatus</i>				0.0045	
<i>Arcuatula papyria</i> (Epi.)				0.0091	
<i>Boccardiella ligerica</i>	0.0011				
<i>Branchiura sowerbyi</i>	0.0659				
<i>Carinoma tremaphoros</i>			0.0613	0.0091	
<i>Chiridotea almyra</i>	0.0114				
<i>Chironomus</i> spp.		0.0204			
<i>Edotea triloba</i> (Epi.)				0.0182	
<i>Edwardsia elegans</i>				0.0795	
<i>Gammarus daiberi</i> (Epi.)	0.5430				
<i>Gemma gemma</i>				53.7260	0.0204
<i>Geukensia demissa</i> (Epi.)				0.0409	
<i>Glycinde solitaria</i>				0.0273	0.0386
<i>Haminoea solitaria</i>					0.0182
<i>Heteromastus filiformis</i>				0.0772	0.0523
<i>Laeonereis culveri</i>					0.6339
<i>Leptosynapta tenuis</i>					0.0454
<i>Littoridinops tenuipes</i> (Epi.)					0.0011
<i>Macoma balthica</i>			5.6255		
<i>Macoma mitchelli</i>				0.0114	0.0341
<i>Microdeutopus gryllotalpa</i> (Epi.)				0.0227	
<i>Microprotopus raneyi</i> (Epi.)					0.0136
<i>Micrura leidyi</i>				0.3976	0.0114
<i>Molgula manhattensis</i> (Epi.)				0.1136	0.0011
<i>Mulinia lateralis</i>				0.0682	0.2022
<i>Neanthes succinea</i>			0.6589	0.9065	0.0409
<i>Oligochaeta</i>	0.4654	0.7946			
<i>Parahelesione luteola</i>			0.0204		0.0023
<i>Parvilucina crenella</i>					0.0023
<i>Pectinaria gouldii</i>				0.0136	
<i>Pisidium</i> spp.	0.0068				
<i>Podarkeopsis levifuscina</i>				0.0023	
<i>Polydora cornuta</i>				0.0068	
<i>Polypedilum halterale</i> group	0.0011				
<i>Streblospio benedicti</i>			0.0068		
<i>Stylochus ellipticus</i> (Epi.)				0.0227	0.0045
Tubificidae imm w/o cap chaetae			0.0011		
<i>Tubificoides</i> spp.			0.0023	0.0023	
Total Biomass w/ Epifauna	1.0948	0.8151	6.3764	55.5595	1.1337
Total Biomass w/o Epifauna	0.5518	0.8151	6.3764	55.3323	1.1133

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22601	22602	22603	22604	22605
Watershed	Upper Bay	Upper Bay	Upper Bay	Upper Bay	Upper Bay
Habitat	High Meso Mud	Low Mesohaline	High Meso Mud	Low Mesohaline	High Meso Mud
Date	08/20/15	08/20/15	08/20/15	08/20/15	09/08/15
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044
BOTTOM ENVIRONMENT					
Depth (m)	11.3	7.1	9.8	6.8	4.6
Salinity (ppt)	14.00	10.07	12.25	9.16	12.32
Temperature (C)	26.37	26.70	26.43	26.80	26.44
Dissolved Oxygen (mg/L)	1.3	5.6	2.2	6.4	2.0
Sediment Silt-Clay (%)	72.62	87.01	97.49	95.45	53.98
Total Carbon (%)	3.11	3.79	2.63	3.56	1.81
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	1.33	2.60	1.00	4.20	3.00
Condition	Severely Degr.	Degraded	Severely Degr.	Meets Goal	Meets Goal
# Attributes Scored	6	5	6	5	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	1.75 1	2.50 3	1.30 1	2.51 5	2.43 3
Abundance (#/m2)	204 1	2499 5	227 1	1431 3	15268 1
Biomass (g/m2)	0.04 1	4.79 3	0.26 1	6.35 5	7.50 5
Pollution Indicative Spp Abund (%)	88.89	70.00 1	90.00	9.52 5	33.78
Pollution Indicative Spp Biom (%)	88.24 1	80.41	93.91 1	19.44	1.82 5
Pollution Sensitive Spp Abund (%)	11.11	8.18	0.00	23.81	2.38
Pollution Sensitive Spp Biom (%)	11.76 1	14.89 1	0.00 1	64.17 3	40.60 3
Carnivore-Omnivore Abund (%)	11.11 3	18.18	0.00 1	19.05	5.36 1
Deep Deposit Feeder Abund (%)	11.11	15.45	10.00	50.79	32.59
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	0.00	1.82	0.00	3.17	3.27
Oligo Poll. Indic. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Oligo Poll. Sens. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Tolerance Score	0.00	9.80	0.00	9.80	9.80
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00
BENTHIC ABUNDANCE (per sq. meter)					
Site	22601	22602	22603	22604	22605
Carinoma tremaphoros		136		114	23
Edwardsia elegans		23			
Eteone heteropoda		91			273
Glycinde solitaria	23	114			
Heteromastus filiformis		68	23	432	1636
Leitoscoloplos robustus		45			
Leitoscoloplos spp.	23				
Leptocheirus plumulosus					4703
Macoma balthica		68		341	364
Macoma mitchelli					23
Melita nitida (Epi.)					204
Micrura leidyi		23			
Mulinia lateralis		227		91	
Mya arenaria		23			
Neanthes succinea		68		159	523
Paraprionospio pinnata	91		136		
Streblospio benedicti	68	1340	68		4385
Tubificidae imm w/o cap chaetae		45		45	500
Tubificoides spp.		227		250	2840
Total Abundance w/ Epifauna	204	2499	227	1431	15472
Total Abundance w/o Epifauna	204	2499	227	1431	15268
Number of Taxa w/ Epifauna	4	14	3	7	11
Number of Taxa w/o Epifauna	4	14	3	7	10

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	22601	22602	22603	22604	22605
Carinoma tremaphoros		0.0568		0.0295	0.0011
Edwardsia elegans		0.0159			
Eteone heteropoda		0.0159			0.0386
Glycinde solitaria	0.0045	0.1045			
Heteromastus filiformis		0.1022	0.0159	0.5180	1.2587
Leitoscoloplos robustus		0.8111			
Leitoscoloplos spp.	0.0182				
Leptocheirus plumulosus					1.2564
Macoma balthica		0.5680		4.0760	3.0445
Macoma mitchelli					0.0068
Melita nitida (Epi.)					0.0250
Micrura leidyi		0.0318			
Mulinia lateralis		2.9513		1.2337	
Mya arenaria		0.0409			
Neanthes succinea		0.0114		0.4862	1.7517
Paraprionospio pinnata	0.0136		0.2408		
Streblospio benedicti	0.0023	0.0727	0.0045		0.0704
Tubificidae imm w/o cap chaetae		0.0011		0.0011	0.0273
Tubificoides spp.		0.0068		0.0068	0.0432
Total Biomass w/ Epifauna	0.0386	4.7905	0.2613	6.3514	7.5237
Total Biomass w/o Epifauna	0.0386	4.7905	0.2613	6.3514	7.4987

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22606	22607	22608	22609	22611
Watershed	Upper Bay	Upper Bay	Upper Bay	Upper Bay	Upper Bay
Habitat	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline
Date	09/08/15	08/20/15	09/08/15	09/08/15	08/20/15
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
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	3.80	3.00	3.80	4.20	3.80
Condition	Meets Goal	Meets Goal	Meets Goal	Meets Goal	Meets Goal
# Attributes Scored	5	5	5	5	5
Shannon-Wiener Index	Value 2.72 Score 5	Value 2.26 Score 3	Value 2.14 Score 3	Value 2.61 Score 5	Value 2.87 Score 5
Abundance (#/m2)	4953 3	500 1	2227 5	4544 3	8043 1
Biomass (g/m2)	3.49 3	2.37 3	2.10 3	9.21 5	21.50 3
Pollution Indicative Spp Abund (%)	9.17 5	4.55 5	7.14 5	8.50 5	2.82 5
Pollution Indicative Spp Biom (%)	11.28	0.05	0.54	0.37	0.02
Pollution Sensitive Spp Abund (%)	15.60	18.18	7.14	14.00	31.36
Pollution Sensitive Spp Biom (%)	46.88 3	81.25 3	73.76 3	75.76 3	94.24 5
Carnivore-Omnivore Abund (%)	4.59	13.64	13.27	7.00	20.62
Deep Deposit Feeder Abund (%)	4.59	59.09	24.49	46.50	29.66
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	1.83	0.00	0.00	1.50	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	7.27	0.00	0.00	9.80	0.00
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	22606	22607	22608	22609	22611
Ameroculodes species complex	114				
Carinoma tremaphoros		68			250
Cyathura polita	68				795
Edotea triloba (Epi.)					23
Edwardsia elegans	45				613
Eteone heteropoda	91		159	114	
Glycinde solitaria			45		
Heteromastus filiformis	91	182	545	704	659
Leitoscoloplos robustus	23				
Lepidactylus dytiscus	1272				
Leptocheirus plumulosus	227		1136	1272	1999
Macoma balthica		91	23	250	1340
Macoma mitchelli	1931	23	136		45
Marenzelleria viridis	500		68	386	386
Melita nitida (Epi.)				114	
Micrura leidyi			23		
Mulinia lateralis	227				
Mya arenaria	23		23		
Neanthes succinea	23		68	204	
Rangia cuneata	182				
Streblospio benedicti	23	23		204	227
Tubificidae imm w/o cap chaetae	91			68	
Tubificoides spp.	23	114		1340	1727
Total Abundance w/ Epifauna	4953	500	2227	4658	8066
Total Abundance w/o Epifauna	4953	500	2227	4544	8043
Number of Taxa w/ Epifauna	17	6	10	10	11
Number of Taxa w/o Epifauna	17	6	10	9	10

BENTHIC BIOMASS (Grams per sq. meter)					
Site	22606	22607	22608	22609	22611
Ameroculodes species complex	0.0182				
Carinoma tremaphoros		0.0500			0.0500
Cyathura polita	0.0591				1.6245
Edotea triloba (Epi.)					0.0011
Edwardsia elegans	0.0250				0.1091
Eteone heteropoda	0.0136		0.0114	0.0318	
Glycinde solitaria			0.0023		
Heteromastus filiformis	0.1204	0.3862	0.2295	0.4953	0.2363
Leitoscoloplos robustus	0.1681				
Lepidactylus dytiscus	0.5362				
Leptocheirus plumulosus	0.0364		0.2090	0.3772	0.5521
Macoma balthica		1.9244	0.2136	6.2594	18.1783
Macoma mitchelli	0.7043	0.0023	0.0295		0.2522
Marenzelleria viridis	1.1224		0.0454	0.7202	0.4567
Melita nitida (Epi.)				0.0068	
Micrura leidyi			0.0045		
Mulinia lateralis	0.2090				
Mya arenaria	0.3635		1.2905		
Neanthes succinea	0.0204		0.0682	1.3041	
Rangia cuneata	0.0932				
Streblospio benedicti	0.0023	0.0011		0.0011	0.0045
Tubificidae imm w/o cap chaetae	0.0011			0.0011	
Tubificoides spp.	0.0011	0.0045		0.0227	0.0341
Total Biomass w/ Epifauna	3.4943	2.3686	2.1039	9.2198	21.4988
Total Biomass w/o Epifauna	3.4943	2.3686	2.1039	9.2130	21.4977

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22612	22613	22615	22616	22617
Watershed	Upper Bay	Upper Bay	Upper Bay	Upper Bay	Upper Bay
Habitat	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline	Oligohaline
Date	09/08/15	09/09/15	09/09/15	09/09/15	08/24/15
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)	4.5	2.8	3.4	4.8	4.6
Salinity (ppt)	6.94	7.07	5.96	5.56	2.43
Temperature (C)	26.54	27.10	26.91	27.04	26.56
Dissolved Oxygen (mg/L)	6.1	5.9	6.1	6.4	6.8
Sediment Silt-Clay (%)	89.55	80.70	69.61	86.54	74.52
Total Carbon (%)	1.94	1.47	3.59	1.88	1.91
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	3.00	2.20	3.00	3.40	3.33
Condition	Meets Goal	Degraded	Meets Goal	Meets Goal	Meets Goal
# Attributes Scored	5	5	5	5	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	1.93 3	2.15 3	2.30 3	2.95 5	1.66
Abundance (#/m2)	10315 1	18517 1	8247 1	2999 3	1727 5
Biomass (g/m2)	5.13 5	84.99 1	23.41 3	1.97 3	29.45
Pollution Indicative Spp Abund (%)	64.54 1	62.45 1	14.88 3	33.33 1	14.47
Pollution Indicative Spp Biom (%)	4.25	0.29	0.40	1.27	0.04
Pollution Sensitive Spp Abund (%)	22.91	23.07	60.88	26.52	80.26
Pollution Sensitive Spp Biom (%)	89.99 5	99.49 5	98.04 5	83.54 5	94.23
Carnivore-Omnivore Abund (%)	9.69	14.60	16.53	27.27	7.89 1
Deep Deposit Feeder Abund (%)	7.93	4.91	13.22	12.88	11.84
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	0.00	0.25	0.00	0.00	10.53
Oligo Poll. Indic. Spp Abund (%)	0.00	0.00	0.00	0.00	19.74 5
Oligo Poll. Sens. Spp Abund (%)	0.00	0.00	0.00	0.00	71.05 5
Tolerance Score	0.00	6.38	6.00	6.04	8.58 3
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	100.00	100.00 1
BENTHIC ABUNDANCE (per sq. meter)					
Site	22612	22613	22615	22616	22617
Ameroculodes species complex				23	
Apocorophium lacustre (Epi.)		13041	1454		
Carinoma tremaphoros	182	364	295	409	23
Coelotanypus spp.				23	23
Corbicula fluminea					23
Cyathura polita	591	1749	1068	341	91
Edotea triloba (Epi.)		364		23	
Eteone heteropoda	182	432		45	
Gammarus daiberi (Epi.)		45			
Heteromastus filiformis	136	23			
Hobsonia florida		704	477	136	
Leptocheirus plumulosus	182	68	91	182	45
Limnodrilus hoffmeisteri		45			
Macoma balthica	273				
Macoma mitchelli	68	136	23	68	
Marenzelleria viridis	1500	2113	3840	364	1227
Mediomastus ambiseta					23
Melita nitida (Epi.)	23	341	23	23	
Mytilopsis leucophaeata (Epi.)	68	1272	68		
Neanthes succinea	45	159			
Polydora cornuta		386	23		
Rangia cuneata		409	114	91	45
Rhithropanopeus harrisii (Epi.)			23		
Streblospio benedicti	6475	11087	1227	932	45
Stylochus ellipticus (Epi.)		1068			
Tubificidae imm w/o cap chaetae					182

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter) - Contd.					
Site	22612	22613	22615	22616	22617
Tubificoides spp.	682	841	1091	386	
Total Abundance w/ Epifauna	10406	34648	9815	3044	1727
Total Abundance w/o Epifauna	10315	18517	8247	2999	1727
Number of Taxa w/ Epifauna	13	20	14	14	10
Number of Taxa w/o Epifauna	11	14	10	12	10
BENTHIC BIOMASS (Grams per sq. meter)					
Site	22612	22613	22615	22616	22617
Ameroculodes species complex				0.0023	
Apocorophium lacustre (Epi.)		1.9607	0.1068		
Carinoma tremaphoros	0.0364	0.0932	0.0386	0.0454	0.0545
Coelotanypus spp.				0.0011	0.0011
Corbicula fluminea					1.6177
Cyathura polita	0.7657	1.0474	0.8974	0.1931	0.0432
Edotea triloba (Epi.)		0.0454		0.0023	
Eteone heteropoda	0.0204	0.0386		0.0011	
Gammarus daiberi (Epi.)		0.0091			
Heteromastus filiformis	0.0341	0.0023			
Hobsonia florida		0.0432	0.0023	0.0227	
Leptocheirus plumulosus	0.0227	0.0045	0.0045	0.0227	0.0159
Limnodrilus hoffmeisteri		0.0011			
Macoma balthica	1.4745				
Macoma mitchelli	0.0977	0.0011	0.2704	0.1863	
Marenzelleria viridis	2.3765	3.2944	11.1419	0.6612	2.2879
Mediomastus ambiseta					0.0023
Melita nitida (Epi.)	0.0023	0.0295	0.0011	0.0023	
Mytilopsis leucophaeata (Epi.)	0.3294	0.5476	0.2227		
Neanthes succinea	0.0954	0.0227			
Oligochaeta					0.0068
Polydora cornuta		0.0068	0.0273		
Rangia cuneata		80.2152	10.9147	0.7952	25.4123
Rhithropanopeus harrisi (Epi.)			0.0500		
Streblospio benedicti	0.1977	0.2068	0.0932	0.0227	0.0023
Stylochus ellipticus (Epi.)		0.0568			
Tubificidae imm w/o cap chaetae					0.0011
Tubificoides spp.	0.0091	0.0159	0.0227	0.0204	
Total Biomass w/ Epifauna	5.4619	87.6424	23.7935	1.9789	29.4451
Total Biomass w/o Epifauna	5.1302	84.9932	23.4130	1.9744	29.4451

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22619	22620	22621	22622	22623
Watershed	Upper Bay	Upper Bay	Upper Bay	Upper Bay	Upper Bay
Habitat	Freshwater	Oligohaline	Freshwater	Freshwater	Freshwater
Date	08/24/15	09/09/15	08/24/15	08/24/15	08/24/15
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	1.0	5.4	6.7	1.9
Salinity (ppt)	0.35	0.82	0.14	0.14	0.13
Temperature (C)	26.56	27.30	26.43	26.97	26.41
Dissolved Oxygen (mg/L)	6.1	7.7	8.1	8.6	10.5
Sediment Silt-Clay (%)	75.86	6.76	88.19	33.71	27.30
Total Carbon (%)	3.84	0.13	4.19	2.28	1.29
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	3.00	3.00	3.00	3.50	2.00
Condition	Meets Goal	Meets Goal	Meets Goal	Meets Goal	Severely Degr.
# Attributes Scored	4	6	4	4	4
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	1.99	2.39	2.13	2.59	2.23
Abundance (#/m2)	5203 3	1818 5	2658 5	4362 3	7498 1
Biomass (g/m2)	124.01	0.46	50.60	2.45	1.57
Pollution Indicative Spp Abund (%)	73.36	60.00	71.79	65.63	83.33
Pollution Indicative Spp Biom (%)	0.51	14.91	1.37	10.42	47.47
Pollution Sensitive Spp Abund (%)	22.71	8.75	19.66	14.06	2.73
Pollution Sensitive Spp Biom (%)	97.83	70.90	97.77	15.80	16.23
Carnivore-Omnivore Abund (%)	1.31	13.75 1	0.85	17.71	14.55
Deep Deposit Feeder Abund (%)	73.36 3	77.50	76.92 3	60.42 5	81.52 3
TF Poll. Indicative Spp Abund (%)	73.36 3	0.00	70.94 3	60.42 3	72.12 3
Limnodrilus Abundance (%)	73.36	60.00	70.94	60.42	72.12
Oligo Poll. Indic. Spp Abund (%)	0.00	86.25 3	0.00	0.00	0.00
Oligo Poll. Sens. Spp Abund (%)	0.00	3.75 3	0.00	0.00	0.00
Tolerance Score	9.21 3	9.63 1	9.57 1	8.98 3	9.53 1
Tany./Chir. Abundance Ratio	0.00	0.00 5	100.00	40.00	21.28
BENTHIC ABUNDANCE (per sq. meter)					
Site	22619	22620	22621	22622	22623
Apocorophium lacustre (Epi.)	91				204
Arcteonais lomondi					295
Branchiura sowerbyi			91		
Chiridotea almyra		23			
Chironomus spp.					750
Coelotanypus spp.			23	136	91
Corbicula fluminea	204			636	91
Cryptochironomus spp.		45		45	45
Cyathura polita	68	114		432	23
Dero digitata					204
Gammarus daiberi (Epi.)	45				
Harnischia spp.				45	
Ilyodrilus templetoni			68		
Leptocheirus plumulosus		91			
Limnodrilus hoffmeisteri	1500	227	909	1181	1250
Marenzelleria viridis	591	45	454	182	182
Musculium transversum			68	23	23
Mytilopsis leucophaeata (Epi.)		23			
Pisidium spp.		23		114	
Polypedilum halterale group		68		23	45
Procladius spp.					136
Rangia cuneata	523		68		
Tubificidae imm w cap chaetae		318			
Tubificidae imm w/o cap chaetae *	2317	863	977	1454	4158
Total Abundance w/ Epifauna	5339	1840	2658	4362	7498
Total Abundance w/o Epifauna	5203	1818	2658	4362	7498
Number of Taxa w/ Epifauna	7	10	7	11	13
Number of Taxa w/o Epifauna	5	9	7	11	13

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	22619	22620	22621	22622	22623
Apocorophium lacustre (Epi.)	0.0023				
Branchiura sowerbyi			0.4203		0.4635
Chiridotea almyra		0.0023			
Chironomidae		0.0011		0.0011	0.0273
Chironomus spp.				0.0364	0.2545
Coelotanypus spp.			0.0114	0.0091	0.0068
Corbicula fluminea	2.0562			1.7881	0.1045
Cyathura polita	0.1636	0.3204		0.1522	0.0045
Gammarus daiberi (Epi.)	0.0045				
Leptocheirus plumulosus		0.0613			
Marenzelleria viridis	1.5813	0.0091	1.1701	0.2340	0.2499
Musculium transversum			0.0114	0.0023	0.0011
Mytilopsis leucophaeata (Epi.)		0.0091			
Oligochaeta	0.6348	0.0682	0.6843	0.2083	0.4557
Pisidium spp.		0.0023		0.0136	
Rangia cuneata	119.5776		48.3073		
Total Biomass w/ Epifauna	124.0203	0.4737	50.6047	2.4451	1.5678
Total Biomass w/o Epifauna	124.0135	0.4646	50.6047	2.4451	1.5678

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

Site	22624	22626	22627	22628	22629
Watershed	Upper Bay	Upper Bay	Upper Bay	Upper Bay	Upper Bay
Habitat	Freshwater	Oligohaline	Low Mesohaline	Low Mesohaline	Oligohaline
Date	08/24/15	08/24/15	09/08/15	08/20/15	09/09/15
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)	1.0	12.4	4.5	3.5	1.8
Salinity (ppt)	0.13	3.03	7.38	8.74	1.05
Temperature (C)	27.00	26.72	26.56	26.84	27.18
Dissolved Oxygen (mg/L)	9.9	5.5	5.6	6.7	7.1
Sediment Silt-Clay (%)	47.58	85.40	86.34	5.47	75.27
Total Carbon (%)	1.79	2.38	1.66	0.07	2.89
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	4.00	2.67	3.00	3.40	2.67
Condition	Meets Goal	Marginal	Meets Goal	Meets Goal	Marginal
# Attributes Scored	4	6	5	5	6
	Value	Score	Value	Score	Value
Shannon-Wiener Index	2.57	1.38	2.43	3	2.61
Abundance (#/m2)	1522	5	5771	3	1500
Biomass (g/m2)	1.08	0.73	3.93	3	1.90
Pollution Indicative Spp Abund (%)	59.70	28.00	35.04	1	0.00
Pollution Indicative Spp Biom (%)	36.75	0.46	0.93	0.00	5
Pollution Sensitive Spp Abund (%)	13.43	64.00	44.09	16.67	10.75
Pollution Sensitive Spp Biom (%)	27.64	97.37	90.89	5	22.63
Carnivore-Omnivore Abund (%)	49.25	4.00	16.54	18.18	1
Deep Deposit Feeder Abund (%)	34.33	5	24.00	2.36	9.09
TF Poll. Indicative Spp Abund (%)	20.90	5	0.00	0.00	0.00
Limnodrilus Abundance (%)	20.90	24.00	0.00	0.00	79.57
Oligo Poll. Indic. Spp Abund (%)	0.00	36.00	3	0.00	88.17
Oligo Poll. Sens. Spp Abund (%)	0.00	64.00	5	0.00	4.30
Tolerance Score	9.42	1	9.29	1	6.00
Tany./Chir. Abundance Ratio	0.00	100.00	1	0.00	50.00

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2015 (CRUISE 01:2015/2016) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	22624	22626	22627	22628	22629
Amerocolodes species complex			159		
Apocorophium lacustre (Epi.)					182
Balanus improvisus (Epi.)			68		
Branchiura sowerbyi	204				
Carinoma tremaphoros			318		
Chironomus spp.	591				
Coelotanypus spp.		23			23
Corbicula fluminea	45				
Cryptochironomus spp.					23
Cyathura polita	159		568	182	45
Eteone heteropoda			45		
Gammarus daiberi (Epi.)					68
Heteromastus filiformis			23	136	
Ischadium recurvum (Epi.)			23		
Lepidactylus dytiscus				250	
Leptocheirus plumulosus		45	477	409	159
Limnodrilus hoffmeisteri	204	136			454
Macoma balthica			23	23	
Macoma mitchelli			45	364	
Marenzelleria viridis	45	364	1954		91
Melita nitida (Epi.)			204		
Musculium transversum	159				
Mytilopsis leucophaeata (Epi.)			45		
Neanthes succinea			23	91	
Polydora cornuta			45		
Rangia cuneata				45	91
Streblospio benedicti			1977		
Tubificidae imm w/o cap chaetae *	114				1227
Tubificoides spp.			114		
Total Abundance w/ Epifauna	1522	568	6112	1500	2363
Total Abundance w/o Epifauna	1522	568	5771	1500	2113
Number of Taxa w/ Epifauna	7	4	17	8	9
Number of Taxa w/o Epifauna	7	4	13	8	7
BENTHIC BIOMASS (Grams per sq. meter)					
Site	22624	22626	22627	22628	22629
Amerocolodes species complex			0.0091		
Apocorophium lacustre (Epi.)					0.0091
Balanus improvisus (Epi.)			0.5748		
Branchiura sowerbyi	0.3067				
Carinoma tremaphoros			0.1568		
Chironomus spp.	0.3794				
Coelotanypus spp.		0.0023			0.0011
Corbicula fluminea	0.0477				
Cryptochironomus spp.					0.0011
Cyathura polita	0.2499		0.6793	0.1363	0.0591
Eteone heteropoda			0.0045		
Gammarus daiberi (Epi.)					0.0068
Heteromastus filiformis			0.0011	0.0500	
Ischadium recurvum (Epi.)			3.6988		
Lepidactylus dytiscus				0.1295	
Leptocheirus plumulosus		0.0159	0.0954	0.1545	0.0523
Limnodrilus hoffmeisteri		0.0011			
Macoma balthica			0.2090	0.2908	
Macoma mitchelli			0.0011	1.0883	
Marenzelleria viridis	0.0500	0.7157	2.6810		0.3794
Melita nitida (Epi.)			0.0114		
Musculium transversum	0.0318				
Mytilopsis leucophaeata (Epi.)			0.4771		
Neanthes succinea			0.0545	0.0454	
Oligochaeta	0.0193				0.2626
Polydora cornuta			0.0011		
Rangia cuneata				0.0023	89.0874
Streblospio benedicti			0.0318		
Tubificoides spp.			0.0023		
Total Biomass w/ Epifauna	1.0849	0.7350	8.6893	1.8971	89.8589
Total Biomass w/o Epifauna	1.0849	0.7350	3.9272	1.8971	89.8430