

**CHESAPEAKE BAY WATER QUALITY
MONITORING PROGRAM**

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

JULY 1984 - DECEMBER 2010 (VOLUME 2)

Prepared for

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

Prepared by

Roberto J. Llansó
Jodi Dew-Baxter
Lisa C. Scott

Versar, Inc.
9200 Rumsey Road
Columbia, Maryland 21045

August 2011

TABLE OF CONTENTS

VOLUME 2

	Page
DATA SUMMARIES	
A BENTHIC ENVIRONMENT AND COMMUNITY COMPOSITION AT FIXED SITES: SUMMER 2010.....	A-1
B BENTHIC ENVIRONMENT AND COMMUNITY COMPOSITION AT THE MARYLAND BAY RANDOM SITES: SUMMER 2010.....	B-1

DATA SUMMARY A

**BENTHIC ENVIRONMENT AND COMMUNITY
COMPOSITION AT FIXED SITES:
SUMMER 2010**

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Station: 001		Rep: 01	
Watershed: Mainstem		Date: 13SEP10	
Gear: Modified Box Corer		Time: 9:54:38	
Habitat: High Mesohaline Sand			
Sampled Area: 0.025 sq.m			
BOTTOM ENVIRONMENT			
Depth (m): 2.5		Salinity (ppt): 18.23	
Dissolved Oxygen (mg/l): 6.2		Temperature (C): 24.16	
		Sediment Silt-Clay (%): 0.87	
		Total Carbon (%): 0.08	
BENTHIC INDEX OF BIOTIC INTEGRITY			
B-IBI Score: 3.33		Condition: Meets Goal	
		# Attributes Scored: 6	
	Value	Score	Value
Shannon-Wiener Index	2.50	3	7.14
Abundance (#/m2)	1120	3	2.55
Biomass (g/m2)	0.55	1	17.86
Carnivore-Omnivore Abundance (%)	50.00	5	60.36
Deep Deposit Feeder Abundance (%)	0.00		
			Score
			5
			3
BENTHIC ABUNDANCE (per sq. meter)			
TAXA	Abundance (#/m2)		Biomass (g/m2)
Gemma gemma	80		0.00800
Glycinde solitaria	80		0.00800
Haminoea solitaria	480		0.18800
Macoma mitchelli	120		0.00400
Mulinia lateralis	40		0.01200
Paraonis fulgens	160		0.00400
Spiochaetopterus costarum	120		0.32400
Streblospio benedicti	40		0.00200
Total Abundance w/ Epi.	1120		
Total Abundance w/o Epi.	1120		
Number of Taxa w/ Epi.	8		
Number of Taxa w/o Epi.	8		
Total Biomass w/ Epi.			0.55000
Total Biomass w/o Epi.			0.55000

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Mainstem		Station: 001		Rep: 02	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 13SEP10	
		Sampled Area: 0.025 sq.m		Time: 9:54:38	
BOTTOM ENVIRONMENT					
Depth (m): 2.5		Salinity (ppt): 18.23		Temperature (C): 24.16	
Dissolved Oxygen (mg/l): 6.2		Sediment Silt-Clay (%): 0.87		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		2.82	3	18.18	3
Abundance (#/m2)		880	1	44.00	
Biomass (g/m2)		0.35	1	13.64	3
Carnivore-Omnivore Abundance (%)		50.00	5	18.29	
Deep Deposit Feeder Abundance (%)		9.09			
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Gemma gemma		160		0.04400	
Glycinde solitaria		80		0.02800	
Haminoea solitaria		320		0.04400	
Leitoscoloplos spp.		40		0.02400	
Micrura leidyi		40		0.03600	
Mulinia lateralis		80		0.12800	
Paraonis fulgens		40		0.00400	
Spiochaetopterus costarum		40		0.03600	
Streblospio benedicti		40		0.00200	
Tubificoides spp.		40		0.00400	
Total Abundance w/ Epi.		880			
Total Abundance w/o Epi.		880			
Number of Taxa w/ Epi.		10			
Number of Taxa w/o Epi.		10			
Total Biomass w/ Epi.				0.35000	
Total Biomass w/o Epi.				0.35000	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Mainstem		Station: 001		Rep: 03	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 13SEP10	
		Sampled Area: 0.025 sq.m		Time: 9:54:38	
BOTTOM ENVIRONMENT					
Depth (m): 2.5		Salinity (ppt): 18.23		Temperature (C): 24.16	
Dissolved Oxygen (mg/l): 6.2		Sediment Silt-Clay (%): 0.87		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		2.43	1	Pollution Indicative Species Abundance (%)	0.00
Abundance (#/m2)		880	1	Pollution Indicative Species Biomass (%)	0.00
Biomass (g/m2)		0.30	1	Pollution Sensitive Species Abundance (%)	31.82
Carnivore-Omnivore Abundance (%)		27.27	3	Pollution Sensitive Species Biomass (%)	54.73
Deep Deposit Feeder Abundance (%)		0.00			
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Acteocina canaliculata		40		0.00200	
Gemma gemma		240		0.01200	
Glycinde solitaria		120		0.00400	
Haminoea solitaria		40		0.00200	
Micrura leidyi		40		0.10800	
Paraonis fulgens		280		0.01200	
Spiochaetopterus costarum		120		0.15600	
Total Abundance w/ Epi.		880			
Total Abundance w/o Epi.		880			
Number of Taxa w/ Epi.		7			
Number of Taxa w/o Epi.		7			
Total Biomass w/ Epi.				0.29600	
Total Biomass w/o Epi.				0.29600	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Calvert Cliffs Discharge		Station: 006		Rep: 01	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 13SEP10	
		Sampled Area: 0.025 sq.m		Time: 10:30:52	
BOTTOM ENVIRONMENT					
Depth (m): 2.0		Salinity (ppt): 18.18		Temperature (C): 25.66	
Dissolved Oxygen (mg/l): 5.8		Sediment Silt-Clay (%): 0.55		Total Carbon (%): 0.05	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.33		Condition: Degraded		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	1.04	1	Pollution Indicative Species Abundance (%)	0.00	5
Abundance (#/m2)	1840	5	Pollution Indicative Species Biomass (%)	0.00	
Biomass (g/m2)	0.49	1	Pollution Sensitive Species Abundance (%)	6.52	1
Carnivore-Omnivore Abundance (%)	13.04	1	Pollution Sensitive Species Biomass (%)	4.88	
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Gemma gemma	1520		0.13200		
Glycinde solitaria	120		0.02400		
Haminoea solitaria	80		0.02400		
Lepidactylus dytiscus	40		0.02400		
Macoma mitchelli	40		0.17600		
Neanthes succinea	40		0.11200		
Total Abundance w/ Epi.	1840				
Total Abundance w/o Epi.	1840				
Number of Taxa w/ Epi.	6				
Number of Taxa w/o Epi.	6				
Total Biomass w/ Epi.			0.49200		
Total Biomass w/o Epi.			0.49200		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Calvert Cliffs Discharge		Station: 006		Rep: 02	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 13SEP10	
		Sampled Area: 0.025 sq.m		Time: 10:30:52	
BOTTOM ENVIRONMENT					
Depth (m): 2.0		Salinity (ppt): 18.18		Temperature (C): 25.66	
Dissolved Oxygen (mg/l): 5.8		Sediment Silt-Clay (%): 0.55		Total Carbon (%): 0.05	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.67		Condition: Marginal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	1.44	1	Pollution Indicative Species Abundance (%)	0.00	5
Abundance (#/m2)	2080	5	Pollution Indicative Species Biomass (%)	0.00	
Biomass (g/m2)	0.40	1	Pollution Sensitive Species Abundance (%)	7.69	1
Carnivore-Omnivore Abundance (%)	25.00	3	Pollution Sensitive Species Biomass (%)	0.99	
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Acteocina canaliculata	40		0.00200		
Gemma gemma	1440		0.08800		
Glycinde solitaria	120		0.00200		
Haminoea solitaria	360		0.27600		
Lepidactylus dytiscus	40		0.03200		
Paraonis fulgens	80		0.00400		
Total Abundance w/ Epi.	2080				
Total Abundance w/o Epi.	2080				
Number of Taxa w/ Epi.	6				
Number of Taxa w/o Epi.	6				
Total Biomass w/ Epi.			0.40400		
Total Biomass w/o Epi.			0.40400		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Calvert Cliffs Discharge		Station: 006		Rep: 03	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 13SEP10	
		Sampled Area: 0.025 sq.m		Time: 10:30:52	
BOTTOM ENVIRONMENT					
Depth (m): 2.0		Salinity (ppt): 18.18		Temperature (C): 25.66	
Dissolved Oxygen (mg/l): 5.8		Sediment Silt-Clay (%): 0.55		Total Carbon (%): 0.05	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.33		Condition: Meets Goal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	1.84	1	Pollution Indicative Species Abundance (%)	2.22	5
Abundance (#/m2)	1800	5	Pollution Indicative Species Biomass (%)	25.14	
Biomass (g/m2)	3.58	5	Pollution Sensitive Species Abundance (%)	8.89	1
Carnivore-Omnivore Abundance (%)	31.11	3	Pollution Sensitive Species Biomass (%)	0.28	
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Acteocina canaliculata	40		0.00400		
Carinoma tremaphoros	40		0.02000		
Gemma gemma	1120		0.00800		
Glycinde solitaria	80		0.00400		
Haminoea solitaria	280		0.23200		
Macoma mitchelli	40		0.00200		
Micrura leidyi	120		2.40800		
Mulinia lateralis	40		0.90000		
Phoronis spp.	40		0.00200		
Total Abundance w/ Epi.	1800				
Total Abundance w/o Epi.	1800				
Number of Taxa w/ Epi.	9				
Number of Taxa w/o Epi.	9				
Total Biomass w/ Epi.			3.58000		
Total Biomass w/o Epi.			3.58000		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Mainstem		Station: 015		Rep: 01	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 13SEP10	
		Sampled Area: 0.025 sq.m		Time: 11:49:16	
BOTTOM ENVIRONMENT					
Depth (m): 2.6		Salinity (ppt): 16.75		Temperature (C): 22.51	
Dissolved Oxygen (mg/l): 6.4		Sediment Silt-Clay (%): 3.32		Total Carbon (%): 0.15	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.33		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.62	3	Pollution Indicative Species Abundance (%)	37.50	1
Abundance (#/m2)	960	1	Pollution Indicative Species Biomass (%)	2.14	
Biomass (g/m2)	0.28	1	Pollution Sensitive Species Abundance (%)	4.17	1
Carnivore-Omnivore Abundance (%)	16.67	1	Pollution Sensitive Species Biomass (%)	0.71	
Deep Deposit Feeder Abundance (%)	12.50				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	40		0.00800		
Chiridotea caeca	40		0.03200		
Gemma gemma	200		0.05200		
Glycinde solitaria	40		0.00200		
Heteromastus filiformis	120		0.04000		
Macoma mitchelli	120		0.00800		
Micrura leidyi	40		0.13200		
Mulinia lateralis	40		0.00200		
Streblospio benedicti	320		0.00400		
Total Abundance w/ Epi.	960				
Total Abundance w/o Epi.	960				
Number of Taxa w/ Epi.	9				
Number of Taxa w/o Epi.	9				
Total Biomass w/ Epi.			0.28000		
Total Biomass w/o Epi.			0.28000		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Mainstem		Station: 015		Rep: 02	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 13SEP10	
		Sampled Area: 0.025 sq.m		Time: 11:49:16	
BOTTOM ENVIRONMENT					
Depth (m): 2.6		Salinity (ppt): 16.75		Temperature (C): 22.51	
Dissolved Oxygen (mg/l): 6.4		Sediment Silt-Clay (%): 3.32		Total Carbon (%): 0.15	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.67		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	1.98	1	Pollution Indicative Species Abundance (%)	53.33	1
Abundance (#/m2)	1200	3	Pollution Indicative Species Biomass (%)	64.71	
Biomass (g/m2)	1.02	3	Pollution Sensitive Species Abundance (%)	0.00	1
Carnivore-Omnivore Abundance (%)	3.33	1	Pollution Sensitive Species Biomass (%)	0.00	
Deep Deposit Feeder Abundance (%)	10.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Gemma gemma	120		0.08000		
Heteromastus filiformis	120		0.05200		
Macoma mitchelli	280		0.08400		
Micrura leidyi	40		0.14400		
Mulinia lateralis	40		0.63600		
Streblospio benedicti	600		0.02400		
Total Abundance w/ Epi.	1200				
Total Abundance w/o Epi.	1200				
Number of Taxa w/ Epi.	6				
Number of Taxa w/o Epi.	6				
Total Biomass w/ Epi.			1.02000		
Total Biomass w/o Epi.			1.02000		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Mainstem		Station: 015		Rep: 03	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 13SEP10	
		Sampled Area: 0.025 sq.m		Time: 11:49:16	
BOTTOM ENVIRONMENT					
Depth (m): 2.6		Salinity (ppt): 16.75		Temperature (C): 22.51	
Dissolved Oxygen (mg/l): 6.4		Sediment Silt-Clay (%): 3.32		Total Carbon (%): 0.15	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.00		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	1.10	1	Pollution Indicative Species Abundance (%)	72.73	1
Abundance (#/m2)	440	1	Pollution Indicative Species Biomass (%)	72.73	
Biomass (g/m2)	0.02	1	Pollution Sensitive Species Abundance (%)	0.00	1
Carnivore-Omnivore Abundance (%)	0.00	1	Pollution Sensitive Species Biomass (%)	0.00	
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Gemma gemma	40		0.00200		
Macoma mitchelli	80		0.00400		
Streblospio benedicti	320		0.01600		
Total Abundance w/ Epi.	440				
Total Abundance w/o Epi.	440				
Number of Taxa w/ Epi.	3				
Number of Taxa w/o Epi.	3				
Total Biomass w/ Epi.			0.02200		
Total Biomass w/o Epi.			0.02200		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 022		Rep: 01	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 29SEP10	
		Sampled Area: 0.022 sq.m		Time: 8:54:39	
BOTTOM ENVIRONMENT					
Depth (m): 5.3		Salinity (ppt): 13.80		Temperature (C): 23.65	
Dissolved Oxygen (mg/l): 5.1		Sediment Silt-Clay (%): 87.21		Total Carbon (%): 3.08	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.00		Condition: Severely Degr.		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	1.00	1	Pollution Indicative Species Abundance (%)	50.00	1
Abundance (#/m2)	90	1	Pollution Indicative Species Biomass (%)	11.11	
Biomass (g/m2)	0.04	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	50.00		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	45		0.03600		
Streblospio benedicti	45		0.00450		
Total Abundance w/ Epi.	90				
Total Abundance w/o Epi.	90				
Number of Taxa w/ Epi.	2				
Number of Taxa w/o Epi.	2				
Total Biomass w/ Epi.			0.04050		
Total Biomass w/o Epi.			0.04050		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 022		Rep: 02	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 29SEP10	
		Sampled Area: 0.022 sq.m		Time: 8:54:39	
BOTTOM ENVIRONMENT					
Depth (m): 5.3		Salinity (ppt): 13.80		Temperature (C): 23.65	
Dissolved Oxygen (mg/l): 5.1		Sediment Silt-Clay (%): 87.21		Total Carbon (%): 3.08	
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 (%)	100.00	1
Abundance (#/m2)	180	1	Pollution Indicative Species Biomass (%)	100.00	
Biomass (g/m2)	0.01	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	25.00		Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Eteone heteropoda	45		0.00450		
Streblospio benedicti	135		0.00450		
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.			0.00900		
Total Biomass w/o Epi.			0.00900		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Station: 022			Rep: 03		
Watershed: Patapsco & Back Rivers		Habitat: Low Mesohaline		Date: 29SEP10	
Gear: Wildco Box Corer		Sampled Area: 0.022 sq.m		Time: 8:54:39	
BOTTOM ENVIRONMENT					
Depth (m): 5.3		Salinity (ppt): 13.80		Temperature (C): 23.65	
Dissolved Oxygen (mg/l): 5.1		Sediment Silt-Clay (%): 87.21		Total Carbon (%): 3.08	
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)	90	1	Pollution Indicative Species Biomass (%)	100.00	
Biomass (g/m2)	0.00	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	0.00		Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Streblospio benedicti	90		0.00225		
Total Abundance w/ Epi.	90				
Total Abundance w/o Epi.	90				
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 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 023		Rep: 01	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 30AUG10	
		Sampled Area: 0.022 sq.m		Time: 11:27:45	
BOTTOM ENVIRONMENT					
Depth (m): 6.4		Salinity (ppt): 11.94		Temperature (C): 26.44	
Dissolved Oxygen (mg/l): 1.3		Sediment Silt-Clay (%): 74.83		Total Carbon (%): 3.56	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.20		Condition: Degraded		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	1.92	3	Pollution Indicative Species Abundance (%)	20.00	3
Abundance (#/m2)	225	1	Pollution Indicative Species Biomass (%)	0.41	
Biomass (g/m2)	0.55	1	Pollution Sensitive Species Abundance (%)	40.00	
Carnivore-Omnivore Abundance (%)	40.00		Pollution Sensitive Species Biomass (%)	98.37	3
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	45		0.00225		
Macoma balthica	90		0.54450		
Neanthes succinea	45		0.00450		
Streblospio benedicti	45		0.00225		
Total Abundance w/ Epi.	225				
Total Abundance w/o Epi.	225				
Number of Taxa w/ Epi.	4				
Number of Taxa w/o Epi.	4				
Total Biomass w/ Epi.			0.55350		
Total Biomass w/o Epi.			0.55350		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 023		Rep: 02	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 30AUG10	
		Sampled Area: 0.022 sq.m		Time: 11:27:45	
BOTTOM ENVIRONMENT					
Depth (m): 6.4		Salinity (ppt): 11.94		Temperature (C): 26.44	
Dissolved Oxygen (mg/l): 1.3		Sediment Silt-Clay (%): 74.83		Total Carbon (%): 3.56	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.60		Condition: Degraded		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.06	3	Pollution Indicative Species Abundance (%)	0.00	5
Abundance (#/m2)	405	1	Pollution Indicative Species Biomass (%)	0.00	
Biomass (g/m2)	1.94	3	Pollution Sensitive Species Abundance (%)	22.22	
Carnivore-Omnivore Abundance (%)	55.56		Pollution Sensitive Species Biomass (%)	31.32	1
Deep Deposit Feeder Abundance (%)	11.11				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	45		0.02700		
Macoma balthica	90		0.60750		
Macoma mitchelli	45		0.00450		
Neanthes succinea	180		1.29150		
Tubificoides spp.	45		0.00900		
Total Abundance w/ Epi.	405				
Total Abundance w/o Epi.	405				
Number of Taxa w/ Epi.	5				
Number of Taxa w/o Epi.	5				
Total Biomass w/ Epi.			1.93950		
Total Biomass w/o Epi.			1.93950		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 023		Rep: 03	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 30AUG10	
		Sampled Area: 0.022 sq.m		Time: 11:27:45	
BOTTOM ENVIRONMENT					
Depth (m): 6.4		Salinity (ppt): 11.94		Temperature (C): 26.44	
Dissolved Oxygen (mg/l): 1.3		Sediment Silt-Clay (%): 74.83		Total Carbon (%): 3.56	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.00		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	1.92	3	Pollution Indicative Species Abundance (%)	23.53	1
Abundance (#/m2)	1530	5	Pollution Indicative Species Biomass (%)	0.13	
Biomass (g/m2)	1.78	3	Pollution Sensitive Species Abundance (%)	8.82	
Carnivore-Omnivore Abundance (%)	11.76		Pollution Sensitive Species Biomass (%)	53.72	3
Deep Deposit Feeder Abundance (%)	52.94				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	90		0.02250		
Macoma balthica	135		0.95850		
Macoma mitchelli	45		0.00450		
Neanthes succinea	90		0.79200		
Streblospio benedicti	360		0.00225		
Tubificoides spp.	810		0.00450		
Total Abundance w/ Epi.	1530				
Total Abundance w/o Epi.	1530				
Number of Taxa w/ Epi.	6				
Number of Taxa w/o Epi.	6				
Total Biomass w/ Epi.			1.78425		
Total Biomass w/o Epi.			1.78425		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Mainstem		Station: 024		Rep: 01	
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud		Date: 16SEP10	
		Sampled Area: 0.022 sq.m		Time: 9:44:56	
BOTTOM ENVIRONMENT					
Depth (m): 6.5		Salinity (ppt): 14.78		Temperature (C): 23.49	
Dissolved Oxygen (mg/l): 3.0		Sediment Silt-Clay (%): 92.62		Total Carbon (%): 2.46	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.67		Condition: Marginal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	1.28	1	Pollution Indicative Species Abundance (%)	0.00	
Abundance (#/m2)	495	1	Pollution Indicative Species Biomass (%)	0.00	5
Biomass (g/m2)	1.18	3	Pollution Sensitive Species Abundance (%)	9.09	
Carnivore-Omnivore Abundance (%)	81.82	5	Pollution Sensitive Species Biomass (%)	28.24	1
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	45		0.05400		
Leptocheirus plumulosus	45		0.01800		
Macoma balthica	45		0.33300		
Neanthes succinea	360		0.77400		
Total Abundance w/ Epi.	495				
Total Abundance w/o Epi.	495				
Number of Taxa w/ Epi.	4				
Number of Taxa w/o Epi.	4				
Total Biomass w/ Epi.			1.17900		
Total Biomass w/o Epi.			1.17900		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Mainstem		Station: 024		Rep: 02	
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud		Date: 16SEP10	
		Sampled Area: 0.022 sq.m		Time: 9:44:56	
BOTTOM ENVIRONMENT					
Depth (m): 6.5		Salinity (ppt): 14.78		Temperature (C): 23.49	
Dissolved Oxygen (mg/l): 3.0		Sediment Silt-Clay (%): 92.62		Total Carbon (%): 2.46	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.67		Condition: Marginal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	1.44	1	Pollution Indicative Species Abundance (%)	8.77	
Abundance (#/m2)	2565	3	Pollution Indicative Species Biomass (%)	0.70	5
Biomass (g/m2)	0.96	3	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	19.30	3	Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	73.68				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	90		0.04950		
Macoma mitchelli	45		0.00225		
Neanthes succinea	405		0.88650		
Streblospio benedicti	135		0.00450		
Tubificidae imm w/o cap chaetae	90		0.00225		
Tubificoides spp.	1800		0.01800		
Total Abundance w/ Epi.	2565				
Total Abundance w/o Epi.	2565				
Number of Taxa w/ Epi.	6				
Number of Taxa w/o Epi.	6				
Total Biomass w/ Epi.			0.96300		
Total Biomass w/o Epi.			0.96300		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Mainstem		Station: 024		Rep: 03	
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud		Date: 16SEP10	
		Sampled Area: 0.022 sq.m		Time: 9:44:56	
BOTTOM ENVIRONMENT					
Depth (m): 6.5		Salinity (ppt): 14.78		Temperature (C): 23.49	
Dissolved Oxygen (mg/l): 3.0		Sediment Silt-Clay (%): 92.62		Total Carbon (%): 2.46	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.33		Condition: Degraded		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	1.57	1	Pollution Indicative Species Abundance (%)	0.00	
Abundance (#/m2)	585	1	Pollution Indicative Species Biomass (%)	0.00	5
Biomass (g/m2)	0.47	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	38.46	5	Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	61.54				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	45		0.01800		
Heteromastus filiformis	45		0.01350		
Neanthes succinea	180		0.43200		
Tubificoides spp.	315		0.00450		
Total Abundance w/ Epi.	585				
Total Abundance w/o Epi.	585				
Number of Taxa w/ Epi.	4				
Number of Taxa w/o Epi.	4				
Total Biomass w/ Epi.			0.46800		
Total Biomass w/o Epi.			0.46800		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Upper Western Shore		Station: 026		Rep: 01	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 15SEP10	
		Sampled Area: 0.022 sq.m		Time: 10:46:13	
BOTTOM ENVIRONMENT					
Depth (m): 3.4		Salinity (ppt): 9.46		Temperature (C): 22.44	
Dissolved Oxygen (mg/l): 6.3		Sediment Silt-Clay (%): 93.37		Total Carbon (%): 3.54	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 4.20		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	1.91	3	Pollution Indicative Species Abundance (%)	3.03	5
Abundance (#/m2)	1485	3	Pollution Indicative Species Biomass (%)	0.02	
Biomass (g/m2)	9.18	5	Pollution Sensitive Species Abundance (%)	12.12	
Carnivore-Omnivore Abundance (%)	0.00		Pollution Sensitive Species Biomass (%)	97.35	5
Deep Deposit Feeder Abundance (%)	18.18				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Leptocheirus plumulosus	810		0.20700		
Macoma balthica	45		8.41050		
Macoma mitchelli	180		0.03150		
Marenzelleria viridis	135		0.52200		
Melita nitida (Epi)	135		0.00225		
Streblospio benedicti	45		0.00225		
Tubificoides spp.	270		0.00225		
Total Abundance w/ Epi.	1620				
Total Abundance w/o Epi.	1485				
Number of Taxa w/ Epi.	7				
Number of Taxa w/o Epi.	6				
Total Biomass w/ Epi.			9.17775		
Total Biomass w/o Epi.			9.17550		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Upper Western Shore		Station: 026		Rep: 02	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 15SEP10	
		Sampled Area: 0.022 sq.m		Time: 10:46:13	
BOTTOM ENVIRONMENT					
Depth (m): 3.4		Salinity (ppt): 9.46		Temperature (C): 22.44	
Dissolved Oxygen (mg/l): 6.3		Sediment Silt-Clay (%): 93.37		Total Carbon (%): 3.54	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.80		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.34	3	Pollution Indicative Species Abundance (%)	2.63	5
Abundance (#/m2)	1710	5	Pollution Indicative Species Biomass (%)	0.01	
Biomass (g/m2)	38.72	1	Pollution Sensitive Species Abundance (%)	15.79	
Carnivore-Omnivore Abundance (%)	5.26		Pollution Sensitive Species Biomass (%)	97.94	5
Deep Deposit Feeder Abundance (%)	15.79				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	45		0.40050		
Cyathura polita	45		0.00450		
Heteromastus filiformis	45		0.01350		
Leptocheirus plumulosus	855		0.25200		
Macoma mitchelli	225		0.12600		
Marenzelleria viridis	135		1.15200		
Melita nitida (Epi)	270		0.00900		
Rangia cuneata	90		36.76500		
Streblospio benedicti	45		0.00225		
Tubificoides spp.	225		0.00225		
Total Abundance w/ Epi.	1980				
Total Abundance w/o Epi.	1710				
Number of Taxa w/ Epi.	10				
Number of Taxa w/o Epi.	9				
Total Biomass w/ Epi.			38.72700		
Total Biomass w/o Epi.			38.71800		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Station: 029			Rep: 01		
Watershed: Upper Eastern Shore		Habitat: Oligohaline		Date: 23SEP10	
Gear: Wildco Box Corer		Sampled Area: 0.022 sq.m		Time: 11:03:30	
BOTTOM ENVIRONMENT					
Depth (m): 5.2		Salinity (ppt): 4.65		Temperature (C): 22.46	
Dissolved Oxygen (mg/l): 7.0		Sediment Silt-Clay (%): 59.56		Total Carbon (%): 1.98	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.67		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.15		Oligohaline Pollution Indicative Spp. Abund.	73.53	3
Abundance (#/m2)	4590	1	Tolerance Score	9.05	1
Deep Deposit Feeder Abundance (%)	69.61		Oligohaline Pollution Sensitive Spp. Abund.	7.84	3
Carnivore-Omnivore Abundance (%)	3.92	1	Tanypodinae/Chironomidae Abundance Ratio	100.00	1
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Coelotanypus spp.	45		0.00900		
Cyathura polita	135		0.06300		
Limnodrilus hoffmeisteri	810				
Marenzelleria viridis	360		1.33200		
Oligochaeta			0.22863		
Polydora cornuta	45		0.00225		
Rangia cuneata	720		164.51550		
Streblospio benedicti	90		0.00225		
Tubificidae imm w/o cap chaetae *	2295				
Tubificoides spp.	90		0.00225		
Total Abundance w/ Epi.	4590				
Total Abundance w/o Epi.	4590				
Number of Taxa w/ Epi.	8				
Number of Taxa w/o Epi.	8				
Total Biomass w/ Epi.			166.15488		
Total Biomass w/o Epi.			166.15488		

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Upper Eastern Shore		Station: 029		Rep: 02	
Gear: Wildco Box Corer		Habitat: Oligohaline		Date: 23SEP10	
		Sampled Area: 0.022 sq.m		Time: 11:03:30	
BOTTOM ENVIRONMENT					
Depth (m): 5.2		Salinity (ppt): 4.65		Temperature (C): 22.46	
Dissolved Oxygen (mg/l): 7.0		Sediment Silt-Clay (%): 59.56		Total Carbon (%): 1.98	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.20		Condition: Degraded		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.48		Oligohaline Pollution Indicative Spp. Abund.	75.40	3
Abundance (#/m2)	5670	1	Tolerance Score	9.01	3
Deep Deposit Feeder Abundance (%)	64.29		Oligohaline Pollution Sensitive Spp. Abund.	3.97	3
Carnivore-Omnivore Abundance (%)	5.56	1	Tanypodinae/Chironomidae Abundance Ratio	0.00	
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Cyathura polita	315		0.11700		
Edotea triloba (Epi)	45		0.00225		
Gammarus daiberi (Epi)	45		0.00225		
Heteromastus filiformis	45		0.00225		
Limnodrilus hoffmeisteri	675				
Marenzelleria viridis	225		0.44100		
Oligochaeta			0.21519		
Polydora cornuta	315		0.00900		
Rangia cuneata	855		193.45500		
Rhithropanopeus harrisi (Epi)	45		0.07200		
Streblospio benedicti	315		0.00225		
Tubificidae imm w/o cap chaetae *	2565				
Tubificoides spp.	360		0.00225		
Total Abundance w/ Epi.	5805				
Total Abundance w/o Epi.	5670				
Number of Taxa w/ Epi.	11				
Number of Taxa w/o Epi.	8				
Total Biomass w/ Epi.			194.32044		
Total Biomass w/o Epi.			194.24394		

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Upper Eastern Shore		Station: 029		Rep: 03	
Gear: Wildco Box Corer		Habitat: Oligohaline		Date: 23SEP10	
		Sampled Area: 0.022 sq.m		Time: 11:03:30	
BOTTOM ENVIRONMENT					
Depth (m): 5.2		Salinity (ppt): 4.65		Temperature (C): 22.46	
Dissolved Oxygen (mg/l): 7.0		Sediment Silt-Clay (%): 59.56		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		1.92		72.22	3
Abundance (#/m2)		4860	1	9.20	1
Deep Deposit Feeder Abundance (%)		69.44		7.41	3
Carnivore-Omnivore Abundance (%)		3.70	1	0.00	
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Apocorophium lacustre (Epi)		135		0.02700	
Boccardiella ligerica		135		0.00900	
Caenis spp. (Epi)		45		0.00225	
Cyathura polita		180		0.16650	
Edotea triloba (Epi)		45		0.00900	
Hobsonia florida		45		0.00225	
Limnodrilus hoffmeisteri		405			
Marenzelleria viridis		360		0.89100	
Oligochaeta				0.23756	
Rangia cuneata		630		189.17100	
Streblospio benedicti		135		0.00225	
Tubificidae imm w/o cap chaetae *		2970			
Total Abundance w/ Epi.		5085			
Total Abundance w/o Epi.		4860			
Number of Taxa w/ Epi.		10			
Number of Taxa w/o Epi.		7			
Total Biomass w/ Epi.				190.51781	
Total Biomass w/o Epi.				190.47956	

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Potomac River		Station: 036		Rep: 01	
Gear: Wildco Box Corer		Habitat: Tidal Freshwater		Date: 14SEP10	
		Sampled Area: 0.022 sq.m		Time: 9:58:00	
BOTTOM ENVIRONMENT					
Depth (m): 1.7		Salinity (ppt): 0.20		Temperature (C): 23.25	
Dissolved Oxygen (mg/l): 7.1		Sediment Silt-Clay (%): 86.53		Total Carbon (%): 2.42	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.50		Condition: Severely Degr.		# Attributes Scored: 3	
		Value	Score	Value	Score
Shannon-Wiener Index		1.14		85.84	3
Abundance (#/m2)		10485	1	9.68	1
Deep Deposit Feeder Abundance (%)		96.14	1	89.27	
Carnivore-Omnivore Abundance (%)		3.86			
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Branchiura sowerbyi		360		0.38700	
Chironomidae				0.00225	
Chironomus spp.		135			
Coelotanypus spp.		180		0.01350	
Hirudinea (Epi)		45		0.01800	
Limnodrilus cervix		360			
Limnodrilus hoffmeisteri		360			
Oligochaeta				0.42791	
Procladius spp.		90			
Tubificidae imm w cap chaetae		360			
Tubificidae imm w/o cap chaetae *		8640			
Total Abundance w/ Epi.		10530			
Total Abundance w/o Epi.		10485			
Number of Taxa w/ Epi.		8			
Number of Taxa w/o Epi.		7			
Total Biomass w/ Epi.				0.84866	
Total Biomass w/o Epi.				0.83066	

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Potomac River		Station: 036		Rep: 02	
Gear: Wildco Box Corer		Habitat: Tidal Freshwater		Date: 14SEP10	
		Sampled Area: 0.022 sq.m		Time: 9:58:00	
BOTTOM ENVIRONMENT					
Depth (m): 1.7		Salinity (ppt): 0.20		Temperature (C): 23.25	
Dissolved Oxygen (mg/l): 7.1		Sediment Silt-Clay (%): 86.53		Total Carbon (%): 2.42	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.00		Condition: Meets Goal		# Attributes Scored: 3	
	Value	Score		Value	Score
Shannon-Wiener Index	1.60		T.F. Pollution Indicative Spp. Abund. (%)	80.00	3
Abundance (#/m2)	5175	3	Tolerance Score	9.32	3
Deep Deposit Feeder Abundance (%)	89.57	3	Limnodrilus Abundance (%)	80.00	
Carnivore-Omnivore Abundance (%)	7.83				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Aulodrilus pigueti	180				
Branchiura sowerbyi	135		0.26100		
Chironomidae			0.00225		
Chironomus spp.	45				
Coelotanypus spp.	315		0.04500		
Dero spp.	180				
Dicrotendipes spp.	45				
Hirudinea (Epi)	45		0.02250		
Limnodrilus hoffmeisteri	360				
Musculium transversum	90		0.00900		
Oligochaeta			0.24900		
Pisidium spp.	45		0.06750		
Tubificidae imm w/o cap chaetae *	3780				
Total Abundance w/ Epi.	5220				
Total Abundance w/o Epi.	5175				
Number of Taxa w/ Epi.	10				
Number of Taxa w/o Epi.	9				
Total Biomass w/ Epi.			0.65625		
Total Biomass w/o Epi.			0.63375		

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Potomac River		Station: 036		Rep: 03	
Gear: Wildco Box Corer		Habitat: Tidal Freshwater		Date: 14SEP10	
		Sampled Area: 0.022 sq.m		Time: 9:58:00	
BOTTOM ENVIRONMENT					
Depth (m): 1.7		Salinity (ppt): 0.20		Temperature (C): 23.25	
Dissolved Oxygen (mg/l): 7.1		Sediment Silt-Clay (%): 86.53		Total Carbon (%): 2.42	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.00		Condition: Severely Degr.		# Attributes Scored: 3	
	Value	Score		Value	Score
Shannon-Wiener Index	0.55		T.F. Pollution Indicative Spp. Abund. (%)	92.16	1
Abundance (#/m2)	4590	3	Tolerance Score	9.59	1
Deep Deposit Feeder Abundance (%)	92.16	3	Limnodrilus Abundance (%)	92.16	
Carnivore-Omnivore Abundance (%)	6.86				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Chaoborus punctipennis	45		0.00225		
Chironomidae			0.00225		
Chironomus spp.	45				
Coelotanypus spp.	180		0.02250		
Corbicula fluminea	45		0.07650		
Cryptochironomus spp.	45				
Hirudinea (Epi)	90		0.03150		
Tubificidae imm w/o cap chaetae	4230		0.16950		
Total Abundance w/ Epi.	4680				
Total Abundance w/o Epi.	4590				
Number of Taxa w/ Epi.	7				
Number of Taxa w/o Epi.	6				
Total Biomass w/ Epi.			0.30450		
Total Biomass w/o Epi.			0.27300		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Potomac River	Station: 040	Rep: 01
Gear: Wildco Box Corer	Habitat: Oligohaline	Date: 06OCT10
	Sampled Area: 0.022 sq.m	Time: 10:45:28
BOTTOM ENVIRONMENT		
Depth (m): 7.5	Salinity (ppt): 3.86	Temperature (C): 18.60
Dissolved Oxygen (mg/l): 7.9	Sediment Silt-Clay (%): 95.52	Total Carbon (%): 2.3
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.50	Condition: Meets Goal	# Attributes Scored: 4
	Value Score	Value Score
Shannon-Wiener Index	2.11	Oligohaline Pollution Indicative Spp. Abund.
Abundance (#/m2)	855	5
Deep Deposit Feeder Abundance (%)	21.05	Tolerance Score
Carnivore-Omnivore Abundance (%)	15.79	3
		Oligohaline Pollution Sensitive Spp. Abund.
		5.26
		Tanypodinae/Chironomidae Abundance Ratio
		0.00
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Carinoma tremaphoros	45	0.01350
Cyathura polita	90	0.04950
Leptocheirus plumulosus	405	0.04950
Macoma mitchelli	90	0.00450
Marenzelleria viridis	45	0.10800
Tubificoides spp.	180	0.00225
Total Abundance w/ Epi.	855	
Total Abundance w/o Epi.	855	
Number of Taxa w/ Epi.	6	
Number of Taxa w/o Epi.	6	
Total Biomass w/ Epi.		0.22725
Total Biomass w/o Epi.		0.22725

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Potomac River		Station: 040		Rep: 02	
Gear: Wildco Box Corer		Habitat: Oligohaline		Date: 06OCT10	
		Sampled Area: 0.022 sq.m		Time: 10:45:28	
BOTTOM ENVIRONMENT					
Depth (m): 7.5		Salinity (ppt): 3.86		Temperature (C): 18.60	
Dissolved Oxygen (mg/l): 7.9		Sediment Silt-Clay (%): 95.52		Total Carbon (%): 2.3	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.50		Condition: Meets Goal		# Attributes Scored: 4	
		Value	Score	Value	Score
Shannon-Wiener Index		2.11		72.73	3
Abundance (#/m2)		990	5	Oligohaline Pollution Indicative Spp. Abund. Tolerance Score	
Deep Deposit Feeder Abundance (%)		9.09		4.55	3
Carnivore-Omnivore Abundance (%)		27.27	3	Oligohaline Pollution Sensitive Spp. Abund. Tanypodinae/Chironomidae Abundance Ratio	
				0.00	
				0.00	
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Carinoma tremaphoros		90		0.00225	
Cyathura polita		135		0.02700	
Eteone heteropoda		45		0.00225	
Leptocheirus plumulosus		540		0.05400	
Marenzelleria viridis		45		0.15750	
Streblospio benedicti		45		0.00450	
Tubificoides spp.		90		0.00450	
Total Abundance w/ Epi.		990			
Total Abundance w/o Epi.		990			
Number of Taxa w/ Epi.		7			
Number of Taxa w/o Epi.		7			
Total Biomass w/ Epi.				0.25200	
Total Biomass w/o Epi.				0.25200	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Potomac River		Station: 040		Rep: 03	
Gear: Wildco Box Corer		Habitat: Oligohaline		Date: 06OCT10	
		Sampled Area: 0.022 sq.m		Time: 10:45:28	
BOTTOM ENVIRONMENT					
Depth (m): 7.5		Salinity (ppt): 3.86		Temperature (C): 18.60	
Dissolved Oxygen (mg/l): 7.9		Sediment Silt-Clay (%): 95.52		Total Carbon (%): 2.3	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 4.00		Condition: Meets Goal		# Attributes Scored: 4	
		Value	Score	Value	Score
Shannon-Wiener Index		1.92		57.14	3
Abundance (#/m2)		630	5	Oligohaline Pollution Indicative Spp. Abund. Tolerance Score	
Deep Deposit Feeder Abundance (%)		7.14		7.14	3
Carnivore-Omnivore Abundance (%)		35.71	5	Oligohaline Pollution Sensitive Spp. Abund. Tanypodinae/Chironomidae Abundance Ratio	
				0.00	
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Carinoma tremaphoros		90		0.01800	
Cyathura polita		135		0.04050	
Leptocheirus plumulosus		315		0.02700	
Marenzelleria viridis		45		0.17550	
Tubificoides spp.		45		0.00225	
Total Abundance w/ Epi.		630			
Total Abundance w/o Epi.		630			
Number of Taxa w/ Epi.		5			
Number of Taxa w/o Epi.		5			
Total Biomass w/ Epi.				0.26325	
Total Biomass w/o Epi.				0.26325	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Potomac River	Station: 043	Rep: 01
Gear: Modified Box Corer	Habitat: Low Mesohaline	Date: 03OCT10
	Sampled Area: 0.025 sq.m	Time: 13:27:52
BOTTOM ENVIRONMENT		
Depth (m): 2.6	Salinity (ppt): 11.11	Temperature (C): 22.31
Dissolved Oxygen (mg/l): 7.1	Sediment Silt-Clay (%): 2.89	Total Carbon (%): 0.09
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.40	Condition: Meets Goal	# Attributes Scored: 5
	Value	Score
Shannon-Wiener Index	2.95	5
Abundance (#/m2)	1400	3
Biomass (g/m2)	1.57	3
Carnivore-Omnivore Abundance (%)	14.29	
Deep Deposit Feeder Abundance (%)	11.43	
		Value
		Score
	Pollution Indicative Species Abundance (%)	14.29
	Pollution Indicative Species Biomass (%)	32.65
	Pollution Sensitive Species Abundance (%)	48.57
	Pollution Sensitive Species Biomass (%)	44.90
		3
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Glycinde solitaria	120	0.01200
Heteromastus filiformis	80	0.09200
Leptocheirus plumulosus	40	0.00800
Macoma mitchelli	280	0.12400
Marenzelleria viridis	480	0.18000
Micrura leidyi	40	0.11600
Mulinia lateralis	120	0.50800
Neanthes succinea	40	0.01200
Oligochaeta		0.00200
Rangia cuneata	80	0.51200
Streblospio benedicti	40	0.00200
Tubificidae imm w cap chaetae	40	
Tubificidae imm w/o cap chaetae	40	
Total Abundance w/ Epi.	1400	
Total Abundance w/o Epi.	1400	
Number of Taxa w/ Epi.	12	
Number of Taxa w/o Epi.	12	
Total Biomass w/ Epi.		1.56800
Total Biomass w/o Epi.		1.56800

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Potomac River		Station: 043		Rep: 02	
Gear: Modified Box Corer		Habitat: Low Mesohaline		Date: 03OCT10	
		Sampled Area: 0.025 sq.m		Time: 13:27:52	
BOTTOM ENVIRONMENT					
Depth (m): 2.6		Salinity (ppt): 11.11		Temperature (C): 22.31	
Dissolved Oxygen (mg/l): 7.1		Sediment Silt-Clay (%): 2.89		Total Carbon (%): 0.09	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.60		Condition: Degraded		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.15	3	Pollution Indicative Species Abundance (%)	5.88	5
Abundance (#/m2)	680	3	Pollution Indicative Species Biomass (%)	0.40	
Biomass (g/m2)	0.50	1	Pollution Sensitive Species Abundance (%)	35.29	
Carnivore-Omnivore Abundance (%)	5.88		Pollution Sensitive Species Biomass (%)	36.65	1
Deep Deposit Feeder Abundance (%)	35.29				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	40		0.06400		
Heteromastus filiformis	240		0.16000		
Leptocheirus plumulosus	40		0.00400		
Macoma mitchelli	80		0.08800		
Marenzelleria viridis	240		0.18400		
Streblospio benedicti	40		0.00200		
Total Abundance w/ Epi.	680				
Total Abundance w/o Epi.	680				
Number of Taxa w/ Epi.	6				
Number of Taxa w/o Epi.	6				
Total Biomass w/ Epi.			0.50200		
Total Biomass w/o Epi.			0.50200		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Potomac River		Station: 043		Rep: 03	
Gear: Modified Box Corer		Habitat: Low Mesohaline		Date: 03OCT10	
		Sampled Area: 0.025 sq.m		Time: 13:27:52	
BOTTOM ENVIRONMENT					
Depth (m): 2.6		Salinity (ppt): 11.11		Temperature (C): 22.31	
Dissolved Oxygen (mg/l): 7.1		Sediment Silt-Clay (%): 2.89		Total Carbon (%): 0.09	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.80		Condition: Severely Degr.		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.46	3	Pollution Indicative Species Abundance (%)	22.22	1
Abundance (#/m2)	720	3	Pollution Indicative Species Biomass (%)	25.40	
Biomass (g/m2)	0.38	1	Pollution Sensitive Species Abundance (%)	44.44	
Carnivore-Omnivore Abundance (%)	16.67		Pollution Sensitive Species Biomass (%)	29.63	1
Deep Deposit Feeder Abundance (%)	22.22				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	40		0.00800		
Eteone heteropoda	40		0.00200		
Heteromastus filiformis	120		0.15600		
Marenzelleria viridis	320		0.11200		
Mulinia lateralis	80		0.09200		
Neanthes succinea	40		0.00200		
Streblospio benedicti	40		0.00200		
Tubificoides spp.	40		0.00400		
Total Abundance w/ Epi.	720				
Total Abundance w/o Epi.	720				
Number of Taxa w/ Epi.	8				
Number of Taxa w/o Epi.	8				
Total Biomass w/ Epi.			0.37800		
Total Biomass w/o Epi.			0.37800		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Potomac River		Station: 044		Rep: 01	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 03OCT10	
		Sampled Area: 0.022 sq.m		Time: 14:04:14	
BOTTOM ENVIRONMENT					
Depth (m): 12.7		Salinity (ppt): 13.14		Temperature (C): 22.27	
Dissolved Oxygen (mg/l): 6.5		Sediment Silt-Clay (%): 90.32		Total Carbon (%): 2.25	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.20		Condition: Degraded		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	1.92	3	Pollution Indicative Species Abundance (%)	0.00	5
Abundance (#/m2)	225	1	Pollution Indicative Species Biomass (%)	0.00	
Biomass (g/m2)	0.02	1	Pollution Sensitive Species Abundance (%)	20.00	
Carnivore-Omnivore Abundance (%)	60.00		Pollution Sensitive Species Biomass (%)	9.09	1
Deep Deposit Feeder Abundance (%)	40.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	45		0.00450		
Glycinde solitaria	45		0.00225		
Neanthes succinea	45		0.01350		
Tubificoides spp.	90		0.00450		
Total Abundance w/ Epi.	225				
Total Abundance w/o Epi.	225				
Number of Taxa w/ Epi.	4				
Number of Taxa w/o Epi.	4				
Total Biomass w/ Epi.			0.02475		
Total Biomass w/o Epi.			0.02475		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Potomac River		Station: 044		Rep: 02	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 03OCT10	
		Sampled Area: 0.022 sq.m		Time: 14:04:14	
BOTTOM ENVIRONMENT					
Depth (m): 12.7		Salinity (ppt): 13.14		Temperature (C): 22.27	
Dissolved Oxygen (mg/l): 6.5		Sediment Silt-Clay (%): 90.32		Total Carbon (%): 2.25	
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)	90	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)		
<i>Neanthes succinea</i>	90		0.00450		
Total Abundance w/ Epi.	90				
Total Abundance w/o Epi.	90				
Number of Taxa w/ Epi.	1				
Number of Taxa w/o Epi.	1				
Total Biomass w/ Epi.			0.00450		
Total Biomass w/o Epi.			0.00450		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Potomac River		Station: 044		Rep: 03	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 03OCT10	
		Sampled Area: 0.022 sq.m		Time: 14:04:14	
BOTTOM ENVIRONMENT					
Depth (m): 12.7		Salinity (ppt): 13.14		Temperature (C): 22.27	
Dissolved Oxygen (mg/l): 6.5		Sediment Silt-Clay (%): 90.32		Total Carbon (%): 2.25	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.40		Condition: Severely Degr.		# Attributes Scored: 5	
		Value	Score	Value	Score
Shannon-Wiener Index		2.00	3	Pollution Indicative Species Abundance (%)	25.00
Abundance (#/m2)		180	1	Pollution Indicative Species Biomass (%)	45.83
Biomass (g/m2)		0.11	1	Pollution Sensitive Species Abundance (%)	25.00
Carnivore-Omnivore Abundance (%)		75.00		Pollution Sensitive Species Biomass (%)	4.17
Deep Deposit Feeder Abundance (%)		0.00			1
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Carinoma tremaphoros		45		0.01800	
Glycinde solitaria		45		0.00450	
Neanthes succinea		45		0.03600	
Paraprionospio pinnata		45		0.04950	
Total Abundance w/ Epi.		180			
Total Abundance w/o Epi.		180			
Number of Taxa w/ Epi.		4			
Number of Taxa w/o Epi.		4			
Total Biomass w/ Epi.				0.10800	
Total Biomass w/o Epi.				0.10800	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Morgantown Discharge		Station: 047		Rep: 01	
Gear: Modified Box Corer		Habitat: Low Mesohaline		Date: 03OCT10	
		Sampled Area: 0.025 sq.m		Time: 12:40:23	
BOTTOM ENVIRONMENT					
Depth (m): 2.5		Salinity (ppt): 11.25		Temperature (C): 22.81	
Dissolved Oxygen (mg/l): 7.0		Sediment Silt-Clay (%): 5.55		Total Carbon (%): 0.39	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.80		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.87	5	Pollution Indicative Species Abundance (%)	6.00	5
Abundance (#/m2)	2000	5	Pollution Indicative Species Biomass (%)	0.35	
Biomass (g/m2)	1.14	3	Pollution Sensitive Species Abundance (%)	26.00	
Carnivore-Omnivore Abundance (%)	34.00		Pollution Sensitive Species Biomass (%)	33.33	1
Deep Deposit Feeder Abundance (%)	42.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	40		0.00800		
Glycinde solitaria	320		0.04400		
Heteromastus filiformis	680		0.61600		
Laeonereis culveri	40		0.00200		
Macoma balthica	40		0.04000		
Macoma mitchelli	160		0.00400		
Marenzelleria viridis	120		0.04400		
Neanthes succinea	280		0.12400		
Rangia cuneata	40		0.25200		
Streblospio benedicti	120		0.00400		
Tubificoides spp.	160		0.00200		
Total Abundance w/ Epi.	2000				
Total Abundance w/o Epi.	2000				
Number of Taxa w/ Epi.	11				
Number of Taxa w/o Epi.	11				
Total Biomass w/ Epi.			1.14000		
Total Biomass w/o Epi.			1.14000		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Morgantown Discharge		Station: 047		Rep: 02	
Gear: Modified Box Corer		Habitat: Low Mesohaline		Date: 03OCT10	
		Sampled Area: 0.025 sq.m		Time: 12:40:23	
BOTTOM ENVIRONMENT					
Depth (m): 2.5		Salinity (ppt): 11.25		Temperature (C): 22.81	
Dissolved Oxygen (mg/l): 7.0		Sediment Silt-Clay (%): 5.55		Total Carbon (%): 0.39	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 4.20		Condition: Meets Goal		# Attributes Scored: 5	
		Value	Score	Value	Score
Shannon-Wiener Index		2.65	5	4.26	5
Abundance (#/m2)		1880	5	1.02	
Biomass (g/m2)		1.95	3	21.28	
Carnivore-Omnivore Abundance (%)		21.28		53.43	3
Deep Deposit Feeder Abundance (%)		42.55			
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Apocorophium lacustre (Epi)		80		0.00200	
Carinoma tremaphoros		120		0.02400	
Glycinde solitaria		200		0.04400	
Heteromastus filiformis		760		0.66400	
Macoma balthica		80		0.89600	
Macoma mitchelli		400		0.11200	
Marenzelleria viridis		80		0.03200	
Mulinia lateralis		40		0.01200	
Neanthes succinea		80		0.08800	
Rangia cuneata		40		0.07200	
Streblospio benedicti		40		0.00800	
Tubificoides spp.		40		0.00200	
Total Abundance w/ Epi.		1960			
Total Abundance w/o Epi.		1880			
Number of Taxa w/ Epi.		12			
Number of Taxa w/o Epi.		11			
Total Biomass w/ Epi.				1.95600	
Total Biomass w/o Epi.				1.95400	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Morgantown Discharge		Station: 047		Rep: 03	
Gear: Modified Box Corer		Habitat: Low Mesohaline		Date: 03OCT10	
		Sampled Area: 0.025 sq.m		Time: 12:40:23	
BOTTOM ENVIRONMENT					
Depth (m): 2.5		Salinity (ppt): 11.25		Temperature (C): 22.81	
Dissolved Oxygen (mg/l): 7.0		Sediment Silt-Clay (%): 5.55		Total Carbon (%): 0.39	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.80		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.47	3	Pollution Indicative Species Abundance (%)	0.00	5
Abundance (#/m2)	2120	5	Pollution Indicative Species Biomass (%)	0.00	
Biomass (g/m2)	2.94	3	Pollution Sensitive Species Abundance (%)	28.30	
Carnivore-Omnivore Abundance (%)	26.42		Pollution Sensitive Species Biomass (%)	46.60	3
Deep Deposit Feeder Abundance (%)	41.51				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Edotea triloba (Epi)	40		0.00200		
Glycinde solitaria	240		0.00800		
Heteromastus filiformis	880		0.54800		
Laeonereis culveri	40		0.15200		
Macoma balthica	40		1.04400		
Macoma mitchelli	320		0.04000		
Marenzelleria viridis	280		0.29600		
Micrura leidyi	40		0.63200		
Neanthes succinea	240		0.20000		
Rangia cuneata	40		0.02400		
Total Abundance w/ Epi.	2160				
Total Abundance w/o Epi.	2120				
Number of Taxa w/ Epi.	10				
Number of Taxa w/o Epi.	9				
Total Biomass w/ Epi.			2.94600		
Total Biomass w/o Epi.			2.94400		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Potomac River		Station: 051		Rep: 01	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 03OCT10	
		Sampled Area: 0.025 sq.m		Time: 11:01:13	
BOTTOM ENVIRONMENT					
Depth (m): 2.5		Salinity (ppt): 14.08		Temperature (C): 21.30	
Dissolved Oxygen (mg/l): 7.7		Sediment Silt-Clay (%): 1.08		Total Carbon (%): 0.11	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.67		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	1.20	1	Pollution Indicative Species Abundance (%)	0.00	5
Abundance (#/m2)	560	1	Pollution Indicative Species Biomass (%)	0.00	
Biomass (g/m2)	0.02	1	Pollution Sensitive Species Abundance (%)	0.00	1
Carnivore-Omnivore Abundance (%)	0.00	1	Pollution Sensitive Species Biomass (%)	0.00	
Deep Deposit Feeder Abundance (%)	7.14				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Gemma gemma	360		0.01200		
Heteromastus filiformis	40		0.00200		
Hydrobia truncata (Epi)	40		0.00200		
Macoma mitchelli	160		0.00800		
Total Abundance w/ Epi.	600				
Total Abundance w/o Epi.	560				
Number of Taxa w/ Epi.	4				
Number of Taxa w/o Epi.	3				
Total Biomass w/ Epi.			0.02400		
Total Biomass w/o Epi.			0.02200		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Potomac River		Station: 051		Rep: 02	
Gear: Modified Box Corer		Habitat: High Mesohaline Sand		Date: 03OCT10	
		Sampled Area: 0.025 sq.m		Time: 11:01:13	
BOTTOM ENVIRONMENT					
Depth (m): 2.5		Salinity (ppt): 14.08		Temperature (C): 21.30	
Dissolved Oxygen (mg/l): 7.7		Sediment Silt-Clay (%): 1.08		Total Carbon (%): 0.11	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.00		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.12	1	Pollution Indicative Species Abundance (%)	0.00	5
Abundance (#/m2)	560	1	Pollution Indicative Species Biomass (%)	0.00	
Biomass (g/m2)	0.21	1	Pollution Sensitive Species Abundance (%)	7.14	1
Carnivore-Omnivore Abundance (%)	21.43	3	Pollution Sensitive Species Biomass (%)	0.95	
Deep Deposit Feeder Abundance (%)	14.29				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Gemma gemma	160		0.02000		
Glycinde solitaria	40		0.00200		
Heteromastus filiformis	80		0.03600		
Macoma mitchelli	200		0.02400		
Micrura leidyi	80		0.12800		
Total Abundance w/ Epi.	560				
Total Abundance w/o Epi.	560				
Number of Taxa w/ Epi.	5				
Number of Taxa w/o Epi.	5				
Total Biomass w/ Epi.			0.21000		
Total Biomass w/o Epi.			0.21000		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Potomac River	Station: 051	Rep: 03
Gear: Modified Box Corer	Habitat: High Mesohaline Sand	Date: 03OCT10
	Sampled Area: 0.025 sq.m	Time: 11:01:13
BOTTOM ENVIRONMENT		
Depth (m): 2.5	Salinity (ppt): 14.08	Temperature (C): 21.30
Dissolved Oxygen (mg/l): 7.7	Sediment Silt-Clay (%): 1.08	Total Carbon (%): 0.11
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 1.67	Condition: Severely Degr.	# Attributes Scored: 6
	Value	Score
Shannon-Wiener Index	1.63	1
Abundance (#/m2)	920	1
Biomass (g/m2)	0.98	1
Carnivore-Omnivore Abundance (%)	4.35	1
Deep Deposit Feeder Abundance (%)	4.35	
	Value	Score
Pollution Indicative Species Abundance (%)	4.35	5
Pollution Indicative Species Biomass (%)	90.57	
Pollution Sensitive Species Abundance (%)	4.35	1
Pollution Sensitive Species Biomass (%)	0.82	
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Gemma gemma	440	0.01600
Glycinde solitaria	40	0.00800
Heteromastus filiformis	40	0.00800
Macoma mitchelli	360	0.06000
Mulinia lateralis	40	0.88400
Total Abundance w/ Epi.	920	
Total Abundance w/o Epi.	920	
Number of Taxa w/ Epi.	5	
Number of Taxa w/o Epi.	5	
Total Biomass w/ Epi.		0.97600
Total Biomass w/o Epi.		0.97600

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Potomac River		Station: 052		Rep: 01	
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud		Date: 01SEP10	
		Sampled Area: 0.022 sq.m		Time: 14:54:01	
BOTTOM ENVIRONMENT					
Depth (m): 11.6		Salinity (ppt): 15.42		Temperature (C): 26.88	
Dissolved Oxygen (mg/l): 0.3		Sediment Silt-Clay (%): 93.32		Total Carbon (%): 3.33	
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)	45	1	Pollution Indicative Species Biomass (%)	100.00	1
Biomass (g/m2)	0.00	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	0.00	1	Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Streblospio benedicti	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 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Station: 052			Rep: 02		
Watershed: Potomac River			Date: 01SEP10		
Gear: Wildco Box Corer			Time: 14:54:01		
Habitat: High Mesohaline Mud					
Sampled Area: 0.022 sq.m					
BOTTOM ENVIRONMENT					
Depth (m): 11.6		Salinity (ppt): 15.42		Temperature (C): 26.88	
Dissolved Oxygen (mg/l): 0.3		Sediment Silt-Clay (%): 93.32		Total Carbon (%): 3.33	
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					
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.					
Total Biomass w/o Epi.					

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Potomac River		Station: 052		Rep: 03	
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud		Date: 01SEP10	
		Sampled Area: 0.022 sq.m		Time: 14:54:01	
BOTTOM ENVIRONMENT					
Depth (m): 11.6		Salinity (ppt): 15.42		Temperature (C): 26.88	
Dissolved Oxygen (mg/l): 0.3		Sediment Silt-Clay (%): 93.32		Total Carbon (%): 3.33	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.00		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	1.00	1	Pollution Indicative Species Abundance (%)	50.00	
Abundance (#/m2)	90	1	Pollution Indicative Species Biomass (%)	12.50	3
Biomass (g/m2)	0.04	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	50.00	5	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		0.03150		
Streblospio benedicti	45		0.00450		
Total Abundance w/ Epi.	90				
Total Abundance w/o Epi.	90				
Number of Taxa w/ Epi.	2				
Number of Taxa w/o Epi.	2				
Total Biomass w/ Epi.			0.03600		
Total Biomass w/o Epi.			0.03600		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Lower Eastern Shore		Station: 062		Rep: 01	
Gear: Petite Ponar		Habitat: Low Mesohaline		Date: 20SEP10	
		Sampled Area: 0.025 sq.m		Time: 11:16:29	
BOTTOM ENVIRONMENT					
Depth (m): 4.4		Salinity (ppt): 10.21		Temperature (C): 23.06	
Dissolved Oxygen (mg/l): 6.4		Sediment Silt-Clay (%): 85.57		Total Carbon (%): 3.19	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.60		Condition: Degraded		# Attributes Scored: 5	
		Value	Score	Value	Score
Shannon-Wiener Index		2.27	3	14.21	3
Abundance (#/m2)		7320	1	4.41	
Biomass (g/m2)		1.77	3	4.37	
Carnivore-Omnivore Abundance (%)		4.92		47.91	3
Deep Deposit Feeder Abundance (%)		57.38			
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Carinoma tremaphoros		120		0.02400	
Coelotanypus spp.		40		0.01200	
Cyathura polita		40		0.08800	
Edotea triloba (Epi)		40		0.00200	
Eteone heteropoda		40		0.00400	
Glycinde solitaria		120		0.00400	
Leptocheirus plumulosus		880		0.07600	
Leucon americanus		40		0.00400	
Macoma mitchelli		920		0.71600	
Marenzelleria viridis		160		0.75600	
Mulinia lateralis		560		0.05600	
Streblospio benedicti		200		0.00400	
Tubificidae imm w/o cap chaetae		200		0.00200	
Tubificoides spp.		4000		0.02400	
Total Abundance w/ Epi.		7360			
Total Abundance w/o Epi.		7320			
Number of Taxa w/ Epi.		14			
Number of Taxa w/o Epi.		13			
Total Biomass w/ Epi.				1.77200	
Total Biomass w/o Epi.				1.77000	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Station: 062			Rep: 02		
Watershed: Lower Eastern Shore			Date: 20SEP10		
Gear: Petite Ponar			Time: 11:16:29		
Habitat: Low Mesohaline			Sampled Area: 0.025 sq.m		
BOTTOM ENVIRONMENT					
Depth (m): 4.4		Salinity (ppt): 10.21		Temperature (C): 23.06	
Dissolved Oxygen (mg/l): 6.4		Sediment Silt-Clay (%): 85.57		Total Carbon (%): 3.19	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.80		Condition: Severely Degr.		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.21	3	Pollution Indicative Species Abundance (%)	19.31	3
Abundance (#/m2)	9320	1	Pollution Indicative Species Biomass (%)	12.61	
Biomass (g/m2)	0.68	1	Pollution Sensitive Species Abundance (%)	1.72	
Carnivore-Omnivore Abundance (%)	4.29		Pollution Sensitive Species Biomass (%)	16.13	1
Deep Deposit Feeder Abundance (%)	64.81				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Ameroculodes species complex	40		0.02000		
Carinoma tremaphoros	120		0.01600		
Edotea triloba (Epi)	40		0.00200		
Eteone heteropoda	160		0.01600		
Glycinde solitaria	120		0.00200		
Leptocheirus plumulosus	960		0.11200		
Leucon americanus	120		0.00200		
Macoma mitchelli	720		0.30800		
Marenzelleria viridis	40		0.10800		
Mulinia lateralis	600		0.06000		
Streblospio benedicti	400		0.00800		
Tubificidae imm w/o cap chaetae	640		0.00200		
Tubificoides spp.	5400		0.02800		
Total Abundance w/ Epi.	9360				
Total Abundance w/o Epi.	9320				
Number of Taxa w/ Epi.	13				
Number of Taxa w/o Epi.	12				
Total Biomass w/ Epi.			0.68400		
Total Biomass w/o Epi.			0.68200		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Lower Eastern Shore		Station: 062		Rep: 03	
Gear: Petite Ponar		Habitat: Low Mesohaline		Date: 20SEP10	
		Sampled Area: 0.025 sq.m		Time: 11:16:29	
BOTTOM ENVIRONMENT					
Depth (m): 4.4		Salinity (ppt): 10.21		Temperature (C): 23.06	
Dissolved Oxygen (mg/l): 6.4		Sediment Silt-Clay (%): 85.57		Total Carbon (%): 3.19	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.40		Condition: Severely Degr.		# Attributes Scored: 5	
		Value	Score	Value	Score
Shannon-Wiener Index		1.68	1	15.18	3
Abundance (#/m2)		7640	1	9.26	
Biomass (g/m2)		0.43	1	1.05	
Carnivore-Omnivore Abundance (%)		3.14		24.07	1
Deep Deposit Feeder Abundance (%)		71.20			
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Ameroculodes species complex		40		0.01200	
Carinoma tremaphoros		200		0.03200	
Cyathura polita		40		0.01600	
Edotea triloba (Epi)		160		0.00800	
Leptocheirus plumulosus		360		0.04000	
Macoma mitchelli		560		0.16800	
Marenzelleria viridis		40		0.08800	
Mulinia lateralis		880		0.03600	
Streblospio benedicti		80		0.00200	
Tubificidae imm w/o cap chaetae		200		0.00200	
Tubificoides spp.		5240		0.03600	
Total Abundance w/ Epi.		7800			
Total Abundance w/o Epi.		7640			
Number of Taxa w/ Epi.		11			
Number of Taxa w/o Epi.		10			
Total Biomass w/ Epi.				0.44000	
Total Biomass w/o Epi.				0.43200	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Choptank River		Station: 064		Rep: 01	
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud		Date: 08SEP10	
		Sampled Area: 0.022 sq.m		Time: 9:34:34	
BOTTOM ENVIRONMENT					
Depth (m): 9.3		Salinity (ppt): 12.95		Temperature (C): 25.63	
Dissolved Oxygen (mg/l): 6.2		Sediment Silt-Clay (%): 91.87		Total Carbon (%): 2.07	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.00		Condition: Meets Goal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.52	3	Pollution Indicative Species Abundance (%)	14.29	
Abundance (#/m2)	315	1	Pollution Indicative Species Biomass (%)	0.45	5
Biomass (g/m2)	0.50	1	Pollution Sensitive Species Abundance (%)	57.14	
Carnivore-Omnivore Abundance (%)	42.86	5	Pollution Sensitive Species Biomass (%)	98.20	3
Deep Deposit Feeder Abundance (%)	28.57				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Glycinde solitaria	90		0.01800		
Macoma balthica	45		0.27450		
Marenzelleria viridis	45		0.19800		
Parahesionia luteola	45		0.00225		
Tubificidae imm w/o cap chaetae	45		0.00225		
Tubificoides spp.	45		0.00450		
Total Abundance w/ Epi.	315				
Total Abundance w/o Epi.	315				
Number of Taxa w/ Epi.	6				
Number of Taxa w/o Epi.	6				
Total Biomass w/ Epi.			0.49950		
Total Biomass w/o Epi.			0.49950		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Choptank River	Station: 066	Rep: 01
Gear: Wildco Box Corer	Habitat: Oligohaline	Date: 08SEP10
	Sampled Area: 0.022 sq.m	Time: 12:45:29
BOTTOM ENVIRONMENT		
Depth (m): 4.3	Salinity (ppt): 2.71	Temperature (C): 25.98
Dissolved Oxygen (mg/l): 6.6	Sediment Silt-Clay (%): 78.13	Total Carbon (%): 6.11
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 2.60	Condition: Degraded	# Attributes Scored: 5
	Value Score	Value Score
Shannon-Wiener Index	1.95	Oligohaline Pollution Indicative Spp. Abund.
Abundance (#/m2)	585	Tolerance Score
Deep Deposit Feeder Abundance (%)	53.85	Oligohaline Pollution Sensitive Spp. Abund.
Carnivore-Omnivore Abundance (%)	30.77	Tanypodinae/Chironomidae Abundance Ratio
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Chaoborus punctipennis	180	0.01800
Neomysis americana (Epi)	45	0.00450
Streblospio benedicti	90	0.00450
Tubificidae imm w/o cap chaetae	180	0.00675
Tubificoides spp.	135	0.00450
Total Abundance w/ Epi.	630	
Total Abundance w/o Epi.	585	
Number of Taxa w/ Epi.	5	
Number of Taxa w/o Epi.	4	
Total Biomass w/ Epi.		0.03825
Total Biomass w/o Epi.		0.03375

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Choptank River		Station: 066		Rep: 02	
Gear: Wildco Box Corer		Habitat: Oligohaline		Date: 08SEP10	
		Sampled Area: 0.022 sq.m		Time: 12:45:29	
BOTTOM ENVIRONMENT					
Depth (m): 4.3		Salinity (ppt): 2.71		Temperature (C): 25.98	
Dissolved Oxygen (mg/l): 6.6		Sediment Silt-Clay (%): 78.13		Total Carbon (%): 6.11	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.40		Condition: Severely Degr.		# Attributes Scored: 5	
		Value	Score	Value	Score
Shannon-Wiener Index		1.37	3	Oligohaline Pollution Indicative Spp. Abund.	100.00
Abundance (#/m2)		225	3	Tolerance Score	9.80
Deep Deposit Feeder Abundance (%)		40.00		Oligohaline Pollution Sensitive Spp. Abund.	0.00
Carnivore-Omnivore Abundance (%)		0.00	1	Tanypodinae/Chironomidae Abundance Ratio	0.00
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Edotea triloba (Epi)		45		0.00900	
Limnodrilus hoffmeisteri		45		0.00225	
Streblospio benedicti		135		0.00900	
Tubificoides spp.		45		0.00225	
Total Abundance w/ Epi.		270			
Total Abundance w/o Epi.		225			
Number of Taxa w/ Epi.		4			
Number of Taxa w/o Epi.		3			
Total Biomass w/ Epi.				0.02250	
Total Biomass w/o Epi.				0.01350	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Choptank River		Station: 066		Rep: 03	
Gear: Wildco Box Corer		Habitat: Oligohaline		Date: 08SEP10	
		Sampled Area: 0.022 sq.m		Time: 12:45:29	
BOTTOM ENVIRONMENT					
Depth (m): 4.3		Salinity (ppt): 2.71		Temperature (C): 25.98	
Dissolved Oxygen (mg/l): 6.6		Sediment Silt-Clay (%): 78.13		Total Carbon (%): 6.11	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.00		Condition: Meets Goal		# Attributes Scored: 6	
		Value	Score	Value	Score
Shannon-Wiener Index		2.15		90.00	3
Abundance (#/m2)		900	5	Tolerance Score	7.57
Deep Deposit Feeder Abundance (%)		40.00		Oligohaline Pollution Sensitive Spp. Abund.	0.00
Carnivore-Omnivore Abundance (%)		20.00	3	Tanypodinae/Chironomidae Abundance Ratio	50.00
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Coelotanypus spp.		90		0.00225	
Limnodrilus hoffmeisteri		45			
Neomysis americana (Epi)		90		0.00450	
Oligochaeta				0.00225	
Streblospio benedicti		360		0.00450	
Tanytarsus spp. G Epler		90		0.00225	
Tubificidae imm w/o cap chaetae *		45			
Tubificoides spp.		270		0.00225	
Total Abundance w/ Epi.		990			
Total Abundance w/o Epi.		900			
Number of Taxa w/ Epi.		6			
Number of Taxa w/o Epi.		5			
Total Biomass w/ Epi.				0.01800	
Total Biomass w/o Epi.				0.01350	

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Upper Eastern Shore		Station: 068		Rep: 01	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 09SEP10	
		Sampled Area: 0.022 sq.m		Time: 8:49:14	
BOTTOM ENVIRONMENT					
Depth (m): 5.3		Salinity (ppt): 10.10		Temperature (C): 25.00	
Dissolved Oxygen (mg/l): 6.4		Sediment Silt-Clay (%): 84.20		Total Carbon (%): 2.43	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.40		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.04	3	Pollution Indicative Species Abundance (%)	11.46	3
Abundance (#/m2)	4320	3	Pollution Indicative Species Biomass (%)	0.08	
Biomass (g/m2)	14.78	3	Pollution Sensitive Species Abundance (%)	16.67	
Carnivore-Omnivore Abundance (%)	9.38		Pollution Sensitive Species Biomass (%)	97.03	5
Deep Deposit Feeder Abundance (%)	72.92				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	135		0.03150		
Coelotanypus spp.	90		0.00900		
Cyathura polita	180		0.06750		
Heteromastus filiformis	45		0.02250		
Leptocheirus plumulosus	135		0.06750		
Macoma balthica	360		12.82500		
Macoma mitchelli	90		0.29250		
Marenzelleria viridis	180		1.44900		
Tubificidae imm w/o cap chaetae	405		0.00225		
Tubificoides spp.	2700		0.01350		
Total Abundance w/ Epi.	4320				
Total Abundance w/o Epi.	4320				
Number of Taxa w/ Epi.	10				
Number of Taxa w/o Epi.	10				
Total Biomass w/ Epi.			14.78025		
Total Biomass w/o Epi.			14.78025		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Upper Eastern Shore		Station: 068		Rep: 02	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 09SEP10	
		Sampled Area: 0.022 sq.m		Time: 8:49:14	
BOTTOM ENVIRONMENT					
Depth (m): 5.3		Salinity (ppt): 10.10		Temperature (C): 25.00	
Dissolved Oxygen (mg/l): 6.4		Sediment Silt-Clay (%): 84.20		Total Carbon (%): 2.43	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.40		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	1.32	1	Pollution Indicative Species Abundance (%)	6.42	5
Abundance (#/m2)	4905	3	Pollution Indicative Species Biomass (%)	0.04	
Biomass (g/m2)	11.18	3	Pollution Sensitive Species Abundance (%)	10.09	
Carnivore-Omnivore Abundance (%)	3.67		Pollution Sensitive Species Biomass (%)	98.09	5
Deep Deposit Feeder Abundance (%)	85.32				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	45		0.04500		
Cyathura polita	90		0.25200		
Heteromastus filiformis	45		0.09000		
Leptocheirus plumulosus	90		0.04050		
Macoma balthica	315		10.42200		
Marenzelleria viridis	90		0.29250		
Neanthes succinea	45		0.00225		
Streblospio benedicti	45		0.00225		
Tubificidae imm w/o cap chaetae	270		0.00225		
Tubificoides spp.	3870		0.03150		
Total Abundance w/ Epi.	4905				
Total Abundance w/o Epi.	4905				
Number of Taxa w/ Epi.	10				
Number of Taxa w/o Epi.	10				
Total Biomass w/ Epi.			11.18025		
Total Biomass w/o Epi.			11.18025		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Upper Eastern Shore		Station: 068		Rep: 03	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 09SEP10	
		Sampled Area: 0.022 sq.m		Time: 8:49:14	
BOTTOM ENVIRONMENT					
Depth (m): 5.3		Salinity (ppt): 10.10		Temperature (C): 25.00	
Dissolved Oxygen (mg/l): 6.4		Sediment Silt-Clay (%): 84.20		Total Carbon (%): 2.43	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.40		Condition: Meets Goal		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	2.36	3	Pollution Indicative Species Abundance (%)	13.11	3
Abundance (#/m2)	2745	3	Pollution Indicative Species Biomass (%)	0.08	
Biomass (g/m2)	25.38	3	Pollution Sensitive Species Abundance (%)	24.59	
Carnivore-Omnivore Abundance (%)	6.56		Pollution Sensitive Species Biomass (%)	99.42	5
Deep Deposit Feeder Abundance (%)	65.57				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Cyathura polita	135		0.35550		
Heteromastus filiformis	180		0.07200		
Leptocheirus plumulosus	90		0.01800		
Macoma balthica	405		23.22450		
Marenzelleria viridis	135		1.65150		
Neanthes succinea	45		0.01800		
Streblospio benedicti	135		0.01800		
Tubificidae imm w/o cap chaetae	225		0.00225		
Tubificoides spp.	1395		0.01800		
Total Abundance w/ Epi.	2745				
Total Abundance w/o Epi.	2745				
Number of Taxa w/ Epi.	9				
Number of Taxa w/o Epi.	9				
Total Biomass w/ Epi.			25.37775		
Total Biomass w/o Epi.			25.37775		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Patuxent River	Station: 071	Rep: 01
Gear: Wildco Box Corer	Habitat: High Mesohaline Mud	Date: 03SEP10
	Sampled Area: 0.022 sq.m	Time: 8:38:26
BOTTOM ENVIRONMENT		
Depth (m): 13.0	Salinity (ppt): 16.19	Temperature (C): 27.02
Dissolved Oxygen (mg/l): 1.1	Sediment Silt-Clay (%): 86.50	Total Carbon (%): 3.51
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 1.00	Condition: Severely Degr.	# Attributes Scored: 6
	Value	Score
Shannon-Wiener Index	0.00	1
Abundance (#/m2)	45	1
Biomass (g/m2)	0.00	1
Carnivore-Omnivore Abundance (%)	0.00	1
Deep Deposit Feeder Abundance (%)	0.00	1
	Value	Score
Pollution Indicative Species Abundance (%)	100.00	
Pollution Indicative Species Biomass (%)	100.00	1
Pollution Sensitive Species Abundance (%)	0.00	
Pollution Sensitive Species Biomass (%)	0.00	1
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Streblospio benedicti	45	0.00450
Total Abundance w/ Epi.	45	
Total Abundance w/o Epi.	45	
Number of Taxa w/ Epi.	1	
Number of Taxa w/o Epi.	1	
Total Biomass w/ Epi.		0.00450
Total Biomass w/o Epi.		0.00450

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Patuxent River		Station: 071		Rep: 02	
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud		Date: 03SEP10	
		Sampled Area: 0.022 sq.m		Time: 8:38:26	
BOTTOM ENVIRONMENT					
Depth (m): 13.0		Salinity (ppt): 16.19		Temperature (C): 27.02	
Dissolved Oxygen (mg/l): 1.1		Sediment Silt-Clay (%): 86.50		Total Carbon (%): 3.51	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.00		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	1.58	1	Pollution Indicative Species Abundance (%)	66.67	
Abundance (#/m2)	135	1	Pollution Indicative Species Biomass (%)	50.00	1
Biomass (g/m2)	0.01	1	Pollution Sensitive Species Abundance (%)	33.33	
Carnivore-Omnivore Abundance (%)	33.33	5	Pollution Sensitive Species Biomass (%)	50.00	3
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Glycinde solitaria	45		0.00450		
Mulinia lateralis	45		0.00225		
Paraprionospio pinnata	45		0.00225		
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.			0.00900		
Total Biomass w/o Epi.			0.00900		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Patuxent River		Station: 071		Rep: 03	
Gear: Wildco Box Corer		Habitat: High Mesohaline Mud		Date: 03SEP10	
		Sampled Area: 0.022 sq.m		Time: 8:38:26	
BOTTOM ENVIRONMENT					
Depth (m): 13.0		Salinity (ppt): 16.19		Temperature (C): 27.02	
Dissolved Oxygen (mg/l): 1.1		Sediment Silt-Clay (%): 86.50		Total Carbon (%): 3.51	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.00		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	0.92	1	Pollution Indicative Species Abundance (%)	100.00	
Abundance (#/m2)	270	1	Pollution Indicative Species Biomass (%)	100.00	1
Biomass (g/m2)	0.01	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	0.00	1	Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Mulinia lateralis	180		0.00900		
Paraprionospio pinnata	90		0.00450		
Total Abundance w/ Epi.	270				
Total Abundance w/o Epi.	270				
Number of Taxa w/ Epi.	2				
Number of Taxa w/o Epi.	2				
Total Biomass w/ Epi.			0.01350		
Total Biomass w/o Epi.			0.01350		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Chalk Point Discharge	Station: 074	Rep: 01
Gear: Wildco Box Corer	Habitat: Low Mesohaline	Date: 26AUG10
	Sampled Area: 0.022 sq.m	Time: 12:53:11
BOTTOM ENVIRONMENT		
Depth (m): 2.0	Salinity (ppt): 8.55	Temperature (C): 27.26
Dissolved Oxygen (mg/l): 4.1	Sediment Silt-Clay (%): 87.51	Total Carbon (%): 2.79
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 2.60	Condition: Degraded	# Attributes Scored: 5
	Value	Score
Shannon-Wiener Index	2.17	3
Abundance (#/m2)	450	1
Biomass (g/m2)	0.46	1
Carnivore-Omnivore Abundance (%)	40.00	
Deep Deposit Feeder Abundance (%)	30.00	
		Value
		Score
	Pollution Indicative Species Abundance (%)	0.00
	Pollution Indicative Species Biomass (%)	0.00
	Pollution Sensitive Species Abundance (%)	60.00
	Pollution Sensitive Species Biomass (%)	84.31
		3
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Carinoma tremaphoros	45	0.02250
Glycinde solitaria	135	0.03150
Heteromastus filiformis	45	0.04050
Macoma balthica	135	0.35550
Tubificoides spp.	90	0.00900
Total Abundance w/ Epi.	450	
Total Abundance w/o Epi.	450	
Number of Taxa w/ Epi.	5	
Number of Taxa w/o Epi.	5	
Total Biomass w/ Epi.		0.45900
Total Biomass w/o Epi.		0.45900

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Chalk Point Discharge	Station: 074	Rep: 03
Gear: Wildco Box Corer	Habitat: Low Mesohaline	Date: 26AUG10
	Sampled Area: 0.022 sq.m	Time: 12:53:11
BOTTOM ENVIRONMENT		
Depth (m): 2.0	Salinity (ppt): 8.55	Temperature (C): 27.26
Dissolved Oxygen (mg/l): 4.1	Sediment Silt-Clay (%): 87.51	Total Carbon (%): 2.79
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.80	Condition: Meets Goal	# Attributes Scored: 5
	Value	Score
Shannon-Wiener Index	2.33	3
Abundance (#/m2)	675	3
Biomass (g/m2)	2.31	3
Carnivore-Omnivore Abundance (%)	13.33	
Deep Deposit Feeder Abundance (%)	53.33	
		Value
		Score
	Pollution Indicative Species Abundance (%)	6.67
	Pollution Indicative Species Biomass (%)	0.10
	Pollution Sensitive Species Abundance (%)	33.33
	Pollution Sensitive Species Biomass (%)	92.10
		5
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Glycinde solitaria	90	0.01350
Heteromastus filiformis	45	0.00225
Macoma balthica	90	1.98450
Macoma mitchelli	45	0.17550
Rangia cuneata	45	0.12600
Streblospio benedicti	45	0.00225
Tubificoides spp.	315	0.00225
Total Abundance w/ Epi.	675	
Total Abundance w/o Epi.	675	
Number of Taxa w/ Epi.	7	
Number of Taxa w/o Epi.	7	
Total Biomass w/ Epi.		2.30625
Total Biomass w/o Epi.		2.30625

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Patuxent River	Station: 077	Rep: 02
Gear: Wildco Box Corer	Habitat: Low Mesohaline	Date: 26AUG10
	Sampled Area: 0.022 sq.m	Time: 13:35:17
BOTTOM ENVIRONMENT		
Depth (m): 3.0	Salinity (ppt): 2.08	Temperature (C): 26.64
Dissolved Oxygen (mg/l): 4.9	Sediment Silt-Clay (%): 94.35	Total Carbon (%): 2.7
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 2.20	Condition: Degraded	# Attributes Scored: 5
	Value	Score
Shannon-Wiener Index	2.39	3
Abundance (#/m2)	810	3
Biomass (g/m2)	0.40	1
Carnivore-Omnivore Abundance (%)	16.67	
Deep Deposit Feeder Abundance (%)	27.78	
		Value
		Score
	Pollution Indicative Species Abundance (%)	27.78
	Pollution Indicative Species Biomass (%)	2.25
	Pollution Sensitive Species Abundance (%)	27.78
	Pollution Sensitive Species Biomass (%)	42.70
		3
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Carinoma tremaphoros	45	0.13050
Marenzelleria viridis	90	0.16650
Neanthes succinea	90	0.08550
Rangia cuneata	135	0.00450
Streblospio benedicti	225	0.00900
Tubificoides spp.	225	0.00450
Total Abundance w/ Epi.	810	
Total Abundance w/o Epi.	810	
Number of Taxa w/ Epi.	6	
Number of Taxa w/o Epi.	6	
Total Biomass w/ Epi.		0.40050
Total Biomass w/o Epi.		0.40050

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Patuxent River		Station: 077		Rep: 03	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 26AUG10	
		Sampled Area: 0.022 sq.m		Time: 13:35:17	
BOTTOM ENVIRONMENT					
Depth (m): 3.0		Salinity (ppt): 2.08		Temperature (C): 26.64	
Dissolved Oxygen (mg/l): 4.9		Sediment Silt-Clay (%): 94.35		Total Carbon (%): 2.7	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.60		Condition: Degraded		# Attributes Scored: 5	
		Value	Score	Value	Score
Shannon-Wiener Index		2.64	5	11.11	3
Abundance (#/m2)		405	1	5.56	
Biomass (g/m2)		0.04	1	33.33	
Carnivore-Omnivore Abundance (%)		11.11		55.56	3
Deep Deposit Feeder Abundance (%)		33.33			
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Cyathura polita		45		0.00900	
Edotea triloba (Epi)		45		0.00900	
Leptocheirus plumulosus		45		0.00900	
Macoma mitchelli		45		0.00450	
Marenzelleria viridis		45		0.00900	
Rangia cuneata		45		0.00450	
Streblospio benedicti		45		0.00225	
Tubificoides spp.		135		0.00225	
Total Abundance w/ Epi.		450			
Total Abundance w/o Epi.		405			
Number of Taxa w/ Epi.		8			
Number of Taxa w/o Epi.		7			
Total Biomass w/ Epi.				0.04950	
Total Biomass w/o Epi.				0.04050	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Patuxent River		Station: 079		Rep: 01	
Gear: Wildco Box Corer		Habitat: Tidal Freshwater		Date: 26AUG10	
		Sampled Area: 0.022 sq.m		Time: 14:48:00	
BOTTOM ENVIRONMENT					
Depth (m): 0.6		Salinity (ppt): 0.13		Temperature (C): 25.51	
Dissolved Oxygen (mg/l): 6.2		Sediment Silt-Clay (%): 84.08		Total Carbon (%): 3.38	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.50		Condition: Meets Goal		# Attributes Scored: 3	
		Value	Score	Value	Score
Shannon-Wiener Index		2.22		59.38	3
Abundance (#/m2)		2880	5	8.73	3
Deep Deposit Feeder Abundance (%)		87.50	3	59.38	
Carnivore-Omnivore Abundance (%)		10.94			
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Aulodrilus limnobi		270			
Aulodrilus pigueti		180			
Chironomidae				0.00225	
Chironomus spp.		90			
Coelotanypus spp.		90		0.00450	
Cryptochironomus spp.		90			
Glyptotendipes spp.		45			
Limnodrilus hoffmeisteri		90			
Manayunkia aestuarina		45		0.00225	
Oligochaeta				0.24300	
Tubificidae imm w cap chaetae		360			
Tubificidae imm w/o cap chaetae *		1620			
Total Abundance w/ Epi.		2880			
Total Abundance w/o Epi.		2880			
Number of Taxa w/ Epi.		9			
Number of Taxa w/o Epi.		9			
Total Biomass w/ Epi.				0.25200	
Total Biomass w/o Epi.				0.25200	

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Patuxent River		Station: 079		Rep: 02	
Gear: Wildco Box Corer		Habitat: Tidal Freshwater		Date: 26AUG10	
		Sampled Area: 0.022 sq.m		Time: 14:48:00	
BOTTOM ENVIRONMENT					
Depth (m): 0.6		Salinity (ppt): 0.13		Temperature (C): 25.51	
Dissolved Oxygen (mg/l): 6.2		Sediment Silt-Clay (%): 84.08		Total Carbon (%): 3.38	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.50		Condition: Meets Goal		# Attributes Scored: 3	
		Value	Score	Value	Score
Shannon-Wiener Index		1.86		71.05	3
Abundance (#/m2)		3420	5	9.16	3
Deep Deposit Feeder Abundance (%)		93.42	3	71.05	
Carnivore-Omnivore Abundance (%)		5.26			
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Aulodrilus limnobius		270			
Branchiura sowerbyi		90		0.02700	
Chironomidae				0.00225	
Chironomus spp.		45			
Coelotanypus spp.		90		0.03600	
Dero spp.		135			
Limnodrilus hoffmeisteri		135			
Oligochaeta				0.28679	
Rangia cuneata		45		41.53950	
Tanytarsus spp. G Epler		45			
Tubificidae imm w cap chaetae		270			
Tubificidae imm w/o cap chaetae *		2295			
Total Abundance w/ Epi.		3420			
Total Abundance w/o Epi.		3420			
Number of Taxa w/ Epi.		9			
Number of Taxa w/o Epi.		9			
Total Biomass w/ Epi.				41.89154	
Total Biomass w/o Epi.				41.89154	

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Patuxent River	Station: 079	Rep: 03
Gear: Wildco Box Corer	Habitat: Tidal Freshwater	Date: 26AUG10
	Sampled Area: 0.022 sq.m	Time: 14:48:00
BOTTOM ENVIRONMENT		
Depth (m): 0.6	Salinity (ppt): 0.13	Temperature (C): 25.51
Dissolved Oxygen (mg/l): 6.2	Sediment Silt-Clay (%): 84.08	Total Carbon (%): 3.38
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 2.50	Condition: Degraded	# Attributes Scored: 3
	Value	Score
Shannon-Wiener Index	1.26	3
Abundance (#/m2)	4230	3
Deep Deposit Feeder Abundance (%)	93.62	3
Carnivore-Omnivore Abundance (%)	4.26	3
	T.F. Pollution Indicative Spp. Abund. (%)	Value
	Tolerance Score	80.85
	Limnodrilus Abundance (%)	80.85
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Chironomidae		0.00225
Chironomus spp.	45	
Coelotanypus spp.	90	0.04050
Ilyodrilus templetoni	540	
Limnodrilus hoffmeisteri	180	
Manayunkia aestuarina	45	0.00225
Oligochaeta		0.23700
Polypedilum halterale group	45	
Rangia cuneata	45	0.09900
Tubificidae imm w/o cap chaetae *	3240	
Total Abundance w/ Epi.	4230	
Total Abundance w/o Epi.	4230	
Number of Taxa w/ Epi.	7	
Number of Taxa w/o Epi.	7	
Total Biomass w/ Epi.		0.38100
Total Biomass w/o Epi.		0.38100

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 201		Rep: 01	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 30AUG10	
		Sampled Area: 0.022 sq.m		Time: 12:19:02	
BOTTOM ENVIRONMENT					
Depth (m): 3.9		Salinity (ppt): 9.39		Temperature (C): 26.73	
Dissolved Oxygen (mg/l): 2.1		Sediment Silt-Clay (%): 91.78		Total Carbon (%): 4.32	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.00		Condition: Severely Degr.		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	0.92	1	Pollution Indicative Species Abundance (%)	66.67	1
Abundance (#/m2)	135	1	Pollution Indicative Species Biomass (%)	66.67	
Biomass (g/m2)	0.01	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	0.00		Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	33.33				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Streblospio benedicti	90		0.00450		
Tubificoides spp.	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.			0.00675		
Total Biomass w/o Epi.			0.00675		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 201		Rep: 02	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 30AUG10	
		Sampled Area: 0.022 sq.m		Time: 12:19:02	
BOTTOM ENVIRONMENT					
Depth (m): 3.9		Salinity (ppt): 9.39		Temperature (C): 26.73	
Dissolved Oxygen (mg/l): 2.1		Sediment Silt-Clay (%): 91.78		Total Carbon (%): 4.32	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.00		Condition: Severely Degr.		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	0.59	1	Pollution Indicative Species Abundance (%)	85.71	1
Abundance (#/m2)	315	1	Pollution Indicative Species Biomass (%)	0.81	
Biomass (g/m2)	0.28	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		0.27450		
Streblospio benedicti	270		0.00225		
Total Abundance w/ Epi.	315				
Total Abundance w/o Epi.	315				
Number of Taxa w/ Epi.	2				
Number of Taxa w/o Epi.	2				
Total Biomass w/ Epi.			0.27675		
Total Biomass w/o Epi.			0.27675		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Station: 201			Rep: 03		
Watershed: Patapsco & Back Rivers		Habitat: Low Mesohaline		Date: 30AUG10	
Gear: Wildco Box Corer		Sampled Area: 0.022 sq.m		Time: 12:19:02	
BOTTOM ENVIRONMENT					
Depth (m): 3.9		Salinity (ppt): 9.39		Temperature (C): 26.73	
Dissolved Oxygen (mg/l): 2.1		Sediment Silt-Clay (%): 91.78		Total Carbon (%): 4.32	
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)	360	1	Pollution Indicative Species Biomass (%)	100.00	
Biomass (g/m2)	0.01	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	0.00		Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Streblospio benedicti	360		0.00900		
Total Abundance w/ Epi.	360				
Total Abundance w/o Epi.	360				
Number of Taxa w/ Epi.	1				
Number of Taxa w/o Epi.	1				
Total Biomass w/ Epi.			0.00900		
Total Biomass w/o Epi.			0.00900		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 202		Rep: 01	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 30AUG10	
		Sampled Area: 0.022 sq.m		Time: 11:02:02	
BOTTOM ENVIRONMENT					
Depth (m): 6.1		Salinity (ppt): 12.53		Temperature (C): 26.41	
Dissolved Oxygen (mg/l): 0.2		Sediment Silt-Clay (%): 86.15		Total Carbon (%): 4.74	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.00		Condition: Severely Degr.		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	0.00	1	Pollution Indicative Species Abundance (%)	100.00	1
Abundance (#/m2)	0	1	Pollution Indicative Species Biomass (%)	100.00	
Biomass (g/m2)	0.00	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	0.00		Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
No Organisms Present					
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.					
Total Biomass w/o Epi.					

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 202		Rep: 02	
Gear: Wildco Box Corer		Habitat: Low Mesohaline		Date: 30AUG10	
		Sampled Area: 0.022 sq.m		Time: 11:02:02	
BOTTOM ENVIRONMENT					
Depth (m): 6.1		Salinity (ppt): 12.53		Temperature (C): 26.41	
Dissolved Oxygen (mg/l): 0.2		Sediment Silt-Clay (%): 86.15		Total Carbon (%): 4.74	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.00		Condition: Severely Degr.		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	1.00	1	Pollution Indicative Species Abundance (%)	50.00	1
Abundance (#/m2)	90	1	Pollution Indicative Species Biomass (%)	33.33	
Biomass (g/m2)	0.01	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	0.00		Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	50.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Streblospio benedicti	45		0.00225		
Tubificoides spp.	45		0.00450		
Total Abundance w/ Epi.	90				
Total Abundance w/o Epi.	90				
Number of Taxa w/ Epi.	2				
Number of Taxa w/o Epi.	2				
Total Biomass w/ Epi.			0.00675		
Total Biomass w/o Epi.			0.00675		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Station: 202			Rep: 03		
Watershed: Patapsco & Back Rivers		Habitat: Low Mesohaline		Date: 30AUG10	
Gear: Wildco Box Corer		Sampled Area: 0.022 sq.m		Time: 11:02:02	
BOTTOM ENVIRONMENT					
Depth (m): 6.1		Salinity (ppt): 12.53		Temperature (C): 26.41	
Dissolved Oxygen (mg/l): 0.2		Sediment Silt-Clay (%): 86.15		Total Carbon (%): 4.74	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.00		Condition: Severely Degr.		# Attributes Scored: 5	
	Value	Score		Value	Score
Shannon-Wiener Index	0.00	1	Pollution Indicative Species Abundance (%)	100.00	1
Abundance (#/m2)	45	1	Pollution Indicative Species Biomass (%)	100.00	
Biomass (g/m2)	0.00	1	Pollution Sensitive Species Abundance (%)	0.00	
Carnivore-Omnivore Abundance (%)	0.00		Pollution Sensitive Species Biomass (%)	0.00	1
Deep Deposit Feeder Abundance (%)	0.00				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Streblospio benedicti	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 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 203		Rep: 01	
Gear: Young Grab		Habitat: Oligohaline		Date: 15SEP10	
		Sampled Area: 0.044 sq.m		Time: 8:15:55	
BOTTOM ENVIRONMENT					
Depth (m): 1.6		Salinity (ppt): 6.26		Temperature (C): 22.06	
Dissolved Oxygen (mg/l): 7.2		Sediment Silt-Clay (%): 95.43		Total Carbon (%): 4.65	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.33		Condition: Severely Degr.		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	0.23		Oligohaline Pollution Indicative Spp. Abund.	100.00	1
Abundance (#/m2)	3681	3	Tolerance Score	9.75	1
Deep Deposit Feeder Abundance (%)	96.91		Oligohaline Pollution Sensitive Spp. Abund.	0.00	1
Carnivore-Omnivore Abundance (%)	1.23	1	Tanypodinae/Chironomidae Abundance Ratio	100.00	1
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Coelotanypus spp.		45		0.01363	
Streblospio benedicti		68		0.00227	
Tubificidae imm w/o cap chaetae		3567		0.23809	
Total Abundance w/ Epi.		3681			
Total Abundance w/o Epi.		3681			
Number of Taxa w/ Epi.		3			
Number of Taxa w/o Epi.		3			
Total Biomass w/ Epi.				0.25400	
Total Biomass w/o Epi.				0.25400	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 203		Rep: 02	
Gear: Young Grab		Habitat: Oligohaline		Date: 15SEP10	
		Sampled Area: 0.044 sq.m		Time: 8:15:55	
BOTTOM ENVIRONMENT					
Depth (m): 1.6		Salinity (ppt): 6.26		Temperature (C): 22.06	
Dissolved Oxygen (mg/l): 7.2		Sediment Silt-Clay (%): 95.43		Total Carbon (%): 4.65	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.67		Condition: Severely Degr.		# Attributes Scored: 6	
		Value	Score	Value	Score
Shannon-Wiener Index		0.52		Oligohaline Pollution Indicative Spp. Abund.	100.00
Abundance (#/m2)		2658	5	Tolerance Score	9.61
Deep Deposit Feeder Abundance (%)		93.16		Oligohaline Pollution Sensitive Spp. Abund.	0.00
Carnivore-Omnivore Abundance (%)		4.27	1	Tanypodinae/Chironomidae Abundance Ratio	100.00
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Coelotanypus spp.		114		0.01818	
Corbicula fluminea		23		0.00454	
Gammarus daiberi (Epi)		45		0.02499	
Streblospio benedicti		45		0.00454	
Tubificidae imm w/o cap chaetae		2454		0.17381	
Tubificoides spp.		23		0.00227	
Total Abundance w/ Epi.		2704			
Total Abundance w/o Epi.		2658			
Number of Taxa w/ Epi.		6			
Number of Taxa w/o Epi.		5			
Total Biomass w/ Epi.				0.22834	
Total Biomass w/o Epi.				0.20334	

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Patapsco & Back Rivers		Station: 203		Rep: 03	
Gear: Young Grab		Habitat: Oligohaline		Date: 15SEP10	
		Sampled Area: 0.044 sq.m		Time: 8:15:55	
BOTTOM ENVIRONMENT					
Depth (m): 1.6		Salinity (ppt): 6.26		Temperature (C): 22.06	
Dissolved Oxygen (mg/l): 7.2		Sediment Silt-Clay (%): 95.43		Total Carbon (%): 4.65	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 1.33		Condition: Severely Degr.		# Attributes Scored: 6	
		Value	Score	Value	Score
Shannon-Wiener Index		0.61		Oligohaline Pollution Indicative Spp. Abund.	100.00
Abundance (#/m2)		3908	3	Tolerance Score	9.76
Deep Deposit Feeder Abundance (%)		97.67		Oligohaline Pollution Sensitive Spp. Abund.	0.00
Carnivore-Omnivore Abundance (%)		1.16	1	Tanypodinae/Chironomidae Abundance Ratio	100.00
BENTHIC ABUNDANCE (per sq. meter)					
TAXA		Abundance (#/m2)		Biomass (g/m2)	
Coelotanypus spp.		45		0.01818	
Limnodrilus hoffmeisteri		136			
Oligochaeta				0.27234	
Streblospio benedicti		45		0.00227	
Tubificidae imm w/o cap chaetae *		3544			
Tubificoides spp.		136		0.00227	
Total Abundance w/ Epi.		3908			
Total Abundance w/o Epi.		3908			
Number of Taxa w/ Epi.		4			
Number of Taxa w/o Epi.		4			
Total Biomass w/ Epi.				0.29506	
Total Biomass w/o Epi.				0.29506	

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Station: 204			Rep: 01		
Watershed: Lower Western Shore			Date: 25AUG10		
Gear: Young Grab			Time: 10:41:46		
Habitat: High Mesohaline Mud			Sampled Area: 0.044 sq.m		
BOTTOM ENVIRONMENT					
Depth (m): 7.3		Salinity (ppt): 11.91		Temperature (C): 26.55	
Dissolved Oxygen (mg/l): 4.0		Sediment Silt-Clay (%): 67.76		Total Carbon (%): 2	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 2.67		Condition: Marginal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.35	3	Pollution Indicative Species Abundance (%)	16.95	
Abundance (#/m2)	2681	3	Pollution Indicative Species Biomass (%)	1.21	5
Biomass (g/m2)	0.66	3	Pollution Sensitive Species Abundance (%)	0.85	
Carnivore-Omnivore Abundance (%)	7.63	1	Pollution Sensitive Species Biomass (%)	5.55	1
Deep Deposit Feeder Abundance (%)	79.66				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	23		0.00227		
Eteone heteropoda	23		0.00227		
Heteromastus filiformis	682		0.19766		
Leptocheirus plumulosus	45		0.01136		
Macoma balthica	23		0.03635		
Macoma mitchelli	182		0.08179		
Neanthes succinea	159		0.30218		
Streblospio benedicti	91		0.00454		
Tubificidae imm w/o cap chaetae	341		0.00114		
Tubificoides spp.	1113		0.01590		
Total Abundance w/ Epi.	2681				
Total Abundance w/o Epi.	2681				
Number of Taxa w/ Epi.	10				
Number of Taxa w/o Epi.	10				
Total Biomass w/ Epi.			0.65547		
Total Biomass w/o Epi.			0.65547		

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Lower Western Shore	Station: 204	Rep: 02
Gear: Young Grab	Habitat: High Mesohaline Mud	Date: 25AUG10
	Sampled Area: 0.044 sq.m	Time: 10:41:46
BOTTOM ENVIRONMENT		
Depth (m): 7.3	Salinity (ppt): 11.91	Temperature (C): 26.55
Dissolved Oxygen (mg/l): 4.0	Sediment Silt-Clay (%): 67.76	Total Carbon (%): 2
BENTHIC INDEX OF BIOTIC INTEGRITY		
B-IBI Score: 3.00	Condition: Meets Goal	# Attributes Scored: 6
	Value	Score
Shannon-Wiener Index	2.33	3
Abundance (#/m2)	2681	3
Biomass (g/m2)	1.07	3
Carnivore-Omnivore Abundance (%)	13.56	3
Deep Deposit Feeder Abundance (%)	71.19	3
	Value	Score
Pollution Indicative Species Abundance (%)	12.71	
Pollution Indicative Species Biomass (%)	0.96	5
Pollution Sensitive Species Abundance (%)	3.39	
Pollution Sensitive Species Biomass (%)	13.42	1
BENTHIC ABUNDANCE (per sq. meter)		
TAXA	Abundance (#/m2)	Biomass (g/m2)
Carinoma tremaphoros	91	0.03862
Glycinde solitaria	45	0.01136
Heteromastus filiformis	932	0.53846
Leptocheirus plumulosus	45	0.00682
Macoma balthica	45	0.13178
Macoma mitchelli	23	0.01363
Neanthes succinea	227	0.30445
Streblospio benedicti	295	0.00909
Tubificidae imm w/o cap chaetae	45	0.00114
Tubificoides spp.	932	0.01136
Total Abundance w/ Epi.	2681	
Total Abundance w/o Epi.	2681	
Number of Taxa w/ Epi.	10	
Number of Taxa w/o Epi.	10	
Total Biomass w/ Epi.		1.06670
Total Biomass w/o Epi.		1.06670

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) FIXED STATIONS

Watershed: Lower Western Shore		Station: 204		Rep: 03	
Gear: Young Grab		Habitat: High Mesohaline Mud		Date: 25AUG10	
		Sampled Area: 0.044 sq.m		Time: 10:41:46	
BOTTOM ENVIRONMENT					
Depth (m): 7.3		Salinity (ppt): 11.91		Temperature (C): 26.55	
Dissolved Oxygen (mg/l): 4.0		Sediment Silt-Clay (%): 67.76		Total Carbon (%): 2	
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score: 3.33		Condition: Meets Goal		# Attributes Scored: 6	
	Value	Score		Value	Score
Shannon-Wiener Index	2.56	3	Pollution Indicative Species Abundance (%)	12.00	
Abundance (#/m2)	1704	5	Pollution Indicative Species Biomass (%)	0.85	5
Biomass (g/m2)	0.94	3	Pollution Sensitive Species Abundance (%)	4.00	
Carnivore-Omnivore Abundance (%)	18.67	3	Pollution Sensitive Species Biomass (%)	13.80	1
Deep Deposit Feeder Abundance (%)	58.67				
BENTHIC ABUNDANCE (per sq. meter)					
TAXA	Abundance (#/m2)		Biomass (g/m2)		
Carinoma tremaphoros	68		0.00114		
Heteromastus filiformis	591		0.39306		
Leptocheirus plumulosus	114		0.00909		
Macoma balthica	68		0.12950		
Macoma mitchelli	23		0.02726		
Neanthes succinea	250		0.36806		
Streblospio benedicti	182		0.00682		
Tubificidae imm w/o cap chaetae	23		0.00114		
Tubificoides spp.	386		0.00227		
Total Abundance w/ Epi.	1704				
Total Abundance w/o Epi.	1704				
Number of Taxa w/ Epi.	9				
Number of Taxa w/o Epi.	9				
Total Biomass w/ Epi.			0.93834		
Total Biomass w/o Epi.			0.93834		

DATA SUMMARY B

**BENTHIC ENVIRONMENT AND COMMUNITY
COMPOSITION AT RANDOM SITES:
SUMMER 2010**

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17401	17402	17403	17404	17405					
Watershed	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs					
Habitat	Polyhaline Sand	Polyhaline Sand	High Meso Sand	High Meso Mud	High Meso Mud					
Date	09/21/10	09/21/10	09/21/10	09/21/10	09/21/10					
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	2.9	2.6	5.4	0.8					
Salinity (ppt)	19.04	18.96	17.13	13.66	12.21					
Temperature (C)	22.31	22.58	22.00	22.66	22.72					
Total Biomass w/o Epifauna	7.6975	112.2561	0.4589	0.3033	1.6745					
Sediment Silt-Clay (%)	2.28	2.09	7.48	42.62	49.01					
Total Carbon (%)	0.08	0.10	0.13	2.62	2.98					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	2.00		3.00		2.67		3.00		2.67	
Condition	Severely Degr.		Meets Goal		Marginal		Meets Goal		Marginal	
# Attributes Scored	6		6		6		6		6	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	2.31	1	3.31	3	2.79	3	2.59	3	2.91	3
Abundance (#/m2)	1045	1	2658	3	1477	3	6066	1	727	1
Biomass (g/m2)	0.17	1	0.89	1	0.86	1	0.73	3	0.24	1
Pollution Indicative Spp Abund (%)	0.00		1.71		24.62	3	27.72		3.13	
Pollution Indicative Spp Biom (%)	0.00	5	19.97	1	32.01		8.04	3	0.48	5
Pollution Sensitive Spp Abund (%)	65.22	3	73.50	5	35.38	3	11.24		15.63	
Pollution Sensitive Spp Biom (%)	31.51		60.95		53.57		70.17	5	1.90	1
Carnivore-Omnivore Abund (%)	56.52		38.46		20.00	3	11.61	3	40.63	5
Deep Deposit Feeder Abund (%)	6.52	1	27.35	5	18.46		55.06		37.50	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	0.00		0.00		0.00		19.48		0.00	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Tolerance Score	0.00		0.00		0.00		9.80		0.00	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		0.00		0.00	

Continued . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17401	17402	17403	17404	17405
<i>Acteocina canaliculata</i>	568	909	45		
<i>Carinoma tremaphoros</i>			23	45	68
<i>Clymenella torquata</i>		136			
<i>Cyathura polita</i>				91	45
<i>Edotea triloba</i> (Epi.)			23	91	
<i>Edwardsia elegans</i>				23	
<i>Gemma gemma</i>	91	23			
<i>Glycera dibranchiata</i>		23			
<i>Glycinde solitaria</i>	23	68	227	500	68
<i>Heteromastus filiformis</i>	68	204	204	68	91
<i>Hirudinea</i> (Epi.)					23
<i>Hydrobia</i> spp. (Epi.)				23	
<i>Laeonereis culveri</i>					91
<i>Leptosynapta tenuis</i>	45				
<i>Leucon americanus</i>				45	
<i>Listriella barnardi</i>		23			
<i>Listriella clymenellae</i>		68			
<i>Littoridinops tenuipes</i> (Epi.)				45	
<i>Lyonsia hyalina</i>	68	45			
<i>Macoma mitchelli</i>	45	114	295	1386	136
<i>Marenzelleria viridis</i>		23	250	91	
<i>Mediomastus ambiseta</i>		250			
<i>Mulinia lateralis</i>		45	45	182	
<i>Neanthes succinea</i>				45	23
<i>Phoronis</i> spp.	91	454			
<i>Rictaxis punctostriatus</i>		23			
<i>Saccoglossus kowalevskii</i>		23			
<i>Scolecopsis texana</i>	45	23			
<i>Scoloplos rubra</i>		45			
<i>Spiochaetopterus costarum</i>		23			
<i>Streblospio benedicti</i>			318	318	23
<i>Tagelus plebeius</i>		23			
<i>Tharyx</i> sp. A Morris		23			
Tubificidae imm w/o cap chaetae				1181	
<i>Tubificoides</i> spp.		91	68	2090	182
Total Abundance w/ Epifauna	1045	2658	1500	6225	750
Total Abundance w/o Epifauna	1045	2658	1477	6066	727
Number of Taxa w/ Epifauna	9	22	10	16	10
Number of Taxa w/o Epifauna	9	22	9	13	9

Continued . . .

BENTHIC BIOMASS (Grams per sq. meter)					
Site	17401	17402	17403	17404	17405
Acteocina canaliculata	0.0364	0.0954	0.0011		
Carinoma tremaphoros			0.0091	0.0182	0.0068
Clymenella torquata		0.1295			
Cyathura polita				0.1477	0.0023
Edotea triloba (Epi.)			0.0023	0.0091	
Edwardsia elegans				0.0011	
Gemma gemma	0.0182	0.0011			
Glycera dibranchiata		0.0159			
Glycinder solitaria	0.0023	0.0045	0.0068	0.0318	0.0023
Heteromastus filiformis	0.0841	0.1068	0.1022	0.0364	0.0273
Hirudinea (Epi.)					0.0136
Hydrobia spp. (Epi.)				0.0023	
Laeonereis culveri					0.1091
Leptosynapta tenuis	0.0045				
Leucon americanus				0.0023	
Listriella barnardi		0.0045			
Listriella clymenellae		0.0068			
Littoridinops tenuipes (Epi.)				0.0011	
Lyonsia hyalina	0.0011	0.0023			
Macoma mitchelli	0.0011	0.0011	0.0114	0.0818	0.0795
Marenzelleria viridis		0.0568	0.4521	0.3363	
Mediomastus ambiseta		0.0068			
Mulinia lateralis		0.1772	0.2613	0.0114	
Neanthes succinea				0.0045	0.0091
Phoronis spp.	0.0136	0.0591			
Rictaxis punctostriatus		0.0011			
Saccoglossus kowalevskii		0.0091			
Scolecopsis texana	0.0045	0.0023			
Scoloplos rubra		0.0114			
Spiochaetopterus costarum		0.0023			
Streblospio benedicti			0.0136	0.0045	0.0011
Tagelus plebeius		0.1795			
Tharyx sp. A Morris		0.0114			
Tubificidae imm w/o cap chaetae				0.0432	
Tubificoides spp.		0.0023	0.0011	0.0159	0.0011
Total Biomass w/ Epifauna	0.1659	0.8872	0.8611	0.7475	0.2522
Total Biomass w/o Epifauna	0.1659	0.8872	0.8588	0.7350	0.2386

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17407	17408	17409	17410	17411					
Watershed	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs					
Habitat	High Meso Mud	High Meso Mud	Oligohaline	High Meso Sand	Low Mesohaline					
Date	09/20/10	09/20/10	09/20/10	09/08/10	09/08/10					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	2.5	1.8	1.5	2.6	2.1					
Salinity (ppt)	14.31	12.88	4.90	12.30	10.99					
Temperature (C)	22.98	23.02	23.30	25.40	25.41					
Dissolved Oxygen (mg/L)	7.2	7.4	6.6	7.0	6.0					
Sediment Silt-Clay (%)	82.46	90.25	4.78	3.26	83.20					
Total Carbon (%)	3.12	3.32	0.49	0.12	3.34					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	3.33		2.33		3.67		2.33		2.60	
Condition	Meets Goal		Degraded		Meets Goal		Degraded		Degraded	
# Attributes Scored	6		6		6		6		5	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	1.71	1	1.28	1	2.75	3	2.83	3	2.26	3
Abundance (#/m2)	2386	5	3499	3	2999	5	2340	5	2363	5
Biomass (g/m2)	0.54	3	0.24	1	1.03	1	0.98	1	0.67	1
Pollution Indicative Spp Abund (%)	12.38		14.29		34.85		39.81	1	24.04	1
Pollution Indicative Spp Biom (%)	4.01	5	6.28	3	2.10		4.07		8.31	
Pollution Sensitive Spp Abund (%)	9.52		5.19		12.12		16.50	3	6.73	
Pollution Sensitive Spp Biom (%)	76.37	5	60.87	5	89.38		59.14		48.14	3
Carnivore-Omnivore Abund (%)	6.67	1	5.84	1	18.94	3	8.74	1	25.96	
Deep Deposit Feeder Abund (%)	74.29		88.96		33.33		22.33		56.73	
TF Poll. Indicative Spp Abund (%)	0.00		0.00		0.00		0.00		0.00	
Limnodrilus Abundance (%)	2.86		11.04		1.52		0.97		2.88	
Oligo Poll. Indic. Spp Abund (%)	0.00		0.00		69.70	3	0.00		0.00	
Oligo Poll. Sens. Spp Abund (%)	0.00		0.00		8.33	3	0.00		0.00	
Tolerance Score	9.80		9.80		8.22	3	9.80		6.63	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00	5	0.00		100.00	

Continued . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17407	17408	17409	17410	17411
Carinoma tremaphoros			204	45	
Coelotanypus spp.					500
Cricotopus bicinctus			114		
Cyathura polita		23	91		91
Gemma gemma				250	
Glycinde solitaria	136	136	23	91	
Glyptotendipes spp.			45		
Heteromastus filiformis				250	91
Hobsonia florida			45		
Leptocheirus plumulosus			68		114
Leucon americanus	45				
Limnodrilus hoffmeisteri			23		
Macoma balthica	91			23	23
Macoma mitchelli	91	45	114	159	227
Marenzelleria viridis		23	250	273	45
Micrura leidyi					23
Mulinia lateralis	136	45		23	
Neanthes succinea	23	23		68	23
Odostomia engonia (Epi.)				23	
Paraprionospio pinnata	23				
Streblospio benedicti	68	68	954	886	
Tanytarsus spp. G Epler			91		
Tubificidae imm w/o cap chaetae	68	386		23	68
Tubificidae imm w/o cap chaetae *			23		
Tubificoides spp.	1704	2726	954	250	1181
Total Abundance w/ Epifauna	2386	3499	2999	2363	2363
Total Abundance w/o Epifauna	2386	3499	2999	2340	2363
Number of Taxa w/ Epifauna	10	10	13	13	10
Number of Taxa w/o Epifauna	10	10	13	12	10

Continued . . .

BENTHIC BIOMASS (Grams per sq. meter)					
Site	17407	17408	17409	17410	17411
Carinoma tremaphoros			0.0523	0.0114	
Chironomidae			0.0011		
Coelotanypus spp.					0.0545
Cyathura polita		0.0295	0.0114		0.0523
Gemma gemma				0.1068	
Glycinde solitaria	0.0863	0.0273	0.0045	0.0091	
Heteromastus filiformis				0.2181	0.0863
Hobsonia florida			0.0136		
Leptocheirus plumulosus			0.0068		0.0182
Leucon americanus	0.0011				
Macoma balthica	0.3249			0.1431	0.1454
Macoma mitchelli	0.0772	0.0273	0.0045	0.0045	0.1636
Marenzelleria viridis		0.0863	0.9020	0.4249	0.1250
Micrura leidyi		0.0159			
Mulinia lateralis	0.0182	0.0091		0.0045	
Neanthes succinea	0.0091	0.0091		0.0114	0.0227
Odostomia engonia (Epi.)				0.0045	
Oligochaeta			0.0011		
Paraprionospio pinnata	0.0011				
Streblospio benedicti	0.0011	0.0023	0.0204	0.0341	
Tubificidae imm w/o cap chaetae	0.0011	0.0034		0.0011	0.0011
Tubificoides spp.	0.0182	0.0250	0.0091	0.0068	0.0011
Total Biomass w/ Epifauna	0.5385	0.2352	1.0269	0.9804	0.6702
Total Biomass w/o Epifauna	0.5385	0.2352	1.0269	0.9758	0.6702

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17412	17413	17414	17415	17417
Watershed	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs
Habitat	Oligohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline
Date	09/08/10	09/09/10	09/09/10	09/09/10	09/09/10
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	10.6	1.2	1.5	0.6
Salinity (ppt)	2.93	10.83	10.52	10.01	6.64
Temperature (C)	25.97	24.92	24.52	24.78	23.39
Dissolved Oxygen (mg/L)	6.7	6.2	7.0	6.8	5.4
Sediment Silt-Clay (%)	89.95	92.52	31.16	8.43	85.59
Total Carbon (%)	5.21	3.16	0.21	0.48	4.84
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	2.33	3.40	2.60	1.80	1.40
Condition	Degraded	Meets Goal	Degraded	Severely Degr.	Severely Degr.
# Attributes Scored	6	5	5	5	5
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	1.81	2.36	2.35	2.01	1.71
Abundance (#/m2)	1522 5	772 3	4112 3	1022 3	500 1
Biomass (g/m2)	0.51	1.72	1.08	0.27	0.02
Pollution Indicative Spp Abund (%)	52.24	0.00	17.68	24.44	68.18
Pollution Indicative Spp Biom (%)	4.87	0.00	1.58	3.85	66.67
Pollution Sensitive Spp Abund (%)	7.46	17.65	0.55	2.22	0.00
Pollution Sensitive Spp Biom (%)	92.04	67.02	16.18	3.42	0.00
Carnivore-Omnivore Abund (%)	1.49	11.76	39.23	13.33	18.18
Deep Deposit Feeder Abund (%)	44.78	35.29	46.96	60.00	27.27
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	5.97	0.00	2.76	0.00	0.00
Oligo Poll. Indic. Spp Abund (%)	92.54	3	0.00	0.00	0.00
Oligo Poll. Sens. Spp Abund (%)	5.97	3	0.00	0.00	0.00
Tolerance Score	9.08	1	9.80	0.00	7.73
Tany./Chir. Abundance Ratio	100.00	1	0.00	0.00	50.00

Continued . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17412	17413	17414	17415	17417
Apocorophium lacustre (Epi.)			114		
Carinoma tremaphoros		23			
Chironomus spp.					23
Coelotanypus spp.	23				45
Cricotopus bicinctus					23
Eteone heteropoda			273	114	
Gammarus daiberi (Epi.)			23		
Heteromastus filiformis		204	341	568	
Leptocheirus plumulosus	23	273			
Macoma balthica	23	114			
Macoma mitchelli			45	114	
Marenzelleria viridis	91	23	23	23	
Melita nitida (Epi.)		182			
Neanthes succinea		68	1340	23	
Polydora cornuta			159		
Streblospio benedicti	682		341	136	273
Tubificidae imm w/o cap chaetae	91		114		
Tubificoides spp.	591	68	1477	45	136
Total Abundance w/ Epifauna	1522	954	4249	1022	500
Total Abundance w/o Epifauna	1522	772	4112	1022	500
Number of Taxa w/ Epifauna	7	8	11	7	5
Number of Taxa w/o Epifauna	7	7	9	7	5
BENTHIC BIOMASS (Grams per sq. meter)					
Site	17412	17413	17414	17415	17417
Apocorophium lacustre (Epi.)			0.0011		
Carinoma tremaphoros		0.0045			
Chironomidae					0.0011
Coelotanypus spp.	0.0011				0.0068
Eteone heteropoda			0.0068	0.0091	
Gammarus daiberi (Epi.)			0.0023		
Heteromastus filiformis		0.1091	0.2704	0.1863	
Leptocheirus plumulosus	0.0091	0.0500			
Macoma balthica	0.0023	1.1337			
Macoma mitchelli			0.0159	0.0568	
Marenzelleria viridis	0.4703	0.0204	0.1749	0.0091	
Melita nitida (Epi.)		0.0091			
Neanthes succinea		0.3999	0.5748	0.0023	
Polydora cornuta			0.0011		
Streblospio benedicti	0.0227		0.0091	0.0011	0.0045
Tubificidae imm w/o cap chaetae	0.0011		0.0011		
Tubificoides spp.	0.0068	0.0045	0.0273	0.0011	0.0045
Total Biomass w/ Epifauna	0.5135	1.7313	1.0849	0.2658	0.0170
Total Biomass w/o Epifauna	0.5135	1.7222	1.0815	0.2658	0.0170

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17418	17419	17420	17421	17422
Watershed	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs
Habitat	Low Mesohaline	Low Mesohaline	Oligohaline	Low Mesohaline	Oligohaline
Date	09/09/10	09/09/10	09/23/10	09/23/10	09/23/10
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)	0.9	4.7	0.6	6.5	0.3
Salinity (ppt)	8.82	6.64	2.76	5.57	1.00
Temperature (C)	25.27	24.76	23.07	22.46	25.20
Dissolved Oxygen (mg/L)	6.0	6.2	7.9	7.4	12.3
Sediment Silt-Clay (%)	4.64	81.38	98.65	72.91	86.05
Total Carbon (%)	0.25	2.29	2.25	1.64	4.26
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	1.80	2.60	3.00	2.60	2.00
Condition	Severely Degr.	Degraded	Meets Goal	Degraded	Severely Degr.
# Attributes Scored	5	5	6	5	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	1.80 3	2.07 3	2.92 3	1.92 3	1.07 3
Abundance (#/m2)	1363 3	318 1	4612 1	4794 3	1159 5
Biomass (g/m2)	0.31 1	67.54 1	0.25 1	105.74 1	0.08 1
Pollution Indicative Spp Abund (%)	61.67 1	7.14 5	12.32 1	87.20 1	98.04 1
Pollution Indicative Spp Biom (%)	8.76 1	0.01 1	24.71 1	0.61 1	100.00 1
Pollution Sensitive Spp Abund (%)	10.00 1	50.00 1	0.00 1	9.95 1	0.00 1
Pollution Sensitive Spp Biom (%)	18.98 1	99.98 3	0.00 1	99.38 5	0.00 1
Carnivore-Omnivore Abund (%)	0.00 1	35.71 1	33.00 3	1.90 1	23.53 3
Deep Deposit Feeder Abund (%)	23.33 1	35.71 1	63.55 1	79.62 1	76.47 1
TF Poll. Indicative Spp Abund (%)	0.00 1	0.00 1	0.00 1	0.00 1	0.00 1
Limnodrilus Abundance (%)	0.00 1	0.00 1	9.85 1	79.62 1	76.47 1
Oligo Poll. Indic. Spp Abund (%)	0.00 1	0.00 1	19.70 5	0.00 1	98.04 1
Oligo Poll. Sens. Spp Abund (%)	0.00 1	0.00 1	0.00 1	0.00 1	0.00 1
Tolerance Score	6.00 1	6.04 1	7.55 3	9.39 1	9.09 1
Tany./Chir. Abundance Ratio	0.00 1	100.00 1	10.61 5	66.67 1	83.33 1

Continued . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17418	17419	17420	17421	17422
Ablabesmyia spp.			68		
Caenis spp. (Epi.)			159		
Carinoma tremaphoros		23			
Ceratopogonidae			23		
Chironomidae pupae *			114		
Chironomus spp.					23
Coelotanypus spp.		23	91	45	204
Cricotopus bicinctus			68		
Cryptochironomus spp.				23	
Cyathura polita		68		23	
Dero spp.			2181		
Dicrotendipes spp.			68		
Dugesia spp. (Epi.)			841		
Eukiefferiella spp.			68		
Gammarus daiberi (Epi.)			273		
Gyraulus spp. (Epi.)			295		
Heteromastus filiformis	204				
Hobsonia florida			45		
Hydroptila spp. (Epi.)			91		
Leptocheirus plumulosus				114	
Limnodrilus hoffmeisteri			182	2317	
Littoridinops tenuipes (Epi.)			273		
Macoma mitchelli	23				
Marenzelleria viridis	114			45	
Mytilopsis leucophaeata (Epi.)			136		
Oecetis spp. (Epi.)			477		
Orthocladus spp.			545		23
Palaemonidae (Epi.)			23		
Physella spp. (Epi.)			68		
Polydora cornuta	45		91		
Polypedilum halterale group			136		
Pristina osborni			182		
Rangia cuneata	23	91		409	
Streblospio benedicti	841		23	318	
Tanypus spp.					23
Tanytarsus spp. G Epler			341		
Tubificidae imm w cap chaetae			91		
Tubificidae imm w/o cap chaetae			273		886
Tubificidae imm w/o cap chaetae *				1500	
Tubificoides spp.	114	114	23		
Total Abundance w/ Epifauna	1363	318	7248	4794	1159
Total Abundance w/o Epifauna	1363	318	4612	4794	1159
Number of Taxa w/ Epifauna	7	5	28	8	5
Number of Taxa w/o Epifauna	7	5	18	8	5

Continued . . .

BENTHIC BIOMASS (Grams per sq. meter)					
Site	17418	17419	17420	17421	17422
Caenis spp. (Epi.)			0.0045		
Carinoma tremaphoros		0.0068			
Ceratopogonidae			0.0011		
Chironomidae			0.1017		0.0011
Chironomidae pupae			0.0023		
Coelotanypus spp.		0.0068	0.0591	0.0136	0.0250
Cryptochironomus spp.				0.0011	
Cyathura polita		0.1204		0.0091	
Dugesia spp. (Epi.)			0.0409		
Gammarus daiberi (Epi.)			0.0204		
Gyraulius spp. (Epi.)			0.0182		
Heteromastus filiformis	0.2181				
Hobsonia florida			0.0091		
Hydroptila spp. (Epi.)			0.0068		
Leptocheirus plumulosus				0.0091	
Littoridinops tenuipes (Epi.)			0.0704		
Macoma mitchelli	0.0045				
Marenzelleria viridis	0.0500			0.2249	
Mytilopsis leucophaeata (Epi.)			0.0295		
Oecetis spp. (Epi.)			0.0091		
Oligochaeta			0.0704	0.6176	
Palaemonidae (Epi.)			0.0011		
Physella spp. (Epi.)			0.0068		
Polydora cornuta	0.0011		0.0011		
Rangia cuneata	0.0091	67.4012		104.8596	
Streblospio benedicti	0.0273		0.0023	0.0091	
Tubificidae imm w/o cap chaetae					0.0568
Tubificoides spp.	0.0011	0.0011	0.0011		
Total Biomass w/ Epifauna	0.3113	67.5363	0.4562	105.7442	0.0829
Total Biomass w/o Epifauna	0.3113	67.5363	0.2483	105.7442	0.0829

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17423	17424	17425	17426	17427
Watershed	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs	Eastern Tribs
Habitat	Oligohaline	Oligohaline	Oligohaline	Oligohaline	High Meso Mud
Date	09/23/10	09/23/10	09/23/10	09/23/10	09/20/10
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044
BOTTOM ENVIRONMENT					
Depth (m)	3.2	0.7	2.6	0.8	2.0
Salinity (ppt)	2.66	4.23	4.34	4.37	14.50
Temperature (C)	23.09	23.16	22.73	23.93	22.94
Dissolved Oxygen (mg/L)	8.3	8.0	7.5	9.9	7.7
Sediment Silt-Clay (%)	90.79	94.12	27.93	95.37	91.34
Total Carbon (%)	3.09	1.65	0.61	2.32	2.81
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	1.67	3.00	3.33	2.33	2.00
Condition	Severely Degr.	Meets Goal	Meets Goal	Degraded	Severely Degr.
# Attributes Scored	6	6	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	1.47	3.15	1.94	2.70	1.71
Abundance (#/m2)	341 3	1931 5	2908 5	3408 3	704 1
Biomass (g/m2)	0.03	67.87	53.49	19.20	0.16
Pollution Indicative Spp Abund (%)	93.33	51.76	5.47	50.00	3.23
Pollution Indicative Spp Biom (%)	85.19	0.15	0.00	0.75	1.39
Pollution Sensitive Spp Abund (%)	6.67	7.06	23.44	2.00	12.90
Pollution Sensitive Spp Biom (%)	14.81	99.74	99.84	99.04	4.17
Carnivore-Omnivore Abund (%)	13.33 1	15.29 3	5.47 1	11.33 1	19.35 3
Deep Deposit Feeder Abund (%)	86.67	56.47	64.06	74.00	64.52
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	86.67	44.71	0.78	46.00	0.00
Oligo Poll. Indic. Spp Abund (%)	93.33 3	62.35 3	74.22 3	78.67 3	0.00
Oligo Poll. Sens. Spp Abund (%)	0.00 1	1.18 3	12.50 3	0.67 3	0.00
Tolerance Score	9.54 1	9.10 1	6.35 3	9.50 1	0.00
Tany./Chir. Abundance Ratio	100.00 1	18.18 3	0.00 5	25.00 3	0.00

Continued . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17423	17424	17425	17426	17427
Amphiporus bioculatus				91	
Apocorophium lacustre (Epi.)		886		1091	
Boccardiella ligERICA		136		204	
Carinoma tremaphoros			23		
Chironomidae pupae *		91			
Chironomus spp.				23	
Coelotanypus spp.	23	45		68	
Coenagrionidae (Epi.)				45	
Cricotopus bicinctus				23	
Cryptochironomus spp.		23			
Cyathura polita	23	45	91	23	
Dero spp.		136			
Dicrotendipes spp.				45	
Edotea triloba (Epi.)			45		
Eukiefferiella spp.		23		91	
Gammarus daiberi (Epi.)		68		136	
Glycinde solitaria					91
Hobsonia florida		23	23	182	
Hydroptila spp. (Epi.)		23		45	
Leptocheirus plumulosus		68	114	23	
Leucon americanus					45
Limnodrilus hoffmeisteri	91	45		273	
Macoma mitchelli			23		45
Marenzelleria viridis		23	364	23	
Mulinia lateralis					23
Mytilopsis leucophaeata (Epi.)		159	23	68	
Neomysis americana (Epi.)					23
Ogyrides alphaerostris					45
Orthocladius spp.				23	
Polydora cornuta		136			
Polypedilum halterale group			45		
Rangia cuneata		68	227	23	
Streblospio benedicti		91	136	45	
Stylaria lacustris		91			
Tanytarsus spp. G Epler		68			
Tubificidae imm w/o cap chaetae			23	1295	
Tubificidae imm w/o cap chaetae *	204	818			
Tubificoides spp.			1840	954	454
Total Abundance w/ Epifauna	341	3067	2976	4794	727
Total Abundance w/o Epifauna	341	1931	2908	3408	704
Number of Taxa w/ Epifauna	3	19	13	22	7
Number of Taxa w/o Epifauna	3	15	11	17	6

Continued . . .

BENTHIC BIOMASS (Grams per sq. meter)					
Site	17423	17424	17425	17426	17427
Amphiporus bioculatus				0.0068	
Apocorophium lacustre (Epi.)		0.0932		0.0932	
Boccardiella ligerica		0.0091		0.0068	
Carinoma tremaphoros			0.0341		
Chironomidae		0.0011		0.0011	
Chironomidae pupae		0.0068			
Coelotanypus spp.	0.0114	0.0023		0.0091	
Coenagrionidae (Epi.)				0.0114	
Cyathura polita	0.0045	0.1500	0.0204	0.1500	
Edotea triloba (Epi.)			0.0011		
Gammarus daiberi (Epi.)		0.0227		0.0091	
Glycinde solitaria					0.0068
Hobsonia florida		0.0136	0.0023	0.0204	
Hydroptila spp. (Epi.)		0.0023		0.0023	
Leptocheirus plumulosus		0.0386	0.0204	0.0011	
Leucon americanus					0.0023
Macoma mitchelli			0.0068		0.0409
Marenzelleria viridis		0.0454	0.6975	0.0023	
Mulinia lateralis					0.0023
Mytilopsis leucophaeata (Epi.)		0.0204	0.0023	0.0011	
Neomysis americana (Epi.)					0.0045
Ogyrides alphaerostris					0.1068
Oligochaeta	0.0148	0.0977		0.1325	
Polydora cornuta		0.0023			
Polypedilum halterale group			0.0011		
Rangia cuneata		67.4943	52.6854	18.8599	
Streblospio benedicti		0.0045	0.0011	0.0023	
Tubificidae imm w/o cap chaetae			0.0011		
Tubificoides spp.			0.0204	0.0045	0.0045
Total Biomass w/ Epifauna	0.0307	68.0044	53.4942	19.3138	0.1681
Total Biomass w/o Epifauna	0.0307	67.8658	53.4908	19.1968	0.1636

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17501	17502	17503	17504	17505
Watershed	Mainstem	Mainstem	Mainstem	Mainstem	Mainstem
Habitat	Polyhaline Sand	Polyhaline Sand	Polyhaline Sand	High Meso Sand	High Meso Sand
Date	09/20/10	09/21/10	09/01/10	09/01/10	09/01/10
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	5.3	10.9	5.3	6.5
Salinity (ppt)	20.87	20.20	24.02	16.60	16.93
Temperature (C)	23.93	23.24	26.10	27.12	27.08
Dissolved Oxygen (mg/L)	8.9	6.7	0.2	6.0	4.3
Sediment Silt-Clay (%)	2.79	2.24	2.46	1.10	2.36
Total Carbon (%)	0.17	0.08	0.11	0.06	0.09
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	2.00	3.33	1.33	3.00	4.33
Condition	Severely Degr.	Meets Goal	Severely Degr.	Meets Goal	Meets Goal
# Attributes Scored	6	6	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	2.87 3	3.82 5	2.24 1	2.66 3	3.56 5
Abundance (#/m2)	1772 3	5271 3	1227 1	2340 5	1681 5
Biomass (g/m2)	0.50 1	2.99 3	0.27 1	0.57 1	0.83 1
Pollution Indicative Spp Abund (%)	23.08	1.72	53.70	2.91 5	5.41 5
Pollution Indicative Spp Biom (%)	74.72 1	15.13 1	23.73 1	21.78	9.73
Pollution Sensitive Spp Abund (%)	19.23 1	43.53 3	33.33 3	13.59 3	60.81 5
Pollution Sensitive Spp Biom (%)	7.74	40.68	60.17	12.08	55.48
Carnivore-Omnivore Abund (%)	19.23	42.24	31.48	5.83 1	51.35 5
Deep Deposit Feeder Abund (%)	12.82 3	25.86 5	1.85 1	2.91	14.86
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	10.00	0.00	0.00	0.00
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00

Continued . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17501	17502	17503	17504	17505
Acteocina canaliculata	159	1340	273	45	591
Ameroculodes species complex	23	23		23	23
Ampelisca abdita		136			23
Ampelisca verrilli	23	114		23	
Ancistrostylis hartmanae		136			
Branchiostoma caribaeum		68		23	45
Cerapus tubularis (Epi.)		45			
Cyclaspis varians			23		
Edwardsia elegans		136			23
Enchytraeidae		636			
Eteone foliosa				23	
Gemma gemma	727			545	
Glycera dibranchiata					23
Glycinde solitaria	136	91	23	68	159
Haminoea solitaria	45				
Heteromastus filiformis	68				114
Leitoscoloplos robustus	68		23	68	
Lepidactylus dytiscus				1045	
Leptosynapta tenuis		273		23	
Listriella barnardi		23			23
Loimia medusa		68	23		91
Macoma mitchelli				23	45
Marenzelleria viridis					45
Mediomastus ambiseta		227			45
Microprotopus raneyi (Epi.)	23				
Micrura leidyi			23		
Molgula manhattensis (Epi.)				23	
Mulinia lateralis	68	45			23
Mytilidae (Epi.)		23			
Neanthes succinea		23	45		68
Odostomia engonia (Epi.)		68			
Oxyurostylis smithi		23		23	
Paraonis fulgens		23		91	
Parapionosyllis longicirrata		295			
Paraprionospio pinnata		45	636		68
Parvilucina crenella		250		68	68
Phoronis spp.	45	386	91	182	45
Podarkeopsis levifuscina		204			
Rictaxis punctostriatus			23		
Saccoglossus kowalevskii				45	
Scolecopsis texana		23			
Spiochaetopterus costarum		136		23	45
Spiophanes bombyx		45			
Streblospio benedicti	273				
Tharyx sp. A Morris	45		45		23
Tubificoides spp.	91	500			91
Turbonilla interrupta (Epi.)	23			23	
Total Abundance w/ Epifauna	1818	5407	1227	2386	1681
Total Abundance w/o Epifauna	1772	5271	1227	2340	1681
Number of Taxa w/ Epifauna	15	29	11	19	21
Number of Taxa w/o Epifauna	13	26	11	17	21

Continued . . .

BENTHIC BIOMASS (Grams per sq. meter)					
Site	17501	17502	17503	17504	17505
Acteocina canaliculata	0.0091	0.1522	0.0409	0.0011	0.0273
Amerocolodes species complex	0.0091	0.0454		0.0023	0.0011
Ampelisca abdita		0.0182			0.0011
Ampelisca verrilli	0.0091	0.0954		0.0045	
Ancistrosyllis hartmanae		0.0114			
Branchiostoma caribaeum		0.7339		0.0795	0.0863
Cerapus tubularis (Epi.)		0.0045			
Cyclaspis varians			0.0011		
Edwardsia elegans		0.0750			0.0011
Enchytraeidae		0.0011			
Eteone foliosa				0.0045	
Gemma gemma	0.0364			0.0409	
Glycera dibranchiata					0.0500
Glycinde solitaria	0.0091	0.0023	0.0068	0.0045	0.0045
Haminoea solitaria	0.0068				
Heteromastus filiformis	0.0159				0.0772
Leitoscoloplos robustus	0.1363		0.0023	0.1250	
Lepidactylus dytiscus				0.2090	
Leptosynapta tenuis		0.1840		0.0045	
Listriella barnardi		0.0011			0.0011
Loimia medusa		0.7748	0.0977		0.3794
Macoma mitchelli				0.0011	0.0045
Marenzelleria viridis					0.0136
Mediomastus ambiseta		0.0068			0.0011
Microprotopus raneyi (Epi.)	0.0011				
Micrura leidyi			0.0341		
Molgula manhattensis (Epi.)				0.0011	
Mulinia lateralis	0.2249	0.3976			0.0011
Mytilidae (Epi.)		0.0023			
Neanthes succinea		0.0159	0.0023		0.0182
Odostomia engonia (Epi.)		0.0114			
Oxyurostylis smithi		0.0068		0.0011	
Paraonis fulgens		0.0045		0.0045	
Parapionosyllis longicirrata		0.0045			
Paraprionospio pinnata		0.0545	0.0613		0.0795
Parvilucina crenella		0.0818		0.0136	0.0250
Phoronis spp.	0.0204	0.0727	0.0159	0.0568	0.0227
Podarkeopsis levifuscina		0.0341			
Rictaxis punctostriatus			0.0011		
Saccoglossus kowalevskii				0.0136	
Scolecopsis texana		0.0045			
Spiochaetopterus costarum		0.0114		0.0068	0.0114
Spiophanes bombyx		0.1954			
Streblospio benedicti	0.0114				
Tharyx sp. A Morris	0.0091		0.0045		0.0136
Tubificoides spp.	0.0011	0.0023			0.0091
Turbonilla interrupta (Epi.)	0.0011			0.0045	
Total Biomass w/ Epifauna	0.5010	3.0059	0.2681	0.5794	0.8293
Total Biomass w/o Epifauna	0.4987	2.9877	0.2681	0.5737	0.8293

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17506	17507	17508	17509	17510
Watershed	Mainstem	Mainstem	Mainstem	Mainstem	Mainstem
Habitat	Polyhaline Sand	Polyhaline Mud	High Meso Sand	High Meso Mud	High Meso Sand
Date	09/01/10	09/01/10	09/21/10	09/02/10	09/02/10
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)	7.0	10.3	2.3	2.8	2.5
Salinity (ppt)	18.26	20.51	17.98	15.39	15.40
Temperature (C)	26.53	26.21	22.47	27.87	27.87
Dissolved Oxygen (mg/L)	1.6	0.4	7.5	6.6	6.5
Sediment Silt-Clay (%)	4.17	86.46	2.83	46.86	11.26
Total Carbon (%)	0.12	2.88	0.16	1.10	0.25
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	2.33	1.00	3.33	1.00	2.67
Condition	Degraded	Severely Degr.	Meets Goal	Severely Degr.	Marginal
# Attributes Scored	6	6	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	3.00 3	0.00 1	3.16 3	0.00 1	2.94 3
Abundance (#/m2)	2386 3	0 1	1477 3	23 1	932 1
Biomass (g/m2)	0.32 1	0.00 1	1.04 3	0.00 1	0.24 1
Pollution Indicative Spp Abund (%)	9.52	100.00	10.77 3	100.00	19.51 3
Pollution Indicative Spp Biom (%)	26.06 1	100.00 1	34.68	100.00 1	2.34
Pollution Sensitive Spp Abund (%)	60.95 5	0.00	27.69 3	0.00	36.59 3
Pollution Sensitive Spp Biom (%)	27.82	0.00 1	4.47	0.00 1	25.70
Carnivore-Omnivore Abund (%)	57.14	0.00 1	36.92 5	0.00 1	51.22 5
Deep Deposit Feeder Abund (%)	4.76 1	0.00	21.54	0.00	12.20
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 . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17506	17507	17508	17509	17510
<i>Acteocina canaliculata</i>	1091		250		68
<i>Ampelisca abdita</i>	23				
<i>Carinoma tremaphoros</i>					45
<i>Edwardsia elegans</i>	23		23		
<i>Gemma gemma</i>			23		
<i>Glycera dibranchiata</i>	45		136		
<i>Glycinde solitaria</i>	159		91		227
<i>Haminoea solitaria</i>			45		114
<i>Heteromastus filiformis</i>	45		23		114
<i>Leptosynapta tenuis</i>	91				
<i>Loimia medusa</i>	45		23		
<i>Macoma mitchelli</i>	91		341		114
<i>Marenzelleria viridis</i>			45		45
<i>Mediomastus ambiseta</i>	68				
<i>Micrura leidy</i>					23
<i>Mulinia lateralis</i>			114		159
<i>Paraprionospio pinnata</i>	227		45	23	
<i>Parvilucina crenella</i>	136				
<i>Phoronis spp.</i>	68				
<i>Ptilanthura tenuis</i>	45				
<i>Saccoglossus kowalevskii</i>	91				
<i>Scolecopsis texana</i>			23		
<i>Spiochaetopterus costarum</i>	23				
<i>Streblospio benedicti</i>					23
<i>Tharyx sp. A Morris</i>	114				
<i>Tubificoides spp.</i>			295		
Total Abundance w/ Epifauna	2386	0	1477	23	932
Total Abundance w/o Epifauna	2386		1477	23	932
Number of Taxa w/ Epifauna	17	0	14	1	10
Number of Taxa w/o Epifauna	17	0	14	1	10

Continued . . .

BENTHIC BIOMASS (Grams per sq. meter)					
Site	17506	17507	17508	17509	17510
Acteocina canaliculata	0.0477		0.0159		0.0011
Ampelisca abdita	0.0011				
Carinoma tremaphoros					0.0273
Edwardsia elegans	0.0136		0.0023		
Gemma gemma			0.0023		
Glycera dibranchiata	0.0011		0.6157		
Glycinde solitaria	0.0114		0.0045		0.0182
Haminoea solitaria			0.0011		0.0114
Heteromastus filiformis	0.0204		0.0045		0.0682
Leptosynapta tenuis	0.0682				
Loimia medusa	0.0136		0.0011		
Macoma mitchelli	0.0023		0.0023		0.0023
Marenzelleria viridis			0.0250		0.0432
Mediomastus ambiseta	0.0011				
Micrura leidyi					0.0659
Mulinia lateralis			0.3408		0.0045
Paraprionospio pinnata	0.0841		0.0204	0.0023	
Parvilucina crenella	0.0182				
Phoronis spp.	0.0068				
Ptilanthura tenuis	0.0023				
Saccoglossus kowalevskii	0.0011				
Scolecopsis texana			0.0011		
Spiochaetopterus costarum	0.0091				
Streblospio benedicti					0.0011
Tharyx sp. A Morris	0.0204				
Tubificoides spp.			0.0045		
Total Biomass w/ Epifauna	0.3226	0.0000	1.0417	0.0023	0.2431
Total Biomass w/o Epifauna	0.3226	0.0000	1.0417	0.0023	0.2431

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17511	17512	17513	17514	17515
Watershed	Mainstem	Mainstem	Mainstem	Mainstem	Mainstem
Habitat	High Meso Sand	Polyhaline Mud	High Meso Sand	High Meso Mud	Polyhaline Mud
Date	09/02/10	09/02/10	09/02/10	09/02/10	09/02/10
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)	2.7	10.5	6.9	8.0	9.8
Salinity (ppt)	15.09	20.64	15.40	15.39	19.30
Temperature (C)	27.28	26.22	26.65	26.62	26.30
Dissolved Oxygen (mg/L)	6.9	0.5	1.4	1.4	0.4
Sediment Silt-Clay (%)	1.96	91.32	25.62	96.41	93.53
Total Carbon (%)	0.09	3.20	0.91	1.59	3.17
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	3.67	1.00	2.33	2.67	1.00
Condition	Meets Goal	Severely Degr.	Degraded	Marginal	Severely Degr.
# Attributes Scored	6	6	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	2.76 3	0.00 1	3.38 5	1.58 1	0.00 1
Abundance (#/m2)	1954 5	0 1	977 1	68 1	23 1
Biomass (g/m2)	0.44 1	0.00 1	0.44 1	0.01 1	0.00 1
Pollution Indicative Spp Abund (%)	19.77 3	100.00	51.16 1	0.00	100.00
Pollution Indicative Spp Biom (%)	34.78	100.00 1	48.70	0.00 5	100.00 1
Pollution Sensitive Spp Abund (%)	43.02 5	0.00	18.60 3	33.33	0.00
Pollution Sensitive Spp Biom (%)	12.02	0.00 1	8.33	76.92 3	0.00 1
Carnivore-Omnivore Abund (%)	66.28 5	0.00 1	25.58 3	66.67 5	0.00 1
Deep Deposit Feeder Abund (%)	1.16	0.00	32.56	0.00	0.00
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	0.00	0.00	6.98	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

Continued . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17511	17512	17513	17514	17515
Acteocina canaliculata	409		68		
Americamysis bigelowi (Epi.)	23				
Gemma gemma	91			23	
Glycera dibranchiata	23				
Glycinde solitaria	386		91	23	
Haminoea solitaria	409				
Heteromastus filiformis			23		
Leitoscoloplos robustus			45		
Macoma mitchelli	114		23		
Mediomastus ambiseta			23		
Mulinia lateralis	386		68		
Neanthes succinea	68		68	23	
Paraprionospio pinnata			136		23
Pectinaria gouldii	23				
Phoronis spp.	45				
Podarkeopsis levifuscina			23		
Streblospio benedicti			182		
Tubificidae imm w/o cap chaetae			68		
Tubificoides spp.			159		
Total Abundance w/ Epifauna	1977	0	977	68	23
Total Abundance w/o Epifauna	1954		977	68	23
Number of Taxa w/ Epifauna	11	0	13	3	1
Number of Taxa w/o Epifauna	10	0	13	3	1
BENTHIC BIOMASS (Grams per sq. meter)					
Site	17511	17512	17513	17514	17515
Acteocina canaliculata	0.0273		0.0182		
Americamysis bigelowi (Epi.)	0.0045				
Gemma gemma	0.0295			0.0011	
Glycera dibranchiata	0.0682				
Glycinde solitaria	0.0250		0.0136	0.0114	
Haminoea solitaria	0.1000				
Heteromastus filiformis			0.0045		
Leitoscoloplos robustus			0.0795		
Macoma mitchelli	0.0045		0.0011		
Mediomastus ambiseta			0.0045		
Mulinia lateralis	0.1545		0.0591		
Neanthes succinea	0.0318		0.1749	0.0023	
Paraprionospio pinnata			0.0659		0.0045
Pectinaria gouldii	0.0023				
Phoronis spp.	0.0011				
Podarkeopsis levifuscina			0.0023		
Streblospio benedicti			0.0068		
Tubificidae imm w/o cap chaetae			0.0011		
Tubificoides spp.			0.0045		
Total Biomass w/ Epifauna	0.4487	0.0000	0.4362	0.0148	0.0045
Total Biomass w/o Epifauna	0.4442	0.0000	0.4362	0.0148	0.0045

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17516	17517	17518	17520	17521
Watershed	Mainstem	Mainstem	Mainstem	Mainstem	Mainstem
Habitat	High Meso Sand	High Meso Sand	High Meso Mud	High Meso Sand	High Meso Sand
Date	09/02/10	09/02/10	09/02/10	09/02/10	09/08/10
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	2.8	1.5	5.0	1.8
Salinity (ppt)	14.64	13.64	13.50	14.30	13.98
Temperature (C)	27.14	28.51	31.00	27.66	26.00
Dissolved Oxygen (mg/L)	4.4	6.8	8.0	6.9	7.9
Sediment Silt-Clay (%)	1.48	19.05	93.81	2.02	3.48
Total Carbon (%)	0.12	0.36	1.83	0.97	0.13
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	1.00	3.00	3.00	2.33	1.33
Condition	Severely Degr.	Meets Goal	Meets Goal	Degraded	Severely Degr.
# Attributes Scored	6	6	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	1.49 1	2.82 3	2.68 3	0.38 1	1.97 1
Abundance (#/m2)	977 1	1659 5	591 1	32172 1	1181 3
Biomass (g/m2)	0.13 1	1.12 3	0.30 1	9.27 5	0.30 1
Pollution Indicative Spp Abund (%)	69.77 1	26.03 1	38.46 1	0.85 5	32.69 1
Pollution Indicative Spp Biom (%)	35.90	5.05	3.73 5	6.89	8.27
Pollution Sensitive Spp Abund (%)	6.98 1	17.81 3	30.77	1.20 1	5.77 1
Pollution Sensitive Spp Biom (%)	30.77	29.49	55.22 3	0.54	0.38
Carnivore-Omnivore Abund (%)	6.98 1	21.92 3	38.46 5	1.77 1	9.62 1
Deep Deposit Feeder Abund (%)	13.95	31.51	3.85	0.85	48.08
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	0.00	0.00	0.00	0.00	0.00
Oligo Poll. Indic. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Oligo Poll. Sens. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Tolerance Score	0.00	0.00	6.20	0.00	0.00
Tany./Chir. Abundance Ratio	0.00	0.00	100.00	0.00	0.00

Continued . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17516	17517	17518	17520	17521
Carinoma tremaphoros	23	45	23		45
Cassidinidea ovalis (Epi.)			23		
Coelotanypus spp.			45		
Cyathura polita			159		
Gemma gemma			23	30831	114
Glycinde solitaria	45	114		295	68
Heteromastus filiformis	136	114	23	227	523
Leptocheirus plumulosus			45		
Macoma mitchelli	68	159	68	136	
Marenzelleria viridis	23	182	23	23	
Micrura leidyi		23		136	
Mulinia lateralis		23		182	
Neanthes succinea		182		136	
Phoronis spp.				68	
Streblospio benedicti	682	409	182	91	386
Stylochus ellipticus (Epi.)				23	
Tubificoides spp.		409		45	45
Total Abundance w/ Epifauna	977	1659	613	32194	1181
Total Abundance w/o Epifauna	977	1659	591	32172	1181
Number of Taxa w/ Epifauna	6	10	10	12	6
Number of Taxa w/o Epifauna	6	10	9	11	6
BENTHIC BIOMASS (Grams per sq. meter)					
Site	17516	17517	17518	17520	17521
Carinoma tremaphoros	0.0091	0.0659	0.0182		0.0204
Cassidinidea ovalis (Epi.)			0.0023		
Coelotanypus spp.			0.0068		
Cyathura polita			0.1545		
Gemma gemma			0.0045	8.1542	0.0727
Glycinde solitaria	0.0204	0.0091		0.0273	0.0011
Heteromastus filiformis	0.0341	0.0977	0.0114	0.0863	0.1818
Leptocheirus plumulosus			0.0023		
Macoma mitchelli	0.0011	0.0273	0.0886	0.0136	
Marenzelleria viridis	0.0204	0.3226	0.0136	0.0114	
Micrura leidyi		0.2681		0.2999	
Mulinia lateralis		0.0432		0.6339	
Neanthes succinea		0.2704		0.0250	
Phoronis spp.				0.0114	
Streblospio benedicti	0.0477	0.0136	0.0045	0.0045	0.0250
Stylochus ellipticus (Epi.)				0.0114	
Tubificoides spp.		0.0068		0.0011	0.0011
Total Biomass w/ Epifauna	0.1329	1.1246	0.3067	9.2800	0.3022
Total Biomass w/o Epifauna	0.1329	1.1246	0.3044	9.2686	0.3022

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17522	17524	17525	17526	17527
Watershed	Mainstem	Mainstem	Mainstem	Mainstem	Mainstem
Habitat	Polyhaline Mud	High Meso Sand	High Meso Sand	High Meso Mud	High Meso Mud
Date	09/02/10	09/02/10	09/22/10	09/21/10	09/08/10
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)	11.9	2.8	1.7	2.9	1.3
Salinity (ppt)	19.80	13.58	12.72	17.87	14.98
Temperature (C)	26.20	28.70	22.67	22.02	24.68
Dissolved Oxygen (mg/L)	0.4	6.6	6.1	7.3	6.5
Sediment Silt-Clay (%)	92.70	14.46	11.25	88.47	92.87
Total Carbon (%)	2.76	0.33	0.72	2.14	1.44
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	1.00	1.67	3.00	2.33	2.33
Condition	Severely Degr.	Severely Degr.	Meets Goal	Degraded	Degraded
# Attributes Scored	6	6	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	0.00 1	2.19 1	3.81 5	2.50 3	2.72 3
Abundance (#/m2)	0 1	1272 3	2249 5	659 1	1113 3
Biomass (g/m2)	0.00 1	0.64 1	0.98 1	0.25 1	0.44 1
Pollution Indicative Spp Abund (%)	100.00	53.57 1	21.21 3	34.48	32.65
Pollution Indicative Spp Biom (%)	100.00 1	5.34	3.93	15.84 3	26.63 3
Pollution Sensitive Spp Abund (%)	0.00	10.71 3	22.22 3	24.14	8.16
Pollution Sensitive Spp Biom (%)	0.00 1	22.06	54.45	9.05 1	21.41 1
Carnivore-Omnivore Abund (%)	0.00 1	19.64 1	19.19 1	31.03 5	14.29 3
Deep Deposit Feeder Abund (%)	0.00	16.07	27.27	0.00	51.02
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	4.08
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	9.90
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00

Continued . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17522	17524	17525	17526	17527
Acteocina canaliculata		68		68	
Ameroculodes species complex			23		
Ampelisca verrilli			23		
Apocorophium lacustre (Epi.)			45		
Carinoma tremaphoros		91			23
Cyathura polita			45		68
Cyclaspis varians			23		
Edotea triloba (Epi.)			182		
Edwardsia elegans			23		
Enchytraeidae					45
Erichsonella filiformis (Epi.)					23
Eteone heteropoda			114	23	
Gemma gemma		23			
Glycera dibranchiata			23		
Glycinde solitaria		23	68	91	23
Heteromastus filiformis		182	273		45
Leitoscoloplos robustus			23		23
Leptosynapta tenuis			68		
Leucon americanus				114	
Loimia medusa			23		
Macoma balthica		45			
Macoma mitchelli		68	182	136	91
Marenzelleria viridis			204		
Micrura leidyi		68			
Mytilidae (Epi.)			23		
Neanthes succinea			114		23
Ogyrides alphaerostris				23	
Parahesionia luteola					23
Paraprionospio pinnata				204	
Phoronis spp.			136		
Podarkeopsis levifuscina			45		
Polydora cornuta			159		
Spiochaetopterus costarum			23		
Streblospio benedicti		682	341		295
Tubificidae imm w/o cap chaetae					45
Tubificoides spp.		23	318		409
Total Abundance w/ Epifauna	0	1272	2499	659	1136
Total Abundance w/o Epifauna		1272	2249	659	1113
Number of Taxa w/ Epifauna	0	10	24	7	13
Number of Taxa w/o Epifauna	0	10	21	7	12

Continued . . .

BENTHIC BIOMASS (Grams per sq. meter)					
Site	17522	17524	17525	17526	17527
Acteocina canaliculata		0.0091		0.0023	
Amerocolodes species complex			0.0068		
Ampelisca verrilli			0.0182		
Apocorophium lacustre (Epi.)			0.0023		
Carinoma tremaphoros		0.0386			0.0318
Cyathura polita			0.0454		0.0886
Cyclaspis varians			0.0023		
Edotea triloba (Epi.)			0.0068		
Edwardsia elegans			0.0023		
Erichsonella filiformis (Epi.)					0.0023
Eteone heteropoda			0.0136	0.0011	
Gemma gemma		0.0068			
Glycera dibranchiata			0.0500		
Glycinde solitaria		0.0023	0.0364	0.0204	0.0045
Heteromastus filiformis		0.1000	0.2158		0.0750
Leitoscoloplos robustus			0.0091		0.1068
Leptosynapta tenuis			0.0159		
Leucon americanus				0.0091	
Loimia medusa			0.0011		
Macoma balthica		0.1295			
Macoma mitchelli		0.0011	0.0136	0.1113	0.0523
Marenzelleria viridis			0.4044		
Micrura leidyi		0.3158			
Mytilidae (Epi.)			0.0023		
Neanthes succinea			0.0795		0.0568
Ogyrides alphaerostris				0.0682	
Oligochaeta					0.0011
Parahesionia luteola					0.0023
Paraprionospio pinnata				0.0386	
Phoronis spp.			0.0432		
Podarkeopsis levifuscina			0.0023		
Polydora cornuta			0.0011		
Spiochaetopterus costarum			0.0045		
Streblospio benedicti		0.0341	0.0159		0.0091
Tubificoides spp.		0.0011	0.0011		0.0068
Total Biomass w/ Epifauna	0.0000	0.6384	0.9940	0.2511	0.4374
Total Biomass w/o Epifauna	0.0000	0.6384	0.9826	0.2511	0.4351

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17301	17302	17303	17304	17305
Watershed	Western Tribs	Western Tribs	Western Tribs	Western Tribs	Western Tribs
Habitat	High Meso Sand	Low Mesohaline	High Meso Mud	Low Mesohaline	Low Mesohaline
Date	08/25/10	08/25/10	08/25/10	08/25/10	08/25/10
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044
BOTTOM ENVIRONMENT					
Depth (m)	1.9	1.4	6.0	3.2	3.6
Salinity (ppt)	12.33	11.00	12.64	11.77	11.55
Temperature (C)	26.22	26.33	26.57	26.63	27.28
Dissolved Oxygen (mg/L)	4.1	5.5	3.9	3.5	0.9
Sediment Silt-Clay (%)	22.32	3.67	93.56	3.06	31.45
Total Carbon (%)	0.86	0.22	2.31	0.17	5.00
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	1.67	2.60	1.00	2.20	1.00
Condition	Severely Degr.	Degraded	Severely Degr.	Degraded	Severely Degr.
# Attributes Scored	6	5	6	5	5
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	2.13 1	2.81 5	1.00 1	1.74 3	0.00 1
Abundance (#/m2)	1545 5	1113 3	91 1	591 3	0 1
Biomass (g/m2)	0.45 1	0.50 1	0.00 1	0.34 1	0.00 1
Pollution Indicative Spp Abund (%)	36.76 1	32.65 1	50.00 1	15.38 3	100.00 1
Pollution Indicative Spp Biom (%)	4.75	4.98	66.67 1	1.00	100.00
Pollution Sensitive Spp Abund (%)	1.47 1	14.29	0.00	0.00	0.00
Pollution Sensitive Spp Biom (%)	0.25	65.61 3	0.00 1	0.00 1	0.00 1
Carnivore-Omnivore Abund (%)	2.94 1	16.33	0.00 1	3.85	0.00
Deep Deposit Feeder Abund (%)	85.29	22.45	50.00	53.85	0.00
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	26.47	0.00	0.00	0.00	0.00
Oligo Poll. Indic. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Oligo Poll. Sens. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Tolerance Score	9.80	0.00	0.00	0.00	0.00
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00

Continued . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17301	17302	17303	17304	17305
Cyathura polita	23				
Eteone heteropoda		136		23	
Heteromastus filiformis	568	136		295	
Leptochelia dubia		45			
Littoridinops tenuipes (Epi.)	23				
Macoma mitchelli	23	250		182	
Marenzelleria viridis		159			
Neanthes succinea	23	45			
Streblospio benedicti	159	227	45	68	
Tubificidae imm w/o cap chaetae	409				
Tubificoides spp.	341	114	45	23	
Total Abundance w/ Epifauna	1568	1113	91	591	0
Total Abundance w/o Epifauna	1545	1113	91	591	
Number of Taxa w/ Epifauna	8	8	2	5	0
Number of Taxa w/o Epifauna	7	8	2	5	0
BENTHIC BIOMASS (Grams per sq. meter)					
Site	17301	17302	17303	17304	17305
Cyathura polita	0.0011				
Eteone heteropoda		0.0091		0.0023	
Heteromastus filiformis	0.2522	0.0841		0.3272	
Leptochelia dubia		0.0011			
Littoridinops tenuipes (Epi.)	0.0011				
Macoma mitchelli	0.0545	0.0159		0.0091	
Marenzelleria viridis		0.3294			
Neanthes succinea	0.1204	0.0454			
Streblospio benedicti	0.0068	0.0159	0.0023	0.0011	
Tubificidae imm w/o cap chaetae	0.0148				
Tubificoides spp.	0.0045	0.0011	0.0011	0.0011	
Total Biomass w/ Epifauna	0.4555	0.5021	0.0034	0.3408	0.0000
Total Biomass w/o Epifauna	0.4544	0.5021	0.0034	0.3408	0.0000

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17306	17307	17308	17309	17310
Watershed	Western Tribs	Western Tribs	Western Tribs	Western Tribs	Western Tribs
Habitat	Low Mesohaline	High Meso Mud	Low Mesohaline	Low Mesohaline	Low Mesohaline
Date	08/25/10	08/25/10	08/25/10	08/25/10	08/27/10
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044
BOTTOM ENVIRONMENT					
Depth (m)	2.5	10.0	0.7	0.7	1.2
Salinity (ppt)	10.67	12.02	10.32	10.27	8.42
Temperature (C)	26.03	26.47	26.62	26.69	26.07
Dissolved Oxygen (mg/L)	5.0	3.8	6.0	6.4	1.3
Sediment Silt-Clay (%)	21.32	89.51	1.63	0.92	1.14
Total Carbon (%)	1.31	3.31	0.12	0.13	0.11
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	1.80	2.33	2.60	1.80	1.40
Condition	Severely Degr.	Degraded	Degraded	Severely Degr.	Severely Degr.
# Attributes Scored	5	6	5	5	5
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	2.23 3	1.79 1	1.79 3	2.04 3	2.20 3
Abundance (#/m2)	3840 3	500 1	863 3	295 1	204 1
Biomass (g/m2)	0.54 1	0.74 3	0.28 1	0.16 1	0.16 1
Pollution Indicative Spp Abund (%)	43.20 1	0.00	7.89 5	46.15 1	77.78 1
Pollution Indicative Spp Biom (%)	9.66	0.00 5	2.83	2.92	2.10
Pollution Sensitive Spp Abund (%)	0.00	18.18	31.58	30.77	11.11
Pollution Sensitive Spp Biom (%)	0.00 1	76.07 3	29.15 1	91.97 3	19.58 1
Carnivore-Omnivore Abund (%)	4.73	9.09 1	5.26	7.69	33.33
Deep Deposit Feeder Abund (%)	56.80	72.73	5.26	7.69	33.33
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	4.14	0.00	0.00	0.00	22.22
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	9.75	0.00	0.00	0.00	9.17
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00

Continued . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17306	17307	17308	17309	17310
Carinoma tremaphoros		45			
Chironomus spp.	23				68
Cryptochironomus spp.	23				
Enchytraeidae	182				
Eteone heteropoda	114		23	23	
Heteromastus filiformis	341	227	45	23	23
Hobsonia florida	45				
Macoma balthica		91			
Macoma mitchelli	68		454	45	
Marenzelleria viridis			273	91	
Micrura leidy	23		23		
Mulinia lateralis			23		
Rangia cuneata					23
Streblospio benedicti	1363		23	114	45
Tubificidae imm w/o cap chaetae	159				45
Tubificoides spp.	1500	136			
Total Abundance w/ Epifauna	3840	500	863	295	204
Total Abundance w/o Epifauna	3840	500	863	295	204
Number of Taxa w/ Epifauna	11	4	7	5	5
Number of Taxa w/o Epifauna	11	4	7	5	5
BENTHIC BIOMASS (Grams per sq. meter)					
Site	17306	17307	17308	17309	17310
Carinoma tremaphoros		0.0727			
Chironomidae	0.0011				0.0011
Chironomus spp.					
Eteone heteropoda	0.0045		0.0045	0.0023	
Heteromastus filiformis	0.3635	0.1022	0.0204	0.0068	0.1272
Hobsonia florida	0.0011				
Macoma balthica		0.5635			
Macoma mitchelli	0.0023		0.0250	0.0011	
Marenzelleria viridis			0.0818	0.1431	
Micrura leidy	0.1045		0.1454		
Mulinia lateralis			0.0023		
Oligochaeta	0.0091				
Rangia cuneata					0.0318
Streblospio benedicti	0.0477		0.0011	0.0023	0.0011
Tubificidae imm w/o cap chaetae					0.0011
Tubificoides spp.	0.0068	0.0023			
Total Biomass w/ Epifauna	0.5407	0.7407	0.2806	0.1556	0.1624
Total Biomass w/o Epifauna	0.5407	0.7407	0.2806	0.1556	0.1624

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17311	17312	17313	17314	17315
Watershed	Western Tribs	Western Tribs	Western Tribs	Western Tribs	Western Tribs
Habitat	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline	High Meso Sand
Date	08/30/10	08/30/10	08/30/10	08/30/10	08/30/10
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044
BOTTOM ENVIRONMENT					
Depth (m)	2.1	0.8	4.0	0.8	4.9
Salinity (ppt)	8.49	7.79	9.62	9.48	12.10
Temperature (C)	26.64	28.95	26.00	29.21	26.27
Dissolved Oxygen (mg/L)	10.6	11.9	1.9	11.7	0.7
Sediment Silt-Clay (%)	2.50	1.36	47.76	9.31	25.48
Total Carbon (%)	0.07	0.07	1.68	0.36	0.92
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	3.00	1.80	3.80	1.40	3.33
Condition	Meets Goal	Severely Degr.	Meets Goal	Severely Degr.	Meets Goal
# Attributes Scored	5	5	5	5	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	1.89 3	1.23 1	2.16 3	1.99 3	2.60 3
Abundance (#/m2)	1022 3	341 1	5180 3	386 1	1613 5
Biomass (g/m2)	0.74 1	0.10 1	11.22 3	0.10 1	2.14 3
Pollution Indicative Spp Abund (%)	8.89 5	0.00 5	7.46 5	23.53 1	5.63 5
Pollution Indicative Spp Biom (%)	1.53	0.00	0.07	9.09	0.11
Pollution Sensitive Spp Abund (%)	40.00	6.67	17.54	11.76	18.31 3
Pollution Sensitive Spp Biom (%)	46.01 3	23.81 1	94.22 5	22.73 1	76.71
Carnivore-Omnivore Abund (%)	2.22	0.00	4.39	0.00	19.72 1
Deep Deposit Feeder Abund (%)	4.44	0.00	72.37	23.53	33.80
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	0.00	0.00	3.07	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	9.33	0.00	0.00
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00

Continued . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17311	17312	17313	17314	17315
Carinoma tremaphoros					23
Heteromastus filiformis	45		818	91	91
Lepidactylus dytiscus	45	114			
Leptocheirus plumulosus					23
Macoma balthica			613	23	273
Macoma mitchelli	409	204	68	159	341
Marenzelleria viridis	409	23	273	23	23
Neanthes succinea	23		227		295
Odostomia engonia (Epi.)		23			
Rangia cuneata			23		
Streblospio benedicti	91		227	91	91
Tubificidae imm w/o cap chaetae			159		
Tubificoides spp.			2772		454
Total Abundance w/ Epifauna	1022	364	5180	386	1613
Total Abundance w/o Epifauna	1022	341	5180	386	1613
Number of Taxa w/ Epifauna	6	4	9	5	9
Number of Taxa w/o Epifauna	6	3	9	5	9
BENTHIC BIOMASS (Grams per sq. meter)					
Site	17311	17312	17313	17314	17315
Carinoma tremaphoros					0.0159
Heteromastus filiformis	0.0011		0.3090	0.0318	0.0091
Lepidactylus dytiscus	0.0045	0.0523			
Leptocheirus plumulosus					0.0011
Macoma balthica			9.8787	0.0091	1.5700
Macoma mitchelli	0.3817	0.0204	0.0772	0.0364	0.1409
Marenzelleria viridis	0.3408	0.0227	0.6748	0.0136	0.0727
Neanthes succinea	0.0011		0.2249		0.3181
Odostomia engonia (Epi.)		0.0011			
Rangia cuneata			0.0159		
Streblospio benedicti	0.0114		0.0068	0.0091	0.0023
Tubificidae imm w/o cap chaetae			0.0011		
Tubificoides spp.			0.0295		0.0114
Total Biomass w/ Epifauna	0.7407	0.0966	11.2180	0.1000	2.1414
Total Biomass w/o Epifauna	0.7407	0.0954	11.2180	0.1000	2.1414

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17316	17317	17318	17319	17320
Watershed	Western Tribs	Western Tribs	Western Tribs	Western Tribs	Western Tribs
Habitat	High Meso Mud	Low Mesohaline	High Meso Sand	High Meso Mud	High Meso Mud
Date	08/30/10	08/30/10	08/30/10	08/30/10	08/30/10
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	5.0	9.1	14.6	13.3
Salinity (ppt)	12.61	11.26	15.23	16.47	16.36
Temperature (C)	26.32	26.42	26.50	26.30	26.34
Dissolved Oxygen (mg/L)	0.7	2.1	0.4	0.2	0.5
Sediment Silt-Clay (%)	68.61	87.37	30.63	90.95	89.74
Total Carbon (%)	2.17	2.02	1.06	3.07	4.20
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	4.00	3.00	1.00	1.00	1.00
Condition	Meets Goal	Meets Goal	Severely Degr.	Severely Degr.	Severely Degr.
# Attributes Scored	6	5	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	2.41 3	1.97 3	0.00 1	0.00 1	0.00 1
Abundance (#/m2)	1113 3	636 3	0 1	0 1	23 1
Biomass (g/m2)	3.06 5	4.90 3	0.00 1	0.00 1	0.00 1
Pollution Indicative Spp Abund (%)	4.08	21.43 1	100.00 1	100.00	100.00
Pollution Indicative Spp Biom (%)	0.07 5	0.02	100.00	100.00 1	100.00 1
Pollution Sensitive Spp Abund (%)	44.90	39.29	0.00 1	0.00	0.00
Pollution Sensitive Spp Biom (%)	84.34 5	91.06 5	0.00	0.00 1	0.00 1
Carnivore-Omnivore Abund (%)	24.49 3	28.57	0.00 1	0.00 1	0.00 1
Deep Deposit Feeder Abund (%)	22.45	7.14	0.00	0.00	0.00
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	0.00	0.00	0.00	0.00	0.00
Oligo Poll. Indic. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Oligo Poll. Sens. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Tolerance Score	0.00	0.00	0.00	0.00	0.00
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00

Continued . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17316	17317	17318	17319	17320
Carinoma tremaphoros	23				
Eteone heteropoda	23				
Laeonereis culveri	45				
Leptocheirus plumulosus		23			
Macoma balthica	454	250			
Macoma mitchelli	68				
Marenzelleria viridis	45				
Mulinia lateralis	23				
Neanthes succinea	182	182			
Streblospio benedicti			136		23
Tubificoides spp.	250	45			
Total Abundance w/ Epifauna	1113	636	0	0	23
Total Abundance w/o Epifauna	1113	636			23
Number of Taxa w/ Epifauna	9	5	0	0	1
Number of Taxa w/o Epifauna	9	5	0	0	1
BENTHIC BIOMASS (Grams per sq. meter)					
Site	17316	17317	17318	17319	17320
Carinoma tremaphoros	0.0045				
Eteone heteropoda	0.0011				
Laeonereis culveri	0.0091				
Leptocheirus plumulosus		0.0011			
Macoma balthica	2.4379	4.4645			
Macoma mitchelli	0.0386				
Marenzelleria viridis	0.1431				
Mulinia lateralis	0.0011				
Neanthes succinea	0.4226	0.4340			
Streblospio benedicti			0.0011		0.0011
Tubificoides spp.	0.0023	0.0023			
Total Biomass w/ Epifauna	3.0604	4.9030	0.0000	0.0000	0.0011
Total Biomass w/o Epifauna	3.0604	4.9030	0.0000	0.0000	0.0011

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17321	17322	17323	17324	17325
Watershed	Western Tribs	Western Tribs	Western Tribs	Western Tribs	Western Tribs
Habitat	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline
Date	08/30/10	09/12/10	09/12/10	09/12/10	09/12/10
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044
BOTTOM ENVIRONMENT					
Depth (m)	4.3	2.6	4.4	1.7	2.4
Salinity (ppt)	10.36	6.55	6.31	5.86	5.62
Temperature (C)	26.82	21.66	22.16	21.98	21.49
Dissolved Oxygen (mg/L)	0.7	7.2	6.9	7.6	1.2
Sediment Silt-Clay (%)	97.89	91.89	91.58	94.26	4.40
Total Carbon (%)	5.20	1.79	2.86	1.96	0.14
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	1.00	2.60	2.60	1.80	3.00
Condition	Severely Degr.	Degraded	Degraded	Severely Degr.	Meets Goal
# Attributes Scored	5	5	5	5	5
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	0.00 1	2.10 3	2.46 3	1.04 1	1.63 1
Abundance (#/m2)	0 1	682 3	1022 3	613 3	682 3
Biomass (g/m2)	0.00 1	63.84 1	33.01 1	0.11 1	6.32 5
Pollution Indicative Spp Abund (%)	100.00 1	73.33 1	51.11 1	92.59 1	63.33 1
Pollution Indicative Spp Biom (%)	100.00	0.40	0.20	53.54	0.25
Pollution Sensitive Spp Abund (%)	0.00	13.33	11.11	7.41	3.33
Pollution Sensitive Spp Biom (%)	0.00 1	99.59 5	99.20 5	46.46 3	99.46 5
Carnivore-Omnivore Abund (%)	0.00	30.00	22.22	81.48	13.33
Deep Deposit Feeder Abund (%)	0.00	3.33	15.56	0.00	10.00
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	6.15	6.17	6.20	6.00
Tany./Chir. Abundance Ratio	0.00	100.00	100.00	100.00	0.00

Continued . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17321	17322	17323	17324	17325
Carinoma tremaphoros					91
Coelotanypus spp.		182	227	477	
Cyathura polita		23		23	
Leptocheirus plumulosus		45	204		
Macoma mitchelli			23		
Marenzelleria viridis			68	23	
Polydora cornuta		23			68
Rangia cuneata		68	45		23
Streblospio benedicti		318	295	91	432
Tubificoides spp.		23	159		68
Total Abundance w/ Epifauna	0	682	1022	613	682
Total Abundance w/o Epifauna		682	1022	613	682
Number of Taxa w/ Epifauna	0	7	7	4	5
Number of Taxa w/o Epifauna	0	7	7	4	5
BENTHIC BIOMASS (Grams per sq. meter)					
Site	17321	17322	17323	17324	17325
Carinoma tremaphoros					0.0159
Coelotanypus spp.		0.2454	0.0568	0.0591	
Cyathura polita		0.0011		0.0204	
Leptocheirus plumulosus		0.0045	0.0273		
Macoma mitchelli			0.1659		
Marenzelleria viridis			0.3135	0.0318	
Polydora cornuta		0.0023			0.0011
Rangia cuneata		63.5819	32.4328		6.2844
Streblospio benedicti		0.0068	0.0091	0.0011	0.0159
Tubificoides spp.		0.0011	0.0045		0.0011
Total Biomass w/ Epifauna	0.0000	63.8432	33.0099	0.1125	6.3184
Total Biomass w/o Epifauna	0.0000	63.8432	33.0099	0.1125	6.3184

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17101	17102	17103	17104	17105
Watershed	Potomac R	Potomac R	Potomac R	Potomac R	Potomac R
Habitat	Polyhaline Mud	Polyhaline Mud	High Meso Mud	High Meso Mud	High Meso Sand
Date	09/01/10	09/01/10	09/01/10	09/01/10	09/01/10
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)	11.9	13.9	11.4	7.1	5.4
Salinity (ppt)	24.18	18.94	17.00	15.87	15.94
Temperature (C)	26.03	26.46	26.68	26.94	27.70
Dissolved Oxygen (mg/L)	0.3	0.8	1.4	0.7	6.7
Sediment Silt-Clay (%)	93.63	94.06	87.68	40.16	1.61
Total Carbon (%)	3.19	3.15	3.48	1.38	0.11
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	1.00	1.67	1.00	2.00	3.33
Condition	Severely Degr.	Severely Degr.	Severely Degr.	Severely Degr.	Meets Goal
# Attributes Scored	6	6	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	0.00 1	0.00 1	0.00 1	2.48 3	2.19 1
Abundance (#/m2)	23 1	23 1	23 1	863 1	3113 3
Biomass (g/m2)	0.00 1	0.00 1	0.00 1	0.32 1	0.52 1
Pollution Indicative Spp Abund (%)	100.00	0.00	100.00	65.79	0.73 5
Pollution Indicative Spp Biom (%)	100.00 1	0.00 5	100.00 1	24.20 3	0.22
Pollution Sensitive Spp Abund (%)	0.00	0.00	0.00	15.79	78.10 5
Pollution Sensitive Spp Biom (%)	0.00 1	0.00 1	0.00 1	26.69 1	58.95
Carnivore-Omnivore Abund (%)	0.00 1	0.00 1	0.00 1	18.42 3	79.56 5
Deep Deposit Feeder Abund (%)	0.00	100.00	0.00	7.89	5.84
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	0.00	0.00	0.00	0.00	0.00
Oligo Poll. Indic. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Oligo Poll. Sens. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Tolerance Score	0.00	0.00	0.00	0.00	0.00
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00

Continued . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17101	17102	17103	17104	17105
Acteocina canaliculata				23	1886
Branchiostoma caribaeum					91
Edotea triloba (Epi.)					23
Edwardsia elegans					23
Eteone heteropoda					23
Euplana gracilis (Epi.)				23	
Glycinde solitaria				45	273
Haminoea solitaria					23
Heteromastus filiformis				23	114
Loimia medusa				45	
Macoma mitchelli					23
Mulinia lateralis				23	
Neanthes succinea				68	45
Paraprionospio pinnata				91	
Parvilucina crenella					23
Phoronis spp.				23	273
Podarkeopsis levifuscina					204
Rictaxis punctostriatus				23	
Streblospio benedicti	23		23	454	
Tharyx sp. A Morris					45
Tubificoides spp.		23		45	68
Total Abundance w/ Epifauna	23	23	23	886	3135
Total Abundance w/o Epifauna	23	23	23	863	3113
Number of Taxa w/ Epifauna	1	1	1	12	15
Number of Taxa w/o Epifauna	1	1	1	11	14
BENTHIC BIOMASS (Grams per sq. meter)					
Site	17101	17102	17103	17104	17105
Acteocina canaliculata				0.0011	0.1590
Branchiostoma caribaeum					0.1318
Edotea triloba (Epi.)					0.0023
Edwardsia elegans					0.0011
Eteone heteropoda					0.0011
Euplana gracilis (Epi.)				0.0011	
Glycinde solitaria				0.0159	0.0204
Haminoea solitaria					0.0011
Heteromastus filiformis				0.1272	0.0409
Loimia medusa				0.0659	
Macoma mitchelli					0.0011
Mulinia lateralis				0.0159	
Neanthes succinea				0.0273	0.0227
Paraprionospio pinnata				0.0432	
Parvilucina crenella					0.0011
Phoronis spp.				0.0023	0.1272
Podarkeopsis levifuscina					0.0091
Rictaxis punctostriatus				0.0011	
Streblospio benedicti	0.0011		0.0011	0.0182	
Tharyx sp. A Morris					0.0023
Tubificoides spp.		0.0011		0.0011	0.0011
Total Biomass w/ Epifauna	0.0011	0.0011	0.0011	0.3204	0.5226
Total Biomass w/o Epifauna	0.0011	0.0011	0.0011	0.3192	0.5203

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17106	17107	17108	17109	17110
Watershed	Potomac R	Potomac R	Potomac R	Potomac R	Potomac R
Habitat	High Meso Sand	High Meso Mud	High Meso Mud	High Meso Sand	High Meso Mud
Date	09/01/10	09/01/10	09/01/10	09/01/10	09/01/10
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	9.4	12.8	13.2	6.9
Salinity (ppt)	15.83	12.18	16.85	15.41	14.61
Temperature (C)	28.22	27.01	26.93	26.99	26.84
Dissolved Oxygen (mg/L)	8.1	0.3	0.3	1.5	1.1
Sediment Silt-Clay (%)	3.16	92.51	94.72	11.17	95.91
Total Carbon (%)	0.48	3.24	2.12	0.74	3.41
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	2.33	1.00	2.33	1.67	2.33
Condition	Degraded	Severely Degr.	Degraded	Severely Degr.	Degraded
# Attributes Scored	6	6	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	2.36 1	0.00 1	0.00 1	2.00 1	0.92 1
Abundance (#/m2)	954 1	45 1	23 1	1977 5	68 1
Biomass (g/m2)	0.40 1	0.00 1	0.00 1	0.23 1	0.11 1
Pollution Indicative Spp Abund (%)	2.38 5	100.00	0.00	80.46 1	33.33
Pollution Indicative Spp Biom (%)	36.57	100.00 1	0.00 5	49.75	2.13 5
Pollution Sensitive Spp Abund (%)	19.05 3	0.00	0.00	6.90 1	0.00
Pollution Sensitive Spp Biom (%)	5.14	0.00 1	0.00 1	4.93	0.00 1
Carnivore-Omnivore Abund (%)	33.33 3	0.00 1	100.00 5	19.54 1	66.67 5
Deep Deposit Feeder Abund (%)	4.76	0.00	0.00	2.30	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	2.30	0.00
Oligo Poll. Indic. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Oligo Poll. Sens. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Tolerance Score	0.00	0.00	0.00	9.80	0.00
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00

Continued . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17106	17107	17108	17109	17110
Acteocina canaliculata	68			45	
Edwardsia elegans	91				
Gemma gemma	523				
Glycinde solitaria	68			91	
Heteromastus filiformis	45				
Littoridinops tenuipes (Epi.)	23				
Micrura leidy	45				
Mulinia lateralis	23			613	
Neanthes succinea	45		23	250	45
Paraprionospio pinnata				45	
Phoronis spp.	23				
Spiochaetopterus costarum	23				
Streblospio benedicti		45		886	23
Tubificidae imm w/o cap chaetae				45	
Total Abundance w/ Epifauna	977	45	23	1977	68
Total Abundance w/o Epifauna	954	45	23	1977	68
Number of Taxa w/ Epifauna	11	1	1	7	2
Number of Taxa w/o Epifauna	10	1	1	7	2
BENTHIC BIOMASS (Grams per sq. meter)					
Site	17106	17107	17108	17109	17110
Acteocina canaliculata	0.0023			0.0023	
Edwardsia elegans	0.0045				
Gemma gemma	0.0636				
Glycinde solitaria	0.0045			0.0091	
Heteromastus filiformis	0.0273				
Littoridinops tenuipes (Epi.)	0.0045				
Micrura leidy	0.1295				
Mulinia lateralis	0.1454			0.0182	
Neanthes succinea	0.0068		0.0011	0.1045	0.1045
Paraprionospio pinnata				0.0432	
Phoronis spp.	0.0068				
Spiochaetopterus costarum	0.0068				
Streblospio benedicti		0.0045		0.0523	0.0023
Tubificidae imm w/o cap chaetae				0.0011	
Total Biomass w/ Epifauna	0.4021	0.0045	0.0011	0.2306	0.1068
Total Biomass w/o Epifauna	0.3976	0.0045	0.0011	0.2306	0.1068

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17111	17112	17113	17114	17115					
Watershed	Potomac R	Potomac R	Potomac R	Potomac R	Potomac R					
Habitat	High Meso Mud	High Meso Sand	High Meso Sand	High Meso Mud	Low Mesohaline					
Date	09/01/10	09/01/10	10/03/10	09/01/10	10/06/10					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	6.8	6.3	1.2	6.9	0.8					
Salinity (ppt)	14.45	14.21	16.07	14.70	6.65					
Temperature (C)	26.82	27.58	21.72	26.94	19.25					
Dissolved Oxygen (mg/L)	0.5	5.3	6.5	1.2	7.2					
Sediment Silt-Clay (%)	97.45	7.07	1.41	96.50	58.09					
Total Carbon (%)	3.00	0.41	0.19	3.16	1.32					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	2.33		1.67		2.67		2.33		3.80	
Condition	Degraded		Severely Degr.		Marginal		Degraded		Meets Goal	
# Attributes Scored	6		6		6		6		5	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Shannon-Wiener Index	0.92	1	2.44	1	1.46	1	1.00	1	2.91	5
Abundance (#/m2)	68	1	1113	3	1000	1	91	1	1500	3
Biomass (g/m2)	0.06	1	0.35	1	1.04	3	0.27	1	51.54	1
Pollution Indicative Spp Abund (%)	66.67		67.35	1	0.00	5	50.00		7.58	5
Pollution Indicative Spp Biom (%)	4.00	5	66.45		0.00		1.67	5	0.00	
Pollution Sensitive Spp Abund (%)	0.00		18.37	3	15.91	3	0.00		25.76	
Pollution Sensitive Spp Biom (%)	0.00	1	8.47		1.43		0.00	1	99.22	5
Carnivore-Omnivore Abund (%)	33.33	5	18.37	1	22.73	3	50.00	5	28.79	
Deep Deposit Feeder Abund (%)	0.00		2.04		2.27		0.00		21.21	
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		6.00	
Tany./Chir. Abundance Ratio	0.00		0.00		0.00		0.00		0.00	

Continued . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17111	17112	17113	17114	17115
Acteocina canaliculata			23		
Americamysis bigelowi (Epi.)		23			
Cyathura polita					91
Edotea triloba (Epi.)					45
Gemma gemma		23	704		
Geukensia demissa (Epi.)				23	23
Glycinde solitaria		182	136		
Heteromastus filiformis		23			23
Leptocheirus plumulosus					273
Loimia medusa		23			
Macoma balthica					23
Macoma mitchelli		91	45		45
Marenzelleria viridis					227
Micrura leidyi		23	68		
Mulinia lateralis		250			
Neanthes succinea	23			45	341
Paraprionospio pinnata		68			
Polydora cornuta					23
Rangia cuneata					45
Streblospio benedicti	45	432		45	114
Tubificoides spp.			23		295
Total Abundance w/ Epifauna	68	1136	1000	114	1568
Total Abundance w/o Epifauna	68	1113	1000	91	1500
Number of Taxa w/ Epifauna	2	10	6	3	13
Number of Taxa w/o Epifauna	2	9	6	2	11
BENTHIC BIOMASS (Grams per sq. meter)					
Site	17111	17112	17113	17114	17115
Acteocina canaliculata			0.0011		
Americamysis bigelowi (Epi.)		0.0045			
Cyathura polita					0.0341
Edotea triloba (Epi.)					0.0068
Gemma gemma		0.0011	0.1977		
Geukensia demissa (Epi.)				0.0023	0.0204
Glycinde solitaria		0.0227	0.0136		
Heteromastus filiformis		0.0318			0.0114
Leptocheirus plumulosus					0.0250
Loimia medusa		0.0068			
Macoma balthica					0.3158
Macoma mitchelli		0.0432	0.0023		0.0159
Marenzelleria viridis					0.4544
Micrura leidyi		0.0114	0.8202		
Mulinia lateralis		0.1659			
Neanthes succinea	0.0545			0.2681	0.3476
Paraprionospio pinnata		0.0454			
Polydora cornuta					0.0011
Rangia cuneata					50.3316
Streblospio benedicti	0.0023	0.0204		0.0045	0.0023
Tubificoides spp.			0.0011		0.0011
Total Biomass w/ Epifauna	0.0568	0.3533	1.0360	0.2749	51.5676
Total Biomass w/o Epifauna	0.0568	0.3488	1.0360	0.2726	51.5403

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17116	17117	17118	17119	17120
Watershed	Potomac R	Potomac R	Potomac R	Potomac R	Potomac R
Habitat	Oligohaline	Oligohaline	Oligohaline	Oligohaline	Oligohaline
Date	10/06/10	10/06/10	10/06/10	10/06/10	10/06/10
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)	4.9	3.1	2.2	4.5	3.1
Salinity (ppt)	3.17	2.23	2.19	1.95	1.91
Temperature (C)	18.46	17.61	16.98	18.97	18.06
Dissolved Oxygen (mg/L)	8.1	8.2	8.1	8.2	7.4
Sediment Silt-Clay (%)	97.15	55.87	75.73	97.20	94.28
Total Carbon (%)	2.18	1.30	2.66	2.27	2.01
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	4.20	3.33	3.00	3.40	1.80
Condition	Meets Goal	Meets Goal	Meets Goal	Meets Goal	Severely Degr.
# Attributes Scored	5	6	5	5	5
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	2.27	2.18	2.47	2.34	2.48
Abundance (#/m2)	977 5	1568 5	704 5	818 5	4249 1
Biomass (g/m2)	120.21	2.35	69.97	10.00	12.35
Pollution Indicative Spp Abund (%)	0.00	7.25	51.61	5.56	10.16
Pollution Indicative Spp Biom (%)	0.00	0.24	0.00	0.02	0.08
Pollution Sensitive Spp Abund (%)	72.09	59.42	35.48	61.11	21.39
Pollution Sensitive Spp Biom (%)	99.84	93.28	99.98	98.25	98.84
Carnivore-Omnivore Abund (%)	4.65 1	17.39 3	9.68 1	13.89 1	13.90 1
Deep Deposit Feeder Abund (%)	9.30	8.70	41.94	5.56	6.42
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	0.00	2.90	38.71	0.00	5.35
Oligo Poll. Indic. Spp Abund (%)	18.60 5	36.23 3	64.52 3	36.11 3	56.68 3
Oligo Poll. Sens. Spp Abund (%)	44.19 5	47.83 5	16.13 3	44.44 5	9.09 3
Tolerance Score	6.00 5	8.60 3	9.00 3	6.10 3	9.45 1
Tany./Chir. Abundance Ratio	0.00	100.00 1	0.00	0.00	0.00

Continued . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17116	17117	17118	17119	17120
Apocorophium lacustre (Epi.)					12723
Balanus improvisus (Epi.)					818
Boccardiella ligerica	45				886
Branchiura sowerbyi			23		
Carinoma tremaphoros		68		23	45
Cassidinidea ovalis (Epi.)					23
Coelotanypus spp.		23			
Corbicula fluminea				23	
Cyathura polita	45	182	68	91	500
Dugesia spp. (Epi.)					295
Gammarus daiberi (Epi.)		23			
Leptocheirus plumulosus	91	364	68	182	68
Limnodrilus hoffmeisteri					23
Macoma mitchelli	45				
Marenzelleria viridis	432	750	114	364	386
Melita nitida (Epi.)				23	
Mytilopsis leucophaeata (Epi.)					295
Neanthes succinea					45
Polydora cornuta					1818
Rangia cuneata	227		68	45	23
Rhithropanopeus harrisii (Epi.)					45
Streblospio benedicti		45	91	45	204
Stylochus ellipticus (Epi.)					45
Tubificidae imm w/o cap chaetae		45	273		
Tubificidae imm w/o cap chaetae *					204
Tubificoides spp.	91	91		45	45
Total Abundance w/ Epifauna	977	1590	704	841	18494
Total Abundance w/o Epifauna	977	1568	704	818	4249
Number of Taxa w/ Epifauna	7	9	7	9	18
Number of Taxa w/o Epifauna	7	8	7	8	11

Continued . . .

BENTHIC BIOMASS (Grams per sq. meter)					
Site	17116	17117	17118	17119	17120
Apocorophium lacustre (Epi.)					1.0837
Balanus improvisus (Epi.)					1.8971
Boccardiella ligERICA	0.0011				0.0454
Branchiura sowerbyi			0.0045		
Carinoma tremaphoros		0.1068		0.0136	0.0068
Cassidinidea ovalis (Epi.)					0.0011
Coelotanypus spp.		0.0023			
Corbicula fluminea				0.1204	
Cyathura polita	0.0182	0.2408	0.0545	0.1409	0.2999
Dugesia spp. (Epi.)					0.0136
Gammarus daiberi (Epi.)		0.0011			
Leptocheirus plumulosus	0.0091	0.0432	0.0045	0.0364	0.0159
Macoma mitchelli	0.1772				
Marenzelleria viridis	0.8475	1.9516	0.6793	0.5498	1.0701
Melita nitida (Epi.)				0.0011	
Mytilopsis leucophaeata (Epi.)					0.2363
Neanthes succinea					0.0023
Oligochaeta					0.0057
Polydora cornuta					0.0613
Rangia cuneata	119.1505		69.2233	9.1380	10.8397
Rhithropanopeus harrisi (Epi.)					0.5816
Streblospio benedicti		0.0023	0.0023	0.0023	0.0045
Stylochus ellipticus (Epi.)					0.0136
Tubificidae imm w/o cap chaetae		0.0011	0.0011		
Tubificoides spp.	0.0023	0.0023		0.0023	0.0011
Total Biomass w/ Epifauna	120.2058	2.3515	69.9696	10.0048	16.1800
Total Biomass w/o Epifauna	120.2058	2.3504	69.9696	10.0036	12.3529

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17121	17122	17123	17124	17125
Watershed	Potomac R	Potomac R	Potomac R	Potomac R	Potomac R
Habitat	Low Mesohaline	Low Mesohaline	Oligohaline	Freshwater	Freshwater
Date	10/06/10	10/06/10	10/06/10	10/06/10	09/14/10
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	0.6	6.8	4.3	1.6
Salinity (ppt)	9.68	8.88	1.23	0.49	0.20
Temperature (C)	17.59	17.33	18.58	18.47	23.37
Dissolved Oxygen (mg/L)	8.4	8.4	7.6	7.7	7.4
Sediment Silt-Clay (%)	97.55	91.50	90.56	95.06	87.77
Total Carbon (%)	1.56	2.51	2.31	3.01	3.76
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	2.20	1.80	2.33	4.00	3.50
Condition	Degraded	Severely Degr.	Degraded	Meets Goal	Meets Goal
# Attributes Scored	5	5	6	4	4
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	2.75 5	2.10 3	2.23 3	2.78 5	1.79 3
Abundance (#/m2)	409 1	409 1	2386 5	2749 5	1795 5
Biomass (g/m2)	0.34 1	39.86 1	15.50 1	179.04 4	1.22 1
Pollution Indicative Spp Abund (%)	33.33 1	61.11 1	80.95 1	51.24 3	79.75 3
Pollution Indicative Spp Biom (%)	7.09 1	0.14 1	2.25 1	0.05 1	12.45 1
Pollution Sensitive Spp Abund (%)	22.22 1	5.56 1	12.38 1	15.70 1	1.27 1
Pollution Sensitive Spp Biom (%)	56.76 3	99.67 3	97.59 3	99.81 3	0.19 1
Carnivore-Omnivore Abund (%)	44.44 1	66.67 1	4.76 1	3.31 1	10.13 1
Deep Deposit Feeder Abund (%)	11.11 1	11.11 1	71.43 1	50.41 5	79.75 3
TF Poll. Indicative Spp Abund (%)	0.00 1	0.00 1	0.00 1	46.28 3	70.89 3
Limnodrilus Abundance (%)	0.00 1	0.00 1	71.43 1	46.28 3	70.89 3
Oligo Poll. Indic. Spp Abund (%)	0.00 1	0.00 1	86.67 3	0.00 1	0.00 1
Oligo Poll. Sens. Spp Abund (%)	0.00 1	0.00 1	7.62 3	0.00 1	0.00 1
Tolerance Score	6.14 1	6.18 1	9.66 1	9.22 3	9.28 3
Tany./Chir. Abundance Ratio	100.00 1	100.00 1	100.00 1	100.00 1	87.50 1

Continued . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17121	17122	17123	17124	17125
Apocorophium lacustre (Epi.)			23	45	
Branchiura sowerbyi				91	68
Carinoma tremaphoros	23	68	23		
Chaoborus punctipennis				23	
Coelotanypus spp.	114	204	23	23	159
Corbicula fluminea					23
Cryptochironomus spp.					23
Cyathura polita	45		68	45	
Gammarus daiberi (Epi.)				250	
Goniobasis virginica (Epi.)					23
Hirudinea (Epi.)					23
Leptocheirus plumulosus	91	23	136	682	
Limnodrilus hoffmeisteri			1091	500	45
Macoma mitchelli	23				
Marenzelleria viridis			182	204	23
Musculium transversum					136
Polydora cornuta				91	
Rangia cuneata	45	23	45	182	
Streblospio benedicti	23	45	204	114	
Tubificidae imm w cap chaetae					45
Tubificidae imm w/o cap chaetae *			613	772	1227
Tubificoides spp.	45	45		23	45
Total Abundance w/ Epifauna	409	409	2408	3044	1840
Total Abundance w/o Epifauna	409	409	2386	2749	1795
Number of Taxa w/ Epifauna	8	6	9	13	11
Number of Taxa w/o Epifauna	8	6	8	11	9
BENTHIC BIOMASS (Grams per sq. meter)					
Site	17121	17122	17123	17124	17125
Apocorophium lacustre (Epi.)			0.0068	0.0045	
Branchiura sowerbyi				0.1318	0.1159
Carinoma tremaphoros	0.0591	0.0704	0.0114		
Chaoborus punctipennis				0.0045	
Coelotanypus spp.	0.0227	0.0523	0.0023	0.0045	0.0250
Corbicula fluminea					0.8543
Cryptochironomus spp.					0.0011
Cyathura polita	0.1295		0.0432	0.0068	
Gammarus daiberi (Epi.)				0.0136	
Goniobasis virginica (Epi.)					0.6748
Hirudinea (Epi.)					0.0386
Leptocheirus plumulosus	0.0364	0.0011	0.0136	0.1113	
Macoma mitchelli	0.0250				
Marenzelleria viridis			1.0428	0.8156	0.0023
Musculium transversum					0.0954
Oligochaeta			0.3394	0.0772	0.1272
Polydora cornuta				0.0045	
Rangia cuneata	0.0613	39.7259	14.0387	177.8772	
Streblospio benedicti	0.0011	0.0045	0.0068	0.0068	
Tubificoides spp.	0.0011	0.0023		0.0011	0.0011
Total Biomass w/ Epifauna	0.3363	39.8566	15.5050	179.0597	1.9357
Total Biomass w/o Epifauna	0.3363	39.8566	15.4982	179.0416	1.2223

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17202	17203	17204	17205	17206
Watershed	Patuxent R	Patuxent R	Patuxent R	Patuxent R	Patuxent R
Habitat	High Meso Mud	High Meso Mud	High Meso Sand	High Meso Sand	High Meso Mud
Date	09/03/10	09/03/10	08/26/10	08/26/10	08/26/10
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044
BOTTOM ENVIRONMENT					
Depth (m)	6.3	4.3	4.6	3.8	4.8
Salinity (ppt)	14.06	13.89	14.48	14.23	13.02
Temperature (C)	27.65	27.77	27.12	26.86	26.48
Dissolved Oxygen (mg/L)	6.5	6.9	3.8	4.7	5.5
Sediment Silt-Clay (%)	48.33	91.49	6.05	4.40	67.81
Total Carbon (%)	1.64	1.14	0.32	0.25	2.49
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	2.67	3.33	1.67	2.67	1.67
Condition	Marginal	Meets Goal	Severely Degr.	Marginal	Severely Degr.
# Attributes Scored	6	6	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	3.03 5	3.37 5	2.44 1	2.67 3	2.16 3
Abundance (#/m2)	863 1	1250 3	659 1	909 1	182 1
Biomass (g/m2)	0.24 1	0.70 3	0.24 1	0.67 1	0.03 1
Pollution Indicative Spp Abund (%)	42.11	27.27	55.17 1	20.00 3	62.50
Pollution Indicative Spp Biom (%)	23.47 3	27.80 3	18.78	68.58	70.37 1
Pollution Sensitive Spp Abund (%)	23.68	20.00	34.48 3	60.00 3	12.50
Pollution Sensitive Spp Biom (%)	4.69 1	7.80 1	57.28	11.49	7.41 1
Carnivore-Omnivore Abund (%)	39.47 5	36.36 5	31.03 3	67.50 5	12.50 3
Deep Deposit Feeder Abund (%)	10.53	25.45	0.00	5.00	0.00
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	5.26	0.00	0.00	0.00	0.00
Oligo Poll. Indic. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Oligo Poll. Sens. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Tolerance Score	9.80	0.00	0.00	0.00	0.00
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00

Continued . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17202	17203	17204	17205	17206
Acteocina canaliculata	68	45		341	
Americamysis almyra (Epi.)			45		
Gemma gemma				23	
Glycera dibranchiata				23	
Glycinde solitaria	114	204	182	204	23
Heteromastus filiformis	23	45		45	
Leitoscoloplos robustus		45			
Macoma balthica	23		45		
Macoma mitchelli	91	182	45	45	45
Micrura leidyi		23			
Molgula manhattensis (Epi.)				23	
Mulinia lateralis		136	45	68	23
Neanthes succinea	91	91	23		
Parahesion luteola		23			
Paraprionospio pinnata	273	91	114	23	68
Podarkeopsis levifuscina	68	68		45	
Streblospio benedicti	45	68	204	91	23
Tubificidae imm w/o cap chaetae	45				
Tubificoides spp.	23	227			
Total Abundance w/ Epifauna	863	1250	704	932	182
Total Abundance w/o Epifauna	863	1250	659	909	182
Number of Taxa w/ Epifauna	11	13	8	11	5
Number of Taxa w/o Epifauna	11	13	7	10	5
BENTHIC BIOMASS (Grams per sq. meter)					
Site	17202	17203	17204	17205	17206
Acteocina canaliculata	0.0045	0.0023		0.0386	
Americamysis almyra (Epi.)			0.0068		
Gemma gemma				0.0045	
Glycera dibranchiata				0.0591	
Glycinde solitaria	0.0045	0.0523	0.0273	0.0386	0.0023
Heteromastus filiformis	0.0386	0.0545		0.0659	
Leitoscoloplos robustus		0.1477			
Macoma balthica	0.0023		0.1113		
Macoma mitchelli	0.0045	0.0114	0.0011	0.0023	0.0068
Micrura leidyi		0.0568			
Molgula manhattensis (Epi.)				0.0045	
Mulinia lateralis		0.0159	0.0023	0.4340	0.0023
Neanthes succinea	0.1204	0.3226	0.0568		
Parahesion luteola		0.0011			
Paraprionospio pinnata	0.0545	0.0295	0.0386	0.0227	0.0182
Podarkeopsis levifuscina	0.0091	0.0023		0.0023	
Streblospio benedicti	0.0011	0.0011	0.0045	0.0045	0.0011
Tubificidae imm w/o cap chaetae	0.0011				
Tubificoides spp.	0.0011	0.0011			
Total Biomass w/ Epifauna	0.2420	0.6986	0.2488	0.6771	0.0307
Total Biomass w/o Epifauna	0.2420	0.6986	0.2420	0.6725	0.0307

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17207	17208	17209	17210	17211
Watershed	Patuxent R	Patuxent R	Patuxent R	Patuxent R	Patuxent R
Habitat	High Meso Mud	High Meso Sand	High Meso Mud	High Meso Sand	High Meso Sand
Date	08/26/10	08/26/10	08/26/10	08/26/10	08/26/10
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)	6.5	2.2	5.3	1.8	2.5
Salinity (ppt)	14.17	14.13	13.84	12.72	12.74
Temperature (C)	27.09	26.15	26.74	26.57	26.35
Dissolved Oxygen (mg/L)	3.1	5.2	4.6	6.3	5.3
Sediment Silt-Clay (%)	82.87	1.58	66.85	1.85	5.86
Total Carbon (%)	2.46	0.05	1.93	0.08	0.26
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	2.67	2.33	2.33	3.00	2.33
Condition	Marginal	Degraded	Degraded	Meets Goal	Degraded
# Attributes Scored	6	6	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	2.61 3	2.51 3	2.32 3	3.09 3	3.02 3
Abundance (#/m2)	409 1	1681 5	227 1	1022 3	1704 5
Biomass (g/m2)	0.05 1	0.23 1	0.13 1	0.31 1	0.46 1
Pollution Indicative Spp Abund (%)	55.56	33.78 1	50.00	17.78 3	33.33 1
Pollution Indicative Spp Biom (%)	29.17 3	9.85	5.41 3	28.26	4.95
Pollution Sensitive Spp Abund (%)	33.33	10.81 3	10.00	31.11 3	16.00 3
Pollution Sensitive Spp Biom (%)	41.67 3	32.02	9.01 1	34.42	41.09
Carnivore-Omnivore Abund (%)	44.44 5	10.81 1	30.00 5	37.78 5	14.67 1
Deep Deposit Feeder Abund (%)	0.00	13.51	0.00	4.44	18.67
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	0.00	1.35	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 . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17207	17208	17209	17210	17211
Acteocina canaliculata	91	23		23	
Americamysis almyra (Epi.)			23	23	
Carinoma tremaphoros				68	
Eteone heteropoda		23			
Gemma gemma		568		136	318
Glycinde solitaria	45	136	23	227	182
Haminoea solitaria				23	
Heteromastus filiformis		159		45	136
Leitoscoloplos robustus		45			
Loimia medusa					23
Macoma mitchelli		204	45	204	159
Marenzelleria viridis		23		68	68
Micrura leidy	23				
Mulinia lateralis	91			136	91
Neanthes succinea	23		23	45	68
Paraprionospio pinnata	45		23		23
Podarkeopsis levifuscina			23		
Streblospio benedicti	91	477	91	45	454
Tubificidae imm w/o cap chaetae		23			
Tubificoides spp.					182
Total Abundance w/ Epifauna	409	1681	250	1045	1704
Total Abundance w/o Epifauna	409	1681	227	1022	1704
Number of Taxa w/ Epifauna	7	10	7	12	11
Number of Taxa w/o Epifauna	7	10	6	11	11
BENTHIC BIOMASS (Grams per sq. meter)					
Site	17207	17208	17209	17210	17211
Acteocina canaliculata	0.0068	0.0011		0.0011	
Americamysis almyra (Epi.)			0.0023	0.0011	
Carinoma tremaphoros				0.0364	
Eteone heteropoda		0.0011			
Gemma gemma		0.0227		0.0023	0.0432
Glycinde solitaria	0.0159	0.0182	0.0114	0.0341	0.0182
Haminoea solitaria				0.0023	
Heteromastus filiformis		0.1022		0.0364	0.1363
Leitoscoloplos robustus		0.0023			
Loimia medusa					0.1022
Macoma mitchelli		0.0091	0.0227	0.0011	0.0386
Marenzelleria viridis		0.0545		0.0727	0.0682
Micrura leidy	0.0045				
Mulinia lateralis	0.0023			0.0795	0.0068
Neanthes succinea	0.0114		0.0841	0.0386	0.0250
Paraprionospio pinnata	0.0068		0.0023		0.0023
Podarkeopsis levifuscina			0.0011		
Streblospio benedicti	0.0068	0.0182	0.0045	0.0091	0.0136
Tubificidae imm w/o cap chaetae		0.0011			
Tubificoides spp.					0.0045
Total Biomass w/ Epifauna	0.0545	0.2306	0.1284	0.3147	0.4589
Total Biomass w/o Epifauna	0.0545	0.2306	0.1261	0.3135	0.4589

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17212	17213	17214	17215	17216
Watershed	Patuxent R	Patuxent R	Patuxent R	Patuxent R	Patuxent R
Habitat	High Meso Sand	High Meso Mud	High Meso Mud	High Meso Sand	High Meso Sand
Date	08/26/10	08/26/10	08/26/10	08/26/10	08/26/10
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044
BOTTOM ENVIRONMENT					
Depth (m)	4.0	5.0	5.8	2.7	3.4
Salinity (ppt)	12.59	13.72	14.53	13.12	14.20
Temperature (C)	26.44	27.03	27.43	26.75	27.24
Dissolved Oxygen (mg/L)	5.6	3.3	2.2	4.3	2.9
Sediment Silt-Clay (%)	26.53	73.39	86.67	2.43	4.89
Total Carbon (%)	0.81	2.59	3.24	0.08	0.33
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	2.67	2.00	1.33	2.33	2.00
Condition	Marginal	Severely Degr.	Severely Degr.	Degraded	Severely Degr.
# Attributes Scored	6	6	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	3.10 3	2.54 3	1.36 1	3.15 3	3.04 3
Abundance (#/m2)	2408 5	386 1	227 1	932 1	704 1
Biomass (g/m2)	0.77 1	0.20 1	0.11 1	0.26 1	0.36 1
Pollution Indicative Spp Abund (%)	27.36 1	41.18	90.00	17.07 3	32.26 1
Pollution Indicative Spp Biom (%)	4.26	6.74 3	42.27 1	2.19	36.71
Pollution Sensitive Spp Abund (%)	9.43 1	5.88	0.00	21.95 3	35.48 3
Pollution Sensitive Spp Biom (%)	11.76	20.22 1	0.00 1	25.00	19.94
Carnivore-Omnivore Abund (%)	38.68 5	11.76 3	10.00 3	21.95 3	25.81 3
Deep Deposit Feeder Abund (%)	26.42	29.41	0.00	14.63	16.13
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	6.60	0.00	0.00	0.00	0.00
Oligo Poll. Indic. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Oligo Poll. Sens. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Tolerance Score	9.80	0.00	0.00	0.00	0.00
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00

Continued . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17212	17213	17214	17215	17216
Acteocina canaliculata				23	23
Carinoma tremaphoros				23	
Edotea triloba (Epi.)	45				
Gemma gemma				136	23
Glycinde solitaria	204	23		114	159
Heteromastus filiformis	45			45	68
Macoma balthica	23				
Macoma mitchelli	204	68		227	91
Marenzelleria viridis				68	68
Molgula manhattensis (Epi.)					114
Mulinia lateralis	68	45		45	68
Neanthes succinea	682	23	23	45	
Neomysis americana (Epi.)		23			
Paraprionospio pinnata	114	23	114		23
Pectinaria gouldii	23				
Podarkeopsis levifuscina	45				
Polydora cornuta	114				
Streblospio benedicti	318	91	91	114	136
Tubificidae imm w/o cap chaetae	159				
Tubificoides spp.	409	114		91	45
Total Abundance w/ Epifauna	2454	409	227	932	818
Total Abundance w/o Epifauna	2408	386	227	932	704
Number of Taxa w/ Epifauna	14	8	3	11	11
Number of Taxa w/o Epifauna	13	7	3	11	10
BENTHIC BIOMASS (Grams per sq. meter)					
Site	17212	17213	17214	17215	17216
Acteocina canaliculata				0.0011	0.0011
Carinoma tremaphoros				0.0045	
Edotea triloba (Epi.)	0.0011				
Gemma gemma				0.0341	0.0011
Glycinde solitaria	0.0227	0.0409		0.0068	0.0250
Heteromastus filiformis	0.1091			0.1250	0.1454
Macoma balthica	0.0682				
Macoma mitchelli	0.0364	0.0659		0.0091	0.0045
Marenzelleria viridis				0.0568	0.0454
Molgula manhattensis (Epi.)					0.0011
Mulinia lateralis	0.0045	0.0023		0.0011	0.1227
Neanthes succinea	0.4908	0.0795	0.0636	0.0091	
Neomysis americana (Epi.)		0.0023			
Paraprionospio pinnata	0.0250	0.0023	0.0454		0.0045
Pectinaria gouldii	0.0011				
Podarkeopsis levifuscina	0.0023				
Polydora cornuta	0.0023				
Streblospio benedicti	0.0023	0.0091	0.0011	0.0045	0.0045
Tubificidae imm w/o cap chaetae	0.0011				
Tubificoides spp.	0.0068	0.0023		0.0068	0.0045
Total Biomass w/ Epifauna	0.7736	0.2045	0.1102	0.2590	0.3601
Total Biomass w/o Epifauna	0.7725	0.2022	0.1102	0.2590	0.3590

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17217	17218	17219	17220	17221
Watershed	Patuxent R	Patuxent R	Patuxent R	Patuxent R	Patuxent R
Habitat	High Meso Mud	High Meso Mud	High Meso Mud	High Meso Mud	High Meso Sand
Date	08/26/10	08/26/10	08/26/10	08/26/10	08/26/10
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044
BOTTOM ENVIRONMENT					
Depth (m)	6.1	4.0	2.0	3.0	2.4
Salinity (ppt)	14.45	14.20	12.29	13.15	12.49
Temperature (C)	27.45	27.29	26.07	27.10	27.00
Dissolved Oxygen (mg/L)	2.2	2.8	3.0	3.0	3.4
Sediment Silt-Clay (%)	90.98	43.36	89.53	98.27	5.54
Total Carbon (%)	3.14	1.56	3.13	2.29	0.28
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	1.67	2.67	2.00	3.33	3.33
Condition	Severely Degr.	Marginal	Severely Degr.	Meets Goal	Meets Goal
# Attributes Scored	6	6	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	1.77 1	2.80 3	0.59 1	2.85 3	3.35 5
Abundance (#/m2)	432 1	750 1	159 1	477 1	2136 5
Biomass (g/m2)	0.15 1	0.38 1	0.07 1	0.72 3	0.90 1
Pollution Indicative Spp Abund (%)	73.68	18.18	85.71	19.05	14.89 3
Pollution Indicative Spp Biom (%)	31.54 1	2.42 5	3.33 5	4.41 5	0.76
Pollution Sensitive Spp Abund (%)	5.26	21.21	0.00	47.62	31.91 3
Pollution Sensitive Spp Biom (%)	1.54 1	22.36 1	0.00 1	93.86 3	52.28
Carnivore-Omnivore Abund (%)	26.32 5	42.42 5	14.29 3	28.57 5	27.66 3
Deep Deposit Feeder Abund (%)	0.00	18.18	0.00	19.05	25.53
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	3.19
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	8.28
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00

Continued . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17217	17218	17219	17220	17221
Carinoma tremaphoros		45	23	23	68
Eteone heteropoda					23
Geukensia demissa (Epi.)					23
Glycinde solitaria	23	136		91	182
Heteromastus filiformis					136
Macoma balthica		23		114	23
Macoma mitchelli		136		23	273
Marenzelleria viridis				23	432
Micrura leidyi	23				
Mulinia lateralis				23	68
Neanthes succinea	45	136		23	318
Paraprionospio pinnata	273	45		68	23
Pectinaria gouldii					23
Podarkeopsis levifuscina	23				
Rangia cuneata					45
Streblospio benedicti	45	91	136		136
Tubificidae imm w/o cap chaetae					68
Tubificoides spp.		136		91	318
Total Abundance w/ Epifauna	432	750	159	477	2158
Total Abundance w/o Epifauna	432	750	159	477	2136
Number of Taxa w/ Epifauna	6	8	2	9	16
Number of Taxa w/o Epifauna	6	8	2	9	15
BENTHIC BIOMASS (Grams per sq. meter)					
Site	17217	17218	17219	17220	17221
Carinoma tremaphoros		0.0250	0.0659	0.0011	0.0068
Eteone heteropoda					0.0011
Geukensia demissa (Epi.)					0.0011
Glycinde solitaria	0.0023	0.0454		0.0659	0.0182
Heteromastus filiformis					0.1954
Macoma balthica		0.0386		0.5794	0.0409
Macoma mitchelli		0.0545		0.0011	0.0386
Marenzelleria viridis				0.0318	0.3931
Micrura leidyi	0.0068				
Mulinia lateralis				0.0250	0.0011
Neanthes succinea	0.0909	0.2022		0.0091	0.1749
Paraprionospio pinnata	0.0454	0.0068		0.0068	0.0011
Pectinaria gouldii					0.0023
Podarkeopsis levifuscina	0.0011				
Rangia cuneata					0.0159
Streblospio benedicti	0.0011	0.0023	0.0023		0.0023
Tubificidae imm w/o cap chaetae					0.0011
Tubificoides spp.		0.0011		0.0011	0.0023
Total Biomass w/ Epifauna	0.1477	0.3760	0.0682	0.7214	0.8963
Total Biomass w/o Epifauna	0.1477	0.3760	0.0682	0.7214	0.8952

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17222	17223	17224	17225	17226
Watershed	Patuxent R	Patuxent R	Patuxent R	Patuxent R	Patuxent R
Habitat	Low Mesohaline	Low Mesohaline	Oligohaline	Oligohaline	High Meso Sand
Date	08/26/10	08/25/10	08/26/10	08/26/10	09/03/10
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	0.9	4.5	5.6	2.3
Salinity (ppt)	9.12	6.60	3.53	0.89	15.48
Temperature (C)	28.84	27.53	26.87	26.23	27.58
Dissolved Oxygen (mg/L)	9.0	6.3	5.4	4.8	5.2
Sediment Silt-Clay (%)	94.30	93.02	88.98	87.24	1.92
Total Carbon (%)	2.27	2.72	3.17	2.36	0.14
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	2.60	2.20	2.00	3.33	3.00
Condition	Degraded	Degraded	Severely Degr.	Meets Goal	Meets Goal
# Attributes Scored	5	5	4	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	2.00 3	2.54 5	1.40	1.61	2.41 1
Abundance (#/m2)	659 3	386 1	10088 1	2590 5	1091 3
Biomass (g/m2)	0.83 1	166.66 1	0.75	0.44	0.87 1
Pollution Indicative Spp Abund (%)	10.34 3	29.41 1	40.32	56.14	6.25 5
Pollution Indicative Spp Biom (%)	1.10	0.00	12.46	8.09	44.56
Pollution Sensitive Spp Abund (%)	6.90	23.53	1.58	4.39	29.17 3
Pollution Sensitive Spp Biom (%)	52.95 3	99.89 3	52.28	67.89	4.33
Carnivore-Omnivore Abund (%)	20.69	17.65	1.80 1	7.02 1	43.75 5
Deep Deposit Feeder Abund (%)	62.07	23.53	53.83	33.33	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	94.59 3	89.47 3	0.00
Oligo Poll. Sens. Spp Abund (%)	0.00	0.00	1.35 3	0.88 3	0.00
Tolerance Score	6.20	6.00	0.00	6.76 3	0.00
Tany./Chir. Abundance Ratio	100.00	0.00	0.00	0.00 5	0.00

Continued . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17222	17223	17224	17225	17226
<i>Acteocina canaliculata</i>					23
<i>Carinoma tremaphoros</i>		23	159	114	
<i>Chiridotea almyra</i>				23	
<i>Chironomus</i> spp.				23	
<i>Coelotanypus</i> spp.	68				
<i>Cyathura polita</i>	45		23	23	
<i>Edotea triloba</i> (Epi.)			45	182	
<i>Gammarus daiberi</i> (Epi.)			45	68	
<i>Gemma gemma</i>					454
<i>Glycinde solitaria</i>					227
<i>Haminoea solitaria</i>					182
<i>Heteromastus filiformis</i>	23	23			
<i>Leptocheirus plumulosus</i>	68		45		
<i>Macoma mitchelli</i>	45		227	23	23
<i>Marenzelleria viridis</i>			136		
<i>Melita nitida</i> (Epi.)	68		23		
<i>Micrura leidyi</i>					45
<i>Mulinia lateralis</i>			45		45
<i>Neanthes succinea</i>	23	45			
<i>Polydora cornuta</i>		23			
<i>Rangia cuneata</i>		91		91	
<i>Spiochaetopterus costarum</i>					68
<i>Streblospio benedicti</i>		114	4021	1431	23
<i>Stylochus ellipticus</i> (Epi.)					23
<i>Tubificoides</i> spp.	386	68	5430	863	
Total Abundance w/ Epifauna	727	386	10201	2840	1113
Total Abundance w/o Epifauna	659	386	10088	2590	1091
Number of Taxa w/ Epifauna	8	7	11	10	10
Number of Taxa w/o Epifauna	7	7	8	8	9

Continued . . .

BENTHIC BIOMASS (Grams per sq. meter)					
Site	17222	17223	17224	17225	17226
Acteocina canaliculata					0.0011
Carinoma tremaphoros		0.0182	0.0386	0.0204	
Chiridotea almyra				0.0114	
Chironomus spp.				0.0011	
Coelotanypus spp.	0.0091				
Cyathura polita	0.4385		0.0273	0.0227	
Edotea triloba (Epi.)			0.0114	0.0295	
Gammarus daiberi (Epi.)			0.0432	0.0068	
Gemma gemma					0.0432
Glycinde solitaria					0.0159
Haminoea solitaria					0.1250
Heteromastus filiformis	0.1545	0.0011			
Leptocheirus plumulosus	0.0204		0.0045		
Macoma mitchelli	0.2022		0.1704	0.0613	0.0068
Marenzelleria viridis			0.3635		
Melita nitida (Epi.)	0.0045		0.0045		
Micrura leidyi					0.2681
Mulinia lateralis			0.0182		0.3840
Neanthes succinea	0.0011	0.1522			
Polydora cornuta		0.0023			
Rangia cuneata		166.4808		0.2726	
Spiochaetopterus costarum					0.0204
Streblospio benedicti		0.0068	0.0750	0.0341	0.0023
Stylochus ellipticus (Epi.)					0.0011
Tubificoides spp.	0.0023	0.0023	0.0500	0.0114	
Total Biomass w/ Epifauna	0.8327	166.6637	0.8066	0.4714	0.8679
Total Biomass w/o Epifauna	0.8281	166.6637	0.7475	0.4351	0.8668

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17602	17603	17604	17605	17606
Watershed	Upper Bay	Upper Bay	Upper Bay	Upper Bay	Upper Bay
Habitat	High Meso Mud	High Meso Sand	High Meso Mud	High Meso Sand	High Meso Sand
Date	09/16/10	09/16/10	09/16/10	09/16/10	09/29/10
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044
BOTTOM ENVIRONMENT					
Depth (m)	8.7	5.8	10.8	4.3	3.7
Salinity (ppt)	16.67	16.30	17.89	16.72	13.41
Temperature (C)	24.04	23.90	24.52	24.05	22.57
Dissolved Oxygen (mg/L)	3.9	3.2	1.9	2.8	6.4
Sediment Silt-Clay (%)	89.99	30.58	94.51	3.03	30.95
Total Carbon (%)	4.07	0.74	3.51	0.11	0.85
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	1.00	1.67	1.00	3.00	2.33
Condition	Severely Degr.	Severely Degr.	Severely Degr.	Meets Goal	Degraded
# Attributes Scored	6	6	6	6	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	1.76 1	1.80 1	0.00 1	2.99 3	2.84 3
Abundance (#/m2)	977 1	1590 5	0 1	1091 3	4385 3
Biomass (g/m2)	0.02 1	0.59 1	0.00 1	1.01 3	2.70 3
Pollution Indicative Spp Abund (%)	44.19	65.71 1	100.00	22.92 3	11.92 3
Pollution Indicative Spp Biom (%)	31.58 1	37.31	100.00 1	54.63	1.64
Pollution Sensitive Spp Abund (%)	0.00	1.43 1	0.00	35.42 3	6.74 1
Pollution Sensitive Spp Biom (%)	0.00 1	18.85	0.00 1	27.31	41.13
Carnivore-Omnivore Abund (%)	9.30 1	7.14 1	0.00 1	22.92 3	13.47 1
Deep Deposit Feeder Abund (%)	2.33	27.14	0.00	31.25	51.81
TF Poll. Indicative Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Limnodrilus Abundance (%)	0.00	0.00	0.00	0.00	0.00
Oligo Poll. Indic. Spp Abund (%)	0.00	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 . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17602	17603	17604	17605	17606
Carinoma tremaphoros		23			45
Cyathura polita				23	23
Doridella obscura (Epi.)	23				
Edotea triloba (Epi.)				45	
Eteone heteropoda					23
Glycinde solitaria				182	68
Heteromastus filiformis		204		273	1340
Leitoscoloplos robustus		45		23	
Leptocheirus plumulosus					204
Macoma balthica		23			91
Macoma mitchelli		23		91	613
Marenzelleria viridis				182	114
Melita nitida (Epi.)	23				
Micrura leidyi				23	45
Mulinia lateralis				136	
Neanthes succinea	91	91		23	386
Nucula proxima				45	
Paraprionospio pinnata	68				
Pectinaria gouldii					23
Polydora cornuta	432				
Streblospio benedicti	364	1000		91	500
Tubificoides spp.	23	182			909
Total Abundance w/ Epifauna	1022	1590	0	1136	4385
Total Abundance w/o Epifauna	977	1590		1091	4385
Number of Taxa w/ Epifauna	7	8	0	12	14
Number of Taxa w/o Epifauna	5	8	0	11	14
BENTHIC BIOMASS (Grams per sq. meter)					
Site	17602	17603	17604	17605	17606
Carinoma tremaphoros		0.0159			0.0454
Cyathura polita				0.0636	0.0023
Doridella obscura (Epi.)	0.0023				
Edotea triloba (Epi.)				0.0011	
Eteone heteropoda					0.0011
Glycinde solitaria				0.0023	0.0023
Heteromastus filiformis		0.0409		0.1022	0.3522
Leitoscoloplos robustus		0.1931		0.0795	
Leptocheirus plumulosus					0.0227
Macoma balthica		0.1113			0.8316
Macoma mitchelli		0.0182		0.0386	0.6316
Marenzelleria viridis				0.2090	0.2726
Melita nitida (Epi.)	0.0136				
Micrura leidyi				0.0386	0.0068
Mulinia lateralis				0.4680	
Neanthes succinea	0.0045	0.1772		0.0011	0.4703
Nucula proxima				0.0011	
Paraprionospio pinnata	0.0023				
Pectinaria gouldii					0.0023
Polydora cornuta	0.0091				
Streblospio benedicti	0.0045	0.0273		0.0023	0.0432
Tubificoides spp.	0.0011	0.0068			0.0114
Total Biomass w/ Epifauna	0.0375	0.5907	0.0000	1.0076	2.6957
Total Biomass w/o Epifauna	0.0216	0.5907	0.0000	1.0065	2.6957

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17607	17608	17609	17610	17611
Watershed	Upper Bay	Upper Bay	Upper Bay	Upper Bay	Upper Bay
Habitat	High Meso Mud	High Meso Mud	High Meso Mud	Low Mesohaline	Low Mesohaline
Date	09/29/10	09/29/10	09/29/10	09/29/10	09/15/10
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	5.5	5.9	4.8	4.6
Salinity (ppt)	12.56	13.58	13.20	11.86	10.63
Temperature (C)	22.87	23.22	22.75	22.58	22.63
Dissolved Oxygen (mg/L)	3.2	6.1	6.2	6.5	5.4
Sediment Silt-Clay (%)	93.19	81.21	93.39	87.28	83.58
Total Carbon (%)	4.08	2.66	1.99	2.24	2.12
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	1.00	4.67	4.67	4.60	4.20
Condition	Severely Degr.	Meets Goal	Meets Goal	Meets Goal	Meets Goal
# Attributes Scored	6	6	6	5	5
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	0.00 1	2.95 3	2.29 3	2.94 5	2.63 5
Abundance (#/m2)	23 1	1590 5	1659 5	1454 3	1227 3
Biomass (g/m2)	0.00 1	2.83 5	3.14 5	7.11 5	1.53 3
Pollution Indicative Spp Abund (%)	100.00	5.71	1.37	1.56	7.41
Pollution Indicative Spp Biom (%)	100.00	0.20 5	0.04 5	0.03	0.15
Pollution Sensitive Spp Abund (%)	0.00	20.00	13.70	32.81	16.67
Pollution Sensitive Spp Biom (%)	0.00	87.05 5	82.29 5	96.21 5	80.51 5
Carnivore-Omnivore Abund (%)	0.00	25.71 5	41.10 5	40.63	5.56
Deep Deposit Feeder Abund (%)	0.00	24.29	41.10	34.38	42.59
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	5.56
Oligo Poll. Indic. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Oligo Poll. Sens. Spp Abund (%)	0.00	0.00	0.00	0.00	0.00
Tolerance Score	0.00	0.00	0.00	0.00	9.80
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00

Continued . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17607	17608	17609	17610	17611
Carinoma tremaphoros		91	23	136	
Cyathura polita				295	68
Glycinde solitaria		45			
Heteromastus filiformis		159	409	364	91
Leptocheirus plumulosus		364		23	364
Macoma balthica		273	136	136	23
Macoma mitchelli		68	45	136	114
Marenzelleria viridis			91	45	114
Melita nitida (Epi.)		23		23	
Neanthes succinea		273	659	159	
Paraprionospio pinnata		23			
Streblospio benedicti	23	68	23	23	23
Tubificidae imm w/o cap chaetae					68
Tubificoides spp.		227	273	136	364
Total Abundance w/ Epifauna	23	1613	1659	1477	1227
Total Abundance w/o Epifauna	23	1590	1659	1454	1227
Number of Taxa w/ Epifauna	1	11	8	11	9
Number of Taxa w/o Epifauna	1	10	8	10	9
BENTHIC BIOMASS (Grams per sq. meter)					
Site	17607	17608	17609	17610	17611
Carinoma tremaphoros		0.0136	0.0250	0.0250	
Cyathura polita				0.5248	0.0500
Glycinde solitaria		0.0068			
Heteromastus filiformis		0.0386	0.0591	0.0523	0.0250
Leptocheirus plumulosus		0.0886		0.0011	0.0727
Macoma balthica		2.4606	2.0902	6.2207	0.8520
Macoma mitchelli		0.0227	0.0432	0.0636	0.1931
Marenzelleria viridis			0.4908	0.0977	0.3272
Melita nitida (Epi.)		0.0011		0.0023	
Neanthes succinea		0.1954	0.4203	0.1204	
Paraprionospio pinnata		0.0011			
Streblospio benedicti	0.0023	0.0045	0.0011	0.0023	0.0011
Tubificidae imm w/o cap chaetae					0.0011
Tubificoides spp.		0.0023	0.0068	0.0045	0.0045
Total Biomass w/ Epifauna	0.0023	2.8355	3.1365	7.1148	1.5268
Total Biomass w/o Epifauna	0.0023	2.8343	3.1365	7.1125	1.5268

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17612	17613	17614	17615	17616
Watershed	Upper Bay	Upper Bay	Upper Bay	Upper Bay	Upper Bay
Habitat	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline
Date	09/15/10	09/15/10	09/15/10	09/15/10	09/15/10
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044
BOTTOM ENVIRONMENT					
Depth (m)	5.0	4.9	10.3	5.5	9.4
Salinity (ppt)	11.06	10.62	11.97	9.20	11.72
Temperature (C)	22.80	22.69	23.15	22.30	23.18
Dissolved Oxygen (mg/L)	5.4	5.9	4.9	6.9	4.9
Sediment Silt-Clay (%)	81.41	96.24	86.55	76.46	87.18
Total Carbon (%)	2.35	2.09	1.68	1.78	2.46
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	4.20	3.80	4.20	3.80	3.80
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	2.42 3	2.70 5	3.35 5	3.11 5	2.20 3
Abundance (#/m2)	1727 5	1318 3	2840 3	2817 3	3772 3
Biomass (g/m2)	28.21 3	72.50 1	13.21 3	9.45 5	1.81 3
Pollution Indicative Spp Abund (%)	2.63 5	0.00 5	5.60 5	20.97 1	4.82 5
Pollution Indicative Spp Biom (%)	0.01	0.00	0.21	0.12	0.25
Pollution Sensitive Spp Abund (%)	13.16	29.31	31.20	25.00	8.43
Pollution Sensitive Spp Biom (%)	98.81 5	99.64 5	94.91 5	97.91 5	80.29 5
Carnivore-Omnivore Abund (%)	11.84	18.97	23.20	38.71	15.66
Deep Deposit Feeder Abund (%)	31.58	32.76	24.80	20.97	68.67
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	6.00	6.00	6.00	6.00	0.00
Tany./Chir. Abundance Ratio	0.00	0.00	0.00	0.00	0.00

Continued . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17612	17613	17614	17615	17616
Apocorophium lacustre (Epi.)				886	
Boccardiella ligerica				23	
Carinoma tremaphoros	45	68	204	23	114
Cratena pilata (Epi.)				23	
Cyathura polita	159	159	295	454	114
Edotea triloba (Epi.)			23		45
Eteone heteropoda				91	23
Geukensia demissa (Epi.)				23	
Glycinde solitaria					23
Heteromastus filiformis	91	23	409	91	295
Leptocheirus plumulosus	682	250	409	45	68
Macoma balthica			204		159
Macoma mitchelli	182	159	318	159	182
Marenzelleria viridis	23	182	341	227	23
Melita nitida (Epi.)	91		273	114	91
Micrura leidyi			68		
Mulinia lateralis			68		45
Neanthes succinea		23	91	523	318
Polydora cornuta				159	
Rangia cuneata	45	45	45	23	
Streblospio benedicti	45		91	500	114
Tubificoides spp.	454	409	295	500	2295
Total Abundance w/ Epifauna	1818	1318	3135	3862	3908
Total Abundance w/o Epifauna	1727	1318	2840	2817	3772
Number of Taxa w/ Epifauna	10	9	15	17	15
Number of Taxa w/o Epifauna	9	9	13	13	13
BENTHIC BIOMASS (Grams per sq. meter)					
Site	17612	17613	17614	17615	17616
Apocorophium lacustre (Epi.)				0.0432	
Boccardiella ligerica				0.0011	
Carinoma tremaphoros	0.0091	0.0136	0.0341	0.0091	0.0432
Cratena pilata (Epi.)				0.0023	
Cyathura polita	0.3885	0.1250	0.3976	0.1908	0.0795
Edotea triloba (Epi.)			0.0045		0.0045
Eteone heteropoda				0.0023	0.0023
Geukensia demissa (Epi.)				0.0023	
Glycinde solitaria					0.0011
Heteromastus filiformis	0.0613	0.0136	0.1636	0.0477	0.1318
Leptocheirus plumulosus	0.1590	0.0386	0.1022	0.0011	0.0114
Macoma balthica			1.0815		1.2201
Macoma mitchelli	0.1022	0.1908	0.2704	0.0045	0.0636
Marenzelleria viridis	0.0273	0.9338	1.3496	0.4499	0.1522
Melita nitida (Epi.)	0.0045		0.0273	0.0159	0.0136
Micrura leidyi			0.0250		
Mulinia lateralis			0.0227		0.0011
Neanthes succinea		0.0011	0.0477	0.0636	0.0795
Polydora cornuta				0.0523	
Rangia cuneata	27.4548	71.1795	9.7105	8.6132	
Streblospio benedicti	0.0023		0.0045	0.0091	0.0011
Tubificoides spp.	0.0023	0.0045	0.0023	0.0068	0.0227
Total Biomass w/ Epifauna	28.2114	72.5007	13.2435	9.5151	1.8278
Total Biomass w/o Epifauna	28.2069	72.5007	13.2117	9.4515	1.8096

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17617	17618	17619	17620	17621					
Watershed	Upper Bay	Upper Bay	Upper Bay	Upper Bay	Upper Bay					
Habitat	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline	Low Mesohaline					
Date	09/15/10	09/12/10	09/15/10	09/12/10	09/12/10					
Gear	Young Grab	Young Grab	Young Grab	Young Grab	Young Grab					
Sampled Area (sq.m)	0.044	0.044	0.044	0.044	0.044					
BOTTOM ENVIRONMENT										
Depth (m)	2.5	3.8	6.7	1.5	2.3					
Salinity (ppt)	7.71	9.13	9.49	7.43	7.18					
Temperature (C)	22.66	22.31	23.00	21.36	21.52					
Dissolved Oxygen (mg/L)	8.7	7.7	5.8	7.6	7.6					
Sediment Silt-Clay (%)	56.89	93.41	85.75	2.87	86.15					
Total Carbon (%)	1.73	1.45	2.09	0.13	1.14					
BENTHIC INDEX OF BIOTIC INTEGRITY										
B-IBI Score	3.80		3.40		4.20		3.00		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	2.83	5	2.73	5	2.82	5	3.03	5	2.52	5
Abundance (#/m2)	1363	3	954	3	1954	5	500	1	1954	5
Biomass (g/m2)	3.22	3	48.66	1	40.37	1	4.64	3	75.76	1
Pollution Indicative Spp Abund (%)	15.00	3	16.67	3	1.16	5	18.18	3	24.42	1
Pollution Indicative Spp Biom (%)	0.18		0.03		0.00		0.10		0.02	
Pollution Sensitive Spp Abund (%)	46.67		30.95		31.40		31.82		12.79	
Pollution Sensitive Spp Biom (%)	96.86	5	99.19	5	99.62	5	98.97	3	99.88	5
Carnivore-Omnivore Abund (%)	33.33		7.14		34.88		13.64		4.65	
Deep Deposit Feeder Abund (%)	1.67		11.90		26.74		0.00		40.70	
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	6.10		6.00		6.00		6.00		6.03	
Tany./Chir. Abundance Ratio	100.00		0.00		0.00		0.00		100.00	

Continued . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17617	17618	17619	17620	17621
Apocorophium lacustre (Epi.)	318				
Carinoma tremaphoros			273		23
Coelotanypus spp.	23				23
Cyathura polita	182	68	386	23	23
Eteone heteropoda	68				
Heteromastus filiformis	23	45	45		
Laeonereis culveri				45	
Lepidactylus dytiscus				45	
Leptocheirus plumulosus	182	295	432	68	182
Macoma balthica			45		
Macoma mitchelli		91	68	68	45
Marenzelleria viridis	432	159	91	91	68
Neanthes succinea	182		23		23
Polydora cornuta	136			23	159
Rangia cuneata	23	68	91	45	159
Streblospio benedicti	114	159	23	91	454
Tubificoides spp.		68	477		795
Total Abundance w/ Epifauna	1681	954	1954	500	1954
Total Abundance w/o Epifauna	1363	954	1954	500	1954
Number of Taxa w/ Epifauna	11	8	11	9	11
Number of Taxa w/o Epifauna	10	8	11	9	11
BENTHIC BIOMASS (Grams per sq. meter)					
Site	17617	17618	17619	17620	17621
Apocorophium lacustre (Epi.)	0.0136				
Carinoma tremaphoros			0.0591		0.0023
Coelotanypus spp.	0.0023				0.0068
Cyathura polita	0.1250	0.0318	0.2340	0.0011	0.0045
Eteone heteropoda	0.0011				
Heteromastus filiformis	0.0045	0.0704	0.0023		
Laeonereis culveri				0.0114	
Lepidactylus dytiscus				0.0068	
Leptocheirus plumulosus	0.0136	0.0591	0.0545	0.0068	0.0318
Macoma balthica			0.4385		
Macoma mitchelli		0.2408	0.0318	0.0136	0.0182
Marenzelleria viridis	0.8884	1.0996	0.5907	0.0772	0.0523
Neanthes succinea	0.0659		0.0011		0.0023
Polydora cornuta	0.0114			0.0045	0.0114
Rangia cuneata	2.1016	47.1304	38.9534	4.5122	75.6144
Streblospio benedicti	0.0023	0.0159	0.0011	0.0045	0.0091
Tubificoides spp.		0.0091	0.0023		0.0114
Total Biomass w/ Epifauna	3.2296	48.6572	40.3689	4.6383	75.7644
Total Biomass w/o Epifauna	3.2160	48.6572	40.3689	4.6383	75.7644

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2010 (CRUISE 01:2010/2011) BAY-WIDE RANDOM SITES

Site	17622	17623	17624	17625	17626
Watershed	Upper Bay	Upper Bay	Upper Bay	Upper Bay	Upper Bay
Habitat	Low Mesohaline	Oligohaline	Oligohaline	Freshwater	High Meso Sand
Date	09/15/10	09/15/10	09/23/10	09/23/10	09/16/10
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)	10.4	5.6	2.5	6.5	1.4
Salinity (ppt)	7.80	4.86	2.17	0.30	15.00
Temperature (C)	23.02	22.55	22.11	22.80	23.06
Dissolved Oxygen (mg/L)	5.6	6.5	8.2	8.0	6.1
Sediment Silt-Clay (%)	83.30	77.97	17.36	1.17	1.17
Total Carbon (%)	2.23	1.59	1.14	0.07	0.06
BENTHIC INDEX OF BIOTIC INTEGRITY					
B-IBI Score	5.00	3.00	2.67	4.50	2.00
Condition	Meets Goal	Meets Goal	Marginal	Meets Goal	Severely Degr.
# Attributes Scored	5	5	6	4	6
	Value Score	Value Score	Value Score	Value Score	Value Score
Shannon-Wiener Index	2.92 5	2.76 5	1.95 5	2.35 3	2.42 1
Abundance (#/m2)	1613 5	2726 5	2431 5	909 3	1068 3
Biomass (g/m2)	7.70 5	112.26 5	0.46 6	0.30 4	1.67 3
Pollution Indicative Spp Abund (%)	5.63 5	13.33 5	71.96 6	15.00 4	17.02 3
Pollution Indicative Spp Biom (%)	0.04 5	0.01 5	15.59 6	2.25 4	42.54 3
Pollution Sensitive Spp Abund (%)	63.38 5	34.17 5	12.15 6	2.50 4	4.26 1
Pollution Sensitive Spp Biom (%)	98.02 5	99.87 5	69.31 6	4.49 4	2.78 3
Carnivore-Omnivore Abund (%)	35.21 5	7.50 1	11.21 1	7.50 5	14.89 1
Deep Deposit Feeder Abund (%)	7.04 5	25.00 5	67.29 6	40.00 5	2.13 3
TF Poll. Indicative Spp Abund (%)	0.00 5	0.00 5	0.00 6	12.50 5	0.00 3
Limnodrilus Abundance (%)	0.00 5	1.67 5	67.29 6	12.50 5	0.00 3
Oligo Poll. Indic. Spp Abund (%)	0.00 5	64.17 3	78.50 3	0.00 5	0.00 3
Oligo Poll. Sens. Spp Abund (%)	0.00 5	15.00 3	5.61 3	0.00 5	0.00 3
Tolerance Score	6.00 5	6.40 3	9.51 1	7.80 5	0.00 3
Tany./Chir. Abundance Ratio	0.00 5	0.00 5	60.00 3	0.00 5	0.00 3

Continued . . .

BENTHIC ABUNDANCE (per sq. meter)					
Site	17622	17623	17624	17625	17626
Acteocina canaliculata					23
Apocorophium lacustre (Epi.)	45		23		
Boccardiella ligerica	23		204		
Carinoma tremaphoros	91	23			
Chiridotea almyra		23			
Chironomus spp.			23		
Coelotanypus spp.			68		
Corbicula fluminea			68	386	
Cryptochironomus spp.				23	
Cyathura polita	273	159	159		
Edotea triloba (Epi.)	45	45			
Eteone heteropoda	45			23	
Gammarus daiberi (Epi.)		23			
Gemma gemma					364
Harnischia spp.			23		
Heteromastus filiformis	45				23
Hobsonia florida	23				
Lepidactylus dytiscus					295
Leptocheirus plumulosus		659	91	68	
Limnodrilus hoffmeisteri			45		
Littoridinops tenuipes (Epi.)			23	23	
Macoma balthica	23				
Macoma mitchelli	91				
Marenzelleria viridis	613	386	136	23	23
Melita nitida (Epi.)		91			
Micrura leidyi					136
Mulinia lateralis					159
Mytilopsis leucophaeata (Epi.)	182	23			
Neanthes succinea	159				
Paraonis fulgens					23
Polydora cornuta		91			
Polypedilum halterale group				23	
Rangia cuneata	114	386			
Rhithropanopeus harrisii (Epi.)	23				
Streblospio benedicti	45	318	23		23
Tubificidae imm w cap chaetae				227	
Tubificidae imm w/o cap chaetae		45		114	
Tubificidae imm w/o cap chaetae *			1590		
Tubificoides spp.	68	636		23	
Total Abundance w/ Epifauna	1908	2908	2476	932	1068
Total Abundance w/o Epifauna	1613	2726	2431	909	1068
Number of Taxa w/ Epifauna	17	14	12	10	9
Number of Taxa w/o Epifauna	13	10	10	9	9

Continued . . .

BENTHIC BIOMASS (Grams per sq. meter)					
Site	17622	17623	17624	17625	17626
Acteocina canaliculata					0.0011
Apocorophium lacustre (Epi.)	0.0023		0.0011		
Boccardiella ligerica	0.0011		0.0045		
Carinoma tremaphoros	0.0341	0.0068			
Chiridotea almyra		0.0011			
Chironomidae			0.0011	0.0011	
Coelotanytus spp.			0.0091		
Corbicula fluminea			0.0523	0.2590	
Cyathura polita	0.2545	0.0227	0.0886		
Edotea triloba (Epi.)	0.0068	0.0011			
Eteone heteropoda	0.0023			0.0068	
Gammarus daiberi (Epi.)		0.0045			
Gemma gemma					0.0318
Heteromastus filiformis	0.0091				0.0068
Hobsonia florida	0.0011				
Lepidactylus dytiscus					0.1977
Leptocheirus plumulosus		0.1272	0.0114	0.0068	
Littoridinops tenuipes (Epi.)			0.0023	0.0011	
Macoma balthica	0.3453				
Macoma mitchelli	0.0727				
Marenzelleria viridis	1.9198	0.9838	0.2295	0.0136	0.0454
Melita nitida (Epi.)		0.0045			
Micrura leidyi					0.6771
Mulinia lateralis					0.7111
Mytilopsis leucophaeata (Epi.)	0.1318	0.0454			
Neanthes succinea	0.0295				
Oligochaeta			0.0613	0.0148	
Paraonis fulgens					0.0023
Polydora cornuta		0.0011			
Rangia cuneata	5.0257	111.1031			
Rhithropanopeus harrisii (Epi.)	0.0772				
Streblospio benedicti	0.0011	0.0045	0.0011		0.0011
Tubificidae imm w/o cap chaetae		0.0011			
Tubificoides spp.	0.0011	0.0045		0.0011	
Total Biomass w/ Epifauna	7.9156	112.3118	0.4624	0.3044	1.6745
Total Biomass w/o Epifauna	7.6975	112.2561	0.4589	0.3033	1.6745