

**CHESAPEAKE BAY WATER QUALITY
MONITORING PROGRAM**

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

JULY 1984 - DECEMBER 2011 (VOLUME 2)

Prepared for

Maryland Department of Natural Resources
Resource Assessment Service
Tidewater Ecosystem Assessments
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TABLE OF CONTENTS

VOLUME 2

	Page
DATA SUMMARIES	
A BENTHIC ENVIRONMENT AND COMMUNITY COMPOSITION AT FIXED SITES: SUMMER 2011.....	A-1
B BENTHIC ENVIRONMENT AND COMMUNITY COMPOSITION AT THE MARYLAND BAY RANDOM SITES: SUMMER 2011	B-1

DATA SUMMARY A

**BENTHIC ENVIRONMENT AND COMMUNITY
COMPOSITION AT FIXED SITES:
SUMMER 2011**

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 001		Rep: 01
Watershed: Mainstem	Habitat: High Mesohaline Sand	Date: 26AUG11
Gear: Modified Box Corer	Sampled Area: 0.025 sq.m	Time: 11:33:22
BOTTOM ENVIRONMENT		
Depth (m): 2.6	Salinity (ppt): 14.16	Temperature (C): 26.47
Dissolved Oxygen (mg/l): 7.9	Sediment Silt-Clay (%): 1.09	Total Carbon (%): 0.08
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 2.00	Condition: Severely Degr.	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	2.80 3	Pollution Indicative Species Abundance (%) 25.58 1
Abundance (#/m2)	1720 5	Pollution Indicative Species Biomass (%) 8.26
Biomass (g/m2)	0.46 1	Pollution Sensitive Species Abundance (%) 2.33 1
Carnivore-Omnivore Abundance (%)	4.65 1	Pollution Sensitive Species Biomass (%) 0.87
Deep Deposit Feeder Abundance (%)	30.23	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Carinoma tremaphoros	80	0.00400
Gemma gemma	200	0.00200
Heteromastus filiformis	440	0.05200
Leitoscoloplos spp.	80	0.00400
Leptocheirus plumulosus	80	0.03600
Macoma mitchelli	400	0.31600
Mulinia lateralis	320	0.03200
Mya arenaria	40	0.00400
Neomysis americana (Epi)	40	0.00200
Paraonis fulgens	40	0.00800
Streblospio benedicti	40	0.00200
Total Abundance w/ Epi.	1760	
Total Abundance w/o Epi.	1720	
Number of Taxa w/ Epi.	11	
Number of Taxa w/o Epi.	10	
Total Biomass w/ Epi.		0.46200
Total Biomass w/o Epi.		0.46000

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 001		Rep: 02
Watershed: Mainstem	Habitat: High Mesohaline Sand	Date: 26AUG11
Gear: Modified Box Corer	Sampled Area: 0.025 sq.m	Time: 11:33:22
BOTTOM ENVIRONMENT		
Depth (m): 2.6	Salinity (ppt): 14.16	Temperature (C): 26.47
Dissolved Oxygen (mg/l): 7.9	Sediment Silt-Clay (%): 1.09	Total Carbon (%): 0.08
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 2.67	Condition: Marginal	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	2.64 3	Pollution Indicative Species Abundance (%) 18.60 3
Abundance (#/m2)	1720 5	Pollution Indicative Species Biomass (%) 24.07
Biomass (g/m2)	1.40 3	Pollution Sensitive Species Abundance (%) 4.65 1
Carnivore-Omnivore Abundance (%)	18.60 1	Pollution Sensitive Species Biomass (%) 14.90
Deep Deposit Feeder Abundance (%)	4.65	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Amphiporus bioculatus	40	0.03600
Carinoma tremaphoros	120	0.00400
Cyathura polita	40	0.18400
Edotea triloba (Epi)	80	0.00400
Gemma gemma	400	0.01200
Heteromastus filiformis	80	0.02800
Leptocheirus plumulosus	80	0.06800
Macoma mitchelli	480	0.01200
Marenzelleria viridis	40	0.02400
Micrura leidyi	80	0.68800
Mulinia lateralis	320	0.33600
Neanthes succinea	40	0.00400
Total Abundance w/ Epi.	1800	
Total Abundance w/o Epi.	1720	
Number of Taxa w/ Epi.	12	
Number of Taxa w/o Epi.	11	
Total Biomass w/ Epi.		1.40000
Total Biomass w/o Epi.		1.39600

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 001		Rep: 03
Watershed: Mainstem	Habitat: High Mesohaline Sand	Date: 26AUG11
Gear: Modified Box Corer	Sampled Area: 0.025 sq.m	Time: 11:33:22
BOTTOM ENVIRONMENT		
Depth (m): 2.6	Salinity (ppt): 14.16	Temperature (C): 26.47
Dissolved Oxygen (mg/l): 7.9	Sediment Silt-Clay (%): 1.09	Total Carbon (%): 0.08
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 2.00	Condition: Severely Degr.	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	2.26 1	Pollution Indicative Species Abundance (%) 20.41 3
Abundance (#/m2)	1960 5	Pollution Indicative Species Biomass (%) 34.47
Biomass (g/m2)	0.94 1	Pollution Sensitive Species Abundance (%) 0.00 1
Carnivore-Omnivore Abundance (%)	6.12 1	Pollution Sensitive Species Biomass (%) 0.00
Deep Deposit Feeder Abundance (%)	10.20	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Carinoma tremaphoros	40	0.00800
Edotea triloba (Epi)	120	0.01600
Gemma gemma	520	0.01600
Heteromastus filiformis	200	0.07200
Macoma mitchelli	680	0.22000
Micrura leidyi	40	0.27600
Mulinia lateralis	400	0.32400
Neanthes succinea	40	0.01200
Paraonis fulgens	40	0.01200
Total Abundance w/ Epi.	2080	
Total Abundance w/o Epi.	1960	
Number of Taxa w/ Epi.	9	
Number of Taxa w/o Epi.	8	
Total Biomass w/ Epi.		0.95600
Total Biomass w/o Epi.		0.94000

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 006		Rep: 01
Watershed: Calvert Cliffs Discharge	Habitat: High Mesohaline Sand	Date: 26AUG11
Gear: Modified Box Corer	Sampled Area: 0.025 sq.m	Time: 10:51:59
BOTTOM ENVIRONMENT		
Depth (m): 1.7	Salinity (ppt): 13.81	Temperature (C): 26.53
Dissolved Oxygen (mg/l): 6.5	Sediment Silt-Clay (%): 0.49	Total Carbon (%): 0.01
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.00	Condition: Meets Goal	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	2.29 1	Pollution Indicative Species Abundance (%) 5.56 5
Abundance (#/m2)	2160 5	Pollution Indicative Species Biomass (%) 59.40
Biomass (g/m2)	2.26 3	Pollution Sensitive Species Abundance (%) 1.85 1
Carnivore-Omnivore Abundance (%)	31.48 3	Pollution Sensitive Species Biomass (%) 0.71
Deep Deposit Feeder Abundance (%)	0.00	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Carinoma tremaphoros	40	0.01600
Eteone heteropoda	40	0.00400
Gemma gemma	560	0.01200
Lepidactylus dytiscus	760	0.44800
Leptocheirus plumulosus	40	0.02400
Marenzelleria viridis	40	0.01600
Micrura leidyi	120	0.36000
Mulinia lateralis	80	1.33600
Neanthes succinea	480	0.04000
Total Abundance w/ Epi.	2160	
Total Abundance w/o Epi.	2160	
Number of Taxa w/ Epi.	9	
Number of Taxa w/o Epi.	9	
Total Biomass w/ Epi.		2.25600
Total Biomass w/o Epi.		2.25600

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 006		Rep: 02
Watershed: Calvert Cliffs Discharge	Habitat: High Mesohaline Sand	Date: 26AUG11
Gear: Modified Box Corer	Sampled Area: 0.025 sq.m	Time: 10:51:59
BOTTOM ENVIRONMENT		
Depth (m): 1.7	Salinity (ppt): 13.81	Temperature (C): 26.53
Dissolved Oxygen (mg/l): 6.5	Sediment Silt-Clay (%): 0.49	Total Carbon (%): 0.01
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 2.67	Condition: Marginal	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	2.04 1	Pollution Indicative Species Abundance (%) 1.79 5
Abundance (#/m2)	2240 5	Pollution Indicative Species Biomass (%) 2.64
Biomass (g/m2)	1.82 3	Pollution Sensitive Species Abundance (%) 0.00 1
Carnivore-Omnivore Abundance (%)	19.64 1	Pollution Sensitive Species Biomass (%) 0.00
Deep Deposit Feeder Abundance (%)	1.79	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Carinoma tremaphoros	40	0.00200
Gemma gemma	720	0.07600
Heteromastus filiformis	40	0.11600
Laeonereis culveri	40	0.34400
Lepidactylus dytiscus	960	0.60000
Macoma mitchelli	40	0.00200
Micrura leidyi	40	0.35600
Mulinia lateralis	40	0.04800
Neanthes succinea	320	0.27200
Total Abundance w/ Epi.	2240	
Total Abundance w/o Epi.	2240	
Number of Taxa w/ Epi.	9	
Number of Taxa w/o Epi.	9	
Total Biomass w/ Epi.		1.81600
Total Biomass w/o Epi.		1.81600

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 006		Rep: 03
Watershed: Calvert Cliffs Discharge	Habitat: High Mesohaline Sand	Date: 26AUG11
Gear: Modified Box Corer	Sampled Area: 0.025 sq.m	Time: 10:51:59
BOTTOM ENVIRONMENT		
Depth (m): 1.7	Salinity (ppt): 13.81	Temperature (C): 26.53
Dissolved Oxygen (mg/l): 6.5	Sediment Silt-Clay (%): 0.49	Total Carbon (%): 0.01
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 2.67	Condition: Marginal	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	1.79 1	Pollution Indicative Species Abundance (%) 7.69 5
Abundance (#/m2)	1040 3	Pollution Indicative Species Biomass (%) 0.66
Biomass (g/m2)	0.60 1	Pollution Sensitive Species Abundance (%) 7.69 1
Carnivore-Omnivore Abundance (%)	38.46 5	Pollution Sensitive Species Biomass (%) 5.98
Deep Deposit Feeder Abundance (%)	0.00	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Carinoma tremaphoros	40	0.00200
Lepidactylus dytiscus	480	0.34400
Marenzelleria viridis	80	0.03600
Mulinia lateralis	80	0.00400
Neanthes succinea	360	0.21600
Total Abundance w/ Epi.	1040	
Total Abundance w/o Epi.	1040	
Number of Taxa w/ Epi.	5	
Number of Taxa w/o Epi.	5	
Total Biomass w/ Epi.		0.60200
Total Biomass w/o Epi.		0.60200

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 015		Rep: 01
Watershed: Mainstem	Habitat: High Mesohaline Sand	Date: 26AUG11
Gear: Modified Box Corer	Sampled Area: 0.025 sq.m	Time: 9:23:49
BOTTOM ENVIRONMENT		
Depth (m): 2.5	Salinity (ppt): 12.78	Temperature (C): 25.43
Dissolved Oxygen (mg/l): 5.9	Sediment Silt-Clay (%): 3.59	Total Carbon (%): 0.09
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.00	Condition: Meets Goal	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	2.46 1	Pollution Indicative Species Abundance (%) 0.00 5
Abundance (#/m2)	2160 5	Pollution Indicative Species Biomass (%) 0.00
Biomass (g/m2)	2.05 3	Pollution Sensitive Species Abundance (%) 14.81 3
Carnivore-Omnivore Abundance (%)	7.41 1	Pollution Sensitive Species Biomass (%) 39.92
Deep Deposit Feeder Abundance (%)	16.67	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Carinoma tremaphoros	40	0.00800
Heteromastus filiformis	320	0.23200
Laeonereis culveri	40	0.07200
Lepidactylus dytiscus	520	0.08400
Leptocheirus plumulosus	720	0.28000
Macoma mitchelli	80	0.06800
Marenzelleria viridis	320	0.82000
Micrura leidyi	80	0.48800
Tubificoides spp.	40	0.00200
Total Abundance w/ Epi.	2160	
Total Abundance w/o Epi.	2160	
Number of Taxa w/ Epi.	9	
Number of Taxa w/o Epi.	9	
Total Biomass w/ Epi.		2.05400
Total Biomass w/o Epi.		2.05400

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 015		Rep: 02
Watershed: Mainstem	Habitat: High Mesohaline Sand	Date: 26AUG11
Gear: Modified Box Corer	Sampled Area: 0.025 sq.m	Time: 9:23:49
BOTTOM ENVIRONMENT		
Depth (m): 2.5	Salinity (ppt): 12.78	Temperature (C): 25.43
Dissolved Oxygen (mg/l): 5.9	Sediment Silt-Clay (%): 3.59	Total Carbon (%): 0.09
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.33	Condition: Meets Goal	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	2.18 1	Pollution Indicative Species Abundance (%) 0.00 5
Abundance (#/m2)	2640 5	Pollution Indicative Species Biomass (%) 0.00
Biomass (g/m2)	2.48 3	Pollution Sensitive Species Abundance (%) 45.45 5
Carnivore-Omnivore Abundance (%)	4.55 1	Pollution Sensitive Species Biomass (%) 66.99
Deep Deposit Feeder Abundance (%)	12.12	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Carinoma tremaphoros	40	0.06400
Heteromastus filiformis	320	0.20000
Laeonereis culveri	80	0.39600
Lepidactylus dytiscus	640	0.11600
Leptocheirus plumulosus	360	0.04400
Macoma balthica	80	0.01200
Marenzelleria viridis	1120	1.65200
Total Abundance w/ Epi.	2640	
Total Abundance w/o Epi.	2640	
Number of Taxa w/ Epi.	7	
Number of Taxa w/o Epi.	7	
Total Biomass w/ Epi.		2.48400
Total Biomass w/o Epi.		2.48400

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 015		Rep: 03
Watershed: Mainstem	Habitat: High Mesohaline Sand	Date: 26AUG11
Gear: Modified Box Corer	Sampled Area: 0.025 sq.m	Time: 9:23:49
BOTTOM ENVIRONMENT		
Depth (m): 2.5	Salinity (ppt): 12.78	Temperature (C): 25.43
Dissolved Oxygen (mg/l): 5.9	Sediment Silt-Clay (%): 3.59	Total Carbon (%): 0.09
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.00	Condition: Meets Goal	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	2.48 1	Pollution Indicative Species Abundance (%) 1.79 5
Abundance (#/m2)	2240 5	Pollution Indicative Species Biomass (%) 0.12
Biomass (g/m2)	1.71 3	Pollution Sensitive Species Abundance (%) 17.86 3
Carnivore-Omnivore Abundance (%)	3.57 1	Pollution Sensitive Species Biomass (%) 60.68
Deep Deposit Feeder Abundance (%)	14.29	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Heteromastus filiformis	320	0.19600
Lepidactylus dytiscus	560	0.12000
Leptocheirus plumulosus	640	0.10800
Macoma mitchelli	200	0.06800
Marenzelleria viridis	400	1.04000
Micrura leidyi	40	0.10800
Neanthes succinea	40	0.07200
Streblospio benedicti	40	0.00200
Total Abundance w/ Epi.	2240	
Total Abundance w/o Epi.	2240	
Number of Taxa w/ Epi.	8	
Number of Taxa w/o Epi.	8	
Total Biomass w/ Epi.		1.71400
Total Biomass w/o Epi.		1.71400

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 022		Rep: 01
Watershed: Patapsco & Back Rivers	Habitat: Low Mesohaline	Date: 22AUG11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 9:08:09
BOTTOM ENVIRONMENT		
Depth (m): 4.0	Salinity (ppt): 8.52	Temperature (C): 26.81
Dissolved Oxygen (mg/l): 2.6	Sediment Silt-Clay (%): 92.55	Total Carbon (%): 3.42
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 1.00	Condition: Severely Degr.	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	1.37 1	Pollution Indicative Species Abundance (%) 60.00 1
Abundance (#/m2)	225 1	Pollution Indicative Species Biomass (%) 6.25
Biomass (g/m2)	0.07 1	Pollution Sensitive Species Abundance (%) 0.00
Carnivore-Omnivore Abundance (%)	20.00	Pollution Sensitive Species Biomass (%) 0.00 1
Deep Deposit Feeder Abundance (%)	20.00	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Carinoma tremaphoros	45	0.02250
Heteromastus filiformis	45	0.04500
Littoridinops tenuipes (Epi)	180	0.02250
Streblospio benedicti	135	0.00450
Total Abundance w/ Epi.	405	
Total Abundance w/o Epi.	225	
Number of Taxa w/ Epi.	4	
Number of Taxa w/o Epi.	3	
Total Biomass w/ Epi.		0.09450
Total Biomass w/o Epi.		0.07200

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 022	Rep: 02
Gear: Wildco Box Corer		Habitat: Low Mesohaline	Date: 22AUG11
		Sampled Area: 0.022 sq.m	Time: 9:08:09
BOTTOM ENVIRONMENT			
Depth (m): 4.0	Salinity (ppt): 8.52	Temperature (C): 26.81	
Dissolved Oxygen (mg/l): 2.6	Sediment Silt-Clay (%): 92.55	Total Carbon (%): 3.42	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 1.00	Condition: Severely Degr.		# Attributes Scored: 5
	Value	Score	Value Score
Shannon-Wiener Index	0.72	1	Pollution Indicative Species Abundance (%) 80.00 1
Abundance (#/m2)	450	1	Pollution Indicative Species Biomass (%) 10.00
Biomass (g/m2)	0.05	1	Pollution Sensitive Species Abundance (%) 0.00
Carnivore-Omnivore Abundance (%)	20.00		Pollution Sensitive Species Biomass (%) 0.00 1
Deep Deposit Feeder Abundance (%)	0.00		
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Carinoma tremaphoros	90	0.04050	
Littoridinops tenuipes (Epi)	45	0.00225	
Mytilopsis leucophaeata (Epi)	45	0.13050	
Streblospio benedicti	360	0.00450	
Total Abundance w/ Epi.	540		
Total Abundance w/o Epi.	450		
Number of Taxa w/ Epi.	4		
Number of Taxa w/o Epi.	2		
Total Biomass w/ Epi.		0.17775	
Total Biomass w/o Epi.		0.04500	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 022		Rep: 03
Watershed: Patapsco & Back Rivers	Habitat: Low Mesohaline	Date: 22AUG11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 9:08:09
BOTTOM ENVIRONMENT		
Depth (m): 4.0	Salinity (ppt): 8.52	Temperature (C): 26.81
Dissolved Oxygen (mg/l): 2.6	Sediment Silt-Clay (%): 92.55	Total Carbon (%): 3.42
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 1.00	Condition: Severely Degr.	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	1.16 1	Pollution Indicative Species Abundance (%) 90.00 1
Abundance (#/m2)	450 1	Pollution Indicative Species Biomass (%) 23.08
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 (%)	30.00	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Heteromastus filiiformis	45	0.02250
Streblospio benedicti	315	0.00450
Tubificidae imm w/o cap chaetae	90	0.00225
Total Abundance w/ Epi.	450	
Total Abundance w/o Epi.	450	
Number of Taxa w/ Epi.	3	
Number of Taxa w/o Epi.	3	
Total Biomass w/ Epi.		0.02925
Total Biomass w/o Epi.		0.02925

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 023	Rep: 01
Gear: Wildco Box Corer		Habitat: Low Mesohaline	Date: 22AUG11
		Sampled Area: 0.022 sq.m	Time: 11:13:22
BOTTOM ENVIRONMENT			
Depth (m): 6.1	Salinity (ppt): 8.06	Temperature (C): 26.15	
Dissolved Oxygen (mg/l): 7.0	Sediment Silt-Clay (%): 61.17	Total Carbon (%): 3.72	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 3.80	Condition: Meets Goal		# Attributes Scored: 5
	Value	Score	Value Score
Shannon-Wiener Index	2.26	3	Pollution Indicative Species Abundance (%) 0.00 5
Abundance (#/m2)	1125	3	Pollution Indicative Species Biomass (%) 0.00
Biomass (g/m2)	2.13	3	Pollution Sensitive Species Abundance (%) 52.00
Carnivore-Omnivore Abundance (%)	36.00		Pollution Sensitive Species Biomass (%) 92.19 5
Deep Deposit Feeder Abundance (%)	8.00		
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Carinoma tremaphoros	225	0.03150	
Heteromastus filiformis	90	0.07650	
Leptocheirus plumulosus	45	0.00450	
Macoma balthica	495	1.66500	
Marenzelleria viridis	45	0.00450	
Neanthes succinea	180	0.05400	
Rangia cuneata	45	0.29700	
Total Abundance w/ Epi.	1125		
Total Abundance w/o Epi.	1125		
Number of Taxa w/ Epi.	7		
Number of Taxa w/o Epi.	7		
Total Biomass w/ Epi.		2.13300	
Total Biomass w/o Epi.		2.13300	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 023	Rep: 02
Gear: Wildco Box Corer		Habitat: Low Mesohaline	Date: 22AUG11
		Sampled Area: 0.022 sq.m	Time: 11:13:22
BOTTOM ENVIRONMENT			
Depth (m): 6.1	Salinity (ppt): 8.06	Temperature (C): 26.15	
Dissolved Oxygen (mg/l): 7.0	Sediment Silt-Clay (%): 61.17	Total Carbon (%): 3.72	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 3.80	Condition: Meets Goal		# Attributes Scored: 5
	Value	Score	Value Score
Shannon-Wiener Index	2.09	3	Pollution Indicative Species Abundance (%) 0.00 5
Abundance (#/m2)	765	3	Pollution Indicative Species Biomass (%) 0.00
Biomass (g/m2)	1.30	3	Pollution Sensitive Species Abundance (%) 52.94
Carnivore-Omnivore Abundance (%)	35.29		Pollution Sensitive Species Biomass (%) 92.01 5
Deep Deposit Feeder Abundance (%)	5.88		
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Carinoma tremaphoros	180	0.03150	
Heteromastus filiformis	45	0.01350	
Leptocheirus plumulosus	45	0.02700	
Littoridinops tenuipes (Epi)	90	0.00450	
Macoma balthica	360	1.02150	
Neanthes succinea	90	0.03150	
Rangia cuneata	45	0.17100	
Total Abundance w/ Epi.	855		
Total Abundance w/o Epi.	765		
Number of Taxa w/ Epi.	7		
Number of Taxa w/o Epi.	6		
Total Biomass w/ Epi.		1.30050	
Total Biomass w/o Epi.		1.29600	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 023	Rep: 03
Gear: Wildco Box Corer		Habitat: Low Mesohaline	Date: 22AUG11
		Sampled Area: 0.022 sq.m	Time: 11:13:22
BOTTOM ENVIRONMENT			
Depth (m): 6.1	Salinity (ppt): 8.06	Temperature (C): 26.15	
Dissolved Oxygen (mg/l): 7.0	Sediment Silt-Clay (%): 61.17	Total Carbon (%): 3.72	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 2.60	Condition: Degraded		# Attributes Scored: 5
	Value	Score	Value Score
Shannon-Wiener Index	3.02	5	Pollution Indicative Species Abundance (%) 16.67 3
Abundance (#/m2)	810	3	Pollution Indicative Species Biomass (%) 1.12
Biomass (g/m2)	0.61	1	Pollution Sensitive Species Abundance (%) 22.22
Carnivore-Omnivore Abundance (%)	50.00		Pollution Sensitive Species Biomass (%) 23.05 1
Deep Deposit Feeder Abundance (%)	11.11		
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Carinoma tremaphoros	180	0.02700	
Chironomus spp.	45	0.00225	
Eteone heteropoda	90	0.00450	
Leptocheirus plumulosus	45	0.00900	
Macoma balthica	135	0.12600	
Macoma mitchelli	90	0.23850	
Neanthes succinea	90	0.18000	
Rangia cuneata	45	0.01350	
Tubificoides spp.	90	0.00450	
Total Abundance w/ Epi.	810		
Total Abundance w/o Epi.	810		
Number of Taxa w/ Epi.	9		
Number of Taxa w/o Epi.	9		
Total Biomass w/ Epi.		0.60525	
Total Biomass w/o Epi.		0.60525	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 024		Rep: 01
Watershed: Mainstem	Habitat: High Mesohaline Mud	Date: 08SEP11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 9:45:45
BOTTOM ENVIRONMENT		
Depth (m): 7.0	Salinity (ppt): 5.99	Temperature (C): 23.89
Dissolved Oxygen (mg/l): 5.9	Sediment Silt-Clay (%): 91.91	Total Carbon (%): 2.15
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 2.00	Condition: Severely Degr.	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	0.91 1	Pollution Indicative Species Abundance (%) 0.67
Abundance (#/m2)	6705 1	Pollution Indicative Species Biomass (%) 0.34 5
Biomass (g/m2)	1.32 3	Pollution Sensitive Species Abundance (%) 0.67
Carnivore-Omnivore Abundance (%)	8.72 1	Pollution Sensitive Species Biomass (%) 22.91 1
Deep Deposit Feeder Abundance (%)	4.03	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Carinoma tremaphoros	180	0.02700
Heteromastus filiformis	180	0.02700
Leitoscoloplos spp.	45	0.00450
Leptocheirus plumulosus	5760	0.79200
Macoma balthica	45	0.30150
Macoma mitchelli	45	0.00450
Melita nitida (Epi)	45	0.00450
Neanthes succinea	405	0.15750
Tubificoides spp.	45	0.00225
Total Abundance w/ Epi.	6750	
Total Abundance w/o Epi.	6705	
Number of Taxa w/ Epi.	9	
Number of Taxa w/o Epi.	8	
Total Biomass w/ Epi.		1.32075
Total Biomass w/o Epi.		1.31625

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 024		Rep: 02
Watershed: Mainstem	Habitat: High Mesohaline Mud	Date: 08SEP11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 9:45:45
BOTTOM ENVIRONMENT		
Depth (m): 7.0	Salinity (ppt): 5.99	Temperature (C): 23.89
Dissolved Oxygen (mg/l): 5.9	Sediment Silt-Clay (%): 91.91	Total Carbon (%): 2.15
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.33	Condition: Meets Goal	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	1.37 1	Pollution Indicative Species Abundance (%) 3.13
Abundance (#/m2)	4320 3	Pollution Indicative Species Biomass (%) 0.22 5
Biomass (g/m2)	2.08 5	Pollution Sensitive Species Abundance (%) 2.08
Carnivore-Omnivore Abundance (%)	12.50 3	Pollution Sensitive Species Biomass (%) 31.53 3
Deep Deposit Feeder Abundance (%)	7.29	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Carinoma tremaphoros	270	0.03150
Cyathura polita	45	0.12150
Heteromastus filiformis	225	0.05400
Leptocheirus plumulosus	3330	0.40950
Macoma balthica	45	0.53550
Macoma mitchelli	45	0.43200
Melita nitida (Epi)	45	0.00225
Neanthes succinea	225	0.49500
Streblospio benedicti	45	0.00225
Tubificidae imm w/o cap chaetae	90	0.00225
Total Abundance w/ Epi.	4365	
Total Abundance w/o Epi.	4320	
Number of Taxa w/ Epi.	10	
Number of Taxa w/o Epi.	9	
Total Biomass w/ Epi.		2.08575
Total Biomass w/o Epi.		2.08350

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 024		Rep: 03
Watershed: Mainstem	Habitat: High Mesohaline Mud	Date: 08SEP11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 9:45:45
BOTTOM ENVIRONMENT		
Depth (m): 7.0	Salinity (ppt): 5.99	Temperature (C): 23.89
Dissolved Oxygen (mg/l): 5.9	Sediment Silt-Clay (%): 91.91	Total Carbon (%): 2.15
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 2.33	Condition: Degraded	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	1.18 1	Pollution Indicative Species Abundance (%) 3.23
Abundance (#/m2)	5580 1	Pollution Indicative Species Biomass (%) 0.28 5
Biomass (g/m2)	1.62 3	Pollution Sensitive Species Abundance (%) 3.23
Carnivore-Omnivore Abundance (%)	8.87 1	Pollution Sensitive Species Biomass (%) 57.30 3
Deep Deposit Feeder Abundance (%)	4.84	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Carinoma tremaphoros	225	0.00900
Heteromastus filiformis	135	0.00450
Leptocheirus plumulosus	4545	0.53550
Littoridinops tenuipes (Epi)	45	0.00225
Macoma balthica	180	0.92700
Neanthes succinea	270	0.13500
Streblospio benedicti	90	0.00225
Tubificidae imm w/o cap chaetae	90	0.00225
Tubificoides spp.	45	0.00225
Total Abundance w/ Epi.	5625	
Total Abundance w/o Epi.	5580	
Number of Taxa w/ Epi.	9	
Number of Taxa w/o Epi.	8	
Total Biomass w/ Epi.		1.62000
Total Biomass w/o Epi.		1.61775

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Upper Western Shore		Station: 026	Rep: 01
Gear: Wildco Box Corer		Habitat: Low Mesohaline	Date: 08SEP11
		Sampled Area: 0.022 sq.m	Time: 13:01:52
BOTTOM ENVIRONMENT			
Depth (m): 4.5	Salinity (ppt): 0.25	Temperature (C): 22.97	
Dissolved Oxygen (mg/l): 7.4	Sediment Silt-Clay (%): 92.84	Total Carbon (%): 3.68	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 4.60	Condition: Meets Goal		# Attributes Scored: 5
	Value	Score	Value Score
Shannon-Wiener Index	2.67	5	Pollution Indicative Species Abundance (%) 9.30 5
Abundance (#/m2)	1935	5	Pollution Indicative Species Biomass (%) 0.71
Biomass (g/m2)	1.60	3	Pollution Sensitive Species Abundance (%) 62.79
Carnivore-Omnivore Abundance (%)	37.21		Pollution Sensitive Species Biomass (%) 92.52 5
Deep Deposit Feeder Abundance (%)	2.33		
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Carinoma tremaphoros	90	0.00450	
Coelotanypus spp.	45	0.00900	
Cyathura polita	585	0.50400	
Gammarus daiberi (Epi)	45	0.02250	
Heteromastus filiformis	45	0.02250	
Leptocheirus plumulosus	360	0.04950	
Macoma mitchelli	45	0.03150	
Marenzelleria viridis	360	0.37350	
Rangia cuneata	270	0.59850	
Streblospio benedicti	135	0.00225	
Total Abundance w/ Epi.	1980		
Total Abundance w/o Epi.	1935		
Number of Taxa w/ Epi.	10		
Number of Taxa w/o Epi.	9		
Total Biomass w/ Epi.		1.61775	
Total Biomass w/o Epi.		1.59525	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Upper Western Shore		Station: 026		Rep: 02	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 08SEP11	
		Sampled Area: 0.022 sq.m		Time: 13:01:52	
BOTTOM ENVIRONMENT					
Depth (m): 4.5		Salinity (ppt): 0.25		Temperature (C): 22.97	
Dissolved Oxygen (mg/l): 7.4		Sediment Silt-Clay (%): 92.84		Total Carbon (%): 3.68	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 4.20		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.29	3	Pollution Indicative Species Abundance (%)	2.56	5
Abundance (#/m2)	1755	5	Pollution Indicative Species Biomass (%)	0.33	
Biomass (g/m2)	4.08	3	Pollution Sensitive Species Abundance (%)	79.49	
Carnivore-Omnivore Abundance (%)	33.33		Pollution Sensitive Species Biomass (%)	94.37	5
Deep Deposit Feeder Abundance (%)	2.56				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	90		0.00900		
Cyathura polita	495		0.51750		
Heteromastus filiformis	45		0.04050		
Leptocheirus plumulosus	135		0.00900		
Macoma mitchelli	45		0.15750		
Marenzelleria viridis	180		0.18450		
Rangia cuneata	720		3.14550		
Streblospio benedicti	45		0.01350		
Total Abundance w/ Epi.	1755				
Total Abundance w/o Epi.	1755				
Number of Taxa w/ Epi.	8				
Number of Taxa w/o Epi.	8				
Total Biomass w/ Epi.			4.07700		
Total Biomass w/o Epi.			4.07700		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 026		Rep: 03
Watershed: Upper Western Shore	Habitat: Low Mesohaline	Date: 08SEP11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 13:01:52
BOTTOM ENVIRONMENT		
Depth (m): 4.5	Salinity (ppt): 0.25	Temperature (C): 22.97
Dissolved Oxygen (mg/l): 7.4	Sediment Silt-Clay (%): 92.84	Total Carbon (%): 3.68
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 4.60	Condition: Meets Goal	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	2.63 5	Pollution Indicative Species Abundance (%) 5.77 5
Abundance (#/m2)	2340 5	Pollution Indicative Species Biomass (%) 0.10
Biomass (g/m2)	4.34 3	Pollution Sensitive Species Abundance (%) 67.31
Carnivore-Omnivore Abundance (%)	23.08	Pollution Sensitive Species Biomass (%) 98.13 5
Deep Deposit Feeder Abundance (%)	7.69	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Carinoma tremaphoros	45	0.00450
Cyathura polita	495	0.57150
Leptocheirus plumulosus	315	0.05850
Macoma mitchelli	90	0.00900
Marenzelleria viridis	405	1.16550
Rangia cuneata	675	2.52000
Streblospio benedicti	135	0.00450
Tubificoides spp.	180	0.00450
Total Abundance w/ Epi.	2340	
Total Abundance w/o Epi.	2340	
Number of Taxa w/ Epi.	8	
Number of Taxa w/o Epi.	8	
Total Biomass w/ Epi.		4.33800
Total Biomass w/o Epi.		4.33800

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 029		Rep: 01
Watershed: Upper Eastern Shore	Habitat: Oligohaline	Date: 29AUG11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 12:03:05
BOTTOM ENVIRONMENT		
Depth (m): 5.0	Salinity (ppt): 1.97	Temperature (C): 23.81
Dissolved Oxygen (mg/l): 6.3	Sediment Silt-Clay (%): 58.71	Total Carbon (%): 3.49
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 2.00	Condition: Severely Degr.	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	1.45	Oligohaline Pollution Indicative Spp. Abund. 85.00 3
Abundance (#/m2)	7200 1	Tolerance Score 9.47 1
Deep Deposit Feeder Abundance (%)	78.75	Oligohaline Pollution Sensitive Spp. Abund. 8.13 3
Carnivore-Omnivore Abundance (%)	6.25 1	Tanypodinae/Chironomidae Abundance Ratio 44.44 3
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Apocorophium lacustre (Epi)	90	0.00450
Chaoborus punctipennis	45	0.00900
Coelotanypus spp.	180	0.02250
Cryptochironomus spp.	225	0.00225
Gammarus daiberi (Epi)	405	0.04950
Leptocheirus plumulosus	270	0.08100
Limnodrilus hoffmeisteri	270	
Marenzelleria viridis	585	1.03500
Oligochaeta		0.53805
Rangia cuneata	225	92.84850
Tubificidae imm w/o cap chaetae *	5400	
Total Abundance w/ Epi.	7695	
Total Abundance w/o Epi.	7200	
Number of Taxa w/ Epi.	9	
Number of Taxa w/o Epi.	7	
Total Biomass w/ Epi.		94.59030
Total Biomass w/o Epi.		94.53630

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 029		Rep: 02
Watershed: Upper Eastern Shore	Habitat: Oligohaline	Date: 29AUG11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 12:03:05
BOTTOM ENVIRONMENT		
Depth (m): 5.0	Salinity (ppt): 1.97	Temperature (C): 23.81
Dissolved Oxygen (mg/l): 6.3	Sediment Silt-Clay (%): 58.71	Total Carbon (%): 3.49
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 1.67	Condition: Severely Degr.	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	1.50	Oligohaline Pollution Indicative Spp. Abund. 89.21 3
Abundance (#/m2)	6255 1	Tolerance Score 9.53 1
Deep Deposit Feeder Abundance (%)	82.01	Oligohaline Pollution Sensitive Spp. Abund. 7.91 3
Carnivore-Omnivore Abundance (%)	5.04 1	Tanypodinae/Chironomidae Abundance Ratio 100.00 1
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Coelotanypus spp.	270	0.04050
Cyathura polita	45	0.00225
Gammarus daiberi (Epi)	225	0.02250
Leptocheirus plumulosus	180	0.02700
Limnodrilus hoffmeisteri	675	
Marenzelleria viridis	495	0.84150
Oligochaeta		0.35416
Rangia cuneata	135	55.71900
Tubificidae imm w/o cap chaetae *	4455	
Total Abundance w/ Epi.	6480	
Total Abundance w/o Epi.	6255	
Number of Taxa w/ Epi.	7	
Number of Taxa w/o Epi.	6	
Total Biomass w/ Epi.		57.00691
Total Biomass w/o Epi.		56.98441

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 029		Rep: 03
Watershed: Upper Eastern Shore	Habitat: Oligohaline	Date: 29AUG11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 12:03:05
BOTTOM ENVIRONMENT		
Depth (m): 5.0	Salinity (ppt): 1.97	Temperature (C): 23.81
Dissolved Oxygen (mg/l): 6.3	Sediment Silt-Clay (%): 58.71	Total Carbon (%): 3.49
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 2.00	Condition: Severely Degr.	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	1.48	Oligohaline Pollution Indicative Spp. Abund. 91.20 3
Abundance (#/m2)	5625 1	Tolerance Score 9.59 1
Deep Deposit Feeder Abundance (%)	88.80	Oligohaline Pollution Sensitive Spp. Abund. 4.00 3
Carnivore-Omnivore Abundance (%)	1.60 1	Tanypodinae/Chironomidae Abundance Ratio 50.00 3
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Coelotanypus spp.	45	0.01350
Cryptochironomus spp.	45	0.00225
Gammarus daiberi (Epi)	135	0.01350
Leptocheirus plumulosus	90	0.03150
Limnodrilus hoffmeisteri	1350	
Marenzelleria viridis	225	0.35550
Oligochaeta		0.56962
Rangia cuneata	225	148.27950
Tubificidae imm w/o cap chaetae *	3645	
Total Abundance w/ Epi.	5760	
Total Abundance w/o Epi.	5625	
Number of Taxa w/ Epi.	7	
Number of Taxa w/o Epi.	6	
Total Biomass w/ Epi.		149.26537
Total Biomass w/o Epi.		149.25187

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 036	Rep: 01
Watershed: Potomac River	Date: 20SEP11
Habitat: Tidal Freshwater	Time: 8:04:43
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m

BOTTOM ENVIRONMENT

Depth (m): 2.0	Salinity (ppt): 0.15	Temperature (C): 19.63
Dissolved Oxygen (mg/l): 8.6	Sediment Silt-Clay (%): 81.00	Total Carbon (%): 2.69

BENTHIC INDEX OF BIOTIC INTEGRITY

B-IBI Score: 2.50	Condition: Degraded	# Attributes Scored: 3
	Value	Score
Shannon-Wiener Index	1.97	
Abundance (#/m2)	7695	1
Deep Deposit Feeder Abundance (%)	77.78	3
Carnivore-Omnivore Abundance (%)	16.37	
T.F. Pollution Indicative Spp. Abund. (%)	67.84	3
Tolerance Score	9.08	3
Limnodrilus Abundance (%)	67.84	

BENTHIC ABUNDANCE (per sq. meter)

TAXA	Abundance (#/m2)	Biomass (g/m2)
Aulodrilus pigueti	360	
Branchiura sowerbyi	225	0.28350
Chironomidae		0.00225
Chironomus spp.	405	
Coelotanypus spp.	765	0.13050
Corbicula fluminea	45	0.00450
Cryptochironomus spp.	45	
Limnodrilus hoffmeisteri	180	
Musculium transversum	135	0.00900
Oligochaeta		0.36150
Pisidium spp.	270	0.05400
Procladius spp.	45	
Tubificidae imm w cap chaetae	180	
Tubificidae imm w/o cap chaetae *	5040	
Total Abundance w/ Epi.	7695	
Total Abundance w/o Epi.	7695	
Number of Taxa w/ Epi.	11	
Number of Taxa w/o Epi.	11	
Total Biomass w/ Epi.		0.84525
Total Biomass w/o Epi.		0.84525

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 036		Rep: 02
Watershed: Potomac River	Habitat: Tidal Freshwater	Date: 20SEP11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 8:04:43
BOTTOM ENVIRONMENT		
Depth (m): 2.0	Salinity (ppt): 0.15	Temperature (C): 19.63
Dissolved Oxygen (mg/l): 8.6	Sediment Silt-Clay (%): 81.00	Total Carbon (%): 2.69
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.00	Condition: Meets Goal	# Attributes Scored: 3
	Value Score	Value Score
Shannon-Wiener Index	2.71	T.F. Pollution Indicative Spp. Abund. (%) 31.87 5
Abundance (#/m2)	8190 1	Tolerance Score 9.09 3
Deep Deposit Feeder Abundance (%)	79.67 3	Limnodrilus Abundance (%) 31.87
Carnivore-Omnivore Abundance (%)	13.19	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Branchiura sowerbyi	225	0.81000
Chironomidae		0.00225
Chironomus spp.	315	
Coelotanypus spp.	585	0.06750
Corbicula fluminea	45	0.00225
Cryptochironomus spp.	135	
Gammarus daiberi (Epi)	180	0.00900
Hirudinea (Epi)	45	0.00225
Limnodrilus hoffmeisteri	540	
Marenzelleria viridis	45	0.00450
Musculium transversum	180	0.00450
Nais variabilis	90	
Oligochaeta	3150	0.23400
Parachironomus spp.	45	
Pisidium spp.	315	0.08100
Tubificidae imm w cap chaetae	450	
Tubificidae imm w/o cap chaetae *	2070	
Total Abundance w/ Epi.	8415	
Total Abundance w/o Epi.	8190	
Number of Taxa w/ Epi.	15	
Number of Taxa w/o Epi.	13	
Total Biomass w/ Epi.		1.21725
Total Biomass w/o Epi.		1.20600

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 036		Rep: 03
Watershed: Potomac River	Habitat: Tidal Freshwater	Date: 20SEP11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 8:04:43
BOTTOM ENVIRONMENT		
Depth (m): 2.0	Salinity (ppt): 0.15	Temperature (C): 19.63
Dissolved Oxygen (mg/l): 8.6	Sediment Silt-Clay (%): 81.00	Total Carbon (%): 2.69
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 2.00	Condition: Severely Degr.	# Attributes Scored: 3
	Value Score	Value Score
Shannon-Wiener Index	1.97	T.F. Pollution Indicative Spp. Abund. (%) 73.13 3
Abundance (#/m2)	7200 1	Tolerance Score 9.40 1
Deep Deposit Feeder Abundance (%)	85.00 3	Limnodrilus Abundance (%) 73.13
Carnivore-Omnivore Abundance (%)	10.63	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Branchiura sowerbyi	315	0.81000
Chironomus spp.	180	0.00225
Coelotanypus spp.	585	0.08100
Hirudinea (Epi)	45	0.00900
Limnodrilus hoffmeisteri	945	
Musculium transversum	225	0.00900
Oligochaeta		0.67426
Pisidium spp.	90	0.03150
Tubificidae imm w cap chaetae	540	
Tubificidae imm w/o cap chaetae *	4320	
Total Abundance w/ Epi.	7245	
Total Abundance w/o Epi.	7200	
Number of Taxa w/ Epi.	8	
Number of Taxa w/o Epi.	7	
Total Biomass w/ Epi.		1.61701
Total Biomass w/o Epi.		1.60801

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Potomac River		Station: 040	Rep: 01
Gear: Wildco Box Corer		Habitat: Oligohaline	Date: 01SEP11
		Sampled Area: 0.022 sq.m	Time: 13:32:34
BOTTOM ENVIRONMENT			
Depth (m): 8.4	Salinity (ppt): 3.16	Temperature (C): 25.29	
Dissolved Oxygen (mg/l): 0.4	Sediment Silt-Clay (%): 93.60	Total Carbon (%): 2.44	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 4.00	Condition: Meets Goal		# Attributes Scored: 4
	Value	Score	Value Score
Shannon-Wiener Index	1.97		Oligohaline Pollution Indicative Spp. Abund. 45.45 3
Abundance (#/m2)	495	5	Tolerance Score 0.00
Deep Deposit Feeder Abundance (%)	0.00		Oligohaline Pollution Sensitive Spp. Abund. 9.09 3
Carnivore-Omnivore Abundance (%)	36.36	5	Tanypodinae/Chironomidae Abundance Ratio 0.00
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Ameroculodes species complex	45	0.00450	
Carinoma tremaphoros	45	0.00450	
Cyathura polita	135	0.04500	
Leptocheirus plumulosus	225	0.02700	
Marenzelleria viridis	45	0.42750	
Mysidae (Epi)	45	0.01800	
Total Abundance w/ Epi.	540		
Total Abundance w/o Epi.	495		
Number of Taxa w/ Epi.	6		
Number of Taxa w/o Epi.	5		
Total Biomass w/ Epi.		0.52650	
Total Biomass w/o Epi.		0.50850	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Potomac River		Station: 040	Rep: 02
Gear: Wildco Box Corer		Habitat: Oligohaline	Date: 01SEP11
		Sampled Area: 0.022 sq.m	Time: 13:32:34
BOTTOM ENVIRONMENT			
Depth (m): 8.4	Salinity (ppt): 3.16	Temperature (C): 25.29	
Dissolved Oxygen (mg/l): 0.4	Sediment Silt-Clay (%): 93.60	Total Carbon (%): 2.44	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 3.33	Condition: Meets Goal		# Attributes Scored: 6
	Value	Score	Value Score
Shannon-Wiener Index	2.64		Oligohaline Pollution Indicative Spp. Abund. 29.03 3
Abundance (#/m2)	1395	5	Tolerance Score 6.55 3
Deep Deposit Feeder Abundance (%)	3.23		Oligohaline Pollution Sensitive Spp. Abund. 29.03 5
Carnivore-Omnivore Abundance (%)	22.58	3	Tanypodinae/Chironomidae Abundance Ratio 100.00 1
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Americamysis bigelowi (Epi)	45	0.00450	
Ameroculodes species complex	90	0.00900	
Carinoma tremaphoros	90	0.00450	
Cyathura polita	180	0.11250	
Leptocheirus plumulosus	315	0.02250	
Littoridinops tenuipes (Epi)	90	0.00225	
Marenzelleria viridis	405	1.08900	
Procladius spp.	45	0.00225	
Rangia cuneata	225	37.25550	
Tubificoides spp.	45	0.00225	
Total Abundance w/ Epi.	1530		
Total Abundance w/o Epi.	1395		
Number of Taxa w/ Epi.	10		
Number of Taxa w/o Epi.	8		
Total Biomass w/ Epi.		38.50425	
Total Biomass w/o Epi.		38.49750	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Potomac River		Station: 040	Rep: 03
Gear: Wildco Box Corer		Habitat: Oligohaline	Date: 01SEP11
		Sampled Area: 0.022 sq.m	Time: 13:32:34
BOTTOM ENVIRONMENT			
Depth (m): 8.4	Salinity (ppt): 3.16	Temperature (C): 25.29	
Dissolved Oxygen (mg/l): 0.4	Sediment Silt-Clay (%): 93.60	Total Carbon (%): 2.44	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 3.67	Condition: Meets Goal		# Attributes Scored: 6
	Value	Score	Value Score
Shannon-Wiener Index	2.75		Oligohaline Pollution Indicative Spp. Abund. 17.24 5
Abundance (#/m2)	1305	5	Tolerance Score 7.16 3
Deep Deposit Feeder Abundance (%)	0.00		Oligohaline Pollution Sensitive Spp. Abund. 27.59 5
Carnivore-Omnivore Abundance (%)	34.48	3	Tanypodinae/Chironomidae Abundance Ratio 100.00 1
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Ameroculodes species complex	135	0.01800	
Carinoma tremaphoros	45	0.00225	
Chaoborus punctipennis	45	0.00450	
Cyathura polita	315	0.05400	
Leptocheirus plumulosus	180	0.01350	
Littoridinops tenuipes (Epi)	90	0.00225	
Macoma mitchelli	45	0.00450	
Marenzelleria viridis	360	0.61650	
Procladius spp.	45	0.00225	
Rangia cuneata	135	0.01350	
Total Abundance w/ Epi.	1395		
Total Abundance w/o Epi.	1305		
Number of Taxa w/ Epi.	10		
Number of Taxa w/o Epi.	9		
Total Biomass w/ Epi.		0.73125	
Total Biomass w/o Epi.		0.72900	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 043		Rep: 01
Watershed: Potomac River	Habitat: Low Mesohaline	Date: 19SEP11
Gear: Modified Box Corer	Sampled Area: 0.025 sq.m	Time: 12:14:13
BOTTOM ENVIRONMENT		
Depth (m): 3.0	Salinity (ppt): 6.35	Temperature (C): 23.05
Dissolved Oxygen (mg/l): 5.6	Sediment Silt-Clay (%): 2.31	Total Carbon (%): 0.07
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 2.60	Condition: Degraded	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	2.36 3	Pollution Indicative Species Abundance (%) 11.88 3
Abundance (#/m2)	4040 3	Pollution Indicative Species Biomass (%) 4.78
Biomass (g/m2)	0.92 1	Pollution Sensitive Species Abundance (%) 17.82
Carnivore-Omnivore Abundance (%)	17.82	Pollution Sensitive Species Biomass (%) 46.96 3
Deep Deposit Feeder Abundance (%)	8.91	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Apocorophium lacustre (Epi)	80	0.00400
Carinoma tremaphoros	40	0.01200
Eteone heteropoda	440	0.02800
Heteromastus filiiformis	40	0.13600
Leptocheirus plumulosus	240	0.05600
Macoma mitchelli	1960	0.15600
Marenzelleria viridis	640	0.42400
Mytilopsis leucophaeata (Epi)	40	0.01200
Neanthes succinea	240	0.06800
Rangia cuneata	80	0.00800
Streblospio benedicti	40	0.01600
Tubificoides spp.	320	0.01600
Total Abundance w/ Epi.	4160	
Total Abundance w/o Epi.	4040	
Number of Taxa w/ Epi.	12	
Number of Taxa w/o Epi.	10	
Total Biomass w/ Epi.		0.93600
Total Biomass w/o Epi.		0.92000

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Potomac River		Station: 043	Rep: 02
Gear: Modified Box Corer		Habitat: Low Mesohaline	Date: 19SEP11
		Sampled Area: 0.025 sq.m	Time: 12:14:13
BOTTOM ENVIRONMENT			
Depth (m): 3.0	Salinity (ppt): 6.35	Temperature (C): 23.05	
Dissolved Oxygen (mg/l): 5.6	Sediment Silt-Clay (%): 2.31	Total Carbon (%): 0.07	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 3.40	Condition: Meets Goal		# Attributes Scored: 5
	Value	Score	Value Score
Shannon-Wiener Index	2.46	3	Pollution Indicative Species Abundance (%) 5.04 5
Abundance (#/m2)	4760	3	Pollution Indicative Species Biomass (%) 0.95
Biomass (g/m2)	2.11	3	Pollution Sensitive Species Abundance (%) 30.25
Carnivore-Omnivore Abundance (%)	7.56		Pollution Sensitive Species Biomass (%) 62.62 3
Deep Deposit Feeder Abundance (%)	28.57		
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Apocorophium lacustre (Epi)	160	0.01200	
Eteone heteropoda	240	0.02000	
Heteromastus filiformis	240	0.38400	
Leptocheirus plumulosus	320	0.09600	
Macoma balthica	40	0.09600	
Macoma mitchelli	1280	0.22000	
Marenzelleria viridis	1360	1.21600	
Neanthes succinea	120	0.03600	
Rangia cuneata	40	0.00800	
Tubificoides spp.	1120	0.03200	
Total Abundance w/ Epi.	4920		
Total Abundance w/o Epi.	4760		
Number of Taxa w/ Epi.	10		
Number of Taxa w/o Epi.	9		
Total Biomass w/ Epi.		2.12000	
Total Biomass w/o Epi.		2.10800	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Potomac River		Station: 043	Rep: 03
Gear: Modified Box Corer		Habitat: Low Mesohaline	Date: 19SEP11
		Sampled Area: 0.025 sq.m	Time: 12:14:13
BOTTOM ENVIRONMENT			
Depth (m): 3.0	Salinity (ppt): 6.35	Temperature (C): 23.05	
Dissolved Oxygen (mg/l): 5.6	Sediment Silt-Clay (%): 2.31	Total Carbon (%): 0.07	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 3.00	Condition: Meets Goal		# Attributes Scored: 5
	Value	Score	Value Score
Shannon-Wiener Index	2.16	3	Pollution Indicative Species Abundance (%) 11.46 3
Abundance (#/m2)	3840	3	Pollution Indicative Species Biomass (%) 3.85
Biomass (g/m2)	1.04	3	Pollution Sensitive Species Abundance (%) 25.00
Carnivore-Omnivore Abundance (%)	11.46		Pollution Sensitive Species Biomass (%) 48.85 3
Deep Deposit Feeder Abundance (%)	5.21		
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Apocorophium lacustre (Epi)	160	0.01600	
Eteone heteropoda	360	0.03600	
Heteromastus filiformis	200	0.23200	
Leptocheirus plumulosus	240	0.04400	
Macoma mitchelli	1920	0.18000	
Marenzelleria viridis	840	0.49200	
Neanthes succinea	80	0.03600	
Rangia cuneata	120	0.01600	
Streblospio benedicti	80	0.00400	
Total Abundance w/ Epi.	4000		
Total Abundance w/o Epi.	3840		
Number of Taxa w/ Epi.	9		
Number of Taxa w/o Epi.	8		
Total Biomass w/ Epi.		1.05600	
Total Biomass w/o Epi.		1.04000	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Potomac River		Station: 044	Rep: 01
Gear: Wildco Box Corer		Habitat: Low Mesohaline	Date: 01SEP11
		Sampled Area: 0.022 sq.m	Time: 11:42:25
BOTTOM ENVIRONMENT			
Depth (m): 13.7	Salinity (ppt): 7.23	Temperature (C): 25.63	
Dissolved Oxygen (mg/l): 0.4	Sediment Silt-Clay (%): 82.92	Total Carbon (%): 1.98	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 1.80	Condition: Severely Degr.		# Attributes Scored: 5
	Value	Score	Value Score
Shannon-Wiener Index	0.00	1	Pollution Indicative Species Abundance (%) 0.00 5
Abundance (#/m2)	45	1	Pollution Indicative Species Biomass (%) 0.00
Biomass (g/m2)	0.02	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)	
Macoma mitchelli	45	0.01800	
Total Abundance w/ Epi.	45		
Total Abundance w/o Epi.	45		
Number of Taxa w/ Epi.	1		
Number of Taxa w/o Epi.	1		
Total Biomass w/ Epi.		0.01800	
Total Biomass w/o Epi.		0.01800	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Potomac River		Station: 044	Rep: 02
Gear: Wildco Box Corer		Habitat: Low Mesohaline	Date: 01SEP11
		Sampled Area: 0.022 sq.m	Time: 11:42:25
BOTTOM ENVIRONMENT			
Depth (m): 13.7	Salinity (ppt): 7.23	Temperature (C): 25.63	
Dissolved Oxygen (mg/l): 0.4	Sediment Silt-Clay (%): 82.92	Total Carbon (%): 1.98	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 1.00	Condition: Severely Degr.		# Attributes Scored: 5
	Value	Score	Value Score
Shannon-Wiener Index	1.58	1	Pollution Indicative Species Abundance (%) 33.33 1
Abundance (#/m2)	135	1	Pollution Indicative Species Biomass (%) 6.67
Biomass (g/m2)	0.03	1	Pollution Sensitive Species Abundance (%) 0.00
Carnivore-Omnivore Abundance (%)	66.67		Pollution Sensitive Species Biomass (%) 0.00 1
Deep Deposit Feeder Abundance (%)	33.33		
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Carinoma tremaphoros	45	0.00900	
Eteone heteropoda	45	0.00225	
Heteromastus filiformis	45	0.02250	
Total Abundance w/ Epi.	135		
Total Abundance w/o Epi.	135		
Number of Taxa w/ Epi.	3		
Number of Taxa w/o Epi.	3		
Total Biomass w/ Epi.		0.03375	
Total Biomass w/o Epi.		0.03375	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Potomac River		Station: 044	Rep: 03
Gear: Wildco Box Corer		Habitat: Low Mesohaline	Date: 01SEP11
		Sampled Area: 0.022 sq.m	Time: 11:42:25
BOTTOM ENVIRONMENT			
Depth (m): 13.7	Salinity (ppt): 7.23	Temperature (C): 25.63	
Dissolved Oxygen (mg/l): 0.4	Sediment Silt-Clay (%): 82.92	Total Carbon (%): 1.98	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 1.00	Condition: Severely Degr.		# Attributes Scored: 5
	Value	Score	Value Score
Shannon-Wiener Index	0.00	1	Pollution Indicative Species Abundance (%) 100.00 1
Abundance (#/m2)	0	1	Pollution Indicative Species Biomass (%) 100.00
Biomass (g/m2)	0.00	1	Pollution Sensitive Species Abundance (%) 0.00
Carnivore-Omnivore Abundance (%)	0.00		Pollution Sensitive Species Biomass (%) 0.00 1
Deep Deposit Feeder Abundance (%)	0.00		
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
No Organisms Present		0.00000	
Total Abundance w/ Epi.			
Total Abundance w/o Epi.			
Number of Taxa w/ Epi.	0		
Number of Taxa w/o Epi.	0		
Total Biomass w/ Epi.		0.00000	
Total Biomass w/o Epi.		0.00000	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Morgantown Discharge		Station: 047	Rep: 01
Gear: Modified Box Corer		Habitat: Low Mesohaline	Date: 19SEP11
		Sampled Area: 0.025 sq.m	Time: 11:26:19
BOTTOM ENVIRONMENT			
Depth (m): 3.0	Salinity (ppt): 6.52	Temperature (C): 23.01	
Dissolved Oxygen (mg/l): 5.9	Sediment Silt-Clay (%): 4.28	Total Carbon (%): 0.12	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 3.40	Condition: Meets Goal		# Attributes Scored: 5
	Value	Score	Value Score
Shannon-Wiener Index	2.55	5	Pollution Indicative Species Abundance (%) 20.00 3
Abundance (#/m2)	4400	3	Pollution Indicative Species Biomass (%) 1.09
Biomass (g/m2)	2.56	3	Pollution Sensitive Species Abundance (%) 29.09
Carnivore-Omnivore Abundance (%)	9.09		Pollution Sensitive Species Biomass (%) 73.65 3
Deep Deposit Feeder Abundance (%)	5.45		
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Eteone heteropoda	160	0.01200	
Heteromastus filiformis	160	0.06000	
Leptocheirus plumulosus	720	0.14000	
Littoridinops tenuipes (Epi)	40	0.00400	
Macoma mitchelli	1040	0.33600	
Marenzelleria viridis	1280	1.88400	
Neanthes succinea	240	0.10800	
Streblospio benedicti	720	0.01600	
Tubificoides spp.	80	0.00200	
Total Abundance w/ Epi.	4440		
Total Abundance w/o Epi.	4400		
Number of Taxa w/ Epi.	9		
Number of Taxa w/o Epi.	8		
Total Biomass w/ Epi.		2.56200	
Total Biomass w/o Epi.		2.55800	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 047		Rep: 02
Watershed: Morgantown Discharge	Habitat: Low Mesohaline	Date: 19SEP11
Gear: Modified Box Corer	Sampled Area: 0.025 sq.m	Time: 11:26:19
BOTTOM ENVIRONMENT		
Depth (m): 3.0	Salinity (ppt): 6.52	Temperature (C): 23.01
Dissolved Oxygen (mg/l): 5.9	Sediment Silt-Clay (%): 4.28	Total Carbon (%): 0.12
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.00	Condition: Meets Goal	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	2.11 3	Pollution Indicative Species Abundance (%) 19.00 3
Abundance (#/m2)	4000 3	Pollution Indicative Species Biomass (%) 5.04
Biomass (g/m2)	1.63 3	Pollution Sensitive Species Abundance (%) 23.00
Carnivore-Omnivore Abundance (%)	17.00	Pollution Sensitive Species Biomass (%) 61.25 3
Deep Deposit Feeder Abundance (%)	3.00	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Eteone heteropoda	600	0.08000
Heteromastus filiformis	120	0.18800
Leptocheirus plumulosus	80	0.02400
Macoma mitchelli	2040	0.32400
Marenzelleria viridis	760	0.98000
Neanthes succinea	80	0.01200
Rangia cuneata	160	0.01600
Rhithropanopeus harrisii (Epi)	40	0.00200
Streblospio benedicti	160	0.00200
Total Abundance w/ Epi.	4040	
Total Abundance w/o Epi.	4000	
Number of Taxa w/ Epi.	9	
Number of Taxa w/o Epi.	8	
Total Biomass w/ Epi.		1.62800
Total Biomass w/o Epi.		1.62600

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 047		Rep: 03
Watershed: Morgantown Discharge	Habitat: Low Mesohaline	Date: 19SEP11
Gear: Modified Box Corer	Sampled Area: 0.025 sq.m	Time: 11:26:19
BOTTOM ENVIRONMENT		
Depth (m): 3.0	Salinity (ppt): 6.52	Temperature (C): 23.01
Dissolved Oxygen (mg/l): 5.9	Sediment Silt-Clay (%): 4.28	Total Carbon (%): 0.12
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.00	Condition: Meets Goal	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	2.75 5	Pollution Indicative Species Abundance (%) 27.70 1
Abundance (#/m2)	5920 3	Pollution Indicative Species Biomass (%) 3.10
Biomass (g/m2)	3.49 3	Pollution Sensitive Species Abundance (%) 12.16
Carnivore-Omnivore Abundance (%)	13.51	Pollution Sensitive Species Biomass (%) 58.18 3
Deep Deposit Feeder Abundance (%)	15.54	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Apocorophium lacustre (Epi)	40	0.00200
Edotea triloba (Epi)	40	0.01200
Eteone heteropoda	560	0.08000
Heteromastus filiformis	360	0.68000
Leptocheirus plumulosus	400	0.02800
Littoridinops tenuipes (Epi)	40	0.01200
Macoma mitchelli	2000	0.46800
Marenzelleria viridis	680	1.05200
Neanthes succinea	200	0.16400
Rangia cuneata	40	0.97600
Streblospio benedicti	1080	0.02800
Tanytarsini	40	0.00200
Tubificoides spp.	560	0.00800
Total Abundance w/ Epi.	6040	
Total Abundance w/o Epi.	5920	
Number of Taxa w/ Epi.	13	
Number of Taxa w/o Epi.	10	
Total Biomass w/ Epi.		3.51200
Total Biomass w/o Epi.		3.48600

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 051		Rep: 01
Watershed: Potomac River	Habitat: High Mesohaline Sand	Date: 19SEP11
Gear: Modified Box Corer	Sampled Area: 0.025 sq.m	Time: 16:37:36
BOTTOM ENVIRONMENT		
Depth (m): 3.0	Salinity (ppt): 9.46	Temperature (C): 23.05
Dissolved Oxygen (mg/l): 4.8	Sediment Silt-Clay (%): 1.17	Total Carbon (%): 0.08
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 2.67	Condition: Marginal	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	1.79 1	Pollution Indicative Species Abundance (%) 0.82 5
Abundance (#/m2)	4880 3	Pollution Indicative Species Biomass (%) 2.88
Biomass (g/m2)	5.69 5	Pollution Sensitive Species Abundance (%) 9.84 1
Carnivore-Omnivore Abundance (%)	5.74 1	Pollution Sensitive Species Biomass (%) 30.87
Deep Deposit Feeder Abundance (%)	0.00	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Heteromastus filiformis		0.03200
Laeonereis culveri	40	1.00400
Leptocheirus plumulosus	2160	0.46400
Macoma balthica	40	0.95600
Macoma mitchelli	1920	0.94800
Marenzelleria viridis	440	0.80000
Micrura leidyi	80	1.26400
Mulinia lateralis	40	0.16400
Neanthes succinea	160	0.05600
Total Abundance w/ Epi.	4880	
Total Abundance w/o Epi.	4880	
Number of Taxa w/ Epi.	8	
Number of Taxa w/o Epi.	8	
Total Biomass w/ Epi.		5.68800
Total Biomass w/o Epi.		5.68800

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Potomac River		Station: 051		Rep: 02	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 19SEP11	
		Sampled Area: 0.025 sq.m		Time: 16:37:36	
BOTTOM ENVIRONMENT					
Depth (m): 3.0		Salinity (ppt): 9.46		Temperature (C): 23.05	
Dissolved Oxygen (mg/l): 4.8		Sediment Silt-Clay (%): 1.17		Total Carbon (%): 0.08	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.33		Condition: Degraded		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	1.70	1	Pollution Indicative Species Abundance (%)	1.87	5
Abundance (#/m2)	4280	3	Pollution Indicative Species Biomass (%)	0.04	
Biomass (g/m2)	29.35	3	Pollution Sensitive Species Abundance (%)	4.67	1
Carnivore-Omnivore Abundance (%)	3.74	1	Pollution Sensitive Species Biomass (%)	94.11	
Deep Deposit Feeder Abundance (%)	5.61				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Eteone heteropoda	80		0.01200		
Heteromastus filiformis	240		0.20400		
Leptocheirus plumulosus	1680		0.43200		
Macoma balthica	200		27.62400		
Macoma mitchelli	2000		0.86000		
Neanthes succinea	80		0.22000		
Total Abundance w/ Epi.	4280				
Total Abundance w/o Epi.	4280				
Number of Taxa w/ Epi.	6				
Number of Taxa w/o Epi.	6				
Total Biomass w/ Epi.			29.35200		
Total Biomass w/o Epi.			29.35200		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Potomac River		Station: 051	Rep: 03
Gear: Modified Box Corer		Habitat: High Mesohaline Sand	Date: 19SEP11
		Sampled Area: 0.025 sq.m	Time: 16:37:36
BOTTOM ENVIRONMENT			
Depth (m): 3.0	Salinity (ppt): 9.46	Temperature (C): 23.05	
Dissolved Oxygen (mg/l): 4.8	Sediment Silt-Clay (%): 1.17	Total Carbon (%): 0.08	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 2.67	Condition: Marginal		# Attributes Scored: 6
	Value	Score	Value Score
Shannon-Wiener Index	1.80	1	Pollution Indicative Species Abundance (%) 4.03 5
Abundance (#/m2)	4960	3	Pollution Indicative Species Biomass (%) 5.99
Biomass (g/m2)	3.88	5	Pollution Sensitive Species Abundance (%) 5.65 1
Carnivore-Omnivore Abundance (%)	3.23	1	Pollution Sensitive Species Biomass (%) 31.37
Deep Deposit Feeder Abundance (%)	4.03		
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Edotea triloba (Epi)	40	0.00400	
Eteone heteropoda	80	0.00800	
Heteromastus filiformis	120	0.24000	
Laeonereis culveri	40	0.85600	
Leitoscoloplos spp.	80	0.12400	
Leptocheirus plumulosus	2160	0.67200	
Macoma balthica	40	0.74400	
Macoma mitchelli	2120	0.56800	
Marenzelleria viridis	240	0.47200	
Micrura leidyi	40	0.09200	
Mulinia lateralis	40	0.10000	
Total Abundance w/ Epi.	5000		
Total Abundance w/o Epi.	4960		
Number of Taxa w/ Epi.	11		
Number of Taxa w/o Epi.	10		
Total Biomass w/ Epi.		3.88000	
Total Biomass w/o Epi.		3.87600	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

=====		
Watershed: Potomac River	Station: 052	Rep: 01
Gear: Wildco Box Corer	Habitat: High Mesohaline Mud	Date: 01SEP11
	Sampled Area: 0.022 sq.m	Time: 9:36:09
=====		
BOTTOM ENVIRONMENT		
=====		
Depth (m): 11.2	Salinity (ppt): 13.16	Temperature (C): 25.08
Dissolved Oxygen (mg/l): 0.7	Sediment Silt-Clay (%): 89.82	Total Carbon (%): 3.24
=====		
BENTHIC INDEX OF BIOTIC INTEGRITY		
=====		
B-IBI Score: 1.00	Condition: Severely Degr.	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	0.00 1	Pollution Indicative Species Abundance (%) 100.00
Abundance (#/m2)	0 1	Pollution Indicative Species Biomass (%) 100.00 1
Biomass (g/m2)	0.00 1	Pollution Sensitive Species Abundance (%) 0.00
Carnivore-Omnivore Abundance (%)	0.00 1	Pollution Sensitive Species Biomass (%) 0.00 1
Deep Deposit Feeder Abundance (%)	0.00	
=====		
BENTHIC ABUNDANCE (per sq. meter)		
=====		
TAXA	Abundance (#/m2)	Biomass (g/m2)

No Organisms Present		0.00000

Total Abundance w/ Epi.		
Total Abundance w/o Epi.		
Number of Taxa w/ Epi.	0	
Number of Taxa w/o Epi.	0	
Total Biomass w/ Epi.		0.00000
Total Biomass w/o Epi.		0.00000
=====		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

=====		
Watershed: Potomac River	Station: 052	Rep: 02
Gear: Wildco Box Corer	Habitat: High Mesohaline Mud	Date: 01SEP11
	Sampled Area: 0.022 sq.m	Time: 9:36:09
=====		
BOTTOM ENVIRONMENT		
=====		
Depth (m): 11.2	Salinity (ppt): 13.16	Temperature (C): 25.08
Dissolved Oxygen (mg/l): 0.7	Sediment Silt-Clay (%): 89.82	Total Carbon (%): 3.24
=====		
BENTHIC INDEX OF BIOTIC INTEGRITY		
=====		
B-IBI Score: 1.00	Condition: Severely Degr.	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	0.00 1	Pollution Indicative Species Abundance (%) 100.00
Abundance (#/m2)	0 1	Pollution Indicative Species Biomass (%) 100.00 1
Biomass (g/m2)	0.00 1	Pollution Sensitive Species Abundance (%) 0.00
Carnivore-Omnivore Abundance (%)	0.00 1	Pollution Sensitive Species Biomass (%) 0.00 1
Deep Deposit Feeder Abundance (%)	0.00	
=====		
BENTHIC ABUNDANCE (per sq. meter)		
=====		
TAXA	Abundance (#/m2)	Biomass (g/m2)
No Organisms Present		0.00000

Total Abundance w/ Epi.		
Total Abundance w/o Epi.		
Number of Taxa w/ Epi.	0	
Number of Taxa w/o Epi.	0	
Total Biomass w/ Epi.		0.00000
Total Biomass w/o Epi.		0.00000
=====		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 052		Rep: 03
Watershed: Potomac River	Habitat: High Mesohaline Mud	Date: 01SEP11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 9:36:09
BOTTOM ENVIRONMENT		
Depth (m): 11.2	Salinity (ppt): 13.16	Temperature (C): 25.08
Dissolved Oxygen (mg/l): 0.7	Sediment Silt-Clay (%): 89.82	Total Carbon (%): 3.24
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 1.00	Condition: Severely Degr.	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	0.00 1	Pollution Indicative Species Abundance (%) 100.00
Abundance (#/m2)	0 1	Pollution Indicative Species Biomass (%) 100.00 1
Biomass (g/m2)	0.00 1	Pollution Sensitive Species Abundance (%) 0.00
Carnivore-Omnivore Abundance (%)	0.00 1	Pollution Sensitive Species Biomass (%) 0.00 1
Deep Deposit Feeder Abundance (%)	0.00	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
No Organisms Present		0.00000
Total Abundance w/ Epi.		
Total Abundance w/o Epi.		
Number of Taxa w/ Epi.	0	
Number of Taxa w/o Epi.	0	
Total Biomass w/ Epi.		0.00000
Total Biomass w/o Epi.		0.00000

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 062		Rep: 01
Watershed: Lower Eastern Shore	Habitat: Low Mesohaline	Date: 13SEP11
Gear: Petite Ponar	Sampled Area: 0.025 sq.m	Time: 10:36:33
BOTTOM ENVIRONMENT		
Depth (m): 4.4	Salinity (ppt): 0.72	Temperature (C): 25.46
Dissolved Oxygen (mg/l): 4.4	Sediment Silt-Clay (%): 87.23	Total Carbon (%): 6.53
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.40	Condition: Meets Goal	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	1.73 3	Pollution Indicative Species Abundance (%) 7.69 5
Abundance (#/m2)	2600 3	Pollution Indicative Species Biomass (%) 0.59
Biomass (g/m2)	1.01 3	Pollution Sensitive Species Abundance (%) 12.31
Carnivore-Omnivore Abundance (%)	9.23	Pollution Sensitive Species Biomass (%) 67.46 3
Deep Deposit Feeder Abundance (%)	76.92	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Ameroculodes species complex	80	0.00800
Chiridotea almyra	40	0.00800
Cyathura polita	160	0.02400
Gammarus daiberi (Epi)	360	0.16400
Leptocheirus plumulosus	80	0.00400
Macoma balthica	40	0.12000
Marenzelleria viridis	120	0.54000
Neanthes succinea	40	0.27600
Streblospio benedicti	40	0.00400
Tubificidae imm w/o cap chaetae	160	0.00200
Tubificoides spp.	1840	0.02800
Total Abundance w/ Epi.	2960	
Total Abundance w/o Epi.	2600	
Number of Taxa w/ Epi.	11	
Number of Taxa w/o Epi.	10	
Total Biomass w/ Epi.		1.17800
Total Biomass w/o Epi.		1.01400

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Lower Eastern Shore		Station: 062	Rep: 02
Gear: Petite Ponar		Habitat: Low Mesohaline	Date: 13SEP11
		Sampled Area: 0.025 sq.m	Time: 10:36:33
BOTTOM ENVIRONMENT			
Depth (m): 4.4	Salinity (ppt): 0.72	Temperature (C): 25.46	
Dissolved Oxygen (mg/l): 4.4	Sediment Silt-Clay (%): 87.23	Total Carbon (%): 6.53	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 1.80	Condition: Severely Degr.		# Attributes Scored: 5
	Value	Score	Value Score
Shannon-Wiener Index	0.81	1	Pollution Indicative Species Abundance (%) 6.96 5
Abundance (#/m2)	10920	1	Pollution Indicative Species Biomass (%) 7.03
Biomass (g/m2)	0.26	1	Pollution Sensitive Species Abundance (%) 1.10
Carnivore-Omnivore Abundance (%)	1.47		Pollution Sensitive Species Biomass (%) 10.94 1
Deep Deposit Feeder Abundance (%)	93.41		
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Carinoma tremaphoros	40	0.03200	
Cyathura polita	120	0.02800	
Gammarus daiberi (Epi)	160	0.05200	
Heteromastus filiformis	40	0.00200	
Leptocheirus plumulosus	520	0.06400	
Oligochaeta		0.01200	
Streblospio benedicti	40	0.00400	
Tubificidae imm w/o cap chaetae	720	0.00200	
Tubificoides spp.	9440	0.11200	
Total Abundance w/ Epi.	11080		
Total Abundance w/o Epi.	10920		
Number of Taxa w/ Epi.	8		
Number of Taxa w/o Epi.	7		
Total Biomass w/ Epi.		0.30800	
Total Biomass w/o Epi.		0.25600	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Lower Eastern Shore		Station: 062		Rep: 03	
Gear: Petite Ponar		Habitat: Low Mesohaline		Date: 13SEP11	
		Sampled Area: 0.025 sq.m		Time: 10:36:33	
BOTTOM ENVIRONMENT					
Depth (m): 4.4		Salinity (ppt): 0.72		Temperature (C): 25.46	
Dissolved Oxygen (mg/l): 4.4		Sediment Silt-Clay (%): 87.23		Total Carbon (%): 6.53	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.60		Condition: Degraded		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	1.50	1	Pollution Indicative Species Abundance (%)	11.06	3
Abundance (#/m2)	9040	1	Pollution Indicative Species Biomass (%)	0.92	
Biomass (g/m2)	1.96	3	Pollution Sensitive Species Abundance (%)	5.75	
Carnivore-Omnivore Abundance (%)	3.54		Pollution Sensitive Species Biomass (%)	88.25	5
Deep Deposit Feeder Abundance (%)	84.51				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Ameroculodes species complex	200		0.00400		
Carinoma tremaphoros	40		0.04000		
Chiridotea almyra	40		0.02800		
Cyathura polita	240		0.13600		
Edotea triloba (Epi)	40		0.00400		
Gammarus daiberi (Epi)	360		0.14400		
Leptocheirus plumulosus	560		0.04800		
Macoma balthica	120		0.99200		
Macoma mitchelli	40		0.00800		
Marenzelleria viridis	160		0.60000		
Oligochaeta	40		0.00200		
Tubificidae imm w/o cap chaetae	960		0.01600		
Tubificoides spp.	6640		0.08400		
Total Abundance w/ Epi.	9440				
Total Abundance w/o Epi.	9040				
Number of Taxa w/ Epi.	13				
Number of Taxa w/o Epi.	11				
Total Biomass w/ Epi.			2.10600		
Total Biomass w/o Epi.			1.95800		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 064		Rep: 01
Watershed: Choptank River	Habitat: High Mesohaline Mud	Date: 07SEP11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 10:17:19
BOTTOM ENVIRONMENT		
Depth (m): 9.9	Salinity (ppt): 9.25	Temperature (C): 24.51
Dissolved Oxygen (mg/l): 5.2	Sediment Silt-Clay (%): 90.09	Total Carbon (%): 2.04
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.67	Condition: Meets Goal	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	2.02 3	Pollution Indicative Species Abundance (%) 1.47
Abundance (#/m2)	3060 3	Pollution Indicative Species Biomass (%) 0.05 5
Biomass (g/m2)	8.65 5	Pollution Sensitive Species Abundance (%) 35.29
Carnivore-Omnivore Abundance (%)	4.41 1	Pollution Sensitive Species Biomass (%) 96.51 5
Deep Deposit Feeder Abundance (%)	14.71	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Cyathura polita	45	0.24750
Eteone heteropoda	45	0.00450
Heteromastus filiformis	45	0.06750
Leptocheirus plumulosus	1395	0.18000
Macoma balthica	945	7.68600
Macoma mitchelli	45	0.00450
Marenzelleria viridis	90	0.41400
Neanthes succinea	45	0.01800
Tubificoides spp.	405	0.02700
Total Abundance w/ Epi.	3060	
Total Abundance w/o Epi.	3060	
Number of Taxa w/ Epi.	9	
Number of Taxa w/o Epi.	9	
Total Biomass w/ Epi.		8.64900
Total Biomass w/o Epi.		8.64900

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 064		Rep: 02
Watershed: Choptank River	Habitat: High Mesohaline Mud	Date: 07SEP11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 10:17:19
BOTTOM ENVIRONMENT		
Depth (m): 9.9	Salinity (ppt): 9.25	Temperature (C): 24.51
Dissolved Oxygen (mg/l): 5.2	Sediment Silt-Clay (%): 90.09	Total Carbon (%): 2.04
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.33	Condition: Meets Goal	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	1.71 1	Pollution Indicative Species Abundance (%) 2.25
Abundance (#/m2)	4005 3	Pollution Indicative Species Biomass (%) 0.11 5
Biomass (g/m2)	8.38 5	Pollution Sensitive Species Abundance (%) 28.09
Carnivore-Omnivore Abundance (%)	4.49 1	Pollution Sensitive Species Biomass (%) 88.69 5
Deep Deposit Feeder Abundance (%)	5.62	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Cyathura polita	90	0.00450
Leptocheirus plumulosus	2430	0.60750
Macoma balthica	990	7.28100
Macoma mitchelli	45	0.00225
Marenzelleria viridis	45	0.14400
Mulinia lateralis	45	0.00450
Neanthes succinea	90	0.31950
Streblospio benedicti	45	0.00450
Tubificoides spp.	225	0.00900
Total Abundance w/ Epi.	4005	
Total Abundance w/o Epi.	4005	
Number of Taxa w/ Epi.	9	
Number of Taxa w/o Epi.	9	
Total Biomass w/ Epi.		8.37675
Total Biomass w/o Epi.		8.37675

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 064		Rep: 03
Watershed: Choptank River	Habitat: High Mesohaline Mud	Date: 07SEP11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 10:17:19
BOTTOM ENVIRONMENT		
Depth (m): 9.9	Salinity (ppt): 9.25	Temperature (C): 24.51
Dissolved Oxygen (mg/l): 5.2	Sediment Silt-Clay (%): 90.09	Total Carbon (%): 2.04
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.67	Condition: Meets Goal	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	1.73 1	Pollution Indicative Species Abundance (%) 1.27
Abundance (#/m2)	3555 3	Pollution Indicative Species Biomass (%) 0.03 5
Biomass (g/m2)	6.47 5	Pollution Sensitive Species Abundance (%) 27.85
Carnivore-Omnivore Abundance (%)	13.92 3	Pollution Sensitive Species Biomass (%) 90.26 5
Deep Deposit Feeder Abundance (%)	1.27	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Carinoma tremaphoros	180	0.11250
Cyathura polita	180	0.21150
Eteone heteropoda	45	0.00225
Leptocheirus plumulosus	2160	0.42300
Macoma balthica	810	5.62500
Macoma mitchelli	45	0.00225
Neanthes succinea	90	0.08100
Tubificoides spp.	45	0.00900
Total Abundance w/ Epi.	3555	
Total Abundance w/o Epi.	3555	
Number of Taxa w/ Epi.	8	
Number of Taxa w/o Epi.	8	
Total Biomass w/ Epi.		6.46650
Total Biomass w/o Epi.		6.46650

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 066		Rep: 01
Watershed: Choptank River	Habitat: Oligohaline	Date: 12SEP11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 14:08:19
BOTTOM ENVIRONMENT		
Depth (m): 4.6	Salinity (ppt): 0.06	Temperature (C): 24.94
Dissolved Oxygen (mg/l): 3.4	Sediment Silt-Clay (%): 83.34	Total Carbon (%): 5.22
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.00	Condition: Meets Goal	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	2.42	Oligohaline Pollution Indicative Spp. Abund. 62.50 3
Abundance (#/m2)	1080 5	Tolerance Score 8.14 3
Deep Deposit Feeder Abundance (%)	45.83	Oligohaline Pollution Sensitive Spp. Abund. 20.83 3
Carnivore-Omnivore Abundance (%)	33.33 3	Tanypodinae/Chironomidae Abundance Ratio 100.00 1
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Chaoborus punctipennis	135	0.01800
Coelotanypus spp.	180	0.02250
Cyathura polita	45	0.00900
Gammarus daiberi (Epi)	315	0.00900
Littoridinops tenuipes (Epi)	1215	0.01800
Marenzelleria viridis	225	1.27800
Oecetis spp. (Epi)	45	0.00225
Tubificidae imm w/o cap chaetae	180	0.00225
Tubificoides spp.	315	0.00450
Total Abundance w/ Epi.	2655	
Total Abundance w/o Epi.	1080	
Number of Taxa w/ Epi.	9	
Number of Taxa w/o Epi.	6	
Total Biomass w/ Epi.		1.36350
Total Biomass w/o Epi.		1.33425

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 066		Rep: 02
Watershed: Choptank River	Habitat: Oligohaline	Date: 12SEP11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 14:08:19
BOTTOM ENVIRONMENT		
Depth (m): 4.6	Salinity (ppt): 0.06	Temperature (C): 24.94
Dissolved Oxygen (mg/l): 3.4	Sediment Silt-Clay (%): 83.34	Total Carbon (%): 5.22
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.00	Condition: Meets Goal	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	2.02	Oligohaline Pollution Indicative Spp. Abund. 77.08 3
Abundance (#/m2)	2160 5	Tolerance Score 8.08 3
Deep Deposit Feeder Abundance (%)	66.67	Oligohaline Pollution Sensitive Spp. Abund. 6.25 3
Carnivore-Omnivore Abundance (%)	25.00 3	Tanypodinae/Chironomidae Abundance Ratio 100.00 1
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Chaoborus punctipennis	315	0.02700
Coelotanypus spp.	225	0.02250
Gammarus daiberi (Epi)	990	0.04950
Limnodrilus hoffmeisteri	135	
Littoridinops tenuipes (Epi)	6525	0.14850
Marenzelleria viridis	135	0.62550
Oligochaeta		0.00225
Rangia cuneata	45	0.08550
Tubificidae imm w/o cap chaetae *	90	
Tubificoides spp.	1215	0.01800
Total Abundance w/ Epi.	9675	
Total Abundance w/o Epi.	2160	
Number of Taxa w/ Epi.	8	
Number of Taxa w/o Epi.	6	
Total Biomass w/ Epi.		0.97875
Total Biomass w/o Epi.		0.78075

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 066	Rep: 03
Watershed: Choptank River	Date: 12SEP11
Habitat: Oligohaline	Time: 14:08:19
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m

BOTTOM ENVIRONMENT

Depth (m): 4.6	Salinity (ppt): 0.06	Temperature (C): 24.94
Dissolved Oxygen (mg/l): 3.4	Sediment Silt-Clay (%): 83.34	Total Carbon (%): 5.22

BENTHIC INDEX OF BIOTIC INTEGRITY

B-IBI Score: 3.00	Condition: Meets Goal	# Attributes Scored: 6
	Value	Score
Shannon-Wiener Index	2.35	
Abundance (#/m2)	1080	5
Deep Deposit Feeder Abundance (%)	70.83	
Carnivore-Omnivore Abundance (%)	16.67	3
		Value
		Score
Oligohaline Pollution Indicative Spp. Abund.	83.33	3
Tolerance Score	8.82	3
Oligohaline Pollution Sensitive Spp. Abund.	4.17	3
Tanypodinae/Chironomidae Abundance Ratio	100.00	1

BENTHIC ABUNDANCE (per sq. meter)

TAXA	Abundance (#/m2)	Biomass (g/m2)
Chaoborus punctipennis	90	0.00450
Coelotanypus spp.	90	0.00225
Gammarus daiberi (Epi)	810	0.08100
Hobsonia florida	45	0.00900
Limnodrilus hoffmeisteri	45	
Littoridinops tenuipes (Epi)	9000	0.22050
Marenzelleria viridis	45	0.16650
Oligochaeta		0.00675
Rhithropanopeus harrisii (Epi)	45	0.00450
Streblospio benedicti	45	0.00225
Tubificidae imm w/o cap chaetae *	225	
Tubificoides spp.	495	0.00225
Total Abundance w/ Epi.	10935	
Total Abundance w/o Epi.	1080	
Number of Taxa w/ Epi.	10	
Number of Taxa w/o Epi.	7	
Total Biomass w/ Epi.		0.49950
Total Biomass w/o Epi.		0.19350

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Upper Eastern Shore		Station: 068	Rep: 01
Gear: Wildco Box Corer		Habitat: Low Mesohaline	Date: 24AUG11
		Sampled Area: 0.022 sq.m	Time: 11:19:21
BOTTOM ENVIRONMENT			
Depth (m): 4.0	Salinity (ppt): 5.95	Temperature (C): 26.19	
Dissolved Oxygen (mg/l): 4.9	Sediment Silt-Clay (%): 81.99	Total Carbon (%): 2.9	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 3.80	Condition: Meets Goal		# Attributes Scored: 5
	Value	Score	Value Score
Shannon-Wiener Index	2.80	5	Pollution Indicative Species Abundance (%) 12.77 3
Abundance (#/m2)	4230	3	Pollution Indicative Species Biomass (%) 0.27
Biomass (g/m2)	14.02	3	Pollution Sensitive Species Abundance (%) 36.17
Carnivore-Omnivore Abundance (%)	12.77		Pollution Sensitive Species Biomass (%) 96.55 5
Deep Deposit Feeder Abundance (%)	40.43		
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Ameroculodes species complex	90	0.00900	
Coelotanypus spp.	135	0.03150	
Cyathura polita	405	0.80550	
Edotea triloba (Epi)	45	0.00450	
Leptocheirus plumulosus	270	0.05400	
Littoridinops tenuipes (Epi)	45	0.00225	
Macoma balthica	900	12.19500	
Macoma mitchelli	270	0.36000	
Marenzelleria viridis	45	0.35100	
Melita nitida (Epi)	90	0.00450	
Rangia cuneata	180	0.18900	
Streblospio benedicti	225	0.00450	
Tubificidae imm w/o cap chaetae	180	0.00225	
Tubificoides spp.	1530	0.02250	
Total Abundance w/ Epi.	4410		
Total Abundance w/o Epi.	4230		
Number of Taxa w/ Epi.	14		
Number of Taxa w/o Epi.	11		
Total Biomass w/ Epi.		14.03550	
Total Biomass w/o Epi.		14.02425	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Upper Eastern Shore		Station: 068	Rep: 02
Gear: Wildco Box Corer		Habitat: Low Mesohaline	Date: 24AUG11
		Sampled Area: 0.022 sq.m	Time: 11:19:21
BOTTOM ENVIRONMENT			
Depth (m): 4.0	Salinity (ppt): 5.95	Temperature (C): 26.19	
Dissolved Oxygen (mg/l): 4.9	Sediment Silt-Clay (%): 81.99	Total Carbon (%): 2.9	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 3.00	Condition: Meets Goal		# Attributes Scored: 5
	Value	Score	Value Score
Shannon-Wiener Index	2.98	5	Pollution Indicative Species Abundance (%) 23.08 1
Abundance (#/m2)	4680	3	Pollution Indicative Species Biomass (%) 2.94
Biomass (g/m2)	2.99	3	Pollution Sensitive Species Abundance (%) 25.00
Carnivore-Omnivore Abundance (%)	11.54		Pollution Sensitive Species Biomass (%) 73.85 3
Deep Deposit Feeder Abundance (%)	35.58		
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Carinoma tremaphoros	45	0.02250	
Coelotanypus spp.	225	0.06750	
Cyathura polita	225	0.36000	
Gammarus daiberi (Epi)	45	0.01800	
Leptocheirus plumulosus	360	0.03600	
Macoma balthica	315	0.87300	
Macoma mitchelli	450	0.27450	
Marenzelleria viridis	90	0.53100	
Melita nitida (Epi)	180	0.01800	
Mytilopsis leucophaeata (Epi)	45	0.01800	
Neanthes succinea	45	0.34200	
Rangia cuneata	540	0.44100	
Streblospio benedicti	720	0.01800	
Tubificidae imm w/o cap chaetae	135	0.00225	
Tubificoides spp.	1530	0.01800	
Total Abundance w/ Epi.	4950		
Total Abundance w/o Epi.	4680		
Number of Taxa w/ Epi.	15		
Number of Taxa w/o Epi.	12		
Total Biomass w/ Epi.		3.03975	
Total Biomass w/o Epi.		2.98575	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Upper Eastern Shore		Station: 068	Rep: 03
Gear: Wildco Box Corer		Habitat: Low Mesohaline	Date: 24AUG11
		Sampled Area: 0.022 sq.m	Time: 11:19:21
BOTTOM ENVIRONMENT			
Depth (m): 4.0	Salinity (ppt): 5.95	Temperature (C): 26.19	
Dissolved Oxygen (mg/l): 4.9	Sediment Silt-Clay (%): 81.99	Total Carbon (%): 2.9	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 4.60	Condition: Meets Goal		# Attributes Scored: 5
	Value	Score	Value Score
Shannon-Wiener Index	2.90	5	Pollution Indicative Species Abundance (%) 10.00 5
Abundance (#/m2)	3150	3	Pollution Indicative Species Biomass (%) 0.47
Biomass (g/m2)	6.73	5	Pollution Sensitive Species Abundance (%) 48.57
Carnivore-Omnivore Abundance (%)	15.71		Pollution Sensitive Species Biomass (%) 97.32 5
Deep Deposit Feeder Abundance (%)	25.71		
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Carinoma tremaphoros	180	0.03600	
Coelotanypus spp.	135	0.02250	
Cyathura polita	180	0.00900	
Heteromastus filiformis	45	0.05850	
Leptocheirus plumulosus	135	0.01800	
Littoridinops tenuipes (Epi)	90	0.01350	
Macoma balthica	405	5.53950	
Macoma mitchelli	180	0.03150	
Marenzelleria viridis	45	0.01800	
Melita nitida (Epi)	90	0.00225	
Rangia cuneata	900	0.98100	
Streblospio benedicti	180	0.00900	
Tubificoides spp.	765	0.00450	
Total Abundance w/ Epi.	3330		
Total Abundance w/o Epi.	3150		
Number of Taxa w/ Epi.	13		
Number of Taxa w/o Epi.	11		
Total Biomass w/ Epi.		6.74325	
Total Biomass w/o Epi.		6.72750	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

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|                               Station: 071                               Rep: 01                          |
| Watershed: Patuxent River      Habitat: High Mesohaline Mud      Date: 06SEP11                     |
| Gear: Wildco Box Corer       Sampled Area: 0.022 sq.m       Time: 10:25:14                    |
=====
|                               BOTTOM ENVIRONMENT                               |
=====
| Depth (m): 12.7              Salinity (ppt): 13.16          Temperature (C): 25.37            |
| Dissolved Oxygen (mg/l): 2.9  Sediment Silt-Clay (%): 86.28  Total Carbon (%): 3.64           |
=====
|                               BENTHIC INDEX OF BIOTIC INTEGRITY                               |
=====
| B-IBI Score: 1.33           Condition: Severely Degr.      # Attributes Scored: 6           |
|                               Value  Score                               Value  Score                       |
| Shannon-Wiener Index       0.92   1   Pollution Indicative Species Abundance (%)  33.33 |
| Abundance (#/m2)           135    1   Pollution Indicative Species Biomass (%)   20.00  3 |
| Biomass (g/m2)             0.01   1   Pollution Sensitive Species Abundance (%)  0.00   |
| Carnivore-Omnivore Abundance (%)  0.00   1   Pollution Sensitive Species Biomass (%)   0.00   1 |
| Deep Deposit Feeder Abundance (%)  0.00   |
=====
|                               BENTHIC ABUNDANCE (per sq. meter)                               |
=====
| TAXA                        | Abundance (#/m2) | Biomass (g/m2) |
-----
| Macoma mitchelli           | 90                | 0.00900        |
| Streblospio benedicti     | 45                | 0.00225        |
-----
| Total Abundance w/ Epi.   | 135               |                 |
| Total Abundance w/o Epi. | 135               |                 |
| Number of Taxa w/ Epi.    | 2                 |                 |
| Number of Taxa w/o Epi.   | 2                 |                 |
| Total Biomass w/ Epi.     |                   | 0.01125        |
| Total Biomass w/o Epi.   |                   | 0.01125        |
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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Patuxent River		Station: 071	Rep: 02
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud	Date: 06SEP11
		Sampled Area: 0.022 sq.m	Time: 10:25:14
BOTTOM ENVIRONMENT			
Depth (m): 12.7	Salinity (ppt): 13.16	Temperature (C): 25.37	
Dissolved Oxygen (mg/l): 2.9	Sediment Silt-Clay (%): 86.28	Total Carbon (%): 3.64	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 2.00	Condition: Severely Degr.		# Attributes Scored: 6
	Value	Score	Value Score
Shannon-Wiener Index	2.04	3	Pollution Indicative Species Abundance (%) 72.73
Abundance (#/m2)	495	1	Pollution Indicative Species Biomass (%) 13.58 3
Biomass (g/m2)	0.18	1	Pollution Sensitive Species Abundance (%) 0.00
Carnivore-Omnivore Abundance (%)	18.18	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)	
Eteone heteropoda	45	0.01350	
Macoma mitchelli	90	0.07650	
Mulinia lateralis	225	0.00225	
Neanthes succinea	45	0.08100	
Streblospio benedicti	90	0.00900	
Total Abundance w/ Epi.	495		
Total Abundance w/o Epi.	495		
Number of Taxa w/ Epi.	5		
Number of Taxa w/o Epi.	5		
Total Biomass w/ Epi.		0.18225	
Total Biomass w/o Epi.		0.18225	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Patuxent River		Station: 071	Rep: 03
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud	Date: 06SEP11
		Sampled Area: 0.022 sq.m	Time: 10:25:14
BOTTOM ENVIRONMENT			
Depth (m): 12.7	Salinity (ppt): 13.16	Temperature (C): 25.37	
Dissolved Oxygen (mg/l): 2.9	Sediment Silt-Clay (%): 86.28	Total Carbon (%): 3.64	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 1.33	Condition: Severely Degr.		# Attributes Scored: 6
	Value	Score	Value Score
Shannon-Wiener Index	1.84	1	Pollution Indicative Species Abundance (%) 85.71
Abundance (#/m2)	315	1	Pollution Indicative Species Biomass (%) 75.00 1
Biomass (g/m2)	0.01	1	Pollution Sensitive Species Abundance (%) 0.00
Carnivore-Omnivore Abundance (%)	14.29	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)	
Chironomus spp.	45	0.00225	
Macoma mitchelli	45	0.00225	
Mulinia lateralis	135	0.00225	
Streblospio benedicti	90	0.00225	
Total Abundance w/ Epi.	315		
Total Abundance w/o Epi.	315		
Number of Taxa w/ Epi.	4		
Number of Taxa w/o Epi.	4		
Total Biomass w/ Epi.		0.00900	
Total Biomass w/o Epi.		0.00900	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Chalk Point Discharge		Station: 074	Rep: 01
Gear: Wildco Box Corer		Habitat: Low Mesohaline	Date: 06SEP11
		Sampled Area: 0.022 sq.m	Time: 13:10:33
BOTTOM ENVIRONMENT			
Depth (m): 3.2	Salinity (ppt): 5.53	Temperature (C): 25.97	
Dissolved Oxygen (mg/l): 1.7	Sediment Silt-Clay (%): 94.33	Total Carbon (%): 2.91	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 2.60	Condition: Degraded		# Attributes Scored: 5
	Value	Score	Value Score
Shannon-Wiener Index	2.55	5	Pollution Indicative Species Abundance (%) 0.00 5
Abundance (#/m2)	495	1	Pollution Indicative Species Biomass (%) 0.00
Biomass (g/m2)	0.35	1	Pollution Sensitive Species Abundance (%) 36.36
Carnivore-Omnivore Abundance (%)	9.09		Pollution Sensitive Species Biomass (%) 19.11 1
Deep Deposit Feeder Abundance (%)	18.18		
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Leptocheirus plumulosus	90	0.01800	
Macoma mitchelli	90	0.19350	
Marenzelleria viridis	90	0.05850	
Neanthes succinea	45	0.07200	
Rangia cuneata	90	0.00900	
Tubificoides spp.	90	0.00225	
Total Abundance w/ Epi.	495		
Total Abundance w/o Epi.	495		
Number of Taxa w/ Epi.	6		
Number of Taxa w/o Epi.	6		
Total Biomass w/ Epi.		0.35325	
Total Biomass w/o Epi.		0.35325	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 074		Rep: 02
Watershed: Chalk Point Discharge	Habitat: Low Mesohaline	Date: 06SEP11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 13:10:33
BOTTOM ENVIRONMENT		
Depth (m): 3.2	Salinity (ppt): 5.53	Temperature (C): 25.97
Dissolved Oxygen (mg/l): 1.7	Sediment Silt-Clay (%): 94.33	Total Carbon (%): 2.91
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.80	Condition: Meets Goal	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	2.36 3	Pollution Indicative Species Abundance (%) 3.70 5
Abundance (#/m2)	1215 3	Pollution Indicative Species Biomass (%) 0.03
Biomass (g/m2)	14.08 3	Pollution Sensitive Species Abundance (%) 44.44
Carnivore-Omnivore Abundance (%)	3.70	Pollution Sensitive Species Biomass (%) 98.90 5
Deep Deposit Feeder Abundance (%)	44.44	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Heteromastus filiformis	135	0.11700
Macoma balthica	225	13.35150
Macoma mitchelli	45	0.00225
Marenzelleria viridis	315	0.57150
Neanthes succinea	45	0.02250
Streblospio benedicti	45	0.00450
Tubificoides spp.	405	0.00900
Total Abundance w/ Epi.	1215	
Total Abundance w/o Epi.	1215	
Number of Taxa w/ Epi.	7	
Number of Taxa w/o Epi.	7	
Total Biomass w/ Epi.		14.07825
Total Biomass w/o Epi.		14.07825

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 074		Rep: 03
Watershed: Chalk Point Discharge	Habitat: Low Mesohaline	Date: 06SEP11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 13:10:33
BOTTOM ENVIRONMENT		
Depth (m): 3.2	Salinity (ppt): 5.53	Temperature (C): 25.97
Dissolved Oxygen (mg/l): 1.7	Sediment Silt-Clay (%): 94.33	Total Carbon (%): 2.91
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 4.20	Condition: Meets Goal	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	2.39 3	Pollution Indicative Species Abundance (%) 3.45 5
Abundance (#/m2)	1305 3	Pollution Indicative Species Biomass (%) 0.08
Biomass (g/m2)	5.31 5	Pollution Sensitive Species Abundance (%) 24.14
Carnivore-Omnivore Abundance (%)	0.00	Pollution Sensitive Species Biomass (%) 83.49 5
Deep Deposit Feeder Abundance (%)	58.62	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Heteromastus filiformis	270	0.12600
Macoma balthica	180	4.25700
Macoma mitchelli	180	0.74250
Marenzelleria viridis	45	0.01350
Rangia cuneata	90	0.16650
Streblospio benedicti	45	0.00450
Tubificoides spp.	495	0.00450
Total Abundance w/ Epi.	1305	
Total Abundance w/o Epi.	1305	
Number of Taxa w/ Epi.	7	
Number of Taxa w/o Epi.	7	
Total Biomass w/ Epi.		5.31450
Total Biomass w/o Epi.		5.31450

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 077		Rep: 01
Watershed: Patuxent River	Habitat: Low Mesohaline	Date: 16SEP11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 12:08:51
BOTTOM ENVIRONMENT		
Depth (m): 2.9	Salinity (ppt): 0.09	Temperature (C): 23.32
Dissolved Oxygen (mg/l): 5.1	Sediment Silt-Clay (%): 86.44	Total Carbon (%): 6.22
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 2.20	Condition: Degraded	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	2.26 3	Pollution Indicative Species Abundance (%) 20.00 3
Abundance (#/m2)	1125 3	Pollution Indicative Species Biomass (%) 0.71
Biomass (g/m2)	0.95 1	Pollution Sensitive Species Abundance (%) 20.00
Carnivore-Omnivore Abundance (%)	8.00	Pollution Sensitive Species Biomass (%) 4.26 1
Deep Deposit Feeder Abundance (%)	40.00	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Coelotanypus spp.	90	0.00450
Edotea triloba (Epi)	45	0.01800
Leptocheirus plumulosus	45	0.00450
Littoridinops tenuipes (Epi)	90	0.00225
Macoma mitchelli	180	0.89550
Rangia cuneata	225	0.04050
Streblospio benedicti	135	0.00225
Tubificoides spp.	450	0.00450
Total Abundance w/ Epi.	1260	
Total Abundance w/o Epi.	1125	
Number of Taxa w/ Epi.	8	
Number of Taxa w/o Epi.	6	
Total Biomass w/ Epi.		0.97200
Total Biomass w/o Epi.		0.95175

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 077		Rep: 02
Watershed: Patuxent River	Habitat: Low Mesohaline	Date: 16SEP11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 12:08:51
BOTTOM ENVIRONMENT		
Depth (m): 2.9	Salinity (ppt): 0.09	Temperature (C): 23.32
Dissolved Oxygen (mg/l): 5.1	Sediment Silt-Clay (%): 86.44	Total Carbon (%): 6.22
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.40	Condition: Meets Goal	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	2.23 3	Pollution Indicative Species Abundance (%) 6.25 5
Abundance (#/m2)	720 3	Pollution Indicative Species Biomass (%) 1.01
Biomass (g/m2)	0.22 1	Pollution Sensitive Species Abundance (%) 56.25
Carnivore-Omnivore Abundance (%)	18.75	Pollution Sensitive Species Biomass (%) 96.97 5
Deep Deposit Feeder Abundance (%)	25.00	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Chironomidae		0.00225
Coelotanypus spp.	45	0.00225
Cryptochironomus spp.	45	
Edotea triloba (Epi)	45	0.00225
Littoridinops tenuipes (Epi)	315	0.00900
Marenzelleria viridis	135	0.19350
Procladius spp.	45	
Rangia cuneata	270	0.02250
Tubificoides spp.	180	0.00225
Total Abundance w/ Epi.	1080	
Total Abundance w/o Epi.	720	
Number of Taxa w/ Epi.	8	
Number of Taxa w/o Epi.	6	
Total Biomass w/ Epi.		0.23400
Total Biomass w/o Epi.		0.22275

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 077		Rep: 03
Watershed: Patuxent River	Habitat: Low Mesohaline	Date: 16SEP11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 12:08:51
BOTTOM ENVIRONMENT		
Depth (m): 2.9	Salinity (ppt): 0.09	Temperature (C): 23.32
Dissolved Oxygen (mg/l): 5.1	Sediment Silt-Clay (%): 86.44	Total Carbon (%): 6.22
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.00	Condition: Meets Goal	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	2.77 5	Pollution Indicative Species Abundance (%) 47.62 1
Abundance (#/m2)	1890 5	Pollution Indicative Species Biomass (%) 8.16
Biomass (g/m2)	0.44 1	Pollution Sensitive Species Abundance (%) 35.71
Carnivore-Omnivore Abundance (%)	23.81	Pollution Sensitive Species Biomass (%) 72.45 3
Deep Deposit Feeder Abundance (%)	7.14	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Ameroculodes species complex	45	0.00450
Coelotanypus spp.	315	0.02250
Cryptochironomus spp.	45	0.00225
Cyathura polita	90	0.01800
Edotea triloba (Epi)	45	0.00900
Gammarus daiberi (Epi)	45	0.00900
Littoridinops tenuipes (Epi)	405	0.00450
Macoma mitchelli	90	0.07200
Marenzelleria viridis	180	0.26550
Nais variabilis	45	0.00225
Rangia cuneata	405	0.03600
Streblospio benedicti	585	0.01350
Tubificoides spp.	90	0.00450
Total Abundance w/ Epi.	2385	
Total Abundance w/o Epi.	1890	
Number of Taxa w/ Epi.	13	
Number of Taxa w/o Epi.	10	
Total Biomass w/ Epi.		0.46350
Total Biomass w/o Epi.		0.44100

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 079		Rep: 01
Watershed: Patuxent River	Habitat: Tidal Freshwater	Date: 16SEP11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 10:32:15
BOTTOM ENVIRONMENT		
Depth (m): 1.1	Salinity (ppt): 0.12	Temperature (C): 20.52
Dissolved Oxygen (mg/l): 6.1	Sediment Silt-Clay (%): 78.62	Total Carbon (%): 3.92
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 2.50	Condition: Degraded	# Attributes Scored: 3
	Value Score	Value Score
Shannon-Wiener Index	1.73	T.F. Pollution Indicative Spp. Abund. (%) 38.18 5
Abundance (#/m2)	4950 3	Tolerance Score 9.63 1
Deep Deposit Feeder Abundance (%)	98.18 1	Limnodrilus Abundance (%) 38.18
Carnivore-Omnivore Abundance (%)	1.82	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Chaoborus punctipennis	45	0.01350
Coelotanypus spp.	45	0.00900
Limnodrilus hoffmeisteri	270	
Oligochaeta	2430	0.34650
Tubificidae imm w cap chaetae	540	
Tubificidae imm w/o cap chaetae *	1620	
Total Abundance w/ Epi.	4950	
Total Abundance w/o Epi.	4950	
Number of Taxa w/ Epi.	5	
Number of Taxa w/o Epi.	5	
Total Biomass w/ Epi.		0.36900
Total Biomass w/o Epi.		0.36900

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 079		Rep: 02
Watershed: Patuxent River	Habitat: Tidal Freshwater	Date: 16SEP11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 10:32:15
BOTTOM ENVIRONMENT		
Depth (m): 1.1	Salinity (ppt): 0.12	Temperature (C): 20.52
Dissolved Oxygen (mg/l): 6.1	Sediment Silt-Clay (%): 78.62	Total Carbon (%): 3.92
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.50	Condition: Meets Goal	# Attributes Scored: 3
	Value Score	Value Score
Shannon-Wiener Index	1.76	T.F. Pollution Indicative Spp. Abund. (%) 74.19 3
Abundance (#/m2)	2790 5	Tolerance Score 9.13 3
Deep Deposit Feeder Abundance (%)	87.10 3	Limnodrilus Abundance (%) 74.19
Carnivore-Omnivore Abundance (%)	12.90	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Aulodrilus pigueti	90	
Branchiura sowerbyi	90	0.10350
Coelotanypus spp.	315	0.03150
Limnodrilus hoffmeisteri	270	
Oligochaeta		0.15750
Pristinella spp.	180	
Procladius spp.	45	0.00225
Tubificidae imm w/o cap chaetae *	1800	
Total Abundance w/ Epi.	2790	
Total Abundance w/o Epi.	2790	
Number of Taxa w/ Epi.	6	
Number of Taxa w/o Epi.	6	
Total Biomass w/ Epi.		0.29475
Total Biomass w/o Epi.		0.29475

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 079		Rep: 03
Watershed: Patuxent River	Habitat: Tidal Freshwater	Date: 16SEP11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 10:32:15
BOTTOM ENVIRONMENT		
Depth (m): 1.1	Salinity (ppt): 0.12	Temperature (C): 20.52
Dissolved Oxygen (mg/l): 6.1	Sediment Silt-Clay (%): 78.62	Total Carbon (%): 3.92
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.50	Condition: Meets Goal	# Attributes Scored: 3
	Value Score	Value Score
Shannon-Wiener Index	1.94	T.F. Pollution Indicative Spp. Abund. (%) 57.69 3
Abundance (#/m2)	2340 5	Tolerance Score 8.87 3
Deep Deposit Feeder Abundance (%)	84.62 3	Limnodrilus Abundance (%) 57.69
Carnivore-Omnivore Abundance (%)	15.38	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Aulodrilus pigueti	180	
Chaoborus punctipennis	90	0.00225
Coelotanypus spp.	270	0.01800
Limnodrilus hoffmeisteri	90	
Oligochaeta		0.25200
Tubificidae imm w cap chaetae	450	
Tubificidae imm w/o cap chaetae *	1260	
Total Abundance w/ Epi.	2340	
Total Abundance w/o Epi.	2340	
Number of Taxa w/ Epi.	5	
Number of Taxa w/o Epi.	5	
Total Biomass w/ Epi.		0.27225
Total Biomass w/o Epi.		0.27225

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 201		Rep: 01	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 22AUG11	
		Sampled Area: 0.022 sq.m		Time: 11:44:17	
BOTTOM ENVIRONMENT					
Depth (m): 3.8		Salinity (ppt): 6.88		Temperature (C): 26.45	
Dissolved Oxygen (mg/l): 5.9		Sediment Silt-Clay (%): 83.80		Total Carbon (%): 3.64	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.00		Condition: Severely Degr.		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	0.81	1	Pollution Indicative Species Abundance (%)	25.00	1
Abundance (#/m2)	180	1	Pollution Indicative Species Biomass (%)	20.00	
Biomass (g/m2)	0.04	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	100.00		Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	135		0.03600		
Coelotanypus spp.	45		0.00900		
Total Abundance w/ Epi.	180				
Total Abundance w/o Epi.	180				
Number of Taxa w/ Epi.	2				
Number of Taxa w/o Epi.	2				
Total Biomass w/ Epi.			0.04500		
Total Biomass w/o Epi.			0.04500		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 201	Rep: 02
Gear: Wildco Box Corer		Habitat: Low Mesohaline	Date: 22AUG11
		Sampled Area: 0.022 sq.m	Time: 11:44:17
BOTTOM ENVIRONMENT			
Depth (m): 3.8	Salinity (ppt): 6.88	Temperature (C): 26.45	
Dissolved Oxygen (mg/l): 5.9	Sediment Silt-Clay (%): 83.80	Total Carbon (%): 3.64	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 1.80	Condition: Severely Degr.		# Attributes Scored: 5
	Value	Score	Value Score
Shannon-Wiener Index	2.00	3	Pollution Indicative Species Abundance (%) 62.50 1
Abundance (#/m2)	360	1	Pollution Indicative Species Biomass (%) 4.00
Biomass (g/m2)	0.17	1	Pollution Sensitive Species Abundance (%) 12.50
Carnivore-Omnivore Abundance (%)	25.00		Pollution Sensitive Species Biomass (%) 93.33 3
Deep Deposit Feeder Abundance (%)	0.00		
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Carinoma tremaphoros	45	0.00225	
Coelotanypus spp.	45	0.00225	
Macoma balthica	45	0.15750	
Macoma mitchelli	45	0.00225	
Streblospio benedicti	180	0.00450	
Total Abundance w/ Epi.	360		
Total Abundance w/o Epi.	360		
Number of Taxa w/ Epi.	5		
Number of Taxa w/o Epi.	5		
Total Biomass w/ Epi.		0.16875	
Total Biomass w/o Epi.		0.16875	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 201		Rep: 03
Watershed: Patapsco & Back Rivers	Habitat: Low Mesohaline	Date: 22AUG11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 11:44:17
BOTTOM ENVIRONMENT		
Depth (m): 3.8	Salinity (ppt): 6.88	Temperature (C): 26.45
Dissolved Oxygen (mg/l): 5.9	Sediment Silt-Clay (%): 83.80	Total Carbon (%): 3.64
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 1.80	Condition: Severely Degr.	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	1.79 3	Pollution Indicative Species Abundance (%) 83.33 1
Abundance (#/m2)	270 1	Pollution Indicative Species Biomass (%) 13.04
Biomass (g/m2)	0.05 1	Pollution Sensitive Species Abundance (%) 16.67
Carnivore-Omnivore Abundance (%)	33.33	Pollution Sensitive Species Biomass (%) 86.96 3
Deep Deposit Feeder Abundance (%)	0.00	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Eteone heteropoda	45	0.00225
Macoma balthica	45	0.04500
Streblospio benedicti	135	0.00225
Tanytus neopunctipennis	45	0.00225
Total Abundance w/ Epi.	270	
Total Abundance w/o Epi.	270	
Number of Taxa w/ Epi.	4	
Number of Taxa w/o Epi.	4	
Total Biomass w/ Epi.		0.05175
Total Biomass w/o Epi.		0.05175

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 202		Rep: 01
Watershed: Patapsco & Back Rivers	Habitat: Low Mesohaline	Date: 22AUG11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 10:00:37
BOTTOM ENVIRONMENT		
Depth (m): 5.9	Salinity (ppt): 8.07	Temperature (C): 26.42
Dissolved Oxygen (mg/l): 6.9	Sediment Silt-Clay (%): 93.05	Total Carbon (%): 4.35
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 1.80	Condition: Severely Degr.	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	0.00 1	Pollution Indicative Species Abundance (%) 0.00 5
Abundance (#/m2)	45 1	Pollution Indicative Species Biomass (%) 0.00
Biomass (g/m2)	0.00 1	Pollution Sensitive Species Abundance (%) 0.00
Carnivore-Omnivore Abundance (%)	100.00	Pollution Sensitive Species Biomass (%) 0.00 1
Deep Deposit Feeder Abundance (%)	0.00	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Neanthes succinea	45	0.00225
Total Abundance w/ Epi.	45	
Total Abundance w/o Epi.	45	
Number of Taxa w/ Epi.	1	
Number of Taxa w/o Epi.	1	
Total Biomass w/ Epi.		0.00225
Total Biomass w/o Epi.		0.00225

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 202		Rep: 02
Watershed: Patapsco & Back Rivers	Habitat: Low Mesohaline	Date: 22AUG11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 10:00:37
BOTTOM ENVIRONMENT		
Depth (m): 5.9	Salinity (ppt): 8.07	Temperature (C): 26.42
Dissolved Oxygen (mg/l): 6.9	Sediment Silt-Clay (%): 93.05	Total Carbon (%): 4.35
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 1.00	Condition: Severely Degr.	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	0.00 1	Pollution Indicative Species Abundance (%) 100.00 1
Abundance (#/m2)	0 1	Pollution Indicative Species Biomass (%) 100.00
Biomass (g/m2)	0.00 1	Pollution Sensitive Species Abundance (%) 0.00
Carnivore-Omnivore Abundance (%)	0.00	Pollution Sensitive Species Biomass (%) 0.00 1
Deep Deposit Feeder Abundance (%)	0.00	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
No Organisms Present		0.00000
Total Abundance w/ Epi.		
Total Abundance w/o Epi.		
Number of Taxa w/ Epi.	0	
Number of Taxa w/o Epi.	0	
Total Biomass w/ Epi.		0.00000
Total Biomass w/o Epi.		0.00000

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 202		Rep: 03
Watershed: Patapsco & Back Rivers	Habitat: Low Mesohaline	Date: 22AUG11
Gear: Wildco Box Corer	Sampled Area: 0.022 sq.m	Time: 10:00:37
BOTTOM ENVIRONMENT		
Depth (m): 5.9	Salinity (ppt): 8.07	Temperature (C): 26.42
Dissolved Oxygen (mg/l): 6.9	Sediment Silt-Clay (%): 93.05	Total Carbon (%): 4.35
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 1.00	Condition: Severely Degr.	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	1.16 1	Pollution Indicative Species Abundance (%) 100.00 1
Abundance (#/m2)	450 1	Pollution Indicative Species Biomass (%) 100.00
Biomass (g/m2)	0.01 1	Pollution Sensitive Species Abundance (%) 0.00
Carnivore-Omnivore Abundance (%)	30.00	Pollution Sensitive Species Biomass (%) 0.00 1
Deep Deposit Feeder Abundance (%)	0.00	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Chironomus spp.	45	0.00225
Eteone heteropoda	90	0.00450
Streblospio benedicti	315	0.00450
Total Abundance w/ Epi.	450	
Total Abundance w/o Epi.	450	
Number of Taxa w/ Epi.	3	
Number of Taxa w/o Epi.	3	
Total Biomass w/ Epi.		0.01125
Total Biomass w/o Epi.		0.01125

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 203	Rep: 01
Gear: Young Grab		Habitat: Oligohaline	Date: 22AUG11
		Sampled Area: 0.044 sq.m	Time: 15:29:30
BOTTOM ENVIRONMENT			
Depth (m): 1.5	Salinity (ppt): 0.20	Temperature (C): 26.73	
Dissolved Oxygen (mg/l): 8.6	Sediment Silt-Clay (%): 96.35	Total Carbon (%): 4.71	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 3.00	Condition: Meets Goal		# Attributes Scored: 6
	Value	Score	Value Score
Shannon-Wiener Index	1.37		Oligohaline Pollution Indicative Spp. Abund. 100.00 1
Abundance (#/m2)	1613	5	Tolerance Score 8.79 3
Deep Deposit Feeder Abundance (%)	11.27		Oligohaline Pollution Sensitive Spp. Abund. 0.00 1
Carnivore-Omnivore Abundance (%)	88.73	5	Tanypodinae/Chironomidae Abundance Ratio 31.75 3
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Chironomus spp.	977	1.35303	
Coelotanypus spp.	454	0.07725	
Limnodrilus hoffmeisteri	23		
Oligochaeta		0.00682	
Tubificidae imm w/o cap chaetae *	159	0.00114	
Total Abundance w/ Epi.	1613		
Total Abundance w/o Epi.	1613		
Number of Taxa w/ Epi.	3		
Number of Taxa w/o Epi.	3		
Total Biomass w/ Epi.		1.43823	
Total Biomass w/o Epi.		1.43823	

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 203	Rep: 02
Gear: Young Grab		Habitat: Oligohaline	Date: 22AUG11
		Sampled Area: 0.044 sq.m	Time: 15:29:30
BOTTOM ENVIRONMENT			
Depth (m): 1.5	Salinity (ppt): 0.20	Temperature (C): 26.73	
Dissolved Oxygen (mg/l): 8.6	Sediment Silt-Clay (%): 96.35	Total Carbon (%): 4.71	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 2.67	Condition: Marginal		# Attributes Scored: 6
	Value	Score	Value Score
Shannon-Wiener Index	1.50		Oligohaline Pollution Indicative Spp. Abund. 100.00 1
Abundance (#/m2)	2772	5	Tolerance Score 9.09 1
Deep Deposit Feeder Abundance (%)	19.67		Oligohaline Pollution Sensitive Spp. Abund. 0.00 1
Carnivore-Omnivore Abundance (%)	79.51	5	Tanypodinae/Chironomidae Abundance Ratio 24.74 3
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Chironomus spp.	1659	2.59917	
Coelotanypus spp.	545	0.09770	
Leptocheirus plumulosus	23	0.00909	
Limnodrilus hoffmeisteri	45		
Oligochaeta		0.02499	
Tubificidae imm w/o cap chaetae *	500		
Total Abundance w/ Epi.	2772		
Total Abundance w/o Epi.	2772		
Number of Taxa w/ Epi.	4		
Number of Taxa w/o Epi.	4		
Total Biomass w/ Epi.		2.73094	
Total Biomass w/o Epi.		2.73094	

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 203	Rep: 03
Gear: Young Grab		Habitat: Oligohaline	Date: 22AUG11
		Sampled Area: 0.044 sq.m	Time: 15:29:30
BOTTOM ENVIRONMENT			
Depth (m): 1.5	Salinity (ppt): 0.20	Temperature (C): 26.73	
Dissolved Oxygen (mg/l): 8.6	Sediment Silt-Clay (%): 96.35	Total Carbon (%): 4.71	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 3.00	Condition: Meets Goal		# Attributes Scored: 6
	Value	Score	Value Score
Shannon-Wiener Index	1.78		Oligohaline Pollution Indicative Spp. Abund. 100.00 1
Abundance (#/m2)	2499	5	Tolerance Score 8.62 3
Deep Deposit Feeder Abundance (%)	23.64		Oligohaline Pollution Sensitive Spp. Abund. 0.00 1
Carnivore-Omnivore Abundance (%)	73.64	5	Tanypodinae/Chironomidae Abundance Ratio 43.21 3
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Chironomus spp.	1045	1.38355	
Coelotanypus spp.	795	0.12042	
Leptocheirus plumulosus	68	0.03181	
Limnodrilus hoffmeisteri	45		
Oligochaeta		0.02726	
Tubificidae imm w/o cap chaetae *	545		
Total Abundance w/ Epi.	2499		
Total Abundance w/o Epi.	2499		
Number of Taxa w/ Epi.	4		
Number of Taxa w/o Epi.	4		
Total Biomass w/ Epi.		1.56303	
Total Biomass w/o Epi.		1.56303	

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Station: 204		Rep: 01
Watershed: Lower Western Shore	Habitat: High Mesohaline Mud	Date: 23AUG11
Gear: Young Grab	Sampled Area: 0.044 sq.m	Time: 11:41:16
BOTTOM ENVIRONMENT		
Depth (m): 7.1	Salinity (ppt): 10.05	Temperature (C): 26.49
Dissolved Oxygen (mg/l): 5.0	Sediment Silt-Clay (%): 63.23	Total Carbon (%): 1.96
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.00	Condition: Meets Goal	# Attributes Scored: 6
	Value Score	Value Score
Shannon-Wiener Index	1.76 1	Pollution Indicative Species Abundance (%) 6.67
Abundance (#/m2)	2045 5	Pollution Indicative Species Biomass (%) 0.86 5
Biomass (g/m2)	0.93 3	Pollution Sensitive Species Abundance (%) 3.33
Carnivore-Omnivore Abundance (%)	13.33 3	Pollution Sensitive Species Biomass (%) 16.89 1
Deep Deposit Feeder Abundance (%)	81.11	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Carinoma tremaphoros	136	0.06134
Eteone heteropoda	45	0.00682
Heteromastus filiformis	182	0.47712
Leptocheirus plumulosus	45	0.01363
Macoma balthica	68	0.15677
Neanthes succinea	91	0.18630
Tubificidae imm w/o cap chaetae	91	0.00114
Tubificoides spp.	1386	0.02499
Total Abundance w/ Epi.	2045	
Total Abundance w/o Epi.	2045	
Number of Taxa w/ Epi.	8	
Number of Taxa w/o Epi.	8	
Total Biomass w/ Epi.		0.92811
Total Biomass w/o Epi.		0.92811

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Lower Western Shore		Station: 204		Rep: 02	
Gear: Young Grab		Habitat: High Mesohaline Mud		Date: 23AUG11	
		Sampled Area: 0.044 sq.m		Time: 11:41:16	
BOTTOM ENVIRONMENT					
Depth (m): 7.1		Salinity (ppt): 10.05		Temperature (C): 26.49	
Dissolved Oxygen (mg/l): 5.0		Sediment Silt-Clay (%): 63.23		Total Carbon (%): 1.96	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.33		Condition: Meets Goal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.42	3	Pollution Indicative Species Abundance (%)	15.29	
Abundance (#/m2)	1931	5	Pollution Indicative Species Biomass (%)	1.27	5
Biomass (g/m2)	0.71	3	Pollution Sensitive Species Abundance (%)	2.35	
Carnivore-Omnivore Abundance (%)	23.53	3	Pollution Sensitive Species Biomass (%)	6.05	1
Deep Deposit Feeder Abundance (%)	65.88				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	91		0.02726		
Chironomus spp.	23		0.00114		
Eteone heteropoda	23		0.00227		
Heteromastus filiformis	182		0.29309		
Leptocheirus plumulosus	23		0.00682		
Macoma balthica	23		0.02726		
Macoma mitchelli	23		0.00227		
Neanthes succinea	318		0.31126		
Rangia cuneata	23		0.01590		
Streblospio benedicti	114		0.00454		
Tubificidae imm w/o cap chaetae	136		0.00114		
Tubificoides spp.	954		0.02045		
Total Abundance w/ Epi.	1931				
Total Abundance w/o Epi.	1931				
Number of Taxa w/ Epi.	12				
Number of Taxa w/o Epi.	12				
Total Biomass w/ Epi.			0.71341		
Total Biomass w/o Epi.			0.71341		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) FIXED STATIONS

Watershed: Lower Western Shore		Station: 204	Rep: 03
Gear: Young Grab		Habitat: High Mesohaline Mud	Date: 23AUG11
		Sampled Area: 0.044 sq.m	Time: 11:41:16
BOTTOM ENVIRONMENT			
Depth (m): 7.1	Salinity (ppt): 10.05	Temperature (C): 26.49	
Dissolved Oxygen (mg/l): 5.0	Sediment Silt-Clay (%): 63.23	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	2.54	3	Pollution Indicative Species Abundance (%) 17.57
Abundance (#/m2)	1681	5	Pollution Indicative Species Biomass (%) 0.45 5
Biomass (g/m2)	0.76	3	Pollution Sensitive Species Abundance (%) 2.70
Carnivore-Omnivore Abundance (%)	25.68	5	Pollution Sensitive Species Biomass (%) 14.35 1
Deep Deposit Feeder Abundance (%)	66.22		
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)	Biomass (g/m2)	
Carinoma tremaphoros	204	0.13178	
Eteone heteropoda	23	0.00227	
Heteromastus filiformis	182	0.19539	
Leptocheirus plumulosus	23	0.00909	
Macoma balthica	45	0.10906	
Macoma mitchelli	68	0.16358	
Neanthes succinea	204	0.13178	
Tubificidae imm w/o cap chaetae	273	0.00114	
Tubificoides spp.	659	0.01590	
Total Abundance w/ Epi.	1681		
Total Abundance w/o Epi.	1681		
Number of Taxa w/ Epi.	9		
Number of Taxa w/o Epi.	9		
Total Biomass w/ Epi.		0.75998	
Total Biomass w/o Epi.		0.75998	

DATA SUMMARY B

**BENTHIC ENVIRONMENT AND COMMUNITY
COMPOSITION AT RANDOM SITES:
SUMMER 2011**

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18401	18402	18403	18404	18405					
Watershed	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs					
Habitat	High Meso Mud	High Meso Mud	High Meso Mud	High Meso Mud	High Meso Mud					
Date	09/13/11	09/13/11	09/13/11	09/13/11	09/13/11					
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)	4.8	4.8	3.4	3.5	2.5					
Salinity (ppt)	14.38	14.31	14.77	13.38	13.74					
Temperature (C)	26.03	26.58	26.21	26.08	25.98					
Dissolved Oxygen (mg/L)	5.9	6.9	8.4	7.6	7.7					
Sediment Silt-Clay (%)	78.02	47.62	69.60	85.28	78.36					
Total Carbon (%)	2.76	1.75	1.89	2.83	1.85					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	2.67		2.67		2.67		2.00		1.67	
Condition	Marginal		Marginal		Marginal		Severely Degr.		Severely Degr.	
# Attributes Scored	6		6		6		6		6	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.75	3	2.62	3	2.88	3	2.77	3	2.70	3
Abundance (#/m2)	1000	1	3840	3	2545	3	636	1	886	1
Biomass (g/m2)	1.36	3	1.31	3	0.86	3	0.63	3	0.34	1
Pollution Indicative Spp Abund (%)	18.18		10.65		9.82		39.29		20.51	
Pollution Indicative Spp Biom (%)	27.66	3	15.41	3	20.72	3	84.57	1	30.87	1
Pollution Sensitive Spp Abund (%)	34.09		53.25		53.57		46.43		25.64	
Pollution Sensitive Spp Biom (%)	1.68	1	7.79	1	6.11	1	7.26	1	7.38	1
Carnivore-Omnivore Abund (%)	31.82	5	17.75	3	17.86	3	21.43	3	23.08	3
Deep Deposit Feeder Abund (%)	43.18		51.48		46.43		35.71		28.21	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Tolerance Score	0.00		0.00		0.00		0.00		0.00	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		0.00		0.00	

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18401	18402	18403	18404	18405
Acteocina canaliculata			23		
Ampelisca abdita		45	91		
Cyclaspis varians		68	114		
Edotea triloba (Epi.)			23		
Edwardsia elegans		45	68		
Glycinde solitaria	23	159	91	114	114
Haminoea solitaria		23	45		
Leitoscoloplos robustus	68	23			114
Leitoscoloplos spp.				45	
Leptocheirus plumulosus					23
Leucon americanus	68	136	159	23	23
Macoma mitchelli	68	545	227	45	318
Mediomastus ambiseta	318	1886	1181	182	114
Mulinia lateralis		159	136	45	68
Mytilus edulis (Epi.)		23			
Neanthes succinea	227	409	182	23	91
Parahesionia luteola	68	45	23		
Paraprionospio pinnata	114	114	114	136	
Podarke obscura			23		
Spiochaetopterus costarum			68		
Streblospio benedicti		114		23	
Tubificoides spp.	45	68			23
Total Abundance w/ Epifauna	1000	3862	2567	636	886
Total Abundance w/o Epifauna	1000	3840	2545	636	886
Number of Taxa w/ Epifauna	9	16	16	9	9
Number of Taxa w/o Epifauna	9	15	15	9	9
BENTHIC BIOMASS (Grams per sq. meter)					
Site	18401	18402	18403	18404	18405
Acteocina canaliculata			0.0045		
Ampelisca abdita		0.0045	0.0045		
Cyclaspis varians		0.0023	0.0045		
Edotea triloba (Epi.)			0.0023		
Edwardsia elegans		0.0023	0.0045		
Glycinde solitaria	0.0045	0.0295	0.0045	0.0273	0.0204
Haminoea solitaria		0.0011	0.0023		
Leitoscoloplos robustus	0.2181	0.0477			0.1022
Leitoscoloplos spp.				0.1954	
Leptocheirus plumulosus					0.0045
Leucon americanus	0.0045	0.0091	0.0023	0.0011	0.0011
Macoma mitchelli	0.2158	0.0273	0.0045	0.0068	0.0500
Mediomastus ambiseta	0.0182	0.0727	0.0318	0.0182	0.0045
Mulinia lateralis		0.0227	0.0204	0.0068	0.0023
Mytilus edulis (Epi.)		0.0023			
Neanthes succinea	0.7339	0.9520	0.5998	0.0432	0.1522
Parahesionia luteola	0.0023	0.0045	0.0023		
Paraprionospio pinnata	0.1568	0.1272	0.1568	0.3226	
Podarke obscura			0.0011		
Spiochaetopterus costarum			0.0114		
Streblospio benedicti		0.0045		0.0045	
Tubificoides spp.	0.0011	0.0045			0.0011
Total Biomass w/ Epifauna	1.3552	1.3144	0.8577	0.6259	0.3385
Total Biomass w/o Epifauna	1.3552	1.3121	0.8554	0.6259	0.3385

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18406	18407	18408	18409	18410					
Watershed	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs					
Habitat	High Meso Sand	High Meso Mud	High Meso Mud	High Meso Mud	Oligohaline					
Date	09/13/11	09/13/11	09/13/11	09/13/11	09/14/11					
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	3.1	3.8	3.6	0.7					
Salinity (ppt)	8.25	6.04	7.17	4.44	0.12					
Temperature (C)	25.77	26.05	25.96	25.97	24.92					
Dissolved Oxygen (mg/L)	6.5	6.4	6.4	5.4	3.1					
Sediment Silt-Clay (%)	14.51	67.88	85.33	89.07	85.03					
Total Carbon (%)	0.77	2.48	2.65	3.14	4.96					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	3.67		2.00		2.33		2.67		2.33	
Condition	Meets Goal		Severely Degr.		Degraded		Marginal		Degraded	
# Attributes Scored	6		6		6		6		6	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	3.31	5	1.83	1	1.97	1	1.38	1	1.37	
Abundance (#/m2)	1363	3	36034	1	13428	1	45872	1	8634	1
Biomass (g/m2)	0.77	1	4.06	5	2.69	5	2.87	5	1.00	
Pollution Indicative Spp Abund (%)	6.67	5	13.43		11.68		8.37		7.11	
Pollution Indicative Spp Biom (%)	10.28		7.00	3	2.36	5	2.89	5	2.15	
Pollution Sensitive Spp Abund (%)	30.00	3	0.44		1.18		1.04		7.63	
Pollution Sensitive Spp Biom (%)	57.27		10.14	1	8.70	1	31.54	3	88.24	
Carnivore-Omnivore Abund (%)	43.33	5	1.32	1	2.88	1	2.13	1	5.26	1
Deep Deposit Feeder Abund (%)	6.67		43.32		43.65		70.03		76.32	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		0.00		0.00		0.25		0.53	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		0.00		91.05	3
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		0.00		3.42	3
Tolerance Score	0.00		0.00		0.00		9.80		8.28	3
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		0.00		50.00	3

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18406	18407	18408	18409	18410
Ameroculodes species complex	23				
Amphiporus bioculatus			68		
Carinoma tremaphoros	159	68		204	45
Coelotanypus spp.					23
Cryptochironomus spp.					23
Cyathura polita	91		23	386	364
Cyclaspis varians		23			
Diadumene leucolea (Epi.)	23				
Edotea triloba (Epi.)		45		23	
Edwardsia elegans		91		68	
Eteone heteropoda		45		23	
Gammarus daiberi (Epi.)				45	
Gemma gemma	182				
Geukensia demissa (Epi.)			23		
Glycera dibranchiata	23				
Glycinde solitaria	204	68	114	68	
Heteromastus filiformis	91	818	1091	295	
Hobsonia florida					45
Laeonereis culveri	23				
Leptocheirus plumulosus	273	14654	5521	8929	704
Leucon americanus			23		
Littoridinops tenuipes (Epi.)		136			23
Macoma balthica		68	23	23	
Macoma mitchelli		386	45	114	
Marenzelleria viridis	114	23			295
Melita nitida (Epi.)				91	
Mulinia lateralis	23	364			
Neanthes succinea	91	204	182	227	
Streblospio benedicti	68	4430	1568	3703	545
Stylochus ellipticus (Epi.)		45			
Tubificidae imm w/o cap chaetae				114	45
Tubificoides spp.		14791	4771	31717	6543
Total Abundance w/ Epifauna	1386	36261	13450	46031	8656
Total Abundance w/o Epifauna	1363	36034	13428	45872	8634
Number of Taxa w/ Epifauna	14	17	12	16	11
Number of Taxa w/o Epifauna	13	14	11	13	10

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	18406	18407	18408	18409	18410
Ameroculodes species complex	0.0011		0.0091		
Amphiporus bioculatus					
Carinoma tremaphoros	0.0341	0.0386		0.1159	0.0011
Coelotanypus spp.					0.0023
Cryptochironomus spp.					0.0011
Cyathura polita	0.1545		0.0863	0.7043	0.1931
Cyclaspis varians		0.0011			
Diadumene leucolea (Epi.)	0.0795				
Edotea triloba (Epi.)		0.0011		0.0023	
Edwardsia elegans		0.0011		0.0011	
Eteone heteropoda		0.0045		0.0068	
Gammarus daiberi (Epi.)				0.0159	
Gemma gemma	0.0182				
Geukensia demissa (Epi.)			0.0023		
Glycera dibranchiata	0.0682				
Glycinde solitaria	0.0227	0.0091	0.0523	0.0204	
Heteromastus filiformis	0.0204	0.2476	0.3022	0.2545	
Hobsonia florida					0.0011
Laeonereis culveri	0.0091				
Leptocheirus plumulosus	0.0432	2.3947	1.7244	0.8043	0.0295
Leucon americanus			0.0023		
Littoridinops tenuipes (Epi.)		0.0023			0.0011
Macoma balthica		0.3499	0.0954	0.1818	
Macoma mitchelli		0.0841	0.0091	0.1363	
Marenzelleria viridis	0.2658	0.0523			0.6930
Melita nitida (Epi.)				0.0091	
Mulinia lateralis	0.0772	0.1045			
Neanthes succinea	0.0568	0.3226	0.2590	0.0568	
Streblospio benedicti	0.0023	0.1749	0.0636	0.0750	0.0182
Stylochus ellipticus (Epi.)		0.0045			
Tubificidae imm w/o cap chaetae				0.0011	0.0011
Tubificoides spp.		0.2704	0.0863	0.5157	0.0636
Total Biomass w/ Epifauna	0.8531	4.0635	2.6923	2.9013	1.0054
Total Biomass w/o Epifauna	0.7736	4.0555	2.6900	2.8741	1.0042

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18411	18412	18413	18414	18415					
Watershed	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs					
Habitat	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline					
Date	09/07/11	09/07/11	09/07/11	09/07/11	09/07/11					
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)	5.1	3.4	7.1	4.7	9.8					
Salinity (ppt)	8.30	9.67	9.77	4.02	10.17					
Temperature (C)	24.29	23.66	24.53	24.45	24.57					
Dissolved Oxygen (mg/L)	6.0	6.5	5.5	4.5	5.5					
Sediment Silt-Clay (%)	51.28	14.37	83.01	90.82	39.86					
Total Carbon (%)	1.24	0.57	1.64	3.35	0.72					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	3.80		3.40		3.80		2.20		4.20	
Condition	Meets Goal		Meets Goal		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	2.29	3	2.65	5	1.81	3	2.38	3	1.87	3
Abundance (#/m2)	5157	3	3953	3	2795	3	659	3	5430	3
Biomass (g/m2)	4.41	3	3.01	3	5.47	5	0.68	1	7.48	5
Pollution Indicative Spp Abund (%)	7.05	5	15.52	3	0.00	5	31.03	1	2.51	5
Pollution Indicative Spp Biom (%)	0.13		5.70		0.00		8.71		0.08	
Pollution Sensitive Spp Abund (%)	12.33		9.20		23.58		34.48		9.21	
Pollution Sensitive Spp Biom (%)	82.36	5	46.62	3	75.84	3	74.04	3	81.00	5
Carnivore-Omnivore Abund (%)	5.73		12.07		15.45		58.62		12.55	
Deep Deposit Feeder Abund (%)	52.86		7.47		2.44		0.00		10.04	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	2.64		1.15		0.00		0.00		0.42	
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		6.39		9.80	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		100.00		0.00	

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18411	18412	18413	18414	18415
Americamysis bigelowi (Epi.)	23				
Carinoma tremaphoros	68		45		
Chaoborus punctipennis				23	
Coelotanypus spp.				204	
Cyathura polita	136			159	
Gammarus daiberi (Epi.)				23	
Heteromastus filiformis	91	250	68		136
Leptocheirus plumulosus	1295	1272	1590	159	3476
Macoma balthica	386	136	568		477
Macoma mitchelli	114	977	45	45	114
Marenzelleria viridis	114	227	91	45	23
Melita nitida (Epi.)				23	
Micrura leidyi		23			91
Mulinia lateralis		477			
Neanthes succinea	91	454	386		591
Rangia cuneata				23	
Streblospio benedicti	227	91			114
Tubificidae imm w/o cap chaetae	136	45			23
Tubificoides spp.	2499				386
Total Abundance w/ Epifauna	5180	3953	2795	704	5430
Total Abundance w/o Epifauna	5157	3953	2795	659	5430
Number of Taxa w/ Epifauna	12	10	7	9	10
Number of Taxa w/o Epifauna	11	10	7	7	10
BENTHIC BIOMASS (Grams per sq. meter)					
Site	18411	18412	18413	18414	18415
Americamysis bigelowi (Epi.)	0.0011				
Carinoma tremaphoros	0.0273		0.0341		
Chaoborus punctipennis				0.0011	
Coelotanypus spp.				0.0591	
Cyathura polita	0.0295			0.3499	
Gammarus daiberi (Epi.)				0.0011	
Heteromastus filiformis	0.0613	0.1363	0.0114		0.0409
Leptocheirus plumulosus	0.3044	0.1727	0.4839	0.0273	0.8747
Macoma balthica	3.3012	0.9838	4.0010		6.0072
Macoma mitchelli	0.2567	0.4249	0.0954	0.0886	0.0114
Marenzelleria viridis	0.3022	0.4203	0.1500	0.0136	0.0523
Melita nitida (Epi.)				0.0011	
Micrura leidyi		0.5226			0.0886
Mulinia lateralis		0.1659			
Neanthes succinea	0.0886	0.1795	0.6975		0.3953
Rangia cuneata				0.1386	
Streblospio benedicti	0.0045	0.0045			0.0045
Tubificidae imm w/o cap chaetae	0.0011	0.0011			0.0011
Tubificoides spp.	0.0341				0.0045
Total Biomass w/ Epifauna	4.4122	3.0115	5.4732	0.6805	7.4806
Total Biomass w/o Epifauna	4.4111	3.0115	5.4732	0.6782	7.4806

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18416	18418	18419	18420	18421					
Watershed	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs					
Habitat	Low Mesohaline	Low Mesohaline	Low Mesohaline	Oligohaline	Oligohaline					
Date	08/24/11	08/24/11	08/24/11	08/24/11	08/29/11					
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)	2.0	3.0	0.5	0.5	4.3					
Salinity (ppt)	9.78	6.17	5.65	3.87	0.88					
Temperature (C)	25.34	26.23	26.14	25.71	23.88					
Dissolved Oxygen (mg/L)	7.3	5.5	6.4	9.7	6.7					
Sediment Silt-Clay (%)	1.65	53.04	7.38	88.52	94.70					
Total Carbon (%)	0.05	2.22	0.24	3.00	3.30					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	3.00		3.40		2.60		3.80		3.33	
Condition	Meets Goal		Meets Goal		Degraded		Meets Goal		Meets Goal	
# Attributes Scored	5		5		5		5		6	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.20	3	3.21	5	2.30	3	2.80		2.42	
Abundance (#/m2)	3840	3	10133	1	5862	3	704	5	1590	5
Biomass (g/m2)	2.58	3	7.42	5	2.52	3	1.20		43.47	
Pollution Indicative Spp Abund (%)	1.78	5	19.73	3	22.09	1	0.00		55.71	
Pollution Indicative Spp Biom (%)	1.15		1.29		5.42		0.00		0.24	
Pollution Sensitive Spp Abund (%)	18.93		28.25		53.49		45.16		31.43	
Pollution Sensitive Spp Biom (%)	35.68	1	77.38	3	73.29	3	43.35		99.64	
Carnivore-Omnivore Abund (%)	1.78		12.33		13.95		19.35	3	37.14	5
Deep Deposit Feeder Abund (%)	1.78		30.72		13.57		32.26		25.71	
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		25.71	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		35.48	3	68.57	3
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		9.68	3	20.00	3
Tolerance Score	6.00		6.00		6.00		6.00	5	7.73	3
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		0.00		100.00	1

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18416	18418	18419	18420	18421
Ameroculodes species complex		45			
Apocorophium lacustre (Epi.)		23	23		
Carinoma tremaphoros				23	
Coelotanypus spp.					477
Cyathura polita		432		91	114
Edotea triloba (Epi.)		227	45		
Edwardsia elegans		23		23	
Eteone heteropoda	68	750	636		
Heteromastus filiformis	68	2204	750		
Laeonereis culveri			159		
Lepidactylus dytiscus	1181				
Leptocheirus plumulosus	636	523	114	23	204
Limnodrilus hoffmeisteri					23
Littoridinops tenuipes (Epi.)		250	432	68	
Macoma balthica		523	45	68	
Macoma mitchelli	1159	1522	341	91	
Marenzelleria viridis	682	1159	2999	68	318
Melita nitida (Epi.)		23		45	
Mytilopsis leucophaeata (Epi.)	23	45	409		
Neanthes succinea		45	23		
Rangia cuneata	45	750	91	91	68
Streblospio benedicti		1250	659		
Tubificidae imm w/o cap chaetae *					386
Tubificoides spp.		909	45	227	
Total Abundance w/ Epifauna	3862	10701	6771	818	1590
Total Abundance w/o Epifauna	3840	10133	5862	704	1590
Number of Taxa w/ Epifauna	8	18	15	11	6
Number of Taxa w/o Epifauna	7	13	11	9	6

*Indicates taxa is skipped in taxon counts

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	18416	18418	18419	18420	18421
Ameroculodes species complex		0.0011			
Apocorophium lacustre (Epi.)		0.0011	0.0011		
Carinoma tremaphoros				0.0011	
Coelotanypus spp.					0.1000
Cyathura polita		0.1272		0.1136	0.1954
Edotea triloba (Epi.)		0.0114	0.0011		
Edwardsia elegans		0.0023		0.0011	
Eteone heteropoda	0.0295	0.0727	0.1181		
Heteromastus filiformis	0.0295	0.4408	0.1454		
Laeonereis culveri			0.1181		
Lepidactylus dytiscus	0.3090				
Leptocheirus plumulosus	0.0909	0.0591	0.0273	0.0068	0.0523
Littoridinops tenuipes (Epi.)		0.0023	0.0227	0.0011	
Macoma balthica		2.7082	0.2636	0.1659	
Macoma mitchelli	1.1996	1.0656	0.2295	0.6657	
Marenzelleria viridis	0.4771	1.1178	0.9270	0.1363	0.5816
Melita nitida (Epi.)		0.0023		0.0023	
Mytilopsis leucophaeata (Epi.)	0.0068	0.0204	0.6930		
Neanthes succinea		0.0045	0.0136		
Oligochaeta					0.0045
Rangia cuneata	0.4430	1.7881	0.6543	0.1022	42.5318
Streblospio benedicti		0.0227	0.0182		
Tubificoides spp.		0.0091	0.0023	0.0023	
Total Biomass w/ Epifauna	2.5855	7.4567	3.2353	1.1985	43.4656
Total Biomass w/o Epifauna	2.5787	7.4192	2.5174	1.1951	43.4656

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18422	18423	18424	18425	18426					
Watershed	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs					
Habitat	Oligohaline	Oligohaline	Oligohaline	Oligohaline	Oligohaline					
Date	08/29/11	08/29/11	08/29/11	08/29/11	08/29/11					
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)	1.4	0.5	1.8	2.5	1.6					
Salinity (ppt)	2.51	2.31	2.42	2.02	0.34					
Temperature (C)	24.19	24.24	23.83	23.10	23.33					
Dissolved Oxygen (mg/L)	6.6	6.5	6.2	5.7	7.1					
Sediment Silt-Clay (%)	96.69	89.29	82.80	88.23	1.44					
Total Carbon (%)	3.08	3.84	2.07	2.88	0.03					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	2.60		1.67		3.33		3.33		4.00	
Condition	Degraded		Severely Degr.		Meets Goal		Meets Goal		Meets Goal	
# Attributes Scored	5		6		6		6		6	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	1.27		0.75		2.63		1.97		2.26	
Abundance (#/m2)	477	5	886	5	2908	5	1318	5	3317	5
Biomass (g/m2)	0.10		0.07		0.76		81.11		0.48	
Pollution Indicative Spp Abund (%)	28.57		92.31		71.09		77.59		69.86	
Pollution Indicative Spp Biom (%)	1.10		96.55		17.56		0.38		62.97	
Pollution Sensitive Spp Abund (%)	9.52		0.00		21.88		10.34		15.07	
Pollution Sensitive Spp Biom (%)	94.51		0.00		81.85		99.62		34.18	
Carnivore-Omnivore Abund (%)	0.00	1	5.13	1	37.50	5	17.24	3	70.55	5
Deep Deposit Feeder Abund (%)	90.48		92.31		45.31		72.41		17.81	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	28.57		87.18		43.75		72.41		5.48	
Oligo Poll. Indic. Spp Abund (%)	90.48	3	100.00	1	73.44	3	77.59	3	78.77	3
Oligo Poll. Sens. Spp Abund (%)	9.52	3	0.00	1	9.38	3	6.90	3	11.64	3
Tolerance Score	9.80	1	9.60	1	8.22	3	9.18	1	8.58	3
Tany./Chir. Abundance Ratio	0.00		100.00	1	85.37	1	10.00	5	0.00	5

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18422	18423	18424	18425	18426
Apocorophium lacustre (Epi.)			886	273	
Aulodrilus pigueti					409
Balanus improvisus (Epi.)			23		
Cassidinidea ovalis (Epi.)			23		
Chiridotea almyra					23
Chironomus spp.				23	1727
Coelotanypus spp.		45	795	23	
Cricotopus sylvestris			23		
Cryptochironomus spp.				23	182
Cryptotendipes spp.				91	
Cyathura polita			159		136
Gammarus daiberi (Epi.)			23		
Glyptotendipes spp.				23	
Leptocheirus plumulosus		23	23		23
Limnodrilus hoffmeisteri			318	91	
Littoridinops tenuipes (Epi.)		136		114	
Marenzelleria viridis	45		273	91	364
Mytilopsis leucophaeata (Epi.)			91		
Nanocladus distinctus			45		
Parachironomus spp.				23	
Polypedilum spp.					273
Rangia cuneata			204	45	
Rhithropanopeus harrisii (Epi.)			68		
Stempellina spp.			68		
Tanytarsus spp. G Epler				23	
Tubificidae imm w/o cap chaetae	136	772			182
Tubificidae imm w/o cap chaetae *			954	863	
Tubificoides spp.	295	45	45		
Total Abundance w/ Epifauna	477	1022	4021	1704	3317
Total Abundance w/o Epifauna	477	886	2908	1318	3317
Number of Taxa w/ Epifauna	3	5	16	12	9
Number of Taxa w/o Epifauna	3	4	10	10	9

*Indicates taxa is skipped in taxon counts

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	18422	18423	18424	18425	18426
Apocorophium lacustre (Epi.)			0.0636	0.0136	
Balanus improvisus (Epi.)			0.0023		
Cassidinidea ovalis (Epi.)			0.0023		
Chiridotea almyra					0.0045
Chironomidae					0.2787
Coelotanypus spp.		0.0091	0.0682	0.0114	
Cyathura polita			0.0364		0.0568
Gammarus daiberi (Epi.)			0.0068		
Leptocheirus plumulosus		0.0011	0.0023		0.0091
Littoridinops tenuipes (Epi.)		0.0023		0.0045	
Marenzelleria viridis	0.0977		0.3044	0.2340	0.1068
Mytilopsis leucophaeata (Epi.)			0.0932		
Oligochaeta		0.0045	0.0659	0.2976	0.0227
Rangia cuneata			0.2840	80.5674	
Rhithropanopeus harrisii (Epi.)			0.1908		
Tubificidae imm w/o cap chaetae	0.0011	0.0500			
Tubificoides spp.	0.0045	0.0011	0.0023		
Total Biomass w/ Epifauna	0.1034	0.0682	1.1224	81.1286	0.4786
Total Biomass w/o Epifauna	0.1034	0.0659	0.7634	81.1104	0.4786

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18501	18502	18503	18504	18505	
Watershed	Mainstem	Mainstem	Mainstem	Mainstem	Mainstem	
Habitat	High Meso Mud	High Meso Mud	High Meso Sand	High Meso Sand	High Meso Sand	
Date	09/14/11	09/14/11	09/02/11	09/02/11	09/02/11	
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab	
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044	
BOTTOM ENVIRONMENT						
Depth (m)	3.5	2.6	4.4	3.8	8.3	
Salinity (ppt)	14.36	13.81	15.04	15.01	15.23	
Temperature (C)	26.33	26.10	24.94	24.97	24.97	
Dissolved Oxygen (mg/L)	7.6	7.4	8.9	7.3	7.9	
Sediment Silt-Clay (%)	73.39	88.29	18.00	29.20	5.02	
Total Carbon (%)	1.89	1.39	0.18	0.60	0.31	
BENTHIC INDEX OF BIOTIC INTEGRITY						
B-IBI Score	2.67		3.67		3.33	
Condition	Marginal		Meets Goal		Meets Goal	
# Attributes Scored	6		6		6	
	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.32	3	2.91	3	3.04	3
Abundance (#/m2)	1522	5	2022	5	2363	5
Biomass (g/m2)	0.74	3	0.60	3	0.77	1
Pollution Indicative Spp Abund (%)	35.82		26.97		7.69	5
Pollution Indicative Spp Biom (%)	89.51	1	48.67	1	7.34	
Pollution Sensitive Spp Abund (%)	49.25		51.69		73.08	5
Pollution Sensitive Spp Biom (%)	5.86	1	12.17	1	65.93	
Carnivore-Omnivore Abund (%)	14.93	3	16.85	3	27.88	3
Deep Deposit Feeder Abund (%)	43.28		42.70		9.62	
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		0.00		0.00	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18501	18502	18503	18504	18505
Acteocina canaliculata	91	45	136	182	591
Ameroculodes species complex			23		
Ampelisca abdita	45	23	45		
Ampelisca verrilli			23		
Ancistrosyllis hartmanae			23		
Balanus improvisus (Epi.)			91		
Clymenella torquata			68		
Diadumene leucolena (Epi.)			23		
Edotea triloba (Epi.)			23		
Edwardsia elegans	68		23		
Eteone heteropoda				23	
Glycera dibranchiata		23		68	
Glycinde solitaria	45	159	318	114	136
Heteromastus filiformis			68	182	23
Leitoscoloplos robustus	23	45			
Leitoscoloplos spp.			23		
Leucon americanus	23	114		23	
Listriella clymenellae			23		
Loimia medusa		23	45		
Macoma mitchelli	45	159		136	
Marenzelleria viridis				23	
Mediomastus ambiseta	613	818		227	
Micrura leidyi					23
Mulinia lateralis		318	136	91	
Mytilus edulis (Epi.)				45	
Neanthes succinea		68	159	91	91
Nemertina				23	
Odostomia engonia (Epi.)				45	
Ogyrides alphaerostris		45		23	
Paraprionospio pinnata	523	114	23	45	136
Parvilucina crenella			23	23	68
Pectinaria gouldii			68	68	114
Phoronis spp.			1022	273	114
Podarkeopsis levifuscina	23				
Rictaxis punctostriatus					68
Spiochaetopterus costarum			114	45	
Streblospio benedicti		68			23
Stylochus ellipticus (Epi.)			23		
Tubificoides spp.	23				
Turbonilla interrupta (Epi.)			23		
Total Abundance w/ Epifauna	1522	2022	2545	1749	1386
Total Abundance w/o Epifauna	1522	2022	2363	1659	1386
Number of Taxa w/ Epifauna	11	14	24	20	11
Number of Taxa w/o Epifauna	11	14	19	18	11

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	18501	18502	18503	18504	18505
<i>Acteocina canaliculata</i>	0.0068	0.0045	0.0091	0.0204	0.0273
<i>Amerocolodes species complex</i>			0.0068		
<i>Ampelisca abdita</i>	0.0023	0.0045	0.0045		
<i>Ampelisca verrilli</i>			0.0091		
<i>Ancistrosyllis hartmanae</i>			0.0045		
<i>Balanus improvisus (Epi.)</i>			0.0023		
<i>Clymenella torquata</i>			0.1113		
<i>Diadumene leucolena (Epi.)</i>			0.0091		
<i>Edotea triloba (Epi.)</i>			0.0023		
<i>Edwardsia elegans</i>	0.0068		0.0045		
<i>Eteone heteropoda</i>				0.0023	
<i>Glycera dibranchiata</i>		0.1318		0.1363	
<i>Glycinde solitaria</i>	0.0114	0.0159	0.0954	0.0204	0.0136
<i>Heteromastus filiformis</i>			0.0818	0.0477	0.0182
<i>Leitoscoloplos robustus</i>	0.1227	0.0886			
<i>Leitoscoloplos spp.</i>			0.0386		
<i>Leucon americanus</i>	0.0011	0.0023		0.0045	
<i>Listriella clymenellae</i>			0.0011		
<i>Loimia medusa</i>		0.0273	0.1250		
<i>Macoma mitchelli</i>	0.0204	0.0091		0.0068	
<i>Marenzelleria viridis</i>				0.0273	
<i>Mediomastus ambiseta</i>	0.0250	0.0250		0.0114	
<i>Micrura leidyi</i>					0.0523
<i>Mulinia lateralis</i>		0.0545	0.0114	0.0250	
<i>Mytilus edulis (Epi.)</i>				0.0023	
<i>Neanthes succinea</i>		0.0045	0.0591	0.0273	0.0613
<i>Nemertina</i>				0.0204	
<i>Odostomia engonia (Epi.)</i>				0.0023	
<i>Ogyrides alphaerostris</i>		0.0818		0.0068	
<i>Paraprionospio pinnata</i>	0.5362	0.1454	0.0068	0.0795	0.0568
<i>Parvilucina crenella</i>			0.0273	0.0091	0.0568
<i>Pectinaria gouldii</i>			0.0091	0.0068	0.0045
<i>Phoronis spp.</i>			0.1409	0.0227	0.0136
<i>Podarkeopsis levifuscina</i>	0.0023				
<i>Rictaxis punctostriatus</i>					0.0045
<i>Spiochaetopterus costarum</i>			0.0273	0.0114	
<i>Streblospio benedicti</i>		0.0023			0.0045
<i>Stylochus ellipticus (Epi.)</i>			0.0023		
<i>Tubificoides spp.</i>	0.0011				
<i>Turbonilla interrupta (Epi.)</i>			0.0091		
Total Biomass w/ Epifauna	0.7361	0.5975	0.7986	0.4908	0.3135
Total Biomass w/o Epifauna	0.7361	0.5975	0.7736	0.4862	0.3135

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18506	18507	18508	18509	18510					
Watershed	Mainstem	Mainstem	Mainstem	Mainstem	Mainstem					
Habitat	High Meso Mud	High Meso Sand	High Meso Sand	High Meso Mud	High Meso Sand					
Date	09/02/11	09/02/11	09/02/11	09/02/11	09/02/11					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	10.9	10.5	9.3	10.8	6.4					
Salinity (ppt)	14.66	14.95	14.86	14.68	14.48					
Temperature (C)	25.25	25.45	25.41	25.21	25.14					
Dissolved Oxygen (mg/L)	8.2	5.2	5.1	7.8	8.9					
Sediment Silt-Clay (%)	87.06	17.74	7.27	91.50	0.98					
Total Carbon (%)	1.61	0.96	0.38	2.32	0.06					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	2.67		2.00		2.33		1.00		2.67	
Condition	Marginal		Severely Degr.		Degraded		Severely Degr.		Marginal	
# Attributes Scored	6		6		6		6		6	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.62	3	1.39	1	2.36	1	0.00	1	2.57	3
Abundance (#/m2)	909	1	409	1	1681	5	0	1	954	1
Biomass (g/m2)	0.56	3	0.01	1	0.20	1	0.00	1	1.24	3
Pollution Indicative Spp Abund (%)	27.50		5.56	5	33.78	1	100.00		2.38	5
Pollution Indicative Spp Biom (%)	15.34	3	16.67		55.68		100.00	1	0.73	
Pollution Sensitive Spp Abund (%)	32.50		77.78	3	47.30	5	0.00		61.90	3
Pollution Sensitive Spp Biom (%)	28.22	1	50.00		36.36		0.00	1	6.23	
Carnivore-Omnivore Abund (%)	57.50	5	11.11	1	13.51	1	0.00	1	19.05	1
Deep Deposit Feeder Abund (%)	7.50		11.11		6.76		0.00		11.90	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Tolerance Score	0.00		0.00		0.00		0.00		0.00	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		0.00		0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18506	18507	18508	18509	18510
<i>Acteocina canaliculata</i>	136		23		
<i>Carinoma tremaphoros</i>					23
<i>Glycinde solitaria</i>	114	23			91
<i>Heteromastus filiformis</i>	68				114
<i>Loimia medusa</i>	23				
<i>Macoma mitchelli</i>	23				68
<i>Marenzelleria viridis</i>					23
<i>Mulinia lateralis</i>	23		204		23
<i>Nassarius vibex</i>					23
<i>Neanthes succinea</i>	273	23	23		23
<i>Paraonis fulgens</i>					23
<i>Paraprionospio pinnata</i>	227	23	182		
<i>Parvilucina crenella</i>					45
<i>Pectinaria gouldii</i>		45	114		
<i>Phoronis spp.</i>	23	295	772		477
<i>Rictaxis punctostriatus</i>			182		23
<i>Streblospio benedicti</i>			182		
Total Abundance w/ Epifauna	909	409	1681	0	954
Total Abundance w/o Epifauna	909	409	1681		954
Number of Taxa w/ Epifauna	9	5	8	0	12
Number of Taxa w/o Epifauna	9	5	8	0	12
BENTHIC BIOMASS (Grams per sq. meter)					
Site	18506	18507	18508	18509	18510
<i>Acteocina canaliculata</i>	0.0045		0.0023		
<i>Carinoma tremaphoros</i>					0.0023
<i>Glycinde solitaria</i>	0.0295	0.0011			0.0091
<i>Heteromastus filiformis</i>	0.1749				0.0159
<i>Loimia medusa</i>	0.1181				
<i>Macoma mitchelli</i>	0.0023				0.0204
<i>Marenzelleria viridis</i>					0.0341
<i>Mulinia lateralis</i>	0.0011		0.0500		0.0091
<i>Nassarius vibex</i>					1.0678
<i>Neanthes succinea</i>	0.1363	0.0011	0.0068		0.0011
<i>Paraonis fulgens</i>					0.0023
<i>Paraprionospio pinnata</i>	0.0841	0.0011	0.0500		
<i>Parvilucina crenella</i>					0.0432
<i>Pectinaria gouldii</i>		0.0011	0.0023		
<i>Phoronis spp.</i>	0.0045	0.0023	0.0704		0.0341
<i>Rictaxis punctostriatus</i>			0.0068		0.0011
<i>Streblospio benedicti</i>			0.0114		
Total Biomass w/ Epifauna	0.5555	0.0068	0.1999	0.0000	1.2405
Total Biomass w/o Epifauna	0.5555	0.0068	0.1999	0.0000	1.2405

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18511	18512	18513	18514	18515					
Watershed	Mainstem	Mainstem	Mainstem	Mainstem	Mainstem					
Habitat	High Meso Sand	High Meso Sand	High Meso Mud	High Meso Sand	High Meso Sand					
Date	09/02/11	09/22/11	08/26/11	09/12/11	09/07/11					
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)	5.7	3.0	10.8	0.6	4.4					
Salinity (ppt)	13.61	6.82	15.23	10.21	12.73					
Temperature (C)	25.07	22.35	25.98	26.86	24.03					
Dissolved Oxygen (mg/L)	9.8	9.7	1.2	11.0	6.5					
Sediment Silt-Clay (%)	1.65	26.79	82.12	2.70	1.66					
Total Carbon (%)	0.03	0.25	3.23	0.10	0.18					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	2.33		3.33		1.00		1.67		2.33	
Condition	Degraded		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	2.90	3	2.82	3	0.00	1	2.87	3	0.14	1
Abundance (#/m2)	1590	5	2431	5	0	1	7157	1	297655	1
Biomass (g/m2)	0.34	1	1.30	3	0.00	1	1.22	3	14.16	5
Pollution Indicative Spp Abund (%)	31.43	1	17.76	3	100.00	1	39.05	1	0.27	5
Pollution Indicative Spp Biom (%)	35.25		12.46		100.00	1	17.13		0.68	
Pollution Sensitive Spp Abund (%)	27.14	3	24.30	3	0.00		2.86	1	0.01	1
Pollution Sensitive Spp Biom (%)	38.64		42.33		0.00	1	34.92		0.06	
Carnivore-Omnivore Abund (%)	15.71	1	22.43	3	0.00	1	18.10	1	0.23	1
Deep Deposit Feeder Abund (%)	7.14		10.28		0.00		26.98		0.73	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Tolerance Score	0.00		0.00		0.00		0.00		0.00	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		0.00		0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18511	18512	18513	18514	18515
<i>Acteocina canaliculata</i>	68				
<i>Americamysis bigelowi</i> (Epi.)				23	
<i>Ameroculodes species complex</i>		23		136	114
<i>Balanus improvisus</i> (Epi.)					23
<i>Carinoma tremaphoros</i>	23				159
<i>Cyathura polita</i>		23		23	
<i>Cyclaspis varians</i>		23		23	
<i>Edotea triloba</i> (Epi.)	45				114
<i>Eteone heteropoda</i>				954	45
<i>Gemma gemma</i>	23				293474
<i>Glycinde solitaria</i>	114	23			23
<i>Heteromastus filiiformis</i>	114	250		273	2022
<i>Leitoscoloplos robustus</i>					159
<i>Leptocheirus plumulosus</i>		341		682	
<i>Macoma balthica</i>				23	
<i>Macoma mitchelli</i>	432	273		1068	591
<i>Marenzelleria viridis</i>	136	545		159	
<i>Micrura leidy</i>					159
<i>Mulinia lateralis</i>	454	386		91	409
<i>Neanthes succinea</i>	45	500		318	295
<i>Odostomia engonia</i> (Epi.)					23
<i>Paraonis fulgens</i>	23				
<i>Phoronis spp.</i>	114				
<i>Sphaeroma quadridentatum</i> (Epi.)					159
<i>Streblospio benedicti</i>	45	45		1749	204
<i>Stylochus ellipticus</i> (Epi.)	23				
<i>Tubificoides spp.</i>				1659	
Total Abundance w/ Epifauna	1659	2431	0	7180	297973
Total Abundance w/o Epifauna	1590	2431		7157	297655
Number of Taxa w/ Epifauna	14	11	0	14	16
Number of Taxa w/o Epifauna	12	11	0	13	12

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	18511	18512	18513	18514	18515
<i>Acteocina canaliculata</i>	0.0114				
<i>Americamysis bigelowi</i> (Epi.)				0.0011	
<i>Ameroculodes species complex</i>		0.0045		0.0295	0.0204
<i>Balanus improvisus</i> (Epi.)					0.0011
<i>Carinoma tremaphoros</i>	0.0045				0.0068
<i>Cyathura polita</i>		0.0454		0.0011	
<i>Cyclaspis varians</i>		0.0011		0.0011	
<i>Edotea triloba</i> (Epi.)	0.0068				0.0114
<i>Eteone heteropoda</i>				0.0772	0.0023
<i>Gemma gemma</i>	0.0011				13.1367
<i>Glycinde solitaria</i>	0.0114	0.0045			0.0091
<i>Heteromastus filiformis</i>	0.0114	0.0545		0.0159	0.1091
<i>Leitoscoloplos robustus</i>					0.0011
<i>Leptocheirus plumulosus</i>		0.1204		0.1113	
<i>Macoma balthica</i>				0.0932	
<i>Macoma mitchelli</i>	0.0682	0.0772		0.2158	0.2522
<i>Marenzelleria viridis</i>	0.0977	0.5021		0.3317	
<i>Micrura leidyi</i>					0.5112
<i>Mulinia lateralis</i>	0.1159	0.1613		0.0613	0.0909
<i>Neanthes succinea</i>	0.0011	0.3317		0.1954	0.0136
<i>Odostomia engonia</i> (Epi.)					0.0023
<i>Paraonis fulgens</i>	0.0011				
<i>Phoronis spp.</i>	0.0091				
<i>Sphaeroma quadridentatum</i> (Epi.)					0.0091
<i>Streblospio benedicti</i>	0.0023	0.0011		0.0704	0.0023
<i>Stylochus ellipticus</i> (Epi.)	0.0045				
<i>Tubificoides spp.</i>				0.0159	
Total Biomass w/ Epifauna	0.3465	1.3041	0.0000	1.2212	14.1796
Total Biomass w/o Epifauna	0.3351	1.3041	0.0000	1.2201	14.1557

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18516	18517	18518	18519	18520					
Watershed	Mainstem	Mainstem	Mainstem	Mainstem	Mainstem					
Habitat	High Meso Mud	High Meso Mud	High Meso Sand	High Meso Sand	High Meso Sand					
Date	09/07/11	08/26/11	08/26/11	09/07/11	09/07/11					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	9.7	11.0	6.2	2.0	3.8					
Salinity (ppt)	13.27	15.39	13.50	10.48	11.65					
Temperature (C)	24.53	25.73	25.69	23.24	24.14					
Dissolved Oxygen (mg/L)	5.0	2.4	4.3	7.3	7.9					
Sediment Silt-Clay (%)	54.09	91.35	15.27	3.35	1.34					
Total Carbon (%)	1.38	3.86	0.42	0.19	0.08					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	1.00		1.00		4.00		2.00		2.33	
Condition	Severely Degr.		Severely Degr.		Meets Goal		Severely Degr.		Degraded	
# Attributes Scored	6		6		6		6		6	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	1.00	1	0.00	1	2.80	3	2.68	3	3.09	3
Abundance (#/m2)	45	1	0	1	2567	5	2317	5	1818	5
Biomass (g/m2)	0.02	1	0.00	1	3.19	5	0.72	1	1.14	3
Pollution Indicative Spp Abund (%)	100.00		100.00		10.62	3	51.96	1	37.50	1
Pollution Indicative Spp Biom (%)	100.00	1	100.00	1	2.00		32.91		24.10	
Pollution Sensitive Spp Abund (%)	0.00		0.00		10.62	3	8.82	1	7.50	1
Pollution Sensitive Spp Biom (%)	0.00	1	0.00	1	36.92		29.43		22.51	
Carnivore-Omnivore Abund (%)	0.00	1	0.00	1	58.41	5	11.76	1	2.50	1
Deep Deposit Feeder Abund (%)	50.00		0.00		18.58		6.86		23.75	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		0.00		0.88		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	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18516	18517	18518	18519	18520
Americamysis bigelowi (Epi.)				23	
Ameroculodes species complex					91
Carinoma tremaphoros			523	23	23
Chironomus spp.			23		
Cyathura polita				91	23
Cyclaspis varians				23	
Eteone heteropoda			68		
Gemma gemma				23	364
Heteromastus filiformis			364	114	227
Leitoscoloplos robustus					204
Leitoscoloplos spp.	23			45	
Lepidactylus dytiscus					68
Leptocheirus plumulosus				227	
Leucon americanus			23		
Macoma balthica			23		
Macoma mitchelli			136	341	227
Marenzelleria viridis			250	114	114
Mulinia lateralis	23		45	1022	364
Neanthes succinea			886	159	
Streblospio benedicti			114	136	114
Tubificidae imm w/o cap chaetae			23		
Tubificoides spp.			91		
Total Abundance w/ Epifauna	45	0	2567	2340	1818
Total Abundance w/o Epifauna	45		2567	2317	1818
Number of Taxa w/ Epifauna	2	0	13	13	11
Number of Taxa w/o Epifauna	2	0	13	12	11
BENTHIC BIOMASS (Grams per sq. meter)					
Site	18516	18517	18518	18519	18520
Americamysis bigelowi (Epi.)				0.0011	
Ameroculodes species complex					0.0091
Carinoma tremaphoros			0.1522	0.0045	0.0045
Chironomus spp.			0.0011		
Cyathura polita				0.0386	0.0114
Cyclaspis varians				0.0023	
Eteone heteropoda			0.0182		
Gemma gemma				0.0159	0.2158
Heteromastus filiformis			0.1659	0.0682	0.0341
Leitoscoloplos robustus					0.0409
Leitoscoloplos spp.	0.0091			0.0023	
Lepidactylus dytiscus					0.2726
Leptocheirus plumulosus				0.0295	
Leucon americanus			0.0023		
Macoma balthica			0.5339		
Macoma mitchelli			0.1113	0.0136	0.0727
Marenzelleria viridis			0.6430	0.1727	0.2454
Mulinia lateralis	0.0068		0.0341	0.2249	0.2249
Neanthes succinea			1.5086	0.1363	
Streblospio benedicti			0.0091	0.0091	0.0091
Tubificidae imm w/o cap chaetae			0.0011		
Tubificoides spp.			0.0068		
Total Biomass w/ Epifauna	0.0159	0.0000	3.1876	0.7191	1.1405
Total Biomass w/o Epifauna	0.0159	0.0000	3.1876	0.7180	1.1405

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18521	18522	18523	18524	18525					
Watershed	Mainstem	Mainstem	Mainstem	Mainstem	Mainstem					
Habitat	High Meso Sand	High Meso Mud	High Meso Mud	High Meso Sand	Low Mesohaline					
Date	09/07/11	09/12/11	09/12/11	09/07/11	08/23/11					
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)	7.4	0.8	2.8	3.1	7.4					
Salinity (ppt)	12.43	8.58	9.63	11.22	10.93					
Temperature (C)	24.26	26.08	25.16	24.36	25.83					
Dissolved Oxygen (mg/L)	7.2	7.8	3.4	8.0	6.1					
Sediment Silt-Clay (%)	2.46	73.84	93.73	3.63	30.70					
Total Carbon (%)	0.10	1.06	2.45	0.14	1.01					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	3.33		3.67		3.33		2.67		3.80	
Condition	Meets Goal		Meets Goal		Meets Goal		Marginal		Meets Goal	
# Attributes Scored	6		6		6		6		5	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.53	3	2.59	3	2.02	3	2.11	1	2.76	5
Abundance (#/m2)	1863	5	19335	1	3908	3	2340	5	2795	3
Biomass (g/m2)	4.88	5	7.41	5	1.84	3	1.14	3	3.28	3
Pollution Indicative Spp Abund (%)	30.49	1	48.06	3	40.70	3	8.74	5	8.94	5
Pollution Indicative Spp Biom (%)	25.29		4.46	5	2.65	5	9.27		1.00	
Pollution Sensitive Spp Abund (%)	21.95	3	14.92		6.40		4.85	1	6.50	
Pollution Sensitive Spp Biom (%)	7.41		82.74	5	89.46	5	36.49		41.23	3
Carnivore-Omnivore Abund (%)	24.39	3	17.27	3	5.81	1	12.62	1	42.28	
Deep Deposit Feeder Abund (%)	4.88		7.29		59.88		3.88		30.08	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		0.47		11.05		0.00		3.25	
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		9.08		9.80		0.00		9.04	
Tany./Chir. Abundance Ratio	0.00		100.00		0.00		0.00		0.00	

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18521	18522	18523	18524	18525
<i>Acteocina canaliculata</i>	295				
<i>Ameroculodes</i> species complex				23	
<i>Apocorophium lacustre</i> (Epi.)		23			
<i>Carinoma tremaphoros</i>	68		23		591
<i>Coelotanypus</i> spp.		23			
<i>Cyathura polita</i>		432	182	23	
<i>Cyclaspis varians</i>		45		23	
<i>Edotea triloba</i> (Epi.)		454			
<i>Edwardsia elegans</i>		1704			
<i>Eteone heteropoda</i>		1045	23	23	159
<i>Glycera dibranchiata</i>	23				
<i>Hargeria rapax</i>		91			
<i>Heteromastus filiformis</i>	68	727	23	91	727
<i>Leptocheirus plumulosus</i>	23	295	114	227	477
<i>Macoma balthica</i>	45		45		159
<i>Macoma mitchelli</i>	613	3567	23	1409	114
<i>Marenzelleria viridis</i>	68	2454	23	91	
<i>Micrura leidy</i>	23			23	23
<i>Mulinia lateralis</i>	568			23	
<i>Neanthes succinea</i>	45	136		227	409
<i>Rangia cuneata</i>					23
<i>Streblospio benedicti</i>		8134	1136	159	
Tubificidae imm w/o cap chaetae		91	432		91
<i>Tubificoides</i> spp.	23	591	1886		23
Total Abundance w/ Epifauna	1863	19812	3908	2340	2795
Total Abundance w/o Epifauna	1863	19335	3908	2340	2795
Number of Taxa w/ Epifauna	12	16	11	12	11
Number of Taxa w/o Epifauna	12	14	11	12	11

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	18521	18522	18523	18524	18525
<i>Acteocina canaliculata</i>	0.0704				
<i>Ameroculodes</i> species complex				0.0011	
<i>Apocorophium lacustre</i> (Epi.)		0.0045			
<i>Carinoma tremaphoros</i>	0.0068		0.0250		0.1409
<i>Coelotanypus</i> spp.		0.0045			
<i>Cyathura polita</i>		0.2090	0.3726	0.0068	
<i>Cyclaspis varians</i>		0.0011		0.0011	
<i>Edotea triloba</i> (Epi.)		0.0295			
<i>Edwardsia elegans</i>		0.0932			
<i>Eteone heteropoda</i>		0.0727	0.0068	0.0011	0.0318
<i>Glycera dibranchiata</i>	3.0763				
<i>Hargeria rapax</i>		0.0068			
<i>Heteromastus filiformis</i>	0.0364	0.1840	0.0091	0.0727	0.5839
<i>Leptocheirus plumulosus</i>	0.0114	0.0977	0.0250	0.0750	0.0545
<i>Macoma balthica</i>	0.1454		1.2155		1.3246
<i>Macoma mitchelli</i>	0.0909	0.3635	0.0613	0.3658	0.3635
<i>Marenzelleria viridis</i>	0.1454	5.9208	0.0613	0.4090	
<i>Micrura leidyi</i>	0.0318			0.0091	0.0114
<i>Mulinia lateralis</i>	1.2337			0.0909	
<i>Neanthes succinea</i>	0.0250	0.1908		0.0932	0.7384
<i>Rangia cuneata</i>					0.0273
<i>Streblospio benedicti</i>		0.2522	0.0409	0.0136	
Tubificidae imm w/o cap chaetae		0.0011	0.0011		0.0011
<i>Tubificoides</i> spp.	0.0045	0.0114	0.0250		0.0011
Total Biomass w/ Epifauna	4.8780	7.4431	1.8437	1.1394	3.2785
Total Biomass w/o Epifauna	4.8780	7.4090	1.8437	1.1394	3.2785

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18301	18302	18303	18304	18305					
Watershed	Western Tribs	Western Tribs	Western Tribs	Western Tribs	Western Tribs					
Habitat	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline					
Date	08/23/11	08/23/11	08/23/11	08/23/11	08/23/11					
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)	1.4	4.3	1.6	4.2	0.7					
Salinity (ppt)	10.61	11.37	10.01	10.34	8.99					
Temperature (C)	26.02	26.26	26.74	26.56	27.48					
Dissolved Oxygen (mg/L)	5.7	6.2	6.4	5.8	8.4					
Sediment Silt-Clay (%)	41.25	94.82	5.13	36.39	2.57					
Total Carbon (%)	1.14	2.27	0.27	1.37	0.14					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	3.40		3.40		3.00		2.60		3.40	
Condition	Meets Goal		Meets Goal		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	2.77	5	2.68	5	2.40	3	2.52	5	2.15	3
Abundance (#/m2)	1659	5	1590	5	3749	3	1954	5	4226	3
Biomass (g/m2)	1.26	3	0.92	1	2.14	3	0.58	1	1.56	3
Pollution Indicative Spp Abund (%)	28.77	1	10.00	5	23.03	1	62.79	1	3.76	5
Pollution Indicative Spp Biom (%)	2.79		2.21		3.82		14.98		0.51	
Pollution Sensitive Spp Abund (%)	34.25		2.86		33.94		1.16		36.02	
Pollution Sensitive Spp Biom (%)	43.31	3	24.82	1	86.58	5	15.56	1	56.81	3
Carnivore-Omnivore Abund (%)	36.99		21.43		25.45		40.70		3.76	
Deep Deposit Feeder Abund (%)	23.29		40.00		1.82		17.44		5.38	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	2.74		0.00		0.00		3.49		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	8.60		0.00		6.00		9.80		5.67	
Tany./Chir. Abundance Ratio	100.00		0.00		0.00		0.00		0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18301	18302	18303	18304	18305
Apocorophium lacustre (Epi.)			523	23	
Carinoma tremaphoros		159			
Cladotanytarsus spp.					23
Coelotanypus spp.	23				
Cyathura polita	477				68
Eteone heteropoda	114	91	863	545	45
Geukensia demissa (Epi.)			23		
Hargeria rapax			227		
Heteromastus filiformis	227	295	23	136	227
Laeonereis culveri					23
Leptocheirus plumulosus		477	477		454
Littoridinops tenuipes (Epi.)					23
Macoma balthica		45		23	
Macoma mitchelli	273	23	750	182	1840
Marenzelleria viridis	91		1250		1318
Neanthes succinea		91	91	250	
Rangia cuneata			23		136
Streblospio benedicti	295	68		613	91
Tubificidae imm w/o cap chaetae	45			68	
Tubificoides spp.	114	341	45	136	
Total Abundance w/ Epifauna	1659	1590	4294	1977	4249
Total Abundance w/o Epifauna	1659	1590	3749	1954	4226
Number of Taxa w/ Epifauna	9	9	11	9	11
Number of Taxa w/o Epifauna	9	9	9	8	10
BENTHIC BIOMASS (Grams per sq. meter)					
Site	18301	18302	18303	18304	18305
Apocorophium lacustre (Epi.)			0.0454	0.0023	
Carinoma tremaphoros		0.0863			
Cladotanytarsus spp.					0.0011
Coelotanypus spp.	0.0045				
Cyathura polita	0.4408				0.1136
Eteone heteropoda	0.0227	0.0182	0.0818	0.0772	0.0023
Geukensia demissa (Epi.)			0.0023		
Hargeria rapax			0.0182		
Heteromastus filiformis	0.1886	0.1568	0.0068	0.3590	0.2885
Laeonereis culveri					0.1908
Leptocheirus plumulosus		0.1840	0.0682		0.0772
Littoridinops tenuipes (Epi.)					0.0011
Macoma balthica		0.2295		0.0909	
Macoma mitchelli	0.4885	0.1045	0.0863	0.0136	0.1091
Marenzelleria viridis	0.1068		1.8494		0.7452
Neanthes succinea		0.1386	0.0250	0.0318	
Rangia cuneata			0.0045		0.0273
Streblospio benedicti	0.0068	0.0023		0.0091	0.0045
Tubificidae imm w/o cap chaetae	0.0011			0.0011	
Tubificoides spp.	0.0045	0.0045	0.0011	0.0011	
Total Biomass w/ Epifauna	1.2644	0.9247	2.1891	0.5862	1.5609
Total Biomass w/o Epifauna	1.2644	0.9247	2.1414	0.5839	1.5597

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18306	18307	18308	18309	18310					
Watershed	Western Tribs	Western Tribs	Western Tribs	Western Tribs	Western Tribs					
Habitat	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline					
Date	08/23/11	08/23/11	08/22/11	08/22/11	08/22/11					
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	1.2	0.9	1.9	0.6					
Salinity (ppt)	8.32	7.91	5.54	7.37	7.68					
Temperature (C)	27.46	28.44	25.50	26.44	26.95					
Dissolved Oxygen (mg/L)	8.3	8.8	4.5	8.3	8.9					
Sediment Silt-Clay (%)	1.24	1.70	80.39	1.35	3.07					
Total Carbon (%)	0.11	0.22	6.11	0.06	0.26					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	3.00		3.00		1.40		2.60		2.60	
Condition	Meets Goal		Meets Goal		Severely Degr.		Degraded		Degraded	
# Attributes Scored	5		5		5		5		5	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.25	3	2.56	5	1.46	1	2.23	3	1.60	1
Abundance (#/m2)	4385	3	2136	5	1227	3	5566	3	6589	1
Biomass (g/m2)	1.39	3	0.46	1	0.26	1	1.18	3	2.73	3
Pollution Indicative Spp Abund (%)	3.63	5	74.47	1	85.19	1	25.31	1	1.03	5
Pollution Indicative Spp Biom (%)	0.90		11.00		34.48		3.66		0.12	
Pollution Sensitive Spp Abund (%)	25.39		2.13		0.00		46.12		18.62	
Pollution Sensitive Spp Biom (%)	22.60	1	52.32	3	0.00	1	63.97	3	42.41	3
Carnivore-Omnivore Abund (%)	5.18		59.57		40.74		6.53		2.41	
Deep Deposit Feeder Abund (%)	0.52		5.32		1.85		2.45		3.45	
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	3.70		8.96		9.80		6.00		6.00	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		0.00		0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18306	18307	18308	18309	18310
Apocorophium lacustre (Epi.)	23			23	
Carinoma tremaphoros	114	182	159		68
Chiridotea almyra					23
Chironomus spp.		364	341		
Cladotanytarsus spp.	23				
Cladotanytarsus spp. B Epler		45			
Eteone heteropoda	91	477		364	45
Geukensia demissa (Epi.)	23				
Heteromastus filiformis	23	114	23	136	227
Laeonereis culveri		204			
Lepidactylus dytiscus	1659			136	23
Leptocheirus plumulosus	591			886	4453
Littoridinops tenuipes (Epi.)	23	45		45	772
Macoma balthica		23			
Macoma mitchelli	727			432	477
Marenzelleria viridis	1113			2545	1091
Mytilopsis leucophaeata (Epi.)		136	45	91	295
Neanthes succinea					23
Rangia cuneata		23		23	136
Streblospio benedicti	45	704	704	1045	23
Total Abundance w/ Epifauna	4453	2317	1272	5725	7657
Total Abundance w/o Epifauna	4385	2136	1227	5566	6589
Number of Taxa w/ Epifauna	12	11	5	11	13
Number of Taxa w/o Epifauna	9	9	4	8	11
BENTHIC BIOMASS (Grams per sq. meter)					
Site	18306	18307	18308	18309	18310
Apocorophium lacustre (Epi.)	0.0011			0.0011	
Carinoma tremaphoros	0.0409	0.0432	0.1659		0.0136
Chiridotea almyra					0.0045
Chironomidae		0.0011			
Chironomus spp.			0.0818		
Cladotanytarsus spp.	0.0011				
Eteone heteropoda	0.0068	0.0364		0.0182	0.0023
Geukensia demissa (Epi.)	0.0011				
Heteromastus filiformis	0.0204	0.1068	0.0068	0.1409	0.2158
Laeonereis culveri		0.0204			
Lepidactylus dytiscus	0.5067			0.0909	0.0091
Leptocheirus plumulosus	0.1250			0.1386	0.9043
Littoridinops tenuipes (Epi.)	0.0023	0.0045		0.0068	0.0863
Macoma balthica		0.1886			
Macoma mitchelli	0.3681			0.0114	0.3976
Marenzelleria viridis	0.3135			0.7361	0.1409
Mytilopsis leucophaeata (Epi.)		0.0136	0.0045	0.0227	0.0159
Neanthes succinea					0.0250
Rangia cuneata		0.0545		0.0182	1.0179
Streblospio benedicti	0.0045	0.0136	0.0091	0.0250	0.0011
Total Biomass w/ Epifauna	1.3916	0.4828	0.2681	1.2098	2.8343
Total Biomass w/o Epifauna	1.3871	0.4646	0.2636	1.1792	2.7321

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18311	18312	18313	18314	18315					
Watershed	Western Tribs	Western Tribs	Western Tribs	Western Tribs	Western Tribs					
Habitat	Low Mesohaline	Low Mesohaline	Oligohaline	Oligohaline	Freshwater					
Date	08/22/11	08/22/11	08/22/11	08/22/11	08/22/11					
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)	5.9	6.5	2.2	0.9	0.5					
Salinity (ppt)	7.99	8.07	3.53	3.48	0.35					
Temperature (C)	26.51	26.48	26.14	26.03	26.18					
Dissolved Oxygen (mg/L)	6.0	7.0	5.9	4.9	5.3					
Sediment Silt-Clay (%)	67.36	87.63	91.43	77.52	92.80					
Total Carbon (%)	2.33	3.82	2.75	5.93	3.47					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	3.80		1.00		3.00		3.67		3.00	
Condition	Meets Goal		Severely Degr.		Meets Goal		Meets Goal		Meets Goal	
# Attributes Scored	5		5		6		6		4	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	3.21	5	1.32	1	2.17		2.27		2.21	
Abundance (#/m2)	1522	5	454	1	1590	5	1545	5	1295	5
Biomass (g/m2)	1.55	3	0.01	1	2.41		0.21		0.25	
Pollution Indicative Spp Abund (%)	13.43	3	90.00	1	4.29		82.35		78.95	
Pollution Indicative Spp Biom (%)	0.66		85.71		0.47		69.73		99.54	
Pollution Sensitive Spp Abund (%)	19.40		0.00		38.57		2.94		0.00	
Pollution Sensitive Spp Biom (%)	42.55	3	0.00	1	38.87		22.70		0.00	
Carnivore-Omnivore Abund (%)	43.28		30.00		18.57	3	51.47	5	14.04	
Deep Deposit Feeder Abund (%)	13.43		0.00		10.00		7.35		80.70	3
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		70.18	3
Limnodrilus Abundance (%)	4.48		0.00		0.00		7.35		70.18	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		57.14	3	82.35	3	0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		25.71	3	2.94	3	0.00	
Tolerance Score	8.85		9.80		6.25	3	9.66	1	9.44	1
Tany./Chir. Abundance Ratio	0.00		0.00		75.00	1	15.38	5	37.50	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18311	18312	18313	18314	18315
Agraylea spp. (Epi.)					704
Apocorophium lacustre (Epi.)					182
Boccardiella ligERICA					45
Carinoma tremaphoros	273				
Chironomus spp.		23		500	23
Coelotanypus spp.			68		68
Cricotopus spp.					23
Cyathura polita			204		
Dero nivea					136
Endochironomus subtendens					23
Eteone heteropoda	45	68			
Gammarus daiberi (Epi.)					23
Heteromastus filiformis	23				
Hobsonia florida				23	
Laeonereis culveri				182	
Leptocheirus plumulosus	182		682		
Limnodrilus hoffmeisteri					182
Littoridinops tenuipes (Epi.)					23
Macoma balthica	114				
Macoma mitchelli	91		45		
Mallochochelea spp.				23	
Marenzelleria viridis	159		409	45	
Melita nitida (Epi.)			23		
Mytilopsis leucophaeata (Epi.)		68			295
Neanthes succinea	341	45			
Polypedilum halterale group					23
Pseudochironomus spp.					23
Rangia cuneata	23				
Rheotanytarsus spp.			23		
Streblospio benedicti	91	318		568	23
Tanytus neopunctipennis				91	
Tubificidae imm w/o cap chaetae	68			114	
Tubificidae imm w/o cap chaetae *					727
Tubificoides spp.	114		159		
Total Abundance w/ Epifauna	1522	523	1613	1545	2522
Total Abundance w/o Epifauna	1522	454	1590	1545	1295
Number of Taxa w/ Epifauna	12	5	8	8	15
Number of Taxa w/o Epifauna	12	4	7	8	10

*Indicates taxa is skipped in taxon counts

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	18311	18312	18313	18314	18315
Agraylea spp. (Epi.)					0.0068
Apocorophium lacustre (Epi.)					0.0114
Boccardiella ligERICA					0.0011
Carinoma tremaphoros	0.0500				
Chironomidae				0.1363	
Chironomus spp.		0.0011			
Coelotanypus spp.			0.0114		0.0068
Cyathura polita			0.4544		
Eteone heteropoda	0.0045	0.0011			
Gammarus daiberi (Epi.)					0.0068
Heteromastus filiformis	0.0023				
Hobsonia florida				0.0011	
Laeonereis culveri				0.0136	
Leptocheirus plumulosus	0.0477		0.1704		
Littoridinops tenuipes (Epi.)					0.0023
Macoma balthica	0.5362				
Macoma mitchelli	0.2840		1.2905		
Mallochohelea spp.				0.0011	
Marenzelleria viridis	0.0250		0.4839	0.0477	
Melita nitida (Epi.)			0.0011		
Mytilopsis leucophaeata (Epi.)		0.0227			0.0318
Neanthes succinea	0.4930	0.0011			
Oligochaeta					0.2340
Rangia cuneata	0.0977				
Rheotanytarsus spp.			0.0011		
Streblospio benedicti	0.0045	0.0045		0.0091	0.0045
Tubificidae imm w/o cap chaetae	0.0011			0.0011	
Tubificoides spp.	0.0023		0.0023		
Total Biomass w/ Epifauna	1.5484	0.0307	2.4151	0.2102	0.3056
Total Biomass w/o Epifauna	1.5484	0.0080	2.4140	0.2102	0.2465

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18316	18318	18319	18320	18321
Watershed	Western Tribs	Western Tribs	Western Tribs	Western Tribs	Western Tribs
Habitat	Freshwater	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline
Date	08/22/11	09/17/11	09/17/11	09/17/11	09/17/11
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	3.0	1.8	2.2	2.3
Salinity (ppt)	0.15	0.43	0.07	0.17	0.17
Temperature (C)	24.92	21.02	19.41	20.61	20.67
Dissolved Oxygen (mg/L)	5.7	8.6	8.9	7.6	8.3
Sediment Silt-Clay (%)	86.86	90.51	17.43	9.56	92.00
Total Carbon (%)	5.32	2.75	0.36	0.73	2.87
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	3.50	3.40	4.20	2.60	2.20
Condition	Meets Goal	Meets Goal	Meets Goal	Degraded	Degraded
# Attributes Scored	4	5	5	5	5
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	1.19	2.39 3	2.22 3	2.96 5	1.83 3
Abundance (#/m2)	1886 5	1681 5	1409 3	2431 5	2272 5
Biomass (g/m2)	0.52	26.71 3	9.13 5	0.22 1	0.61 1
Pollution Indicative Spp Abund (%)	100.00	33.78 1	6.45 5	39.25 1	60.00 1
Pollution Indicative Spp Biom (%)	100.00	0.30	0.02	8.59	51.12
Pollution Sensitive Spp Abund (%)	0.00	14.86	58.06	8.41	14.00
Pollution Sensitive Spp Biom (%)	0.00	99.05 5	99.09 5	25.25 1	29.93 1
Carnivore-Omnivore Abund (%)	27.71	33.78	27.42	59.81	63.00
Deep Deposit Feeder Abund (%)	72.29 3	10.81	3.23	14.95	12.00
TF Poll. Indicative Spp Abund (%)	72.29 3	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	72.29	0.00	0.00	4.67	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	8.98 3	6.19	6.00	8.99	6.26
Tany./Chir. Abundance Ratio	82.61	100.00	0.00	0.00	98.33

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18316	18318	18319	18320	18321
Agraylea spp. (Epi.)				23	
Apocorophium lacustre (Epi.)				159	23
Chironomus spp.	91			273	23
Coelotanypus spp.	432	386			1340
Cryptochironomus spp.				136	
Cyathura polita		159	386	159	68
Eteone heteropoda				23	
Gammarus daiberi (Epi.)			45	182	
Lepidactylus dytiscus			23		
Leptocheirus plumulosus		659	432	23	318
Limnodrilus hoffmeisteri	45				
Lipiniella spp.				727	
Littoridinops tenuipes (Epi.)			91		23
Marenzelleria viridis		68	386	45	227
Mytilopsis leucophaeata (Epi.)				23	
Nanocladius spp.				45	
Neanthes succinea		23			
Paranais litoralis				23	
Polypedilum halterale group				91	
Rangia cuneata		23	45		23
Streblospio benedicti		182	91	545	
Tubificidae imm w/o cap chaetae				114	
Tubificidae imm w/o cap chaetae *	1318				
Tubificoides spp.		182	45	227	273
Total Abundance w/ Epifauna	1886	1681	1545	2817	2317
Total Abundance w/o Epifauna	1886	1681	1409	2431	2272
Number of Taxa w/ Epifauna	3	8	9	17	9
Number of Taxa w/o Epifauna	3	8	7	13	7

BENTHIC BIOMASS (Grams per sq. meter)					
Site	18316	18318	18319	18320	18321
Agraylea spp. (Epi.)				0.0011	
Apocorophium lacustre (Epi.)				0.0114	0.0011
Chironomidae				0.1454	
Chironomus spp.					0.0011
Coelotanypus spp.	0.0772	0.0704			0.3113
Cyathura polita		0.0932	0.1363	0.0341	0.1272
Eteone heteropoda				0.0045	
Gammarus daiberi (Epi.)			0.0011	0.0045	
Lepidactylus dytiscus			0.0250		
Leptocheirus plumulosus		0.1091	0.0545	0.0011	0.1113
Littoridinops tenuipes (Epi.)			0.0011		0.0023
Marenzelleria viridis		0.1954	0.1613	0.0227	0.0545
Mytilopsis leucophaeata (Epi.)				0.0011	
Neanthes succinea		0.0636			
Oligochaeta	0.4476			0.0011	
Rangia cuneata		26.1644	8.7472		0.0011
Streblospio benedicti		0.0091	0.0023	0.0136	
Tubificoides spp.		0.0023	0.0011	0.0023	0.0045
Total Biomass w/ Epifauna	0.5248	26.7074	9.1300	0.2431	0.6146
Total Biomass w/o Epifauna	0.5248	26.7074	9.1278	0.2249	0.6112

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18322	18323	18324	18325	18326
Watershed	Western Tribs	Western Tribs	Western Tribs	Western Tribs	Western Tribs
Habitat	Low Mesohaline	Freshwater	Oligohaline	Oligohaline	Low Mesohaline
Date	09/17/11	09/17/11	09/17/11	08/30/11	08/23/11
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	1.6	1.8	0.7	0.4
Salinity (ppt)	0.13	0.10	0.11	0.03	9.16
Temperature (C)	20.72	19.83	20.99	21.81	27.56
Dissolved Oxygen (mg/L)	7.6	8.8	7.4	5.0	7.4
Sediment Silt-Clay (%)	92.24	95.29	85.80	20.65	11.38
Total Carbon (%)	2.44	2.68	2.47	0.95	0.86
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	1.80	3.50	3.67	1.67	2.60
Condition	Severely Degr.	Meets Goal	Meets Goal	Severely Degr.	Degraded
# Attributes Scored	5	4	6	6	5
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	1.60 1	1.34	2.83	2.40	2.80 5
Abundance (#/m2)	932 3	1340 5	9951 1	3363 3	7566 1
Biomass (g/m2)	0.31 1	0.14	38.25	0.27	1.87 3
Pollution Indicative Spp Abund (%)	78.05 1	86.44	18.49	74.32	49.85 1
Pollution Indicative Spp Biom (%)	47.04	76.67	0.71	96.59	6.56
Pollution Sensitive Spp Abund (%)	12.20	0.00	2.28	0.00	15.92
Pollution Sensitive Spp Biom (%)	45.93 3	0.00	98.10	0.00	51.15 3
Carnivore-Omnivore Abund (%)	85.37	22.03	87.67 5	28.38 3	24.32
Deep Deposit Feeder Abund (%)	2.44	76.27 3	10.50	71.62	9.91
TF Poll. Indicative Spp Abund (%)	0.00	74.58 3	0.00	0.00	0.00
Limnodrilus Abundance (%)	0.00	74.58	8.68	64.86	0.00
Oligo Poll. Indic. Spp Abund (%)	0.00	0.00	20.78 5	97.30 1	0.00
Oligo Poll. Sens. Spp Abund (%)	0.00	0.00	0.91 3	0.00 1	0.00
Tolerance Score	6.65	9.08 3	7.72 3	9.14 1	6.24
Tany./Chir. Abundance Ratio	87.50	53.85	5.01 5	71.43 1	0.00

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18322	18323	18324	18325	18326
Agraylea spp. (Epi.)		23	45		
Apocorophium lacustre (Epi.)					23
Branchiura sowerbyi		23		45	
Chironomus spp.	91		273	182	
Cladotanytarsus spp.					45
Coelotanypus spp.	636	159	432	500	
Coenagrionidae (Epi.)			45		
Cricotopus bicinctus		23	91		
Cricotopus spp. *			545		
Cricotopus sylvestris			1727		
Cryptochironomus spp.				91	114
Cyathura polita	68		45		364
Cyclaspis varians					23
Dero spp.			91		
Dugesia tigrina (Epi.)			23		
Edotea triloba (Epi.)					227
Edwardsia elegans					23
Endochironomus subtendens			91		
Eteone heteropoda					1091
Glyptotendipes spp.			273		
Goniobasis virginica (Epi.)			23		
Heteromastus filiformis					568
Hirudinea (Epi.)		23			
Hobsonia florida					136
Laeonereis culveri					204
Leptocheirus plumulosus	68	23			
Limnodrilus cervix				364	
Limnodrilus hoffmeisteri			136	182	
Littoridinops tenuipes (Epi.)					91
Macoma mitchelli					1340
Marenzelleria viridis	45		91		818
Mytilopsis leucophaeata (Epi.)					45
Nais variabilis			45		
Nanocladius distinctus			91		
Parachironomus spp.		23	364		
Polypedilum spp.			182		
Probezzia spp.			68		
Procladius spp.				182	
Rangia cuneata			91		23
Rheotanytarsus spp.		91	4544		
Streblospio benedicti					2636
Tubificidae imm w/o cap chaetae		1000			
Tubificidae imm w/o cap chaetae *			727	1636	
Tubificoides spp.	23		45	182	182
Total Abundance w/ Epifauna	932	1386	10088	3363	7952
Total Abundance w/o Epifauna	932	1340	9951	3363	7566
Number of Taxa w/ Epifauna	6	9	22	8	18
Number of Taxa w/o Epifauna	6	7	18	8	14

*Indicates taxa is skipped in taxon counts

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	18322	18323	18324	18325	18326
Agraylea spp. (Epi.)		0.0011	0.0011		
Apocorophium lacustre (Epi.)					0.0023
Branchiura sowerbyi		0.0273		0.0045	
Chironomidae		0.0011	0.4544	0.1227	
Chironomus spp.	0.0011				
Coelotanypus spp.	0.1431	0.0545	0.1068	0.0250	
Coenagrionidae (Epi.)			0.0011		
Cricotopus bicinctus		0.0011			
Cryptochironomus spp.					0.0011
Cyathura polita	0.1068		0.0011		0.3317
Cyclaspis varians					0.0011
Dugesia tigrina (Epi.)			0.0011		
Edotea triloba (Epi.)					0.0159
Edwardsia elegans					0.0159
Eteone heteropoda					0.0863
Goniobasis virginica (Epi.)			1.1383		
Heteromastus filiformis					0.5794
Hirudinea (Epi.)		0.0341			
Hobsonia florida					0.0023
Laeonereis culveri					0.1204
Leptocheirus plumulosus	0.0204	0.0023			
Littoridinops tenuipes (Epi.)					0.0023
Macoma mitchelli					0.0682
Marenzelleria viridis	0.0341		0.1409		0.5612
Mytilopsis leucophaeata (Epi.)					0.0023
Oligochaeta		0.0091	0.1636	0.1098	
Probetazia spp.			0.0011		
Rangia cuneata			37.3789		0.0636
Streblospio benedicti					0.0364
Tubificidae imm w/o cap chaetae		0.0409			
Tubificoides spp.	0.0011		0.0011	0.0045	0.0023
Total Biomass w/ Epifauna	0.3067	0.1715	39.3897	0.2666	1.8926
Total Biomass w/o Epifauna	0.3067	0.1363	38.2480	0.2666	1.8699

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18101	18103	18104	18105	18106
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 Sand
Date	09/02/11	09/02/11	09/02/11	09/02/11	09/02/11
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)	11.0	15.7	19.4	7.3	4.8
Salinity (ppt)	14.25	14.40	14.32	14.05	13.47
Temperature (C)	25.32	25.47	25.44	25.57	25.50
Dissolved Oxygen (mg/L)	6.5	4.0	4.8	5.6	9.5
Sediment Silt-Clay (%)	89.69	95.08	92.16	85.63	1.80
Total Carbon (%)	3.53	3.93	3.79	2.76	0.18
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	1.00	1.00	1.00	1.00	2.00
Condition	Severely Degr.	Severely Degr.	Severely Degr.	Severely Degr.	Severely Degr.
# Attributes Scored	6	6	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	0.00 1	0.00 1	0.00 1	0.00 1	2.36 1
Abundance (#/m2)	0 1	0 1	0 1	0 1	977 1
Biomass (g/m2)	0.00 1	0.00 1	0.00 1	0.00 1	0.19 1
Pollution Indicative Spp Abund (%)	100.00	100.00	100.00	100.00	23.26 3
Pollution Indicative Spp Biom (%)	100.00 1	100.00 1	100.00 1	100.00 1	42.42
Pollution Sensitive Spp Abund (%)	0.00	0.00	0.00	0.00	23.26 3
Pollution Sensitive Spp Biom (%)	0.00 1	0.00 1	0.00 1	0.00 1	30.30
Carnivore-Omnivore Abund (%)	0.00 1	0.00 1	0.00 1	0.00 1	34.88 3
Deep Deposit Feeder Abund (%)	0.00	0.00	0.00	0.00	2.33
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	0.00	0.00	0.00	0.00	0.00
Oligo Poll. Indic. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Oligo Poll. Sens. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Tolerance Score	0.00	0.00	0.00	0.00	0.00
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18101	18103	18104	18105	18106
Acteocina canaliculata					227
Haminoea solitaria					23
Macoma mitchelli					386
Mulinia lateralis					159
Neanthes succinea					23
Paraprionospio pinnata					68
Pectinaria gouldii					23
Rictaxis punctostriatus					68
Total Abundance w/ Epifauna	0	0	0	0	977
Total Abundance w/o Epifauna					977
Number of Taxa w/ Epifauna	0	0	0	0	8
Number of Taxa w/o Epifauna	0	0	0	0	8
BENTHIC BIOMASS (Grams per sq. meter)					
Site	18101	18103	18104	18105	18106
Acteocina canaliculata					0.0568
Haminoea solitaria					0.0045
Macoma mitchelli					0.0341
Mulinia lateralis					0.0659
Neanthes succinea					0.0091
Paraprionospio pinnata					0.0136
Pectinaria gouldii					0.0011
Rictaxis punctostriatus					0.0023
Total Biomass w/ Epifauna	0.0000	0.0000	0.0000	0.0000	0.1874
Total Biomass w/o Epifauna	0.0000	0.0000	0.0000	0.0000	0.1874

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18107	18108	18109	18110	18111
Watershed	Potomac R	Potomac R	Potomac R	Potomac R	Potomac R
Habitat	High Meso Mud	High Meso Mud	High Meso Mud	Low Mesohaline	Low Mesohaline
Date	09/01/11	09/01/11	09/01/11	09/19/11	09/01/11
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)	19.2	11.3	12.4	2.2	4.7
Salinity (ppt)	14.49	13.84	13.36	7.29	9.96
Temperature (C)	25.55	25.55	25.37	21.84	25.37
Dissolved Oxygen (mg/L)	4.7	0.4	4.8	9.0	5.3
Sediment Silt-Clay (%)	96.77	88.56	72.28	1.28	90.07
Total Carbon (%)	2.92	3.79	3.10	0.11	2.32
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	1.00	1.00	1.00	2.60	1.00
Condition	Severely Degr.	Severely Degr.	Severely Degr.	Degraded	Severely Degr.
# Attributes Scored	6	6	6	5	5
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	0.00 1	0.00 1	0.00 1	1.76 3	0.92 1
Abundance (#/m2)	0 1	0 1	0 1	7838 1	68 1
Biomass (g/m2)	0.00 1	0.00 1	0.00 1	1.69 3	0.15 1
Pollution Indicative Spp Abund (%)	100.00	100.00	100.00	0.58 5	33.33 1
Pollution Indicative Spp Biom (%)	100.00 1	100.00 1	100.00 1	1.48	1.54
Pollution Sensitive Spp Abund (%)	0.00	0.00	0.00	1.74	0.00
Pollution Sensitive Spp Biom (%)	0.00 1	0.00 1	0.00 1	7.26 1	0.00 1
Carnivore-Omnivore Abund (%)	0.00 1	0.00 1	0.00 1	0.58	33.33
Deep Deposit Feeder Abund (%)	0.00	0.00	0.00	0.58	66.67
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	0.00	0.00	0.00	0.00	0.00
Oligo Poll. Indic. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Oligo Poll. Sens. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Tolerance Score	0.00	0.00	0.00	0.00	0.00
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18107	18108	18109	18110	18111
Ameroculodes species complex				45	
Eteone heteropoda				45	23
Geukensia demissa (Epi.)				23	
Heteromastus filiformis				45	45
Lepidactylus dytiscus				1704	
Leptocheirus plumulosus				2499	
Macoma mitchelli				3363	
Marenzelleria viridis				136	
Total Abundance w/ Epifauna	0	0	0	7861	68
Total Abundance w/o Epifauna				7838	68
Number of Taxa w/ Epifauna	0	0	0	8	2
Number of Taxa w/o Epifauna	0	0	0	7	2
BENTHIC BIOMASS (Grams per sq. meter)					
Site	18107	18108	18109	18110	18111
Ameroculodes species complex				0.0068	
Eteone heteropoda				0.0250	0.0023
Geukensia demissa (Epi.)				0.0011	
Heteromastus filiformis				0.0136	0.1454
Lepidactylus dytiscus				0.2840	
Leptocheirus plumulosus				0.3113	
Macoma mitchelli				0.9270	
Marenzelleria viridis				0.1227	
Total Biomass w/ Epifauna	0.0000	0.0000	0.0000	1.6915	0.1477
Total Biomass w/o Epifauna	0.0000	0.0000	0.0000	1.6904	0.1477

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18112	18114	18115	18116	18117
Watershed	Potomac R	Potomac R	Potomac R	Potomac R	Potomac R
Habitat	Low Mesohaline	Oligohaline	Low Mesohaline	Low Mesohaline	Oligohaline
Date	09/01/11	09/01/11	09/01/11	09/01/11	09/19/11
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)	16.2	4.0	2.6	2.4	1.7
Salinity (ppt)	10.37	2.45	6.11	6.00	3.08
Temperature (C)	25.61	25.48	25.77	25.93	22.66
Dissolved Oxygen (mg/L)	7.1	8.6	7.3	8.1	7.5
Sediment Silt-Clay (%)	94.87	93.08	92.51	36.61	83.67
Total Carbon (%)	2.89	2.39	2.47	0.38	2.42
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	1.00	3.00	2.60	3.00	2.67
Condition	Severely Degr.	Meets Goal	Degraded	Meets Goal	Marginal
# Attributes Scored	5	6	5	5	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	0.00 1	2.34 5	2.58 5	2.96 5	2.91 5
Abundance (#/m2)	0 1	1568 5	273 1	2795 3	1272 5
Biomass (g/m2)	0.00 1	0.34 5	29.44 3	1.15 3	155.57 5
Pollution Indicative Spp Abund (%)	100.00 1	53.62 5	33.33 1	29.27 1	26.79 5
Pollution Indicative Spp Biom (%)	100.00 1	9.33 5	0.05 1	2.36 1	0.02 5
Pollution Sensitive Spp Abund (%)	0.00 1	28.99 5	33.33 1	20.33 1	16.07 5
Pollution Sensitive Spp Biom (%)	0.00 1	68.67 5	99.89 3	50.39 3	99.86 5
Carnivore-Omnivore Abund (%)	0.00 1	34.78 3	66.67 3	35.77 3	25.00 3
Deep Deposit Feeder Abund (%)	0.00 1	8.70 3	0.00 1	9.76 3	32.14 3
TF Poll. Indicative Spp Abund (%)	0.00 1	0.00 1	0.00 1	0.00 1	0.00 1
Limnodrilus Abundance (%)	0.00 1	0.00 1	0.00 1	0.00 1	0.00 1
Oligo Poll. Indic. Spp Abund (%)	0.00 1	65.22 3	0.00 1	0.00 1	75.00 3
Oligo Poll. Sens. Spp Abund (%)	0.00 1	1.45 3	0.00 1	0.00 1	0.00 1
Tolerance Score	0.00 1	6.15 3	6.16 3	6.00 3	6.38 3
Tany./Chir. Abundance Ratio	0.00 1	100.00 1	100.00 1	0.00 1	83.33 1

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18112	18114	18115	18116	18117
Apocorophium lacustre (Epi.)		318		1295	23
Balanus improvisus (Epi.)		23		23	
Boccardiella ligERICA		45		68	
Carinoma tremaphoros		23	45	45	23
Chaoborus punctipennis					23
Coelotanypus spp.		136	91		114
Cyathura polita		386	45	250	68
Edotea triloba (Epi.)					23
Eteone heteropoda				114	
Harnischia spp.					23
Heteromastus filiformis				23	
Leptocheirus plumulosus			23	45	136
Macoma mitchelli		23	23	386	45
Marenzelleria viridis		23	23	295	
Melita nitida (Epi.)		45	23		45
Mytilopsis leucophaeata (Epi.)				23	23
Neanthes succinea				591	68
Polydora cornuta		45			
Rangia cuneata		45	23	23	136
Rhithropanopeus harrisi (Epi.)		23		68	
Streblospio benedicti		704		704	227
Tubificoides spp.		136		250	409
Total Abundance w/ Epifauna	0	1977	295	4203	1386
Total Abundance w/o Epifauna		1568	273	2795	1272
Number of Taxa w/ Epifauna	0	14	8	16	15
Number of Taxa w/o Epifauna	0	10	7	12	11
BENTHIC BIOMASS (Grams per sq. meter)					
Site	18112	18114	18115	18116	18117
Apocorophium lacustre (Epi.)		0.0136		0.0727	0.0045
Balanus improvisus (Epi.)		0.0045		0.0023	
Boccardiella ligERICA		0.0023		0.0011	
Carinoma tremaphoros		0.0023	0.0023	0.0068	0.0023
Chaoborus punctipennis					0.0023
Coelotanypus spp.		0.0250	0.0159		0.0250
Cyathura polita		0.0841	0.1613	0.1999	0.1000
Edotea triloba (Epi.)					0.0011
Eteone heteropoda				0.0204	
Harnischia spp.					0.0011
Heteromastus filiformis				0.0023	
Leptocheirus plumulosus			0.0068	0.0045	0.0136
Macoma mitchelli		0.0636	0.0068	0.0114	0.0454
Marenzelleria viridis		0.0818	0.0023	0.2658	
Melita nitida (Epi.)		0.0023	0.0023		0.0023
Mytilopsis leucophaeata (Epi.)				0.0273	0.0386
Neanthes succinea				0.5180	0.1136
Polydora cornuta		0.0023			
Rangia cuneata		0.0682	29.2429	0.1159	155.2571
Rhithropanopeus harrisi (Epi.)		0.0159		0.5157	
Streblospio benedicti		0.0068		0.0068	0.0068
Tubificoides spp.		0.0045		0.0011	0.0045
Total Biomass w/ Epifauna	0.0000	0.3772	29.4406	1.7722	155.6184
Total Biomass w/o Epifauna	0.0000	0.3408	29.4383	1.1542	155.5718

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18118	18119	18120	18121	18122					
Watershed	Potomac R	Potomac R	Potomac R	Potomac R	Potomac R					
Habitat	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline					
Date	09/19/11	09/19/11	09/01/11	09/01/11	09/01/11					
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)	2.0	2.7	10.5	2.4	1.6					
Salinity (ppt)	4.35	4.96	7.63	6.65	6.41					
Temperature (C)	21.46	22.44	25.65	25.59	25.71					
Dissolved Oxygen (mg/L)	6.4	6.1	7.0	8.3	9.1					
Sediment Silt-Clay (%)	96.13	31.79	93.64	90.10	24.73					
Total Carbon (%)	2.50	0.90	2.70	2.22	0.52					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	1.40		2.60		1.80		3.40		2.60	
Condition	Severely Degr.		Degraded		Severely Degr.		Meets Goal		Degraded	
# Attributes Scored	5		5		5		5		5	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	1.51	1	2.53	5	1.61	1	2.66	5	2.94	5
Abundance (#/m2)	818	3	3544	3	432	1	1818	5	4567	3
Biomass (g/m2)	0.19	1	0.54	1	0.11	1	0.62	1	1.32	3
Pollution Indicative Spp Abund (%)	75.00	1	48.08	1	15.79	3	36.25	1	24.88	1
Pollution Indicative Spp Biom (%)	55.49		6.96		5.26		3.31		2.23	
Pollution Sensitive Spp Abund (%)	11.11		12.82		5.26		28.75		19.40	
Pollution Sensitive Spp Biom (%)	39.02	1	49.79	3	90.53	3	93.55	5	27.44	1
Carnivore-Omnivore Abund (%)	83.33		21.15		5.26		20.00		24.88	
Deep Deposit Feeder Abund (%)	8.33		12.82		68.42		35.00		21.39	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Tolerance Score	6.20		0.00		6.00		6.20		6.00	
Tany./Chir. Abundance Ratio	100.00		0.00		0.00		100.00		0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18118	18119	18120	18121	18122
Apocorophium lacustre (Epi.)		523	23		9020
Balanus improvisus (Epi.)		772		45	114
Boccardiella ligERICA				45	
Carinoma tremaphoros		45		68	136
Cassidinidea ovalis (Epi.)		23			
Coelotanypus spp.	591			23	
Cyathura polita	68	386		250	227
Edotea triloba (Epi.)					23
Eteone heteropoda		45	23	23	45
Gammarus daiberi (Epi.)					23
Gastropoda (Epi.)				23	
Heteromastus filiiformis		23		23	136
Leptocheirus plumulosus	23	273	23		
Macoma mitchelli		227	23	45	477
Marenzelleria viridis	23	68		114	636
Mediomastus ambiseta				159	
Mytilopsis leucophaeata (Epi.)				23	182
Neanthes succinea	23	273			727
Polydora cornuta		114			227
Rangia cuneata			23		23
Rhithropanopeus harrisi (Epi.)		91		45	
Streblospio benedicti	23	1659	45	613	1091
Stylochus ellipticus (Epi.)					23
Tubificoides spp.	68	432	295	454	841
Total Abundance w/ Epifauna	818	4953	454	1954	13950
Total Abundance w/o Epifauna	818	3544	432	1818	4567
Number of Taxa w/ Epifauna	7	15	7	15	17
Number of Taxa w/o Epifauna	7	11	6	11	11

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	18118	18119	18120	18121	18122
Apocorophium lacustre (Epi.)		0.0364	0.0011		0.8384
Balanus improvisus (Epi.)		1.0042		0.0011	0.0159
Boccardiella ligERICA				0.0023	
Carinoma tremaphoros		0.0136		0.0091	0.0182
Cassidinidea ovalis (Epi.)		0.0023			
Coelotanypus spp.	0.1022			0.0045	
Cyathura polita	0.0568	0.0727		0.2999	0.1863
Edotea triloba (Epi.)					0.0011
Eteone heteropoda		0.0011	0.0045	0.0023	0.0114
Gammarus daiberi (Epi.)					0.0011
Gastropoda (Epi.)				0.0023	
Heteromastus filiiformis		0.0454		0.0023	0.0159
Leptocheirus plumulosus	0.0023	0.0250	0.0011		
Macoma mitchelli		0.0750	0.0011	0.0011	0.0114
Marenzelleria viridis	0.0159	0.1954		0.0682	0.0114
Mediomastus ambiseta				0.2090	
Mytilopsis leucophaeata (Epi.)				0.0023	0.3272
Neanthes succinea	0.0068	0.0704			0.8702
Polydora cornuta		0.0023			0.0091
Rangia cuneata			0.0977		0.1659
Rhithropanopeus harrisi (Epi.)		0.1295		0.5975	
Streblospio benedicti	0.0011	0.0364	0.0011	0.0136	0.0182
Stylochus ellipticus (Epi.)					0.0011
Tubificoides spp.	0.0011	0.0011	0.0023	0.0045	0.0068
Total Biomass w/ Epifauna	0.1863	1.7108	0.1091	1.2201	2.5094
Total Biomass w/o Epifauna	0.1863	0.5385	0.1079	0.6168	1.3246

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18123	18124	18125	18126	18127					
Watershed	Potomac R	Potomac R	Potomac R	Potomac R	Potomac R					
Habitat	Oligohaline	Oligohaline	Freshwater	High Meso Sand	Oligohaline					
Date	09/01/11	09/01/11	09/20/11	09/02/11	09/01/11					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	2.3	7.6	7.7	4.8	5.1					
Salinity (ppt)	1.06	1.37	0.12	13.80	1.53					
Temperature (C)	25.61	25.48	20.83	25.84	25.41					
Dissolved Oxygen (mg/L)	9.0	8.6	7.9	9.3	8.7					
Sediment Silt-Clay (%)	81.62	95.42	87.11	1.67	92.86					
Total Carbon (%)	2.77	3.01	4.00	0.47	2.81					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	2.67		4.00		2.50		1.00		2.60	
Condition	Marginal		Meets Goal		Degraded		Severely Degr.		Degraded	
# Attributes Scored	6		6		4		6		5	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.64		2.02		2.11		1.04	1	1.64	
Abundance (#/m2)	1977	5	1022	5	8179	1	659	1	727	5
Biomass (g/m2)	7.06		0.95		0.79		0.02	1	0.12	
Pollution Indicative Spp Abund (%)	79.31		15.56		81.94		89.66	1	12.50	
Pollution Indicative Spp Biom (%)	1.80		0.84		64.92		66.67		4.59	
Pollution Sensitive Spp Abund (%)	8.05		46.67		1.39		3.45	1	6.25	
Pollution Sensitive Spp Biom (%)	97.56		96.15		25.12		6.67		75.23	
Carnivore-Omnivore Abund (%)	6.90	1	42.22	5	8.06		6.90	1	3.13	1
Deep Deposit Feeder Abund (%)	83.91		6.67		89.72	3	0.00		75.00	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		55.56	3	0.00		0.00	
Limnodrilus Abundance (%)	58.62		6.67		55.56		0.00		3.13	
Oligo Poll. Indic. Spp Abund (%)	85.06	3	15.56	5	0.00		0.00		93.75	3
Oligo Poll. Sens. Spp Abund (%)	5.75	3	44.44	5	0.00		0.00		3.13	3
Tolerance Score	8.50	3	8.31	3	8.34	3	0.00		9.80	1
Tany./Chir. Abundance Ratio	100.00	1	66.67	1	96.15		0.00		0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18123	18124	18125	18126	18127
Americamysis bigelowi (Epi.)				23	
Aulodrilus pigueti	341		1590		
Branchiura sowerbyi	23		68		
Chaoborus punctipennis	68	364			
Coelotanypus spp.	68	45	568		
Corbicula fluminea			45		
Cryptochironomus spp.		23			
Cyathura polita			68		23
Dero spp.	68				
Dugesia tigrina (Epi.)	23		114		
Gammarus daiberi (Epi.)			2045		
Goniobasis virginica (Epi.)	23		23		
Heteromastus filiformis					23
Hirudinea (Epi.)			23		
Leptocheirus plumulosus	23				68
Limnodrilus hoffmeisteri	477	23			23
Littoridinops tenuipes (Epi.)		23			
Marenzelleria viridis	114	454	45		23
Musculium transversum			68		
Nais simplex			227		
Neanthes succinea				45	
Paraprionospio pinnata				68	
Pisidium spp.			23		
Polypedilum halterale group			23		
Rangia cuneata	45	23			
Spiochaetopterus costarum				23	
Stephensoniana trivandrana			454		
Streblospio benedicti		45		523	68
Tubificidae imm w cap chaetae	68		454		
Tubificidae imm w/o cap chaetae			4544		
Tubificidae imm w/o cap chaetae *	682	45			
Tubificoides spp.					500
Viviparidae (Epi.)			23		
Total Abundance w/ Epifauna	2022	1045	10406	682	727
Total Abundance w/o Epifauna	1977	1022	8179	659	727
Number of Taxa w/ Epifauna	12	8	18	5	7
Number of Taxa w/o Epifauna	10	7	13	4	7

*Indicates taxa is skipped in taxon counts

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	18123	18124	18125	18126	18127
Americamysis bigelowi (Epi.)				0.0023	
Branchiura sowerbyi	0.0295		0.0591		
Chaoborus punctipennis	0.0114	0.0273			
Coelotanypus spp.	0.0091	0.0011	0.0818		
Corbicula fluminea			0.0023		
Cryptochironomus spp.		0.0011			
Cyathura polita			0.0750		0.0432
Dugesia tigrina (Epi.)	0.0011		0.0227		
Gammarus daiberi (Epi.)			0.4294		
Goniobasis virginica (Epi.)	2.2743		2.2743		
Heteromastus filiformis					0.0023
Hirudinea (Epi.)			0.3317		
Leptocheirus plumulosus	0.0045				0.0114
Limnodrilus hoffmeisteri		0.0011			0.0011
Littoridinops tenuipes (Epi.)		0.0011			
Marenzelleria viridis	0.1500	0.8452	0.1227		0.0500
Musculium transversum			0.0045		
Neanthes succinea				0.0045	
Oligochaeta	0.1178	0.0023	0.4292		
Paraprionospio pinnata				0.0045	
Pisidium spp.			0.0114		
Polypedilum halterale group			0.0011		
Rangia cuneata	6.7342	0.0636			
Spiochaetopterus costarum				0.0011	
Streblospio benedicti		0.0023		0.0068	0.0045
Tubificidae imm w/o cap chaetae		0.0011			
Tubificoides spp.					0.0114
Viviparidae (Epi.)			3.9487		
Total Biomass w/ Epifauna	9.3319	0.9463	7.7938	0.0193	0.1238
Total Biomass w/o Epifauna	7.0565	0.9452	0.7870	0.0170	0.1238

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18201	18202	18203	18204	18205
Watershed	Patuxent R	Patuxent R	Patuxent R	Patuxent R	Patuxent R
Habitat	High Meso Mud	High Meso Mud	Low Mesohaline	High Meso Sand	High Meso Mud
Date	09/02/11	09/02/11	09/06/11	09/20/11	09/06/11
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044
BOTTOM ENVIRONMENT					
Depth (m)	2.9	5.3	7.4	2.5	8.8
Salinity (ppt)	12.48	12.19	11.97	6.87	13.12
Temperature (C)	26.34	25.41	25.48	21.91	25.38
Dissolved Oxygen (mg/L)	6.5	5.4	2.3	7.2	3.0
Sediment Silt-Clay (%)	75.98	66.47	29.16	0.84	78.08
Total Carbon (%)	3.01	2.67	1.29	0.06	3.30
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	1.00	2.00	2.60	1.67	2.67
Condition	Severely Degr.	Severely Degr.	Degraded	Severely Degr.	Marginal
# Attributes Scored	6	6	5	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	0.00 1	1.32 1	2.15 3	2.13 1	2.13 3
Abundance (#/m2)	0 1	727 1	1363 3	4521 3	159 1
Biomass (g/m2)	0.00 1	0.37 1	0.90 1	0.96 1	0.39 1
Pollution Indicative Spp Abund (%)	100.00	6.25	10.00	23.12	14.29
Pollution Indicative Spp Biom (%)	100.00 1	2.44 5	5.42	13.96	1.75 5
Pollution Sensitive Spp Abund (%)	0.00	0.00	0.00	1.01	0.00
Pollution Sensitive Spp Biom (%)	0.00 1	0.00 1	0.00 1	14.91	0.00 1
Carnivore-Omnivore Abund (%)	0.00 1	15.63 3	60.00	2.01 1	57.14 5
Deep Deposit Feeder Abund (%)	0.00	0.00	10.00	4.52	0.00
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	0.00	0.00	0.00	0.00	0.00
Oligo Poll. Indic. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Oligo Poll. Sens. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Tolerance Score	0.00	0.00	0.00	0.00	0.00
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18201	18202	18203	18204	18205
Ameroculodes species complex				91	
Carinoma tremaphoros			159		23
Eteone heteropoda				23	
Gemma gemma				23	
Glycinde solitaria				23	
Heteromastus filiformis				182	
Laeonereis culveri				23	
Leitoscoloplos robustus				23	
Lepidactylus dytiscus				182	
Leptocheirus plumulosus		523	23	204	23
Macoma mitchelli		45	250	2658	23
Marenzelleria viridis				23	
Micrura leidyi				23	
Mulinia lateralis			114	772	23
Neanthes succinea		114	659		68
Paraprionospio pinnata		23			
Polydora cornuta				45	
Streblospio benedicti		23	23	227	
Tubificoides spp.			136		
Total Abundance w/ Epifauna	0	727	1363	4521	159
Total Abundance w/o Epifauna		727	1363	4521	159
Number of Taxa w/ Epifauna	0	5	7	15	5
Number of Taxa w/o Epifauna	0	5	7	15	5
BENTHIC BIOMASS (Grams per sq. meter)					
Site	18201	18202	18203	18204	18205
Ameroculodes species complex				0.0045	
Carinoma tremaphoros			0.0500		0.0318
Eteone heteropoda				0.0045	
Gemma gemma				0.0011	
Glycinde solitaria				0.0023	
Heteromastus filiformis				0.0841	
Laeonereis culveri				0.0204	
Leitoscoloplos robustus				0.0932	
Lepidactylus dytiscus				0.0250	
Leptocheirus plumulosus		0.2249	0.0023	0.0932	0.0011
Macoma mitchelli		0.0023	0.1931	0.1590	0.0477
Marenzelleria viridis				0.1409	
Micrura leidyi				0.2908	
Mulinia lateralis			0.0477	0.0227	0.0068
Neanthes succinea		0.1363	0.6044		0.3022
Paraprionospio pinnata		0.0023			
Polydora cornuta				0.0045	
Streblospio benedicti		0.0068	0.0011	0.0136	
Tubificoides spp.			0.0023		
Total Biomass w/ Epifauna	0.0000	0.3726	0.9008	0.9599	0.3896
Total Biomass w/o Epifauna	0.0000	0.3726	0.9008	0.9599	0.3896

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18206	18207	18208	18209	18210
Watershed	Patuxent R	Patuxent R	Patuxent R	Patuxent R	Patuxent R
Habitat	High Meso Sand	Low Mesohaline	High Meso Mud	High Meso Mud	Low Mesohaline
Date	09/06/11	09/06/11	09/06/11	09/06/11	09/06/11
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)	4.2	4.6	10.9	8.6	4.5
Salinity (ppt)	12.19	8.87	13.03	12.86	10.44
Temperature (C)	25.46	26.09	25.33	25.33	25.60
Dissolved Oxygen (mg/L)	2.5	3.9	2.5	2.1	3.7
Sediment Silt-Clay (%)	3.87	83.32	86.90	81.59	22.36
Total Carbon (%)	0.21	4.32	3.79	3.19	0.72
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	2.33	1.00	1.00	2.00	3.00
Condition	Degraded	Severely Degr.	Severely Degr.	Severely Degr.	Meets Goal
# Attributes Scored	6	5	6	6	5
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	2.45 1	0.00 1	1.50 1	0.92 1	3.00 5
Abundance (#/m2)	1954 5	0 1	91 1	68 1	5680 3
Biomass (g/m2)	0.71 1	0.00 1	0.01 1	0.07 1	1.68 3
Pollution Indicative Spp Abund (%)	12.79 3	100.00 1	75.00 1	33.33 3	14.00 3
Pollution Indicative Spp Biom (%)	21.41	100.00	53.85 1	10.34 3	2.58
Pollution Sensitive Spp Abund (%)	3.49 1	0.00	0.00	0.00	1.60
Pollution Sensitive Spp Biom (%)	6.39	0.00 1	0.00 1	0.00 1	16.00 1
Carnivore-Omnivore Abund (%)	34.88 3	0.00	0.00 1	66.67 5	26.00
Deep Deposit Feeder Abund (%)	8.14	0.00	0.00	0.00	36.00
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	6.00
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	9.80
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18206	18207	18208	18209	18210
Carinoma tremaphoros	136				273
Chironomus spp.					23
Edotea triloba (Epi.)	23				45
Eteone heteropoda	23				91
Gemma gemma	45				
Glycinde solitaria	45				23
Heteromastus filiformis	159				182
Leptocheirus plumulosus			23		818
Leucon americanus					23
Macoma balthica					45
Macoma mitchelli	818				909
Marenzelleria viridis	23				23
Micrura leidy	23				
Mulinia lateralis	182				273
Neanthes succinea	454			45	1068
Paraprionospio pinnata			45	23	
Pectinaria gouldii					23
Streblospio benedicti	45		23		68
Tubificidae imm w/o cap chaetae					341
Tubificoides spp.					1500
Total Abundance w/ Epifauna	1977	0	91	68	5725
Total Abundance w/o Epifauna	1954		91	68	5680
Number of Taxa w/ Epifauna	12	0	3	2	17
Number of Taxa w/o Epifauna	11	0	3	2	16
BENTHIC BIOMASS (Grams per sq. meter)					
Site	18206	18207	18208	18209	18210
Carinoma tremaphoros	0.0136				0.0636
Chironomus spp.					0.0011
Edotea triloba (Epi.)	0.0023				0.0045
Eteone heteropoda	0.0114				0.0091
Gemma gemma	0.0023				
Glycinde solitaria	0.0227				0.0023
Heteromastus filiformis	0.2227				0.0273
Leptocheirus plumulosus			0.0068		0.1045
Leucon americanus					0.0011
Macoma balthica					0.1931
Macoma mitchelli	0.0318				0.1863
Marenzelleria viridis	0.0227				0.0727
Micrura leidy	0.0386				
Mulinia lateralis	0.1386				0.0295
Neanthes succinea	0.2045			0.0591	0.9542
Paraprionospio pinnata			0.0068	0.0068	
Pectinaria gouldii					0.0045
Streblospio benedicti	0.0023		0.0011		0.0023
Tubificidae imm w/o cap chaetae					0.0011
Tubificoides spp.					0.0227
Total Biomass w/ Epifauna	0.7134	0.0000	0.0148	0.0659	1.6801
Total Biomass w/o Epifauna	0.7111	0.0000	0.0148	0.0659	1.6756

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18211	18212	18213	18214	18215					
Watershed	Patuxent R	Patuxent R	Patuxent R	Patuxent R	Patuxent R					
Habitat	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline					
Date	09/06/11	09/06/11	09/06/11	09/20/11	09/20/11					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	5.5	3.3	2.5	2.2	1.6					
Salinity (ppt)	11.47	8.78	8.99	6.07	6.03					
Temperature (C)	25.53	25.50	25.24	21.75	21.80					
Dissolved Oxygen (mg/L)	1.9	6.1	6.9	6.3	5.8					
Sediment Silt-Clay (%)	77.28	2.20	1.40	8.01	9.52					
Total Carbon (%)	3.04	0.09	0.05	0.36	0.32					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	1.40		2.60		3.40		2.20		2.60	
Condition	Severely Degr.		Degraded		Meets Goal		Degraded		Degraded	
# Attributes Scored	5		5		5		5		5	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	1.66	1	1.95	3	1.73	3	2.06	3	1.78	3
Abundance (#/m2)	204	1	2954	3	3499	3	8770	1	4544	3
Biomass (g/m2)	0.30	1	0.46	1	1.13	3	1.73	3	0.98	1
Pollution Indicative Spp Abund (%)	11.11	3	3.08	5	5.84	5	65.80	1	4.00	5
Pollution Indicative Spp Biom (%)	0.37		0.74		6.84		12.05		2.78	
Pollution Sensitive Spp Abund (%)	0.00		7.69		5.19		1.30		3.50	
Pollution Sensitive Spp Biom (%)	0.00	1	32.76	1	48.49	3	54.25	3	9.03	1
Carnivore-Omnivore Abund (%)	77.78		6.92		9.74		12.18		7.50	
Deep Deposit Feeder Abund (%)	0.00		7.69		7.14		10.36		9.50	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		0.00		0.00		2.07		0.00	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Tolerance Score	9.80		6.00		0.00		9.80		0.00	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		0.00		0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18211	18212	18213	18214	18215
Apocorophium lacustre (Epi.)					23
Carinoma tremaphoros	23	45			
Chironomus spp.	23				
Eteone heteropoda			23	227	68
Gemma gemma		114	45		
Glycinde solitaria		23	23		
Heteromastus filiformis		227	250	318	432
Leptocheirus plumulosus		182	114	545	636
Macoma balthica				91	
Macoma mitchelli	45	1931	2408	772	2863
Marenzelleria viridis		182	159	23	159
Mulinia lateralis		45	159	23	
Neanthes succinea	114	136	295	841	273
Rangia cuneata		23			
Streblospio benedicti		45	23	5339	114
Tubificidae imm w/o cap chaetae				182	
Tubificoides spp.				409	
Total Abundance w/ Epifauna	204	2954	3499	8770	4567
Total Abundance w/o Epifauna	204	2954	3499	8770	4544
Number of Taxa w/ Epifauna	4	11	10	11	8
Number of Taxa w/o Epifauna	4	11	10	11	7
BENTHIC BIOMASS (Grams per sq. meter)					
Site	18211	18212	18213	18214	18215
Apocorophium lacustre (Epi.)					0.0011
Carinoma tremaphoros	0.0136	0.0045			
Chironomus spp.	0.0011				
Eteone heteropoda			0.0045	0.0341	0.0227
Gemma gemma		0.0045	0.0011		
Glycinde solitaria		0.0011	0.3272		
Heteromastus filiformis		0.0818	0.0011	0.2272	0.1500
Leptocheirus plumulosus		0.0204	0.0364	0.0636	0.0500
Macoma balthica				0.8861	
Macoma mitchelli	0.0454	0.1704	0.3135	0.0591	0.5862
Marenzelleria viridis		0.1159	0.2204	0.0500	0.0886
Mulinia lateralis		0.0023	0.0682	0.0091	
Neanthes succinea	0.2431	0.0250	0.1522	0.2295	0.0795
Rangia cuneata		0.0341			
Streblospio benedicti		0.0011	0.0045	0.1636	0.0045
Tubificidae imm w/o cap chaetae				0.0011	
Tubificoides spp.				0.0023	
Total Biomass w/ Epifauna	0.3033	0.4612	1.1292	1.7256	0.9826
Total Biomass w/o Epifauna	0.3033	0.4612	1.1292	1.7256	0.9815

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18216	18217	18218	18219	18220
Watershed	Patuxent R	Patuxent R	Patuxent R	Patuxent R	Patuxent R
Habitat	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline
Date	09/20/11	09/06/11	09/06/11	09/06/11	09/06/11
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)	1.3	5.9	3.6	2.0	3.5
Salinity (ppt)	5.73	10.90	7.55	7.47	9.20
Temperature (C)	21.92	25.61	25.22	24.91	25.85
Dissolved Oxygen (mg/L)	8.2	2.2	6.5	6.8	0.3
Sediment Silt-Clay (%)	63.01	86.71	77.61	88.44	52.66
Total Carbon (%)	2.75	2.78	2.17	2.49	2.32
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	1.80	3.00	3.40	3.80	2.60
Condition	Severely Degr.	Meets Goal	Meets Goal	Meets Goal	Degraded
# Attributes Scored	5	5	5	5	5
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	1.88 3	2.52 5	2.33 3	2.55 5	2.24 3
Abundance (#/m2)	1091 3	454 1	4408 3	795 3	318 1
Biomass (g/m2)	0.06 1	0.40 1	3.45 3	2.01 3	0.49 1
Pollution Indicative Spp Abund (%)	81.25 1	5.00 5	4.12 5	0.00 5	0.00 5
Pollution Indicative Spp Biom (%)	45.10	0.28	0.10	0.00	0.00
Pollution Sensitive Spp Abund (%)	0.00	5.00	2.58	22.86	14.29
Pollution Sensitive Spp Biom (%)	0.00 1	56.34 3	63.81 3	67.95 3	75.12 3
Carnivore-Omnivore Abund (%)	25.00	45.00	17.53	31.43	14.29
Deep Deposit Feeder Abund (%)	14.58	5.00	25.77	8.57	14.29
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	0.00	0.00	0.52	0.00	0.00
Oligo Poll. Indic. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Oligo Poll. Sens. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Tolerance Score	9.80	9.80	9.80	0.00	0.00
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18216	18217	18218	18219	18220
Apocorophium lacustre (Epi.)			23		
Carinoma tremaphoros		114	91	68	45
Chironomus spp.	182	23			
Cyathura polita				45	
Diadumene leucolena (Epi.)			45		
Eteone heteropoda	91				
Heteromastus filiformis	23	23	159	68	45
Leptocheirus plumulosus		91	1908	273	91
Macoma balthica		23	114	136	45
Macoma mitchelli	45	114	318	68	91
Neanthes succinea		68	682	136	
Polydora websteri (Epi.)			3113		
Streblospio benedicti	613		159		
Tubificidae imm w/o cap chaetae			23		
Tubificoides spp.	136		954		
Total Abundance w/ Epifauna	1091	454	7588	795	318
Total Abundance w/o Epifauna	1091	454	4408	795	318
Number of Taxa w/ Epifauna	6	7	12	7	5
Number of Taxa w/o Epifauna	6	7	9	7	5
BENTHIC BIOMASS (Grams per sq. meter)					
Site	18216	18217	18218	18219	18220
Apocorophium lacustre (Epi.)			0.0045		
Carinoma tremaphoros		0.0432	0.0204	0.0068	0.0114
Chironomus spp.	0.0011	0.0011			
Cyathura polita				0.3181	
Diadumene leucolena (Epi.)			0.0523		
Eteone heteropoda	0.0114				
Heteromastus filiformis	0.0011	0.0159	0.0523	0.0318	0.0023
Leptocheirus plumulosus		0.0432	0.3522	0.1295	0.0136
Macoma balthica		0.2272	2.2016	1.0497	0.3703
Macoma mitchelli	0.0295	0.0500	0.0886	0.2954	0.0954
Neanthes succinea		0.0227	0.7225	0.1818	
Polydora websteri (Epi.)			0.1659		
Streblospio benedicti	0.0136		0.0023		
Tubificidae imm w/o cap chaetae			0.0011		
Tubificoides spp.	0.0011		0.0091		
Total Biomass w/ Epifauna	0.0579	0.4033	3.6727	2.0130	0.4930
Total Biomass w/o Epifauna	0.0579	0.4033	3.4500	2.0130	0.4930

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18221	18222	18223	18224	18225					
Watershed	Patuxent R	Patuxent R	Patuxent R	Patuxent R	Patuxent R					
Habitat	Oligohaline	Oligohaline	Oligohaline	Freshwater	Freshwater					
Date	09/16/11	09/16/11	09/16/11	09/16/11	09/16/11					
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	1.6	0.7	0.9	3.4					
Salinity (ppt)	0.08	0.09	0.10	0.13	0.13					
Temperature (C)	23.27	22.63	22.01	20.05	20.73					
Dissolved Oxygen (mg/L)	6.3	7.0	7.6	7.2	5.5					
Sediment Silt-Clay (%)	89.15	80.63	78.07	1.01	44.07					
Total Carbon (%)	4.71	4.01	3.44	0.07	5.18					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	1.67		1.00		3.00		3.00		3.00	
Condition	Severely Degr.		Severely Degr.		Meets Goal		Meets Goal		Meets Goal	
# Attributes Scored	6		4		6		4		4	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	1.14		0.00		2.33		1.83		2.70	
Abundance (#/m2)	4476	1	0	1	1295	5	2658	5	5748	1
Biomass (g/m2)	0.16		0.00		384.12		0.39		1.18	
Pollution Indicative Spp Abund (%)	67.51		100.00		63.16		92.31		52.17	
Pollution Indicative Spp Biom (%)	46.43		100.00		0.02		86.74		24.03	
Pollution Sensitive Spp Abund (%)	0.51		0.00		29.82		0.00		1.58	
Pollution Sensitive Spp Biom (%)	38.57		0.00		99.97		0.00		1.35	
Carnivore-Omnivore Abund (%)	0.51	1	0.00	1	12.28	1	0.85		40.32	
Deep Deposit Feeder Abund (%)	34.01		0.00		59.65		98.29	1	56.92	5
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		82.05	3	47.43	3
Limnodrilus Abundance (%)	2.54		0.00		52.63		82.05		47.43	
Oligo Poll. Indic. Spp Abund (%)	98.98	1	100.00	1	66.67	3	0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00	1	0.00	1	1.75	3	0.00		0.00	
Tolerance Score	9.17	1	0.00		8.23	3	9.25	3	8.73	3
Tany./Chir. Abundance Ratio	0.00	5	0.00		50.00	3	0.00		0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18221	18222	18223	18224	18225
Aulodrilus limnobius				273	
Aulodrilus pigueti			45		136
Boccardiella ligerica					91
Branchiura sowerbyi				23	136
Cernotina spp. (Epi.)					23
Chironomus spp.			23		68
Coelotanypus spp.			68		
Corbicula fluminea				23	
Cricotopus spp. *					250
Cricotopus sylvestris					432
Cryptochironomus spp.			45		
Cyathura polita			23		91
Dero nivea				91	
Endochironomus subtendens					45
Gammarus daiberi (Epi.)			68		68
Glyptotendipes spp.					68
Limnodrilus hoffmeisteri			91	1091	136
Littoridinops tenuipes (Epi.)			23	23	
Marenzelleria viridis			23		
Nanocladius spp.					23
Neanthes succinea				23	
Parachironomus spp.	23				
Pisidium spp.					68
Polypedilum spp.					159
Rangia cuneata	23		341		
Rheotanytarsus spp.					1181
Rhithropanopeus harrisii (Epi.)					23
Streblospio benedicti	2908				
Tubificidae imm w cap chaetae					273
Tubificidae imm w/o cap chaetae	114				
Tubificidae imm w/o cap chaetae *			591	1091	2590
Tubificoides spp.	1409		45	45	
Total Abundance w/ Epifauna	4476	0	1386	2681	5862
Total Abundance w/o Epifauna	4476		1295	2658	5748
Number of Taxa w/ Epifauna	5	0	11	8	17
Number of Taxa w/o Epifauna	5	0	9	7	14

*Indicates taxa is skipped in taxon counts

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	18221	18222	18223	18224	18225
Boccardiella ligerica					0.0091
Branchiura sowerbyi				0.0432	0.0159
Cerrotina spp. (Epi.)					0.0011
Chironomidae					0.8512
Chironomus spp.			0.0011		
Coelotanypus spp.			0.0023		
Corbicula fluminea				0.0023	
Cryptochironomus spp.			0.0011		
Cyathura polita			0.0011		0.0159
Gammarus daiberi (Epi.)			0.0341		0.0204
Littoridinops tenuipes (Epi.)			0.0011	0.0011	
Marenzelleria viridis			0.0091		
Neanthes succinea				0.0045	
Oligochaeta			0.0909	0.3343	0.2826
Parachironomus spp.	0.0011				
Pisidium spp.					0.0011
Rangia cuneata	0.0613		384.0157		
Rhithropanopeus harrisii (Epi.)					0.1568
Streblospio benedicti	0.0727				
Tubificidae imm w/o cap chaetae	0.0011				
Tubificoides spp.	0.0227		0.0011	0.0011	
Total Biomass w/ Epifauna	0.1590	0.0000	384.1577	0.3866	1.3542
Total Biomass w/o Epifauna	0.1590	0.0000	384.1225	0.3854	1.1759

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18601	18602	18603	18604	18605					
Watershed	Upper Bay	Upper Bay	Upper Bay	Upper Bay	Upper Bay					
Habitat	High Meso Mud	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline					
Date	08/23/11	09/08/11	09/08/11	09/08/11	09/08/11					
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)	16.8	7.8	4.6	8.9	9.2					
Salinity (ppt)	15.32	8.97	8.53	10.18	11.30					
Temperature (C)	25.04	24.07	23.74	24.33	24.51					
Dissolved Oxygen (mg/L)	0.5	6.3	6.7	2.7	3.6					
Sediment Silt-Clay (%)	85.78	50.18	1.07	93.63	95.97					
Total Carbon (%)	4.08	1.28	0.06	3.57	3.30					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	2.00		3.80		3.40		3.80		1.00	
Condition	Severely Degr.		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	0.00	1	2.22	3	2.18	3	1.51	1	0.97	1
Abundance (#/m2)	23	1	4317	3	1590	5	1091	3	114	1
Biomass (g/m2)	0.07	1	6.55	5	1.01	3	6.74	5	0.25	1
Pollution Indicative Spp Abund (%)	0.00		5.79	5	0.00	5	2.08	5	40.00	1
Pollution Indicative Spp Biom (%)	0.00	5	0.09		0.00		0.10		86.11	
Pollution Sensitive Spp Abund (%)	100.00		11.05		17.14		50.00		0.00	
Pollution Sensitive Spp Biom (%)	100.00	3	74.78	3	19.82	1	93.87	5	0.00	1
Carnivore-Omnivore Abund (%)	0.00	1	23.68		10.00		47.92		60.00	
Deep Deposit Feeder Abund (%)	0.00		9.47		4.29		2.08		40.00	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		4.74		0.00		0.00		0.00	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Tolerance Score	0.00		9.80		0.00		0.00		0.00	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		0.00		0.00	

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18601	18602	18603	18604	18605
Ameroculodes species complex			45		
Carinoma tremaphoros		364		432	
Eteone heteropoda		23		23	
Heteromastus filiformis		159	68	23	
Leitoscoloplos spp.					45
Leptocheirus plumulosus		2340	682		
Macoma balthica		386		545	
Macoma mitchelli		45	364		
Marenzelleria viridis	23	91	273		
Micrura leidyi			23		
Neanthes succinea		636	136	68	68
Streblospio benedicti		23			
Tubificidae imm w/o cap chaetae		204			
Tubificoides spp.		45			
Total Abundance w/ Epifauna	23	4317	1590	1091	114
Total Abundance w/o Epifauna	23	4317	1590	1091	114
Number of Taxa w/ Epifauna	1	11	7	5	2
Number of Taxa w/o Epifauna	1	11	7	5	2
BENTHIC BIOMASS (Grams per sq. meter)					
Site	18601	18602	18603	18604	18605
Ameroculodes species complex			0.0068		
Carinoma tremaphoros		0.0477		0.0954	
Eteone heteropoda		0.0023		0.0068	
Heteromastus filiformis		0.0863	0.0341	0.0114	
Leitoscoloplos spp.					0.2113
Leptocheirus plumulosus		0.6975	0.0795		
Macoma balthica		4.8280		6.3298	
Macoma mitchelli		0.0795	0.4748		
Marenzelleria viridis	0.0727	0.0704	0.1999		
Micrura leidyi			0.1363		
Neanthes succinea		0.7339	0.0772	0.2999	0.0341
Streblospio benedicti		0.0023			
Tubificidae imm w/o cap chaetae		0.0011			
Tubificoides spp.		0.0011			
Total Biomass w/ Epifauna	0.0727	6.5502	1.0088	6.7433	0.2454
Total Biomass w/o Epifauna	0.0727	6.5502	1.0088	6.7433	0.2454

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18606	18607	18608	18609	18610					
Watershed	Upper Bay	Upper Bay	Upper Bay	Upper Bay	Upper Bay					
Habitat	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline					
Date	09/09/11	09/09/11	09/08/11	09/08/11	09/08/11					
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	1.7	6.3	5.4	6.9					
Salinity (ppt)	7.40	2.69	4.31	4.04	4.08					
Temperature (C)	24.03	23.14	23.71	23.27	23.69					
Dissolved Oxygen (mg/L)	6.7	9.7	5.8	7.3	6.6					
Sediment Silt-Clay (%)	0.90	0.40	89.60	3.78	96.78					
Total Carbon (%)	0.05	0.02	2.35	0.18	3.59					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	2.60		3.40		3.40		3.80		2.60	
Condition	Degraded		Meets Goal		Meets Goal		Meets Goal		Degraded	
# Attributes Scored	5		5		5		5		5	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	1.84	3	1.70	3	1.74	3	2.57	5	2.10	3
Abundance (#/m2)	3999	3	5248	3	3931	3	3953	3	1386	3
Biomass (g/m2)	0.95	1	2.09	3	1.48	3	2.02	3	0.91	1
Pollution Indicative Spp Abund (%)	0.57	5	0.43	5	0.58	5	3.45	5	4.92	5
Pollution Indicative Spp Biom (%)	0.96		0.11		0.08		0.34		0.12	
Pollution Sensitive Spp Abund (%)	2.27		16.45		4.05		25.29		0.00	
Pollution Sensitive Spp Biom (%)	9.83	1	60.41	3	40.18	3	54.13	3	0.00	1
Carnivore-Omnivore Abund (%)	0.57		0.43		15.03		18.39		36.07	
Deep Deposit Feeder Abund (%)	0.57		0.43		12.14		12.07		9.84	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		0.00		0.58		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		7.27		6.00		0.00	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		0.00		0.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18606	18607	18608	18609	18610
Ameroculodes species complex	68	45			
Carinoma tremaphoros			114	273	227
Cyathura polita			23		
Eteone heteropoda	23	23		68	68
Heteromastus filiformis	23	23	409	341	136
Lepidactylus dytiscus	1454	3158			
Leptocheirus plumulosus	841	841	2636	1545	682
Littoridinops tenuipes (Epi.)				23	
Macoma balthica			45	45	
Macoma mitchelli	1500	295	91	136	68
Marenzelleria viridis	91	818	45	932	
Mytilopsis leucophaeata (Epi.)				23	
Neanthes succinea			454	386	204
Rangia cuneata		45	45	23	
Streblospio benedicti				68	
Tubificidae imm w/o cap chaetae			23		
Tubificoides spp.			45	136	
Total Abundance w/ Epifauna	3999	5248	3931	3999	1386
Total Abundance w/o Epifauna	3999	5248	3931	3953	1386
Number of Taxa w/ Epifauna	7	8	11	13	6
Number of Taxa w/o Epifauna	7	8	11	11	6
BENTHIC BIOMASS (Grams per sq. meter)					
Site	18606	18607	18608	18609	18610
Ameroculodes species complex	0.0023	0.0045			
Carinoma tremaphoros			0.0136	0.0136	0.0454
Cyathura polita			0.0114		
Eteone heteropoda	0.0091	0.0023		0.0045	0.0011
Heteromastus filiformis	0.0023	0.0045	0.0659	0.4021	0.0727
Lepidactylus dytiscus	0.2204	0.4430			
Leptocheirus plumulosus	0.0386	0.3158	0.3931	0.2386	0.0863
Littoridinops tenuipes (Epi.)				0.0011	
Macoma balthica			0.2567	0.6225	
Macoma mitchelli	0.5816	0.0591	0.1113	0.1636	0.4748
Marenzelleria viridis	0.0932	0.1795	0.0204	0.4044	
Mytilopsis leucophaeata (Epi.)				0.0011	
Neanthes succinea			0.2999	0.1022	0.2340
Rangia cuneata		1.0860	0.3067	0.0682	
Streblospio benedicti				0.0023	
Tubificidae imm w/o cap chaetae			0.0011		
Tubificoides spp.			0.0011	0.0011	
Total Biomass w/ Epifauna	0.9474	2.0948	1.4813	2.0255	0.9145
Total Biomass w/o Epifauna	0.9474	2.0948	1.4813	2.0232	0.9145

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18611	18612	18613	18614	18615					
Watershed	Upper Bay	Upper Bay	Upper Bay	Upper Bay	Upper Bay					
Habitat	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline					
Date	09/08/11	09/08/11	09/08/11	09/08/11	09/08/11					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	6.0	5.3	5.6	5.6	6.4					
Salinity (ppt)	2.32	1.45	0.58	0.24	0.54					
Temperature (C)	23.81	23.67	23.40	23.36	22.96					
Dissolved Oxygen (mg/L)	7.0	7.3	7.7	7.3	7.7					
Sediment Silt-Clay (%)	77.99	89.54	89.98	93.26	86.30					
Total Carbon (%)	3.90	2.82	3.64	4.20	4.75					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	3.80		3.80		4.60		4.20		3.40	
Condition	Meets Goal		Meets Goal		Meets Goal		Meets Goal		Meets Goal	
# Attributes Scored	5		5		5		5		5	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.90	5	3.03	5	2.77	5	2.96	5	2.41	3
Abundance (#/m2)	2295	5	2022	5	2045	5	1545	5	2726	3
Biomass (g/m2)	1.69	3	64.41	1	22.86	3	2.15	3	18.88	3
Pollution Indicative Spp Abund (%)	10.89	3	12.36	3	8.89	5	17.65	3	8.33	5
Pollution Indicative Spp Biom (%)	2.56		0.01		0.01		0.37		0.34	
Pollution Sensitive Spp Abund (%)	4.95		35.96		60.00		54.41		79.17	
Pollution Sensitive Spp Biom (%)	53.91	3	98.97	5	99.71	5	98.31	5	63.42	3
Carnivore-Omnivore Abund (%)	21.78		38.20		30.00		27.94		35.00	
Deep Deposit Feeder Abund (%)	52.48		23.60		6.67		8.82		0.83	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.99		0.00		0.00		0.00		0.00	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Tolerance Score	6.80		6.00		6.00		6.00		6.02	
Tany./Chir. Abundance Ratio	100.00		0.00		0.00		0.00		100.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18611	18612	18613	18614	18615
Americamysis bigelowi (Epi.)			23		
Ameroculodes species complex		23	23		
Apocorophium lacustre (Epi.)		23			
Carinoma tremaphoros	68	182	68	91	204
Coelotanypus spp.	23				45
Cyathura polita	23	523	545	318	682
Eteone heteropoda	182	68		23	
Heteromastus filiformis	523	91	23	23	
Leptocheirus plumulosus	318	182	341	114	91
Macoma balthica	23				
Macoma mitchelli	159	182	68	91	
Marenzelleria viridis		23	204	318	932
Melita nitida (Epi.)	136	114		23	
Mytilopsis leucophaeata (Epi.)		23			
Neanthes succinea	204				23
Rangia cuneata	68	182	477	204	545
Streblospio benedicti	23	182	182	250	182
Tubificidae imm w/o cap chaetae	23				
Tubificoides spp.	659	386	114	114	23
Total Abundance w/ Epifauna	2431	2181	2068	1568	2726
Total Abundance w/o Epifauna	2295	2022	2045	1545	2726
Number of Taxa w/ Epifauna	14	14	11	11	9
Number of Taxa w/o Epifauna	13	11	10	10	9
BENTHIC BIOMASS (Grams per sq. meter)					
Site	18611	18612	18613	18614	18615
Americamysis bigelowi (Epi.)			0.0045		
Ameroculodes species complex		0.0068	0.0023		
Apocorophium lacustre (Epi.)		0.0023			
Carinoma tremaphoros	0.0114	0.0432	0.0182	0.0114	0.0250
Coelotanypus spp.	0.0045				0.0568
Cyathura polita	0.0295	0.5794	0.8247	0.5203	0.7520
Eteone heteropoda	0.0364	0.0023		0.0011	
Heteromastus filiformis	0.1681	0.0204	0.0023	0.0011	
Leptocheirus plumulosus	0.0386	0.0295	0.0250	0.0114	0.0091
Macoma balthica	0.5635				
Macoma mitchelli	0.0227	0.5566	0.0136	0.0023	
Marenzelleria viridis		0.1113	0.5680	0.4203	1.1178
Melita nitida (Epi.)	0.0091	0.0023		0.0011	
Mytilopsis leucophaeata (Epi.)		0.0795			
Neanthes succinea	0.4817				6.8069
Rangia cuneata	0.3158	63.0548	21.4045	1.1701	10.1013
Streblospio benedicti	0.0011	0.0023	0.0023	0.0068	0.0068
Tubificidae imm w/o cap chaetae	0.0011				
Tubificoides spp.	0.0114	0.0045	0.0023	0.0023	0.0011
Total Biomass w/ Epifauna	1.6949	64.4953	22.8677	2.1482	18.8769
Total Biomass w/o Epifauna	1.6858	64.4112	22.8631	2.1470	18.8769

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18616	18617	18618	18619	18620					
Watershed	Upper Bay	Upper Bay	Upper Bay	Upper Bay	Upper Bay					
Habitat	Low Mesohaline	Low Mesohaline	Oligohaline	Low Mesohaline	Low Mesohaline					
Date	09/08/11	09/17/11	09/08/11	09/17/11	09/17/11					
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)	5.2	3.2	4.0	3.7	4.2					
Salinity (ppt)	1.38	0.06	1.91	0.07	0.21					
Temperature (C)	23.00	19.84	23.51	19.36	19.75					
Dissolved Oxygen (mg/L)	7.7	10.5	5.8	8.3	9.9					
Sediment Silt-Clay (%)	35.90	85.02	71.92	94.30	69.93					
Total Carbon (%)	1.61	2.88	2.31	3.26	2.85					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	3.00		4.20		2.00		2.60		3.40	
Condition	Meets Goal		Meets Goal		Severely Degr.		Degraded		Meets Goal	
# Attributes Scored	5		5		6		5		5	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.12	3	2.50	5	2.42		2.37	3	2.52	5
Abundance (#/m2)	6134	1	1681	5	5839	1	3363	3	1886	5
Biomass (g/m2)	7.16	5	18.80	3	2.20		41.48	1	63.80	1
Pollution Indicative Spp Abund (%)	47.41	1	14.86	3	39.69		22.97	1	20.48	1
Pollution Indicative Spp Biom (%)	0.62		0.13		3.20		0.03		0.02	
Pollution Sensitive Spp Abund (%)	14.81		67.57		17.12		63.51		67.47	
Pollution Sensitive Spp Biom (%)	96.97	5	99.69	5	73.92		99.90	5	99.92	5
Carnivore-Omnivore Abund (%)	13.70		17.57		8.17	1	24.32		33.73	
Deep Deposit Feeder Abund (%)	27.04		6.76		8.17		6.08		7.23	
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		76.65	3	0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		15.95	3	0.00		0.00	
Tolerance Score	6.29		6.05		6.24	3	6.02		6.02	
Tany./Chir. Abundance Ratio	0.00		100.00		95.24	1	0.00		100.00	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18616	18617	18618	18619	18620
Ameroculodes species complex				23	
Apocorophium lacustre (Epi.)	364	23	114	23	
Boccardiella ligerica			23		
Carinoma tremaphoros	136			68	23
Chironomus spp.	23				
Coelotanypus spp.		68	454		45
Cryptochironomus spp.				23	
Cyathura polita	636	227		704	568
Cyclaspis varians			318		
Gammarus daiberi (Epi.)	23		23		
Harnischia spp.			23		
Heteromastus filiformis	23	23			
Leptocheirus plumulosus	432	182	1681	114	68
Littoridinops tenuipes (Epi.)			795		
Macoma balthica			23		
Macoma mitchelli	45				
Marenzelleria viridis		682	932	159	341
Melita nitida (Epi.)	182			23	
Mytilopsis leucophaeata (Epi.)			545	45	23
Neanthes succinea	45			23	
Rangia cuneata	273	227	45	1272	364
Rhithropanopeus harrisii (Epi.)	114				
Streblospio benedicti	2885	182	1863	772	341
Stylochus ellipticus (Epi.)	23				
Tubificoides spp.	1636	91	477	204	136
Total Abundance w/ Epifauna	6839	1704	7316	3453	1908
Total Abundance w/o Epifauna	6134	1681	5839	3363	1886
Number of Taxa w/ Epifauna	15	9	14	13	9
Number of Taxa w/o Epifauna	10	8	10	10	8

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	18616	18617	18618	18619	18620
Ameroculodes species complex				0.0011	
Apocorophium lacustre (Epi.)	0.0114	0.0045	0.0023	0.0023	
Boccardiella ligerica			0.0011		
Carinoma tremaphoros	0.0136			0.0068	0.0273
Chironomus spp.	0.0011				
Coelotanypus spp.		0.0159	0.0454		0.0091
Cryptochironomus spp.				0.0011	
Cyathura polita	0.1727	0.2863		0.6362	0.2840
Cyclaspis varians			0.2590		
Gammarus daiberi (Epi.)	0.0068		0.0011		
Harnischia spp.			0.0011		
Heteromastus filiiformis	0.0023	0.0114			
Leptocheirus plumulosus	0.0454	0.0204	0.2340	0.0136	0.0068
Littoridinops tenuipes (Epi.)			0.0772		
Macoma balthica			0.6680		
Macoma mitchelli	0.0136				
Marenzelleria viridis		0.7702	0.6203	0.2113	0.4930
Melita nitida (Epi.)	0.0136			0.0023	
Mytilopsis leucophaeata (Epi.)			0.1795	0.0295	0.0636
Neanthes succinea	0.0772			0.0023	
Rangia cuneata	6.7706	17.6852	0.3408	40.5961	62.9708
Rhithropanopeus harrisii (Epi.)	2.5901				
Streblospio benedicti	0.0432	0.0091	0.0250	0.0114	0.0045
Stylochus ellipticus (Epi.)	0.0011				
Tubificoides spp.	0.0204	0.0023	0.0091	0.0045	0.0023
Total Biomass w/ Epifauna	9.7832	18.8053	2.4640	41.5185	63.8614
Total Biomass w/o Epifauna	7.1602	18.8008	2.2038	41.4844	63.7978

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

Site	18621	18622	18623	18624	18625					
Watershed	Upper Bay	Upper Bay	Upper Bay	Upper Bay	Upper Bay					
Habitat	Low Mesohaline	Oligohaline	Oligohaline	Oligohaline	Freshwater					
Date	09/17/11	09/08/11	08/29/11	08/29/11	08/29/11					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	2.8	7.8	6.1	3.7	8.7					
Salinity (ppt)	0.06	0.09	0.78	0.96	0.13					
Temperature (C)	19.69	22.73	24.06	23.86	24.59					
Dissolved Oxygen (mg/L)	8.5	7.7	6.8	6.4	6.9					
Sediment Silt-Clay (%)	81.99	94.87	63.34	24.36	88.05					
Total Carbon (%)	2.91	6.58	5.13	5.27	3.61					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	3.00		3.00		3.00		2.33		5.00	
Condition	Meets Goal		Meets Goal		Meets Goal		Degraded		Meets Goal	
# Attributes Scored	5		6		6		6		4	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.82	5	2.08		2.23		1.69		2.89	
Abundance (#/m2)	3135	3	1886	5	2863	5	9202	1	2817	5
Biomass (g/m2)	78.95	1	13.08		65.24		61.52		0.88	
Pollution Indicative Spp Abund (%)	23.91	1	6.02		6.35		89.88		66.94	
Pollution Indicative Spp Biom (%)	0.25		0.04		0.02		0.69		44.67	
Pollution Sensitive Spp Abund (%)	50.72		67.47		57.94		6.17		0.00	
Pollution Sensitive Spp Biom (%)	99.70	5	99.45		99.72		99.21		0.00	
Carnivore-Omnivore Abund (%)	28.99		6.02	1	7.94	1	3.46	1	38.71	
Deep Deposit Feeder Abund (%)	7.25		10.84		7.14		89.14		58.87	5
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		8.06	5
Limnodrilus Abundance (%)	1.45		1.20		3.17		77.04		8.06	
Oligo Poll. Indic. Spp Abund (%)	0.00		28.92	3	39.68	3	91.11	3	0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		59.04	5	45.24	5	5.68	3	0.00	
Tolerance Score	6.31		6.93	3	7.11	3	9.11	1	7.76	5
Tany./Chir. Abundance Ratio	91.67		100.00	1	100.00	1	14.29	5	73.91	

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BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC ABUNDANCE (per sq. meter)					
Site	18621	18622	18623	18624	18625
Apocorophium lacustre (Epi.)	23		45		
Aulodrilus pigueti				1091	454
Axarus spp.					45
Branchiura sowerbyi				23	
Chaoborus punctipennis		23			23
Chiridotea almyra				68	
Chironomus spp.				91	182
Coelotanypus spp.	250	23	45		182
Corbicula fluminea					45
Cryptochironomus spp.	23			45	
Cyathura polita	636	68	182	91	
Gammarus daiberi (Epi.)		45	114		
Hexagenia limbata					23
Hobsonia florida		45	68		
Leptocheirus plumulosus	591	250	841	68	
Limnodrilus hoffmeisteri			45	818	
Littoridinops tenuipes (Epi.)	182			23	
Marenzelleria viridis	454	1113	1295	454	
Oecetis spp. (Epi.)	23				
Oligochaeta					841
Pisidium spp.				136	
Polypedilum halterale group					45
Procladius spp.				23	591
Rangia cuneata	500	91	182	23	
Stenelmis spp. (Epi.)					23
Streblospio benedicti	454	68	45		
Tubificidae imm w cap chaetae					136
Tubificidae imm w/o cap chaetae	45	23			227
Tubificidae imm w/o cap chaetae *			45	6271	
Tubificoides spp.	182	182	114		
Unionidae					23
Total Abundance w/ Epifauna	3363	1931	3022	9224	2840
Total Abundance w/o Epifauna	3135	1886	2863	9202	2817
Number of Taxa w/ Epifauna	12	11	11	13	14
Number of Taxa w/o Epifauna	9	10	9	12	13

*Indicates taxa is skipped in taxon counts

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2011 (CRUISE 01:2011/2012) BAY-WIDE RANDOM SITES

BENTHIC BIOMASS (Grams per sq. meter)					
Site	18621	18622	18623	18624	18625
Apocorophium lacustre (Epi.)	0.0045		0.0045		
Branchiura sowerbyi				0.0159	
Chaoborus punctipennis		0.0011			0.0068
Chiridotea almyra				0.0159	
Chironomidae					0.3135
Chironomus spp.				0.0011	
Coelotanypus spp.	0.0454	0.0023	0.0068		0.0318
Corbicula fluminea					0.0227
Cryptochironomus spp.	0.0011			0.0011	
Cyathura polita	0.2476	0.0500	0.1454	0.0613	
Gammarus daiberi (Epi.)		0.0045	0.0204		
Hexagenia limbata					0.0011
Hobsonia florida		0.0204	0.0273		
Leptocheirus plumulosus	0.0386	0.0432	0.1386	0.0182	
Limnodrilus hoffmeisteri			0.0011		
Littoridinops tenuipes (Epi.)	0.0045			0.0023	
Marenzelleria viridis	0.8952	0.6952	1.7267	0.5089	
Oecetis spp. (Epi.)	0.0011				
Oligochaeta				0.4238	0.0500
Pisidium spp.				0.0091	
Procladius spp.				0.0011	
Rangia cuneata	77.5706	12.2665	63.1866	60.4602	
Stenelmis spp. (Epi.)					0.0011
Streblospio benedicti	0.1477	0.0023	0.0023		
Tubificidae imm w/o cap chaetae	0.0011	0.0011	0.0011		
Tubificoides spp.	0.0045	0.0011	0.0045		
Unionidae					0.4589
Total Biomass w/ Epifauna	78.9622	13.0879	65.2655	61.5190	0.8861
Total Biomass w/o Epifauna	78.9520	13.0833	65.2405	61.5167	0.8849

