



VERSAR

Final Report

Chesapeake Bay Water Quality Monitoring Program

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

July 1984 – December 2014
(Volume 2)

Prepared for

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

Prepared by

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December 2015

**CHESAPEAKE BAY WATER QUALITY
MONITORING PROGRAM**

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

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DATA SUMMARY A

**BENTHIC ENVIRONMENT AND COMMUNITY
COMPOSITION AT FIXED SITES:
SUMMER 2014**

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Mainstem | | Station: 001 | | Rep: 01 | |
| Gear: Modified Box Corer | | Habitat: High Mesohaline Sand | | Date: 15SEP14 | |
| | | Sampled Area: 0.025 sq.m | | Time: 12:29:11 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 2.5 | | Salinity (ppt): 12.16 | | Temperature (C): 24.94 | |
| Dissolved Oxygen (mg/l): 7.7 | | Sediment Silt-Clay (%): 1.50 | | Total Carbon (%): 0.13 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.00 | | Condition: Meets Goal | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.99 | 3 | Pollution Indicative Species Abundance (%) | 0.00 | 5 |
| Abundance (#/m2) | 560 | 1 | Pollution Indicative Species Biomass (%) | 0.00 | |
| Biomass (g/m2) | 0.41 | 1 | Pollution Sensitive Species Abundance (%) | 14.29 | 3 |
| Carnivore-Omnivore Abundance (%) | 35.71 | 5 | Pollution Sensitive Species Biomass (%) | 85.29 | |
| Deep Deposit Feeder Abundance (%) | 7.14 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Carinoma tremaphoros | 80 | | 0.02800 | | |
| Gemma gemma | 40 | | 0.00200 | | |
| Glycinde solitaria | 40 | | 0.01200 | | |
| Haminoea solitaria | 40 | | 0.00200 | | |
| Heteromastus filiformis | 40 | | 0.01600 | | |
| Macoma balthica | 40 | | 0.33600 | | |
| Macoma mitchelli | 120 | | 0.00200 | | |
| Neanthes succinea | 40 | | 0.00200 | | |
| Paraonis fulgens | 120 | | 0.00800 | | |
| Total Abundance w/ Epi. | 560 | | | | |
| Total Abundance w/o Epi. | 560 | | | | |
| Number of Taxa w/ Epi. | 9 | | | | |
| Number of Taxa w/o Epi. | 9 | | | | |
| Total Biomass w/ Epi. | | | 0.40800 | | |
| Total Biomass w/o Epi. | | | 0.40800 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|-------|-------------------------------|--|------------------------|-------|
| Watershed: Mainstem | | Station: 001 | | Rep: 02 | |
| Gear: Modified Box Corer | | Habitat: High Mesohaline Sand | | Date: 15SEP14 | |
| | | Sampled Area: 0.025 sq.m | | Time: 12:29:11 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 2.5 | | Salinity (ppt): 12.16 | | Temperature (C): 24.94 | |
| Dissolved Oxygen (mg/l): 7.7 | | Sediment Silt-Clay (%): 1.50 | | Total Carbon (%): 0.13 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 2.67 | | Condition: Marginal | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.58 | 3 | Pollution Indicative Species Abundance (%) | 0.00 | 5 |
| Abundance (#/m2) | 840 | 1 | Pollution Indicative Species Biomass (%) | 0.00 | |
| Biomass (g/m2) | 1.70 | 3 | Pollution Sensitive Species Abundance (%) | 4.76 | 1 |
| Carnivore-Omnivore Abundance (%) | 33.33 | 3 | Pollution Sensitive Species Biomass (%) | 0.12 | |
| Deep Deposit Feeder Abundance (%) | 4.76 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | | Abundance (#/m2) | | Biomass (g/m2) | |
| Carinoma tremaphoros | | 40 | | 0.00400 | |
| Gemma gemma | | 120 | | 0.00400 | |
| Glycinde solitaria | | 40 | | 0.00200 | |
| Haminoea solitaria | | 40 | | 0.00400 | |
| Heteromastus filiformis | | 40 | | 0.00400 | |
| Laeonereis culveri | | 40 | | 0.30800 | |
| Macoma mitchelli | | 360 | | 0.00400 | |
| Micrura leidyi | | 80 | | 1.35200 | |
| Neanthes succinea | | 40 | | 0.01600 | |
| Paraonis fulgens | | 40 | | 0.00200 | |
| Stylochus ellipticus (Epi) | | 40 | | 0.01600 | |
| Total Abundance w/ Epi. | | 880 | | | |
| Total Abundance w/o Epi. | | 840 | | | |
| Number of Taxa w/ Epi. | | 11 | | | |
| Number of Taxa w/o Epi. | | 10 | | | |
| Total Biomass w/ Epi. | | | | 1.71600 | |
| Total Biomass w/o Epi. | | | | 1.70000 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Mainstem | | Station: 001 | | Rep: 03 | |
| Gear: Modified Box Corer | | Habitat: High Mesohaline Sand | | Date: 15SEP14 | |
| | | Sampled Area: 0.025 sq.m | | Time: 12:29:11 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 2.5 | | Salinity (ppt): 12.16 | | Temperature (C): 24.94 | |
| Dissolved Oxygen (mg/l): 7.7 | | Sediment Silt-Clay (%): 1.50 | | Total Carbon (%): 0.13 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.00 | | Condition: Meets Goal | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.79 | 3 | Pollution Indicative Species Abundance (%) | 3.45 | 5 |
| Abundance (#/m2) | 1160 | 3 | Pollution Indicative Species Biomass (%) | 3.80 | |
| Biomass (g/m2) | 0.32 | 1 | Pollution Sensitive Species Abundance (%) | 17.24 | 3 |
| Carnivore-Omnivore Abundance (%) | 27.59 | 3 | Pollution Sensitive Species Biomass (%) | 73.42 | |
| Deep Deposit Feeder Abundance (%) | 3.45 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Ameroculodes species complex | 40 | | 0.00400 | | |
| Gemma gemma | 320 | | 0.02000 | | |
| Glycinde solitaria | 120 | | 0.01600 | | |
| Haminoea solitaria | 200 | | 0.00800 | | |
| Heteromastus filiformis | 40 | | 0.00800 | | |
| Lepidactylus dytiscus | 40 | | 0.01200 | | |
| Macoma balthica | 40 | | 0.20400 | | |
| Macoma mitchelli | 280 | | 0.02000 | | |
| Mulinia lateralis | 40 | | 0.01200 | | |
| Phoronis spp. | 40 | | 0.01200 | | |
| Total Abundance w/ Epi. | 1160 | | | | |
| Total Abundance w/o Epi. | 1160 | | | | |
| Number of Taxa w/ Epi. | 10 | | | | |
| Number of Taxa w/o Epi. | 10 | | | | |
| Total Biomass w/ Epi. | | | 0.31600 | | |
| Total Biomass w/o Epi. | | | 0.31600 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | |
|-------------------------------------|------------------|------------------------------|--|
| Station: 006 | | Rep: 01 | |
| Watershed: Calvert Cliffs Discharge | | Date: 15SEP14 | |
| Gear: Modified Box Corer | | Time: 11:27:43 | |
| Habitat: High Mesohaline Sand | | | |
| Sampled Area: 0.025 sq.m | | | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 2.4 | | Salinity (ppt): 12.21 | |
| Dissolved Oxygen (mg/l): 7.2 | | Temperature (C): 25.81 | |
| | | Sediment Silt-Clay (%): 1.34 | |
| | | Total Carbon (%): 0.04 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 2.33 | | Condition: Degraded | |
| | | # Attributes Scored: 6 | |
| | Value | Score | |
| Shannon-Wiener Index | 2.07 | 1 | Pollution Indicative Species Abundance (%) |
| Abundance (#/m2) | 920 | 1 | Pollution Indicative Species Biomass (%) |
| Biomass (g/m2) | 0.20 | 1 | Pollution Sensitive Species Abundance (%) |
| Carnivore-Omnivore Abundance (%) | 43.48 | 5 | Pollution Sensitive Species Biomass (%) |
| Deep Deposit Feeder Abundance (%) | 4.35 | | |
| | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) |
| Gemma gemma | 80 | | 0.00400 |
| Glycinde solitaria | 40 | | 0.00400 |
| Heteromastus filiformis | 40 | | 0.02800 |
| Macoma mitchelli | 320 | | 0.01200 |
| Mulinia lateralis | 80 | | 0.01200 |
| Neanthes succinea | 360 | | 0.14000 |
| Total Abundance w/ Epi. | 920 | | |
| Total Abundance w/o Epi. | 920 | | |
| Number of Taxa w/ Epi. | 6 | | |
| Number of Taxa w/o Epi. | 6 | | |
| Total Biomass w/ Epi. | | | 0.20000 |
| Total Biomass w/o Epi. | | | 0.20000 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | |
|-------------------------------------|------------------|------------------------------|--|
| Station: 006 | | Rep: 02 | |
| Watershed: Calvert Cliffs Discharge | | Date: 15SEP14 | |
| Gear: Modified Box Corer | | Time: 11:27:43 | |
| Habitat: High Mesohaline Sand | | Sampled Area: 0.025 sq.m | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 2.4 | | Salinity (ppt): 12.21 | |
| Dissolved Oxygen (mg/l): 7.2 | | Temperature (C): 25.81 | |
| | | Sediment Silt-Clay (%): 1.34 | |
| | | Total Carbon (%): 0.04 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 2.33 | | Condition: Degraded | |
| | | # Attributes Scored: 6 | |
| | Value | Score | |
| Shannon-Wiener Index | 1.81 | 1 | Pollution Indicative Species Abundance (%) |
| Abundance (#/m2) | 320 | 1 | Pollution Indicative Species Biomass (%) |
| Biomass (g/m2) | 0.24 | 1 | Pollution Sensitive Species Abundance (%) |
| Carnivore-Omnivore Abundance (%) | 62.50 | 5 | Pollution Sensitive Species Biomass (%) |
| Deep Deposit Feeder Abundance (%) | 0.00 | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) |
| Gemma gemma | 120 | | 0.00800 |
| Laeonereis culveri | 40 | | 0.08400 |
| Micrura leidyi | 40 | | 0.02800 |
| Neanthes succinea | 120 | | 0.12400 |
| Total Abundance w/ Epi. | 320 | | |
| Total Abundance w/o Epi. | 320 | | |
| Number of Taxa w/ Epi. | 4 | | |
| Number of Taxa w/o Epi. | 4 | | |
| Total Biomass w/ Epi. | | | 0.24400 |
| Total Biomass w/o Epi. | | | 0.24400 |



BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-------------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Calvert Cliffs Discharge | | Station: 006 | | Rep: 03 | |
| Gear: Modified Box Corer | | Habitat: High Mesohaline Sand | | Date: 15SEP14 | |
| | | Sampled Area: 0.025 sq.m | | Time: 11:27:43 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 2.4 | | Salinity (ppt): 12.21 | | Temperature (C): 25.81 | |
| Dissolved Oxygen (mg/l): 7.2 | | Sediment Silt-Clay (%): 1.34 | | Total Carbon (%): 0.04 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 2.67 | | Condition: Marginal | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 1.77 | 1 | Pollution Indicative Species Abundance (%) | 0.00 | 5 |
| Abundance (#/m2) | 760 | 1 | Pollution Indicative Species Biomass (%) | 0.00 | |
| Biomass (g/m2) | 0.56 | 1 | Pollution Sensitive Species Abundance (%) | 21.05 | 3 |
| Carnivore-Omnivore Abundance (%) | 73.68 | 5 | Pollution Sensitive Species Biomass (%) | 15.77 | |
| Deep Deposit Feeder Abundance (%) | 5.26 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Gemma gemma | 40 | | 0.00800 | | |
| Glycinde solitaria | 80 | | 0.00400 | | |
| Heteromastus filiformis | 40 | | 0.04400 | | |
| Macoma mitchelli | 40 | | 0.00200 | | |
| Marenzelleria viridis | 80 | | 0.08400 | | |
| Neanthes succinea | 480 | | 0.41600 | | |
| Total Abundance w/ Epi. | 760 | | | | |
| Total Abundance w/o Epi. | 760 | | | | |
| Number of Taxa w/ Epi. | 6 | | | | |
| Number of Taxa w/o Epi. | 6 | | | | |
| Total Biomass w/ Epi. | | | 0.55800 | | |
| Total Biomass w/o Epi. | | | 0.55800 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Mainstem | | Station: 015 | | Rep: 01 | |
| Gear: Modified Box Corer | | Habitat: High Mesohaline Sand | | Date: 15SEP14 | |
| | | Sampled Area: 0.025 sq.m | | Time: 9:59:27 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 3.1 | | Salinity (ppt): 11.08 | | Temperature (C): 22.28 | |
| Dissolved Oxygen (mg/l): 7.0 | | Sediment Silt-Clay (%): 2.42 | | Total Carbon (%): 0.1 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 2.00 | | Condition: Severely Degr. | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.39 | 1 | Pollution Indicative Species Abundance (%) | 26.32 | 1 |
| Abundance (#/m2) | 760 | 1 | Pollution Indicative Species Biomass (%) | 29.18 | |
| Biomass (g/m2) | 3.58 | 5 | Pollution Sensitive Species Abundance (%) | 15.79 | 3 |
| Carnivore-Omnivore Abundance (%) | 0.00 | 1 | Pollution Sensitive Species Biomass (%) | 34.21 | |
| Deep Deposit Feeder Abundance (%) | 21.05 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Gemma gemma | 80 | | 0.00200 | | |
| Heteromastus filiformis | 160 | | 0.06000 | | |
| Macoma balthica | 80 | | 1.20800 | | |
| Macoma mitchelli | 200 | | 1.24800 | | |
| Marenzelleria viridis | 40 | | 0.01600 | | |
| Mulinia lateralis | 200 | | 1.04400 | | |
| Total Abundance w/ Epi. | 760 | | | | |
| Total Abundance w/o Epi. | 760 | | | | |
| Number of Taxa w/ Epi. | 6 | | | | |
| Number of Taxa w/o Epi. | 6 | | | | |
| Total Biomass w/ Epi. | | | 3.57800 | | |
| Total Biomass w/o Epi. | | | 3.57800 | | |



BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | |
|--------------------------|-------------------------------|---------------|
| Watershed: Mainstem | Station: 015 | Rep: 02 |
| Gear: Modified Box Corer | Habitat: High Mesohaline Sand | Date: 15SEP14 |
| | Sampled Area: 0.025 sq.m | Time: 9:59:27 |

BOTTOM ENVIRONMENT

| | | |
|------------------------------|------------------------------|------------------------|
| Depth (m): 3.1 | Salinity (ppt): 11.08 | Temperature (C): 22.28 |
| Dissolved Oxygen (mg/l): 7.0 | Sediment Silt-Clay (%): 2.42 | Total Carbon (%): 0.1 |

BENTHIC INDEX OF BIOTIC INTEGRITY

| | | | | |
|-----------------------------------|---------------------------|-------|--|---------|
| B-IBI Score: 1.67 | Condition: Severely Degr. | | # Attributes Scored: 6 | |
| | Value | Score | Value | Score |
| Shannon-Wiener Index | 2.28 | 1 | Pollution Indicative Species Abundance (%) | 18.18 3 |
| Abundance (#/m2) | 880 | 1 | Pollution Indicative Species Biomass (%) | 79.23 |
| Biomass (g/m2) | 1.25 | 3 | Pollution Sensitive Species Abundance (%) | 4.55 1 |
| Carnivore-Omnivore Abundance (%) | 4.55 | 1 | Pollution Sensitive Species Biomass (%) | 1.60 |
| Deep Deposit Feeder Abundance (%) | 27.27 | | | |

BENTHIC ABUNDANCE (per sq. meter)

| TAXA | Abundance (#/m2) | Biomass (g/m2) |
|--------------------------|------------------|----------------|
| Gemma gemma | 120 | 0.00800 |
| Heteromastus filiformis | 240 | 0.06000 |
| Macoma mitchelli | 280 | 0.00800 |
| Marenzelleria viridis | 40 | 0.02000 |
| Micrura leidyi | 40 | 0.16400 |
| Mulinia lateralis | 160 | 0.99200 |
| Total Abundance w/ Epi. | 880 | |
| Total Abundance w/o Epi. | 880 | |
| Number of Taxa w/ Epi. | 6 | |
| Number of Taxa w/o Epi. | 6 | |
| Total Biomass w/ Epi. | | 1.25200 |
| Total Biomass w/o Epi. | | 1.25200 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Mainstem | | Station: 015 | | Rep: 03 | |
| Gear: Modified Box Corer | | Habitat: High Mesohaline Sand | | Date: 15SEP14 | |
| | | Sampled Area: 0.025 sq.m | | Time: 9:59:27 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 3.1 | | Salinity (ppt): 11.08 | | Temperature (C): 22.28 | |
| Dissolved Oxygen (mg/l): 7.0 | | Sediment Silt-Clay (%): 2.42 | | Total Carbon (%): 0.1 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.00 | | Condition: Meets Goal | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.50 | 3 | Pollution Indicative Species Abundance (%) | 10.64 | 3 |
| Abundance (#/m2) | 1880 | 5 | Pollution Indicative Species Biomass (%) | 0.88 | |
| Biomass (g/m2) | 4.57 | 5 | Pollution Sensitive Species Abundance (%) | 2.13 | 1 |
| Carnivore-Omnivore Abundance (%) | 10.64 | 1 | Pollution Sensitive Species Biomass (%) | 19.61 | |
| Deep Deposit Feeder Abundance (%) | 23.40 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Ameroculodes species complex | 40 | | 0.00200 | | |
| Carinoma tremaphoros | 40 | | 0.00400 | | |
| Gemma gemma | 240 | | 0.00200 | | |
| Heteromastus filiformis | 400 | | 0.29600 | | |
| Macoma balthica | 40 | | 0.89600 | | |
| Macoma mitchelli | 720 | | 0.05200 | | |
| Micrura leidyi | 120 | | 3.27200 | | |
| Mulinia lateralis | 200 | | 0.04000 | | |
| Neanthes succinea | 40 | | 0.00400 | | |
| Tubificoides spp. | 40 | | 0.00200 | | |
| Total Abundance w/ Epi. | 1880 | | | | |
| Total Abundance w/o Epi. | 1880 | | | | |
| Number of Taxa w/ Epi. | 10 | | | | |
| Number of Taxa w/o Epi. | 10 | | | | |
| Total Biomass w/ Epi. | | | 4.57000 | | |
| Total Biomass w/o Epi. | | | 4.57000 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | |
|-----------------------------------|------------------|-------------------------------|--|
| Station: 022 | | Rep: 01 | |
| Watershed: Patapsco & Back Rivers | | Date: 29AUG14 | |
| Gear: Wildco Box Corer | | Time: 9:34:45 | |
| Habitat: Low Mesohaline | | | |
| Sampled Area: 0.022 sq.m | | | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 5.7 | | Salinity (ppt): 12.38 | |
| Dissolved Oxygen (mg/l): 0.2 | | Sediment Silt-Clay (%): 87.25 | |
| | | Temperature (C): 25.23 | |
| | | Total Carbon (%): 3.48 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 1.00 | | Condition: Severely Degr. | |
| | | # Attributes Scored: 5 | |
| | Value | Score | |
| Shannon-Wiener Index | 1.00 | 1 | Pollution Indicative Species Abundance (%) |
| Abundance (#/m2) | 182 | 1 | Pollution Indicative Species Biomass (%) |
| Biomass (g/m2) | 0.11 | 1 | Pollution Sensitive Species Abundance (%) |
| Carnivore-Omnivore Abundance (%) | 50.00 | | Pollution Sensitive Species Biomass (%) |
| Deep Deposit Feeder Abundance (%) | 0.00 | | 0.00 |
| | | | 1 |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) |
| Carinoma tremaphoros | 91 | | 0.10908 |
| Streblospio benedicti | 91 | | 0.00455 |
| Total Abundance w/ Epi. | 182 | | |
| Total Abundance w/o Epi. | 182 | | |
| Number of Taxa w/ Epi. | 2 | | |
| Number of Taxa w/o Epi. | 2 | | |
| Total Biomass w/ Epi. | | | 0.11363 |
| Total Biomass w/o Epi. | | | 0.11363 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Patapsco & Back Rivers | | Station: 022 | | Rep: 02 | |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | | Date: 29AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 9:34:45 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 5.7 | | Salinity (ppt): 12.38 | | Temperature (C): 25.23 | |
| Dissolved Oxygen (mg/l): 0.2 | | Sediment Silt-Clay (%): 87.25 | | Total Carbon (%): 3.48 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 1.80 | | Condition: Severely Degr. | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 1.26 | 1 | Pollution Indicative Species Abundance (%) | 70.00 | 1 |
| Abundance (#/m2) | 909 | 3 | Pollution Indicative Species Biomass (%) | 3.31 | |
| Biomass (g/m2) | 0.27 | 1 | Pollution Sensitive Species Abundance (%) | 5.00 | |
| Carnivore-Omnivore Abundance (%) | 20.00 | | Pollution Sensitive Species Biomass (%) | 66.12 | 3 |
| Deep Deposit Feeder Abundance (%) | 5.00 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Carinoma tremaphoros | 91 | | 0.06363 | | |
| Macoma balthica | 45 | | 0.18180 | | |
| Micrura leidyi | 91 | | 0.01818 | | |
| Streblospio benedicti | 636 | | 0.00909 | | |
| Tubificoides spp. | 45 | | 0.00227 | | |
| Total Abundance w/ Epi. | 909 | | | | |
| Total Abundance w/o Epi. | 909 | | | | |
| Number of Taxa w/ Epi. | 5 | | | | |
| Number of Taxa w/o Epi. | 5 | | | | |
| Total Biomass w/ Epi. | | | 0.27497 | | |
| Total Biomass w/o Epi. | | | 0.27497 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|-------|-------------------------------|--|------------------------|-------|
| Watershed: Patapsco & Back Rivers | | Station: 022 | | Rep: 03 | |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | | Date: 29AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 9:34:45 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 5.7 | | Salinity (ppt): 12.38 | | Temperature (C): 25.23 | |
| Dissolved Oxygen (mg/l): 0.2 | | Sediment Silt-Clay (%): 87.25 | | Total Carbon (%): 3.48 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 1.40 | | Condition: Severely Degr. | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 1.84 | 3 | Pollution Indicative Species Abundance (%) | 42.86 | 1 |
| Abundance (#/m2) | 318 | 1 | Pollution Indicative Species Biomass (%) | 2.94 | |
| Biomass (g/m2) | 0.31 | 1 | Pollution Sensitive Species Abundance (%) | 0.00 | |
| Carnivore-Omnivore Abundance (%) | 14.29 | | Pollution Sensitive Species Biomass (%) | 0.00 | 1 |
| Deep Deposit Feeder Abundance (%) | 42.86 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | | Abundance (#/m2) | | Biomass (g/m2) | |
| Carinoma tremaphoros | | 45 | | 0.12726 | |
| Heteromastus filiformis | | 45 | | 0.16817 | |
| Littoridinops tenuipes (Epi) | | 45 | | 0.01363 | |
| Streblospio benedicti | | 136 | | 0.00909 | |
| Tubificoides spp. | | 91 | | 0.00455 | |
| Total Abundance w/ Epi. | | 364 | | | |
| Total Abundance w/o Epi. | | 318 | | | |
| Number of Taxa w/ Epi. | | 5 | | | |
| Number of Taxa w/o Epi. | | 4 | | | |
| Total Biomass w/ Epi. | | | | 0.32270 | |
| Total Biomass w/o Epi. | | | | 0.30906 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Patapsco & Back Rivers | | Station: 023 | | Rep: 01 | |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | | Date: 29AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 10:41:38 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 6.5 | | Salinity (ppt): 12.53 | | Temperature (C): 25.27 | |
| Dissolved Oxygen (mg/l): 0.2 | | Sediment Silt-Clay (%): 54.93 | | Total Carbon (%): 1.57 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 2.20 | | Condition: Degraded | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 1.10 | 1 | Pollution Indicative Species Abundance (%) | 75.00 | 1 |
| Abundance (#/m2) | 2545 | 3 | Pollution Indicative Species Biomass (%) | 8.07 | |
| Biomass (g/m2) | 0.73 | 1 | Pollution Sensitive Species Abundance (%) | 3.57 | |
| Carnivore-Omnivore Abundance (%) | 0.00 | | Pollution Sensitive Species Biomass (%) | 90.06 | 5 |
| Deep Deposit Feeder Abundance (%) | 21.43 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Heteromastus filiformis | 91 | | 0.00909 | | |
| Macoma balthica | 91 | | 0.65903 | | |
| Streblospio benedicti | 1909 | | 0.05908 | | |
| Tubificoides spp. | 455 | | 0.00454 | | |
| Total Abundance w/ Epi. | 2545 | | | | |
| Total Abundance w/o Epi. | 2545 | | | | |
| Number of Taxa w/ Epi. | 4 | | | | |
| Number of Taxa w/o Epi. | 4 | | | | |
| Total Biomass w/ Epi. | | | 0.73175 | | |
| Total Biomass w/o Epi. | | | 0.73175 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Patapsco & Back Rivers | | Station: 023 | | Rep: 02 | |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | | Date: 29AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 10:41:38 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 6.5 | | Salinity (ppt): 12.53 | | Temperature (C): 25.27 | |
| Dissolved Oxygen (mg/l): 0.2 | | Sediment Silt-Clay (%): 54.93 | | Total Carbon (%): 1.57 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 1.40 | | Condition: Severely Degr. | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 0.90 | 1 | Pollution Indicative Species Abundance (%) | 88.57 | 1 |
| Abundance (#/m2) | 3182 | 3 | Pollution Indicative Species Biomass (%) | 33.43 | |
| Biomass (g/m2) | 0.75 | 1 | Pollution Sensitive Species Abundance (%) | 1.43 | |
| Carnivore-Omnivore Abundance (%) | 4.29 | | Pollution Sensitive Species Biomass (%) | 37.35 | 1 |
| Deep Deposit Feeder Abundance (%) | 7.14 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Carinoma tremaphoros | 45 | | 0.00227 | | |
| Eteone heteropoda | 45 | | 0.00227 | | |
| Macoma balthica | 45 | | 0.28179 | | |
| Mulinia lateralis | 45 | | 0.17725 | | |
| Neanthes succinea | 45 | | 0.21361 | | |
| Streblospio benedicti | 2727 | | 0.07272 | | |
| Tubificoides spp. | 227 | | 0.00454 | | |
| Total Abundance w/ Epi. | 3182 | | | | |
| Total Abundance w/o Epi. | 3182 | | | | |
| Number of Taxa w/ Epi. | 7 | | | | |
| Number of Taxa w/o Epi. | 7 | | | | |
| Total Biomass w/ Epi. | | | 0.75447 | | |
| Total Biomass w/o Epi. | | | 0.75447 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Patapsco & Back Rivers | | Station: 023 | | Rep: 03 | |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | | Date: 29AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 10:41:38 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 6.5 | | Salinity (ppt): 12.53 | | Temperature (C): 25.27 | |
| Dissolved Oxygen (mg/l): 0.2 | | Sediment Silt-Clay (%): 54.93 | | Total Carbon (%): 1.57 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 2.20 | | Condition: Degraded | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 0.87 | 1 | Pollution Indicative Species Abundance (%) | 84.00 | 1 |
| Abundance (#/m2) | 1136 | 3 | Pollution Indicative Species Biomass (%) | 6.96 | |
| Biomass (g/m2) | 0.52 | 1 | Pollution Sensitive Species Abundance (%) | 4.00 | |
| Carnivore-Omnivore Abundance (%) | 4.00 | | Pollution Sensitive Species Biomass (%) | 80.00 | 5 |
| Deep Deposit Feeder Abundance (%) | 8.00 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Carinoma tremaphoros | 45 | | 0.05908 | | |
| Macoma balthica | 45 | | 0.41814 | | |
| Streblospio benedicti | 954 | | 0.03636 | | |
| Tubificoides spp. | 91 | | 0.00909 | | |
| Total Abundance w/ Epi. | 1136 | | | | |
| Total Abundance w/o Epi. | 1136 | | | | |
| Number of Taxa w/ Epi. | 4 | | | | |
| Number of Taxa w/o Epi. | 4 | | | | |
| Total Biomass w/ Epi. | | | 0.52268 | | |
| Total Biomass w/o Epi. | | | 0.52268 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Mainstem | | Station: 024 | | Rep: 01 | |
| Gear: Wildco Box Corer | | Habitat: High Mesohaline Mud | | Date: 19AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 18:00:57 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 6.5 | | Salinity (ppt): 10.10 | | Temperature (C): 25.03 | |
| Dissolved Oxygen (mg/l): 1.5 | | Sediment Silt-Clay (%): 75.82 | | Total Carbon (%): 1.88 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.67 | | Condition: Meets Goal | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.13 | 3 | Pollution Indicative Species Abundance (%) | 0.00 | |
| Abundance (#/m2) | 2863 | 3 | Pollution Indicative Species Biomass (%) | 0.00 | 5 |
| Biomass (g/m2) | 18.35 | 3 | Pollution Sensitive Species Abundance (%) | 31.75 | |
| Carnivore-Omnivore Abundance (%) | 19.05 | 3 | Pollution Sensitive Species Biomass (%) | 89.79 | 5 |
| Deep Deposit Feeder Abundance (%) | 11.11 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Carinoma tremaphoros | 136 | | 0.00909 | | |
| Heteromastus filiformis | 227 | | 0.05000 | | |
| Leptocheirus plumulosus | 1091 | | 0.38178 | | |
| Macoma balthica | 909 | | 16.47563 | | |
| Micrura leidyi | 45 | | 0.00455 | | |
| Neanthes succinea | 364 | | 1.42259 | | |
| Tubificoides spp. | 91 | | 0.00454 | | |
| Total Abundance w/ Epi. | 2863 | | | | |
| Total Abundance w/o Epi. | 2863 | | | | |
| Number of Taxa w/ Epi. | 7 | | | | |
| Number of Taxa w/o Epi. | 7 | | | | |
| Total Biomass w/ Epi. | | | 18.34817 | | |
| Total Biomass w/o Epi. | | | 18.34817 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Mainstem | | Station: 024 | | Rep: 02 | |
| Gear: Wildco Box Corer | | Habitat: High Mesohaline Mud | | Date: 19AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 18:00:57 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 6.5 | | Salinity (ppt): 10.10 | | Temperature (C): 25.03 | |
| Dissolved Oxygen (mg/l): 1.5 | | Sediment Silt-Clay (%): 75.82 | | Total Carbon (%): 1.88 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 4.33 | | Condition: Meets Goal | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.03 | 3 | Pollution Indicative Species Abundance (%) | 0.00 | |
| Abundance (#/m2) | 2000 | 5 | Pollution Indicative Species Biomass (%) | 0.00 | 5 |
| Biomass (g/m2) | 22.56 | 3 | Pollution Sensitive Species Abundance (%) | 38.64 | |
| Carnivore-Omnivore Abundance (%) | 25.00 | 5 | Pollution Sensitive Species Biomass (%) | 97.56 | 5 |
| Deep Deposit Feeder Abundance (%) | 15.91 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Carinoma tremaphoros | 45 | | 0.00909 | | |
| Heteromastus filiformis | 318 | | 0.09999 | | |
| Leptocheirus plumulosus | 409 | | 0.23634 | | |
| Macoma balthica | 773 | | 22.00689 | | |
| Melita nitida (Epi) | 45 | | 0.00455 | | |
| Neanthes succinea | 455 | | 0.20453 | | |
| Total Abundance w/ Epi. | 2045 | | | | |
| Total Abundance w/o Epi. | 2000 | | | | |
| Number of Taxa w/ Epi. | 6 | | | | |
| Number of Taxa w/o Epi. | 5 | | | | |
| Total Biomass w/ Epi. | | | 22.56138 | | |
| Total Biomass w/o Epi. | | | 22.55683 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Mainstem | | Station: 024 | | Rep: 03 | |
| Gear: Wildco Box Corer | | Habitat: High Mesohaline Mud | | Date: 19AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 18:00:57 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 6.5 | | Salinity (ppt): 10.10 | | Temperature (C): 25.03 | |
| Dissolved Oxygen (mg/l): 1.5 | | Sediment Silt-Clay (%): 75.82 | | Total Carbon (%): 1.88 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 4.67 | | Condition: Meets Goal | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.40 | 3 | Pollution Indicative Species Abundance (%) | 4.08 | |
| Abundance (#/m2) | 2227 | 5 | Pollution Indicative Species Biomass (%) | 0.35 | 5 |
| Biomass (g/m2) | 5.14 | 5 | Pollution Sensitive Species Abundance (%) | 26.53 | |
| Carnivore-Omnivore Abundance (%) | 34.69 | 5 | Pollution Sensitive Species Biomass (%) | 76.19 | 5 |
| Deep Deposit Feeder Abundance (%) | 8.16 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Carinoma tremaphoros | 273 | | 0.18635 | | |
| Eteone heteropoda | 91 | | 0.01818 | | |
| Heteromastus filiformis | 136 | | 0.01818 | | |
| Leptocheirus plumulosus | 682 | | 0.28179 | | |
| Macoma balthica | 591 | | 3.91325 | | |
| Neanthes succinea | 409 | | 0.71357 | | |
| Tubificoides spp. | 45 | | 0.00454 | | |
| Total Abundance w/ Epi. | 2227 | | | | |
| Total Abundance w/o Epi. | 2227 | | | | |
| Number of Taxa w/ Epi. | 7 | | | | |
| Number of Taxa w/o Epi. | 7 | | | | |
| Total Biomass w/ Epi. | | | 5.13585 | | |
| Total Biomass w/o Epi. | | | 5.13585 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Upper Western Shore | | Station: 026 | | Rep: 01 | |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | | Date: 19AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 15:51:08 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 4.4 | | Salinity (ppt): 4.25 | | Temperature (C): 25.07 | |
| Dissolved Oxygen (mg/l): 7.3 | | Sediment Silt-Clay (%): 91.01 | | Total Carbon (%): 2.18 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.80 | | Condition: Meets Goal | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.39 | 3 | Pollution Indicative Species Abundance (%) | 4.55 | 5 |
| Abundance (#/m2) | 1000 | 3 | Pollution Indicative Species Biomass (%) | 0.20 | |
| Biomass (g/m2) | 2.30 | 3 | Pollution Sensitive Species Abundance (%) | 63.64 | |
| Carnivore-Omnivore Abundance (%) | 45.45 | | Pollution Sensitive Species Biomass (%) | 82.45 | 5 |
| Deep Deposit Feeder Abundance (%) | 0.00 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Carinoma tremaphoros | 45 | | 0.00455 | | |
| Coelotanypus spp. | 45 | | 0.00455 | | |
| Cyathura polita | 364 | | 0.14089 | | |
| Leptocheirus plumulosus | 182 | | 0.02727 | | |
| Macoma mitchelli | 91 | | 0.36815 | | |
| Marenzelleria viridis | 227 | | 0.29543 | | |
| Rangia cuneata | 45 | | 1.46349 | | |
| Total Abundance w/ Epi. | 1000 | | | | |
| Total Abundance w/o Epi. | 1000 | | | | |
| Number of Taxa w/ Epi. | 7 | | | | |
| Number of Taxa w/o Epi. | 7 | | | | |
| Total Biomass w/ Epi. | | | 2.30431 | | |
| Total Biomass w/o Epi. | | | 2.30431 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Upper Western Shore | | Station: 026 | | Rep: 02 | |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | | Date: 19AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 15:51:08 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 4.4 | | Salinity (ppt): 4.25 | | Temperature (C): 25.07 | |
| Dissolved Oxygen (mg/l): 7.3 | | Sediment Silt-Clay (%): 91.01 | | Total Carbon (%): 2.18 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.80 | | Condition: Meets Goal | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.19 | 3 | Pollution Indicative Species Abundance (%) | 0.00 | 5 |
| Abundance (#/m2) | 1591 | 5 | Pollution Indicative Species Biomass (%) | 0.00 | |
| Biomass (g/m2) | 44.66 | 1 | Pollution Sensitive Species Abundance (%) | 71.43 | |
| Carnivore-Omnivore Abundance (%) | 22.86 | | Pollution Sensitive Species Biomass (%) | 99.80 | 5 |
| Deep Deposit Feeder Abundance (%) | 17.14 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Ameroculodes species complex | 45 | | 0.00227 | | |
| Cyathura polita | 364 | | 0.06363 | | |
| Gammarus daiberi (Epi) | 91 | | 0.02727 | | |
| Heteromastus filiformis | 91 | | 0.02273 | | |
| Leptocheirus plumulosus | 136 | | 0.06363 | | |
| Littoridinops tenuipes (Epi) | 45 | | 0.01364 | | |
| Marenzelleria viridis | 727 | | 0.79992 | | |
| Melita nitida (Epi) | 45 | | 0.00227 | | |
| Mytilopsis leucophaeata (Epi) | 91 | | 0.01363 | | |
| Rangia cuneata | 45 | | 43.70927 | | |
| Rhithropanopeus harrisi (Epi) | 45 | | 0.02727 | | |
| Tubificoides spp. | 182 | | 0.00227 | | |
| Total Abundance w/ Epi. | 1909 | | | | |
| Total Abundance w/o Epi. | 1591 | | | | |
| Number of Taxa w/ Epi. | 12 | | | | |
| Number of Taxa w/o Epi. | 7 | | | | |
| Total Biomass w/ Epi. | | | 44.74780 | | |
| Total Biomass w/o Epi. | | | 44.66372 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Upper Western Shore | | Station: 026 | | Rep: 03 | |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | | Date: 19AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 15:51:08 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 4.4 | | Salinity (ppt): 4.25 | | Temperature (C): 25.07 | |
| Dissolved Oxygen (mg/l): 7.3 | | Sediment Silt-Clay (%): 91.01 | | Total Carbon (%): 2.18 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.00 | | Condition: Meets Goal | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 1.55 | 1 | Pollution Indicative Species Abundance (%) | 0.00 | 5 |
| Abundance (#/m2) | 545 | 3 | Pollution Indicative Species Biomass (%) | 0.00 | |
| Biomass (g/m2) | 0.37 | 1 | Pollution Sensitive Species Abundance (%) | 75.00 | |
| Carnivore-Omnivore Abundance (%) | 41.67 | | Pollution Sensitive Species Biomass (%) | 91.46 | 5 |
| Deep Deposit Feeder Abundance (%) | 0.00 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Cyathura polita | 227 | | 0.29088 | | |
| Leptocheirus plumulosus | 136 | | 0.03181 | | |
| Marenzelleria viridis | 182 | | 0.04999 | | |
| Total Abundance w/ Epi. | 545 | | | | |
| Total Abundance w/o Epi. | 545 | | | | |
| Number of Taxa w/ Epi. | 3 | | | | |
| Number of Taxa w/o Epi. | 3 | | | | |
| Total Biomass w/ Epi. | | | 0.37269 | | |
| Total Biomass w/o Epi. | | | 0.37269 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | |
|-----------------------------------|-------------------------------|--------------------------|--|
| Watershed: Upper Eastern Shore | | Station: 029 | Rep: 01 |
| Gear: Wildco Box Corer | | Habitat: Oligohaline | Date: 25AUG14 |
| | | Sampled Area: 0.022 sq.m | Time: 12:42:34 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 6.0 | Salinity (ppt): 1.08 | Temperature (C): 25.17 | |
| Dissolved Oxygen (mg/l): 6.9 | Sediment Silt-Clay (%): 46.97 | Total Carbon (%): 1.54 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 2.00 | Condition: Severely Degr. | | # Attributes Scored: 6 |
| | Value | Score | Value Score |
| Shannon-Wiener Index | 1.80 | | Oligohaline Pollution Indicative Spp. Abund. 20.69 5 |
| Abundance (#/m2) | 7908 | 1 | Tolerance Score 6.94 3 |
| Deep Deposit Feeder Abundance (%) | 19.54 | | Oligohaline Pollution Sensitive Spp. Abund. 0.00 1 |
| Carnivore-Omnivore Abundance (%) | 4.02 | 1 | Tanypodinae/Chironomidae Abundance Ratio 100.00 1 |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) |
| Coelotanypus spp. | 91 | | 0.00227 |
| Cyathura polita | 227 | | 0.05454 |
| Gammarus daiberi (Epi) | 136 | | 0.00227 |
| Hobsonia florida | 45 | | 0.02273 |
| Limnodrilus hoffmeisteri | 636 | | |
| Marenzelleria viridis | 1364 | | 0.72720 |
| Oligochaeta | | | 0.12726 |
| Rangia cuneata | 4636 | | 42.20942 |
| Tubificidae imm w/o cap chaetae * | 909 | | |
| Total Abundance w/ Epi. | 8045 | | |
| Total Abundance w/o Epi. | 7908 | | |
| Number of Taxa w/ Epi. | 7 | | |
| Number of Taxa w/o Epi. | 6 | | |
| Total Biomass w/ Epi. | | | 43.14569 |
| Total Biomass w/o Epi. | | | 43.14341 |

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | |
|-----------------------------------|-------------------------------|--------------------------|--|
| Watershed: Upper Eastern Shore | | Station: 029 | Rep: 02 |
| Gear: Wildco Box Corer | | Habitat: Oligohaline | Date: 25AUG14 |
| | | Sampled Area: 0.022 sq.m | Time: 12:42:34 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 6.0 | Salinity (ppt): 1.08 | Temperature (C): 25.17 | |
| Dissolved Oxygen (mg/l): 6.9 | Sediment Silt-Clay (%): 46.97 | Total Carbon (%): 1.54 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 2.00 | Condition: Severely Degr. | # Attributes Scored: 6 | |
| | Value | Score | |
| Shannon-Wiener Index | 1.55 | | Oligohaline Pollution Indicative Spp. Abund. 17.88 5 |
| Abundance (#/m2) | 12453 | 1 | Tolerance Score 6.74 3 |
| Deep Deposit Feeder Abundance (%) | 16.79 | | Oligohaline Pollution Sensitive Spp. Abund. 0.00 1 |
| Carnivore-Omnivore Abundance (%) | 5.47 | 1 | Tanypodinae/Chironomidae Abundance Ratio 66.67 1 |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Coelotanypus spp. | 91 | 0.00455 | |
| Cryptochironomus spp. | 45 | 0.00227 | |
| Cyathura polita | 545 | 0.27725 | |
| Gammarus daiberi (Epi) | 500 | 0.02273 | |
| Limnodrilus hoffmeisteri | 636 | | |
| Marenzelleria viridis | 1000 | 0.84537 | |
| Oligochaeta | | 0.12726 | |
| Rangia cuneata | 8636 | 104.37592 | |
| Streblospio benedicti | 45 | 0.00454 | |
| Tubificidae imm w/o cap chaetae * | 1454 | | |
| Total Abundance w/ Epi. | 12953 | | |
| Total Abundance w/o Epi. | 12453 | | |
| Number of Taxa w/ Epi. | 8 | | |
| Number of Taxa w/o Epi. | 7 | | |
| Total Biomass w/ Epi. | | 105.65989 | |
| Total Biomass w/o Epi. | | 105.63716 | |

*Indicates taxa is skipped in taxon counts



BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Upper Eastern Shore | | Station: 029 | | Rep: 03 | |
| Gear: Wildco Box Corer | | Habitat: Oligohaline | | Date: 25AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 12:42:34 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 6.0 | | Salinity (ppt): 1.08 | | Temperature (C): 25.17 | |
| Dissolved Oxygen (mg/l): 6.9 | | Sediment Silt-Clay (%): 46.97 | | Total Carbon (%): 1.54 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 1.67 | | Condition: Severely Degr. | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.34 | | Oligohaline Pollution Indicative Spp. Abund. | 44.16 | 3 |
| Abundance (#/m2) | 10499 | 1 | Tolerance Score | 7.90 | 3 |
| Deep Deposit Feeder Abundance (%) | 42.42 | | Oligohaline Pollution Sensitive Spp. Abund. | 0.00 | 1 |
| Carnivore-Omnivore Abundance (%) | 7.36 | 1 | Tanypodinae/Chironomidae Abundance Ratio | 80.00 | 1 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Chironomidae | | | 0.00227 | | |
| Coelotanypus spp. | 136 | | 0.00454 | | |
| Cryptochironomus spp. | 45 | | | | |
| Cyathura polita | 545 | | 0.17725 | | |
| Gammarus daiberi (Epi) | 136 | | 0.00909 | | |
| Limnodrilus hoffmeisteri | 1500 | | | | |
| Marenzelleria viridis | 1273 | | 1.30442 | | |
| Oecetis inconspicua (Epi) | 45 | | 0.00454 | | |
| Oligochaeta | | | 0.39413 | | |
| Procladius spp. | 45 | | | | |
| Rangia cuneata | 4000 | | 93.18159 | | |
| Tubificidae imm w/o cap chaetae * | 2591 | | | | |
| Tubificoides spp. | 364 | | 0.00909 | | |
| Total Abundance w/ Epi. | 10681 | | | | |
| Total Abundance w/o Epi. | 10499 | | | | |
| Number of Taxa w/ Epi. | 10 | | | | |
| Number of Taxa w/o Epi. | 8 | | | | |
| Total Biomass w/ Epi. | | | 95.08693 | | |
| Total Biomass w/o Epi. | | | 95.07329 | | |

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|--|-------------------------------|-------|---------------------------|-------|
| Watershed: Potomac River | | Station: 036 | | Rep: 01 | |
| Gear: Wildco Box Corer | | Habitat: Tidal Freshwater | | Date: 10SEP14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 9:49:55 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 2.5 | | Salinity (ppt): 0.21 | | Temperature (C): 25.29 | |
| Dissolved Oxygen (mg/l): 6.3 | | Sediment Silt-Clay (%): 75.42 | | Total Carbon (%): 2.16 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 2.00 | | Condition: Severely Degr. | | # Attributes Scored: 3 | |
| | | Value | Score | Value | Score |
| Shannon-Wiener Index | | 2.16 | | 76.11 | 3 |
| Abundance (#/m2) | | 11226 | 1 | Tolerance Score | 9.58 |
| Deep Deposit Feeder Abundance (%) | | 89.07 | 3 | Limnodrilus Abundance (%) | 76.11 |
| Carnivore-Omnivore Abundance (%) | | 4.45 | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | | Abundance (#/m2) | | Biomass (g/m2) | |
| Branchiura sowerbyi | | 636 | | 1.10898 | |
| Chironomidae | | | | 0.00227 | |
| Chironomus spp. | | 91 | | | |
| Coelotanypus spp. | | 91 | | 0.01364 | |
| Cryptochironomus spp. | | 182 | | | |
| Dicrotendipes spp. | | 91 | | | |
| Elliptio complanata | | 45 | | 88.39116 | |
| Gammarus daiberi (Epi) | | 45 | | 0.00909 | |
| Harnischia spp. | | 45 | | | |
| Hirudinea (Epi) | | 91 | | 0.03636 | |
| Limnodrilus hoffmeisteri | | 2409 | | | |
| Musculium transversum | | 409 | | 0.06363 | |
| Oligochaeta | | | | 0.62031 | |
| Pisidium spp. | | 273 | | 0.03636 | |
| Quistadrilus multisetosus | | 273 | | | |
| Tubificidae imm w cap chaetae | | 545 | | | |
| Tubificidae imm w/o cap chaetae * | | 6136 | | | |
| Total Abundance w/ Epi. | | 11363 | | | |
| Total Abundance w/o Epi. | | 11226 | | | |
| Number of Taxa w/ Epi. | | 14 | | | |
| Number of Taxa w/o Epi. | | 12 | | | |
| Total Biomass w/ Epi. | | | | 90.28180 | |
| Total Biomass w/o Epi. | | | | 90.23635 | |

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|---|------------------------|-------|
| Watershed: Potomac River | | Station: 036 | | Rep: 02 | |
| Gear: Wildco Box Corer | | Habitat: Tidal Freshwater | | Date: 10SEP14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 9:49:55 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 2.5 | | Salinity (ppt): 0.21 | | Temperature (C): 25.29 | |
| Dissolved Oxygen (mg/l): 6.3 | | Sediment Silt-Clay (%): 75.42 | | Total Carbon (%): 2.16 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 2.00 | | Condition: Severely Degr. | | # Attributes Scored: 3 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 1.83 | | T.F. Pollution Indicative Spp. Abund. (%) | 79.84 | 3 |
| Abundance (#/m2) | 11726 | 1 | Tolerance Score | 9.62 | 1 |
| Deep Deposit Feeder Abundance (%) | 90.70 | 3 | Limnodrilus Abundance (%) | 82.17 | |
| Carnivore-Omnivore Abundance (%) | 3.10 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Branchiura sowerbyi | 455 | | 0.50904 | | |
| Chironomidae | | | 0.00227 | | |
| Coelotanypus spp. | 273 | | 0.04090 | | |
| Corbicula fluminea | 136 | | 0.37269 | | |
| Cryptochironomus spp. | 45 | | | | |
| Goniobasis virginica (Epi) | 45 | | 0.10908 | | |
| Limnodrilus cervix | 273 | | | | |
| Limnodrilus hoffmeisteri | 1591 | | | | |
| Musculium transversum | 364 | | 0.02273 | | |
| Oligochaeta | | | 0.76236 | | |
| Pisidium spp. | 227 | | 0.05454 | | |
| Polypedilum halterale group | 45 | | | | |
| Quistadrilus multisetosus | 545 | | | | |
| Tubificidae imm w/o cap chaetae * | 7772 | | | | |
| Total Abundance w/ Epi. | 11772 | | | | |
| Total Abundance w/o Epi. | 11726 | | | | |
| Number of Taxa w/ Epi. | 11 | | | | |
| Number of Taxa w/o Epi. | 10 | | | | |
| Total Biomass w/ Epi. | | | 1.87361 | | |
| Total Biomass w/o Epi. | | | 1.76453 | | |

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|---|------------------------|-------|
| Watershed: Potomac River | | Station: 036 | | Rep: 03 | |
| Gear: Wildco Box Corer | | Habitat: Tidal Freshwater | | Date: 10SEP14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 9:49:55 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 2.5 | | Salinity (ppt): 0.21 | | Temperature (C): 25.29 | |
| Dissolved Oxygen (mg/l): 6.3 | | Sediment Silt-Clay (%): 75.42 | | Total Carbon (%): 2.16 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 2.00 | | Condition: Severely Degr. | | # Attributes Scored: 3 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 1.85 | | T.F. Pollution Indicative Spp. Abund. (%) | 72.48 | 3 |
| Abundance (#/m2) | 6772 | 1 | Tolerance Score | 9.43 | 1 |
| Deep Deposit Feeder Abundance (%) | 79.87 | 3 | Limnodrilus Abundance (%) | 72.48 | |
| Carnivore-Omnivore Abundance (%) | 8.72 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Branchiura sowerbyi | 500 | | 0.84083 | | |
| Chironomidae | | | 0.00227 | | |
| Chironomus spp. | 91 | | | | |
| Coelotanypus spp. | 318 | | 0.01363 | | |
| Cryptochironomus spp. | 91 | | | | |
| Gammarus daiberi (Epi) | 45 | | 0.02727 | | |
| Goniobasis virginica (Epi) | 45 | | 0.21816 | | |
| Limnodrilus hoffmeisteri | 409 | | | | |
| Musculium transversum | 455 | | 0.03636 | | |
| Oligochaeta | | | 0.28979 | | |
| Pisidium spp. | 318 | | 0.05000 | | |
| Procladius spp. | 45 | | | | |
| Stictochironomus caffarius | 45 | | | | |
| Tubificidae imm w/o cap chaetae * | 4500 | | | | |
| Total Abundance w/ Epi. | 6863 | | | | |
| Total Abundance w/o Epi. | 6772 | | | | |
| Number of Taxa w/ Epi. | 11 | | | | |
| Number of Taxa w/o Epi. | 9 | | | | |
| Total Biomass w/ Epi. | | | 1.47831 | | |
| Total Biomass w/o Epi. | | | 1.23288 | | |

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|-------|-------------------------------|--|------------------------|-------|
| Watershed: Potomac River | | Station: 040 | | Rep: 01 | |
| Gear: Wildco Box Corer | | Habitat: Oligohaline | | Date: 03SEP14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 13:33:31 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 7.6 | | Salinity (ppt): 3.00 | | Temperature (C): 27.46 | |
| Dissolved Oxygen (mg/l): 6.1 | | Sediment Silt-Clay (%): 90.00 | | Total Carbon (%): 2.87 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 2.67 | | Condition: Marginal | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.44 | | Oligohaline Pollution Indicative Spp. Abund. | 72.22 | 3 |
| Abundance (#/m2) | 818 | 5 | Tolerance Score | 7.65 | 3 |
| Deep Deposit Feeder Abundance (%) | 16.67 | | Oligohaline Pollution Sensitive Spp. Abund. | 0.00 | 1 |
| Carnivore-Omnivore Abundance (%) | 22.22 | 3 | Tanypodinae/Chironomidae Abundance Ratio | 100.00 | 1 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | | Abundance (#/m2) | | Biomass (g/m2) | |
| Ameroculodes species complex | | 45 | | 0.01364 | |
| Cyathura polita | | 136 | | 0.04545 | |
| Leptocheirus plumulosus | | 318 | | 0.03181 | |
| Littoridinops tenuipes (Epi) | | 45 | | 0.00455 | |
| Procladius spp. | | 45 | | 0.00227 | |
| Rangia cuneata | | 45 | | 34.93287 | |
| Streblospio benedicti | | 91 | | 0.00454 | |
| Tubificoides spp. | | 136 | | 0.03182 | |
| Total Abundance w/ Epi. | | 864 | | | |
| Total Abundance w/o Epi. | | 818 | | | |
| Number of Taxa w/ Epi. | | 8 | | | |
| Number of Taxa w/o Epi. | | 7 | | | |
| Total Biomass w/ Epi. | | | | 35.06695 | |
| Total Biomass w/o Epi. | | | | 35.06240 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | |
|-----------------------------------|-------------------------------|--------------------------|--|
| Watershed: Potomac River | | Station: 040 | Rep: 02 |
| Gear: Wildco Box Corer | | Habitat: Oligohaline | Date: 03SEP14 |
| | | Sampled Area: 0.022 sq.m | Time: 13:33:31 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 7.6 | Salinity (ppt): 3.00 | Temperature (C): 27.46 | |
| Dissolved Oxygen (mg/l): 6.1 | Sediment Silt-Clay (%): 90.00 | Total Carbon (%): 2.87 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 3.00 | Condition: Meets Goal | | # Attributes Scored: 5 |
| | Value | Score | |
| Shannon-Wiener Index | 1.69 | | Oligohaline Pollution Indicative Spp. Abund. 73.53 3 |
| Abundance (#/m2) | 1545 | 5 | Tolerance Score 6.00 3 |
| Deep Deposit Feeder Abundance (%) | 2.94 | | Oligohaline Pollution Sensitive Spp. Abund. 17.65 3 |
| Carnivore-Omnivore Abundance (%) | 2.94 | 1 | Tanypodinae/Chironomidae Abundance Ratio 0.00 |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) |
| Ameroculodes species complex | 45 | | 0.00455 |
| Cyathura polita | 45 | | 0.04091 |
| Gammarus daiberi (Epi) | 273 | | 0.04091 |
| Leptocheirus plumulosus | 1000 | | 0.18180 |
| Marenzelleria viridis | 273 | | 0.26815 |
| Melita nitida (Epi) | 91 | | 0.00909 |
| Rangia cuneata | 45 | | 0.00909 |
| Streblospio benedicti | 91 | | 0.00909 |
| Tubificoides spp. | 45 | | 0.00455 |
| Total Abundance w/ Epi. | 1909 | | |
| Total Abundance w/o Epi. | 1545 | | |
| Number of Taxa w/ Epi. | 9 | | |
| Number of Taxa w/o Epi. | 7 | | |
| Total Biomass w/ Epi. | | | 0.56813 |
| Total Biomass w/o Epi. | | | 0.51813 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | |
|-----------------------------------|-------------------------------|--------------------------|--|
| Watershed: Potomac River | | Station: 040 | Rep: 03 |
| Gear: Wildco Box Corer | | Habitat: Oligohaline | Date: 03SEP14 |
| | | Sampled Area: 0.022 sq.m | Time: 13:33:31 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 7.6 | Salinity (ppt): 3.00 | Temperature (C): 27.46 | |
| Dissolved Oxygen (mg/l): 6.1 | Sediment Silt-Clay (%): 90.00 | Total Carbon (%): 2.87 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 3.00 | Condition: Meets Goal | | # Attributes Scored: 6 |
| | Value | Score | Value Score |
| Shannon-Wiener Index | 2.02 | | Oligohaline Pollution Indicative Spp. Abund. 47.06 3 |
| Abundance (#/m2) | 773 | 5 | Tolerance Score 9.30 1 |
| Deep Deposit Feeder Abundance (%) | 0.00 | | Oligohaline Pollution Sensitive Spp. Abund. 23.53 3 |
| Carnivore-Omnivore Abundance (%) | 35.29 | 5 | Tanypodinae/Chironomidae Abundance Ratio 100.00 1 |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) |
| Cyathura polita | 227 | | 0.02727 |
| Gammarus daiberi (Epi) | 136 | | 0.01818 |
| Leptocheirus plumulosus | 273 | | 0.05000 |
| Littoridinops tenuipes (Epi) | 45 | | 0.00909 |
| Marenzelleria viridis | 182 | | 0.32724 |
| Procladius spp. | 45 | | 0.00227 |
| Streblospio benedicti | 45 | | 0.00455 |
| Total Abundance w/ Epi. | 954 | | |
| Total Abundance w/o Epi. | 773 | | |
| Number of Taxa w/ Epi. | 7 | | |
| Number of Taxa w/o Epi. | 5 | | |
| Total Biomass w/ Epi. | | | 0.43859 |
| Total Biomass w/o Epi. | | | 0.41132 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | |
|-----------------------------------|-------|------------------------------|--|
| Station: 043 | | Rep: 01 | |
| Watershed: Potomac River | | Date: 03SEP14 | |
| Gear: Modified Box Corer | | Time: 12:01:19 | |
| Habitat: Low Mesohaline | | | |
| Sampled Area: 0.025 sq.m | | | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 2.6 | | Salinity (ppt): 5.71 | |
| Dissolved Oxygen (mg/l): 5.3 | | Temperature (C): 27.81 | |
| | | Sediment Silt-Clay (%): 3.57 | |
| | | Total Carbon (%): 0.13 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 2.60 | | Condition: Degraded | |
| | | # Attributes Scored: 5 | |
| | Value | Score | |
| Shannon-Wiener Index | 2.20 | 3 | Pollution Indicative Species Abundance (%) |
| Abundance (#/m2) | 2960 | 3 | Pollution Indicative Species Biomass (%) |
| Biomass (g/m2) | 0.96 | 1 | Pollution Sensitive Species Abundance (%) |
| Carnivore-Omnivore Abundance (%) | 10.81 | | Pollution Sensitive Species Biomass (%) |
| Deep Deposit Feeder Abundance (%) | 1.35 | | |
| | | | Value |
| | | | Score |
| | | | 10.81 |
| | | | 2.08 |
| | | | 54.05 |
| | | | 70.83 |
| | | | 3 |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | | Abundance (#/m2) | Biomass (g/m2) |
| Apocorophium lacustre | (Epi) | 40 | 0.00800 |
| Cyathura polita | | 160 | 0.00400 |
| Eteone heteropoda | | 160 | 0.01600 |
| Heteromastus filiformis | | 40 | 0.06400 |
| Leptocheirus plumulosus | | 680 | 0.12000 |
| Macoma mitchelli | | 320 | 0.07600 |
| Marenzelleria viridis | | 1400 | 0.66000 |
| Mytilopsis leucophaeata | (Epi) | 80 | 0.02800 |
| Rangia cuneata | | 40 | 0.01600 |
| Streblospio benedicti | | 160 | 0.00400 |
| Total Abundance w/ Epi. | | 3080 | |
| Total Abundance w/o Epi. | | 2960 | |
| Number of Taxa w/ Epi. | | 10 | |
| Number of Taxa w/o Epi. | | 8 | |
| Total Biomass w/ Epi. | | | 0.99600 |
| Total Biomass w/o Epi. | | | 0.96000 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|-------|------------------------------|--|------------------------|-------|
| Watershed: Potomac River | | Station: 043 | | Rep: 02 | |
| Gear: Modified Box Corer | | Habitat: Low Mesohaline | | Date: 03SEP14 | |
| | | Sampled Area: 0.025 sq.m | | Time: 12:01:19 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 2.6 | | Salinity (ppt): 5.71 | | Temperature (C): 27.81 | |
| Dissolved Oxygen (mg/l): 5.3 | | Sediment Silt-Clay (%): 3.57 | | Total Carbon (%): 0.13 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.40 | | Condition: Meets Goal | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.33 | 3 | Pollution Indicative Species Abundance (%) | 7.89 | 5 |
| Abundance (#/m2) | 3040 | 3 | Pollution Indicative Species Biomass (%) | 1.63 | |
| Biomass (g/m2) | 1.47 | 3 | Pollution Sensitive Species Abundance (%) | 51.32 | |
| Carnivore-Omnivore Abundance (%) | 9.21 | | Pollution Sensitive Species Biomass (%) | 53.13 | 3 |
| Deep Deposit Feeder Abundance (%) | 15.79 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | | Abundance (#/m2) | | Biomass (g/m2) | |
| Cyathura polita | | 40 | | 0.00400 | |
| Eteone heteropoda | | 200 | | 0.02000 | |
| Heteromastus filiformis | | 80 | | 0.15200 | |
| Leptocheirus plumulosus | | 480 | | 0.06800 | |
| Macoma mitchelli | | 240 | | 0.41600 | |
| Marenzelleria viridis | | 1480 | | 0.75600 | |
| Mytilopsis leucophaeata (Epi) | | 40 | | 0.01600 | |
| Neanthes succinea | | 40 | | 0.01200 | |
| Rangia cuneata | | 40 | | 0.02000 | |
| Streblospio benedicti | | 40 | | 0.00400 | |
| Tubificoides spp. | | 400 | | 0.01600 | |
| Total Abundance w/ Epi. | | 3080 | | | |
| Total Abundance w/o Epi. | | 3040 | | | |
| Number of Taxa w/ Epi. | | 11 | | | |
| Number of Taxa w/o Epi. | | 10 | | | |
| Total Biomass w/ Epi. | | | | 1.48400 | |
| Total Biomass w/o Epi. | | | | 1.46800 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|------------------------------|--|------------------------|-------|
| Watershed: Potomac River | | Station: 043 | | Rep: 03 | |
| Gear: Modified Box Corer | | Habitat: Low Mesohaline | | Date: 03SEP14 | |
| | | Sampled Area: 0.025 sq.m | | Time: 12:01:19 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 2.6 | | Salinity (ppt): 5.71 | | Temperature (C): 27.81 | |
| Dissolved Oxygen (mg/l): 5.3 | | Sediment Silt-Clay (%): 3.57 | | Total Carbon (%): 0.13 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.00 | | Condition: Meets Goal | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.22 | 3 | Pollution Indicative Species Abundance (%) | 16.00 | 3 |
| Abundance (#/m2) | 2000 | 5 | Pollution Indicative Species Biomass (%) | 2.10 | |
| Biomass (g/m2) | 0.57 | 1 | Pollution Sensitive Species Abundance (%) | 44.00 | |
| Carnivore-Omnivore Abundance (%) | 10.00 | | Pollution Sensitive Species Biomass (%) | 50.35 | 3 |
| Deep Deposit Feeder Abundance (%) | 2.00 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Eteone heteropoda | 160 | | 0.00800 | | |
| Heteromastus filiformis | 40 | | 0.13200 | | |
| Leptocheirus plumulosus | 360 | | 0.09600 | | |
| Macoma mitchelli | 360 | | 0.03200 | | |
| Marenzelleria viridis | 880 | | 0.28800 | | |
| Melita nitida (Epi) | 80 | | 0.01600 | | |
| Mytilopsis leucophaeata (Epi) | 120 | | 0.05200 | | |
| Neanthes succinea | 40 | | 0.01200 | | |
| Streblospio benedicti | 160 | | 0.00400 | | |
| Total Abundance w/ Epi. | 2200 | | | | |
| Total Abundance w/o Epi. | 2000 | | | | |
| Number of Taxa w/ Epi. | 9 | | | | |
| Number of Taxa w/o Epi. | 7 | | | | |
| Total Biomass w/ Epi. | | | 0.64000 | | |
| Total Biomass w/o Epi. | | | 0.57200 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Potomac River | | Station: 044 | | Rep: 01 | |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | | Date: 03SEP14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 12:30:50 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 12.7 | | Salinity (ppt): 7.85 | | Temperature (C): 26.01 | |
| Dissolved Oxygen (mg/l): 1.9 | | Sediment Silt-Clay (%): 90.20 | | Total Carbon (%): 2.04 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 2.20 | | Condition: Degraded | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 0.73 | 1 | Pollution Indicative Species Abundance (%) | 0.00 | 5 |
| Abundance (#/m2) | 1454 | 3 | Pollution Indicative Species Biomass (%) | 0.00 | |
| Biomass (g/m2) | 0.32 | 1 | Pollution Sensitive Species Abundance (%) | 0.00 | |
| Carnivore-Omnivore Abundance (%) | 6.25 | | Pollution Sensitive Species Biomass (%) | 0.00 | 1 |
| Deep Deposit Feeder Abundance (%) | 6.25 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Carinoma tremaphoros | 45 | | 0.00455 | | |
| Heteromastus filiformis | 91 | | 0.05000 | | |
| Leptocheirus plumulosus | 1273 | | 0.17271 | | |
| Melita nitida (Epi) | 182 | | 0.00909 | | |
| Neanthes succinea | 45 | | 0.09090 | | |
| Total Abundance w/ Epi. | 1636 | | | | |
| Total Abundance w/o Epi. | 1454 | | | | |
| Number of Taxa w/ Epi. | 5 | | | | |
| Number of Taxa w/o Epi. | 4 | | | | |
| Total Biomass w/ Epi. | | | 0.32724 | | |
| Total Biomass w/o Epi. | | | 0.31815 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Potomac River | | Station: 044 | | Rep: 02 | |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | | Date: 03SEP14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 12:30:50 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 12.7 | | Salinity (ppt): 7.85 | | Temperature (C): 26.01 | |
| Dissolved Oxygen (mg/l): 1.9 | | Sediment Silt-Clay (%): 90.20 | | Total Carbon (%): 2.04 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.40 | | Condition: Meets Goal | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 0.62 | 1 | Pollution Indicative Species Abundance (%) | 0.00 | 5 |
| Abundance (#/m2) | 1818 | 5 | Pollution Indicative Species Biomass (%) | 0.00 | |
| Biomass (g/m2) | 1.18 | 3 | Pollution Sensitive Species Abundance (%) | 2.50 | |
| Carnivore-Omnivore Abundance (%) | 5.00 | | Pollution Sensitive Species Biomass (%) | 64.48 | 3 |
| Deep Deposit Feeder Abundance (%) | 2.50 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Heteromastus filiformis | 45 | | 0.00455 | | |
| Leptocheirus plumulosus | 1636 | | 0.40450 | | |
| Macoma balthica | 45 | | 0.75901 | | |
| Melita nitida (Epi) | 409 | | 0.03636 | | |
| Neanthes succinea | 91 | | 0.00909 | | |
| Total Abundance w/ Epi. | 2227 | | | | |
| Total Abundance w/o Epi. | 1818 | | | | |
| Number of Taxa w/ Epi. | 5 | | | | |
| Number of Taxa w/o Epi. | 4 | | | | |
| Total Biomass w/ Epi. | | | 1.21351 | | |
| Total Biomass w/o Epi. | | | 1.17715 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Potomac River | | Station: 044 | | Rep: 03 | |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | | Date: 03SEP14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 12:30:50 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 12.7 | | Salinity (ppt): 7.85 | | Temperature (C): 26.01 | |
| Dissolved Oxygen (mg/l): 1.9 | | Sediment Silt-Clay (%): 90.20 | | Total Carbon (%): 2.04 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.40 | | Condition: Meets Goal | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 0.81 | 1 | Pollution Indicative Species Abundance (%) | 2.63 | 5 |
| Abundance (#/m2) | 1727 | 5 | Pollution Indicative Species Biomass (%) | 0.34 | |
| Biomass (g/m2) | 1.35 | 3 | Pollution Sensitive Species Abundance (%) | 2.63 | |
| Carnivore-Omnivore Abundance (%) | 7.89 | | Pollution Sensitive Species Biomass (%) | 71.28 | 3 |
| Deep Deposit Feeder Abundance (%) | 2.63 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Carinoma tremaphoros | 91 | | 0.01364 | | |
| Eteone heteropoda | 45 | | 0.00454 | | |
| Heteromastus filiformis | 45 | | 0.00909 | | |
| Leptocheirus plumulosus | 1500 | | 0.35906 | | |
| Macoma balthica | 45 | | 0.95900 | | |
| Melita nitida (Epi) | 455 | | 0.02727 | | |
| Total Abundance w/ Epi. | 2182 | | | | |
| Total Abundance w/o Epi. | 1727 | | | | |
| Number of Taxa w/ Epi. | 6 | | | | |
| Number of Taxa w/o Epi. | 5 | | | | |
| Total Biomass w/ Epi. | | | 1.37259 | | |
| Total Biomass w/o Epi. | | | 1.34532 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|-------|------------------------------|--|------------------------|-------|
| Watershed: Morgantown Discharge | | Station: 047 | | Rep: 01 | |
| Gear: Modified Box Corer | | Habitat: Low Mesohaline | | Date: 03SEP14 | |
| | | Sampled Area: 0.025 sq.m | | Time: 11:07:37 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 2.6 | | Salinity (ppt): 5.69 | | Temperature (C): 29.29 | |
| Dissolved Oxygen (mg/l): 5.2 | | Sediment Silt-Clay (%): 5.51 | | Total Carbon (%): 0.21 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.80 | | Condition: Meets Goal | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.74 | 5 | Pollution Indicative Species Abundance (%) | 3.19 | 5 |
| Abundance (#/m2) | 3760 | 3 | Pollution Indicative Species Biomass (%) | 1.76 | |
| Biomass (g/m2) | 2.39 | 3 | Pollution Sensitive Species Abundance (%) | 18.09 | |
| Carnivore-Omnivore Abundance (%) | 5.32 | | Pollution Sensitive Species Biomass (%) | 56.33 | 3 |
| Deep Deposit Feeder Abundance (%) | 26.60 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | | Abundance (#/m2) | | Biomass (g/m2) | |
| Edotea triloba (Epi) | | 40 | | 0.00400 | |
| Eteone heteropoda | | 80 | | 0.04000 | |
| Heteromastus filiformis | | 200 | | 0.17200 | |
| Laeonereis culveri | | 40 | | 0.04000 | |
| Leptocheirus plumulosus | | 1120 | | 0.17200 | |
| Littoridinops tenuipes (Epi) | | 160 | | 0.00400 | |
| Macoma balthica | | 40 | | 1.02800 | |
| Macoma mitchelli | | 760 | | 0.04000 | |
| Marenzelleria viridis | | 400 | | 0.10400 | |
| Micrura leidyi | | 40 | | 0.52000 | |
| Mytilopsis leucophaeata (Epi) | | 40 | | 0.00800 | |
| Neanthes succinea | | 40 | | 0.04400 | |
| Rangia cuneata | | 240 | | 0.21200 | |
| Tubificidae imm w/o cap chaetae | | 40 | | 0.00200 | |
| Tubificoides spp. | | 760 | | 0.01200 | |
| Total Abundance w/ Epi. | | 4000 | | | |
| Total Abundance w/o Epi. | | 3760 | | | |
| Number of Taxa w/ Epi. | | 15 | | | |
| Number of Taxa w/o Epi. | | 12 | | | |
| Total Biomass w/ Epi. | | | | 2.40200 | |
| Total Biomass w/o Epi. | | | | 2.38600 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|------------------------------|--|------------------------|-------|
| Watershed: Morgantown Discharge | | Station: 047 | | Rep: 02 | |
| Gear: Modified Box Corer | | Habitat: Low Mesohaline | | Date: 03SEP14 | |
| | | Sampled Area: 0.025 sq.m | | Time: 11:07:37 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 2.6 | | Salinity (ppt): 5.69 | | Temperature (C): 29.29 | |
| Dissolved Oxygen (mg/l): 5.2 | | Sediment Silt-Clay (%): 5.51 | | Total Carbon (%): 0.21 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.40 | | Condition: Meets Goal | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.47 | 3 | Pollution Indicative Species Abundance (%) | 2.33 | 5 |
| Abundance (#/m2) | 3440 | 3 | Pollution Indicative Species Biomass (%) | 0.44 | |
| Biomass (g/m2) | 1.83 | 3 | Pollution Sensitive Species Abundance (%) | 43.02 | |
| Carnivore-Omnivore Abundance (%) | 4.65 | | Pollution Sensitive Species Biomass (%) | 48.09 | 3 |
| Deep Deposit Feeder Abundance (%) | 16.28 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Cyathura polita | 40 | | 0.05200 | | |
| Edotea triloba (Epi) | 40 | | 0.00200 | | |
| Eteone heteropoda | 80 | | 0.00800 | | |
| Heteromastus filiformis | 480 | | 0.58400 | | |
| Laeonereis culveri | 40 | | 0.04800 | | |
| Leptocheirus plumulosus | 840 | | 0.12800 | | |
| Macoma mitchelli | 440 | | 0.18000 | | |
| Marenzelleria viridis | 1200 | | 0.43200 | | |
| Melita nitida (Epi) | 120 | | 0.00400 | | |
| Mytilopsis leucophaeata (Epi) | 40 | | 0.00200 | | |
| Rangia cuneata | 240 | | 0.39600 | | |
| Tubificoides spp. | 80 | | 0.00200 | | |
| Total Abundance w/ Epi. | 3640 | | | | |
| Total Abundance w/o Epi. | 3440 | | | | |
| Number of Taxa w/ Epi. | 12 | | | | |
| Number of Taxa w/o Epi. | 9 | | | | |
| Total Biomass w/ Epi. | | | 1.83800 | | |
| Total Biomass w/o Epi. | | | 1.83000 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|-------|------------------------------|--|------------------------|-------|
| Watershed: Morgantown Discharge | | Station: 047 | | Rep: 03 | |
| Gear: Modified Box Corer | | Habitat: Low Mesohaline | | Date: 03SEP14 | |
| | | Sampled Area: 0.025 sq.m | | Time: 11:07:37 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 2.6 | | Salinity (ppt): 5.69 | | Temperature (C): 29.29 | |
| Dissolved Oxygen (mg/l): 5.2 | | Sediment Silt-Clay (%): 5.51 | | Total Carbon (%): 0.21 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.80 | | Condition: Meets Goal | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.55 | 5 | Pollution Indicative Species Abundance (%) | 7.41 | 5 |
| Abundance (#/m2) | 3240 | 3 | Pollution Indicative Species Biomass (%) | 1.28 | |
| Biomass (g/m2) | 2.81 | 3 | Pollution Sensitive Species Abundance (%) | 28.40 | |
| Carnivore-Omnivore Abundance (%) | 4.94 | | Pollution Sensitive Species Biomass (%) | 72.12 | 3 |
| Deep Deposit Feeder Abundance (%) | 12.35 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | | Abundance (#/m2) | | Biomass (g/m2) | |
| Edotea triloba | (Epi) | 120 | | 0.00800 | |
| Eteone heteropoda | | 160 | | 0.02800 | |
| Heteromastus filiformis | | 280 | | 0.67200 | |
| Leptocheirus plumulosus | | 840 | | 0.04400 | |
| Littoridinops tenuipes | (Epi) | 160 | | 0.00400 | |
| Macoma balthica | | 40 | | 1.49200 | |
| Macoma mitchelli | | 840 | | 0.02800 | |
| Marenzelleria viridis | | 800 | | 0.53200 | |
| Mytilopsis leucophaeata | (Epi) | 80 | | 0.00400 | |
| Rangia cuneata | | 80 | | 0.00400 | |
| Streblospio benedicti | | 80 | | 0.00800 | |
| Tubificoides spp. | | 120 | | 0.00400 | |
| Total Abundance w/ Epi. | | 3600 | | | |
| Total Abundance w/o Epi. | | 3240 | | | |
| Number of Taxa w/ Epi. | | 12 | | | |
| Number of Taxa w/o Epi. | | 9 | | | |
| Total Biomass w/ Epi. | | | | 2.82800 | |
| Total Biomass w/o Epi. | | | | 2.81200 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|-------|-------------------------------|--|------------------------|-------|
| Watershed: Potomac River | | Station: 051 | | Rep: 01 | |
| Gear: Modified Box Corer | | Habitat: High Mesohaline Sand | | Date: 15SEP14 | |
| | | Sampled Area: 0.025 sq.m | | Time: 15:58:14 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 3.0 | | Salinity (ppt): 6.47 | | Temperature (C): 24.46 | |
| Dissolved Oxygen (mg/l): 7.7 | | Sediment Silt-Clay (%): 2.69 | | Total Carbon (%): 0.22 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 2.67 | | Condition: Marginal | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.98 | 3 | Pollution Indicative Species Abundance (%) | 10.00 | 5 |
| Abundance (#/m2) | 1200 | 3 | Pollution Indicative Species Biomass (%) | 2.08 | |
| Biomass (g/m2) | 1.06 | 3 | Pollution Sensitive Species Abundance (%) | 6.67 | 1 |
| Carnivore-Omnivore Abundance (%) | 16.67 | 1 | Pollution Sensitive Species Biomass (%) | 52.17 | |
| Deep Deposit Feeder Abundance (%) | 26.67 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | | Abundance (#/m2) | | Biomass (g/m2) | |
| Ameroculodes species complex | | 40 | | 0.00800 | |
| Amphiporus bioculatus | | 40 | | 0.04000 | |
| Carinoma tremaphoros | | 80 | | 0.02400 | |
| Eteone heteropoda | | 40 | | 0.01200 | |
| Gemma gemma | | 120 | | 0.05200 | |
| Heteromastus filiformis | | 280 | | 0.13600 | |
| Laeonereis culveri | | 40 | | 0.18400 | |
| Leitoscoloplos spp. | | 40 | | 0.00800 | |
| Leptocheirus plumulosus | | 40 | | 0.00400 | |
| Littoridinops tenuipes (Epi) | | 80 | | 0.00400 | |
| Macoma balthica | | 40 | | 0.51200 | |
| Macoma mitchelli | | 360 | | 0.03600 | |
| Marenzelleria viridis | | 40 | | 0.04000 | |
| Streblospio benedicti | | 40 | | 0.00200 | |
| Total Abundance w/ Epi. | | 1280 | | | |
| Total Abundance w/o Epi. | | 1200 | | | |
| Number of Taxa w/ Epi. | | 14 | | | |
| Number of Taxa w/o Epi. | | 13 | | | |
| Total Biomass w/ Epi. | | | | 1.06200 | |
| Total Biomass w/o Epi. | | | | 1.05800 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Potomac River | | Station: 051 | | Rep: 02 | |
| Gear: Modified Box Corer | | Habitat: High Mesohaline Sand | | Date: 15SEP14 | |
| | | Sampled Area: 0.025 sq.m | | Time: 15:58:14 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 3.0 | | Salinity (ppt): 6.47 | | Temperature (C): 24.46 | |
| Dissolved Oxygen (mg/l): 7.7 | | Sediment Silt-Clay (%): 2.69 | | Total Carbon (%): 0.22 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.33 | | Condition: Meets Goal | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 3.02 | 3 | Pollution Indicative Species Abundance (%) | 9.76 | 5 |
| Abundance (#/m2) | 1640 | 5 | Pollution Indicative Species Biomass (%) | 0.88 | |
| Biomass (g/m2) | 2.74 | 3 | Pollution Sensitive Species Abundance (%) | 2.44 | 1 |
| Carnivore-Omnivore Abundance (%) | 24.39 | 3 | Pollution Sensitive Species Biomass (%) | 3.65 | |
| Deep Deposit Feeder Abundance (%) | 26.83 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Ameroculodes species complex | 40 | | 0.02800 | | |
| Carinoma tremaphoros | 80 | | 0.02000 | | |
| Edwardsia elegans | 40 | | 0.01200 | | |
| Gemma gemma | 80 | | 0.01600 | | |
| Heteromastus filiformis | 400 | | 0.13600 | | |
| Hirudinea (Epi) | 40 | | 0.05600 | | |
| Laonereis culveri | 200 | | 2.12000 | | |
| Leitoscoloplos spp. | 40 | | 0.00800 | | |
| Leptocheirus plumulosus | 40 | | 0.01600 | | |
| Littoridinops tenuipes (Epi) | 40 | | 0.00400 | | |
| Macoma mitchelli | 480 | | 0.02400 | | |
| Marenzelleria viridis | 40 | | 0.10000 | | |
| Mulinia lateralis | 80 | | 0.00800 | | |
| Neanthes succinea | 80 | | 0.24000 | | |
| Streblospio benedicti | 40 | | 0.00800 | | |
| Total Abundance w/ Epi. | 1720 | | | | |
| Total Abundance w/o Epi. | 1640 | | | | |
| Number of Taxa w/ Epi. | 15 | | | | |
| Number of Taxa w/o Epi. | 13 | | | | |
| Total Biomass w/ Epi. | | | 2.79600 | | |
| Total Biomass w/o Epi. | | | 2.73600 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Potomac River | | Station: 051 | | Rep: 03 | |
| Gear: Modified Box Corer | | Habitat: High Mesohaline Sand | | Date: 15SEP14 | |
| | | Sampled Area: 0.025 sq.m | | Time: 15:58:14 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 3.0 | | Salinity (ppt): 6.47 | | Temperature (C): 24.46 | |
| Dissolved Oxygen (mg/l): 7.7 | | Sediment Silt-Clay (%): 2.69 | | Total Carbon (%): 0.22 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.33 | | Condition: Meets Goal | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.99 | 3 | Pollution Indicative Species Abundance (%) | 6.67 | 5 |
| Abundance (#/m2) | 1200 | 3 | Pollution Indicative Species Biomass (%) | 3.69 | |
| Biomass (g/m2) | 4.01 | 5 | Pollution Sensitive Species Abundance (%) | 3.33 | 1 |
| Carnivore-Omnivore Abundance (%) | 33.33 | 3 | Pollution Sensitive Species Biomass (%) | 0.30 | |
| Deep Deposit Feeder Abundance (%) | 30.00 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Ameroculodes species complex | 40 | | 0.00400 | | |
| Carinoma tremaphoros | 120 | | 0.02400 | | |
| Gemma gemma | 40 | | 0.00200 | | |
| Glycinde solitaria | 40 | | 0.01200 | | |
| Heteromastus filiformis | 280 | | 0.29600 | | |
| Laeonereis culveri | 200 | | 3.13600 | | |
| Leitoscoloplos fragilis | 80 | | 0.14800 | | |
| Leptocheirus plumulosus | 160 | | 0.00400 | | |
| Macoma mitchelli | 200 | | 0.38400 | | |
| Neanthes succinea | 40 | | 0.00200 | | |
| Total Abundance w/ Epi. | 1200 | | | | |
| Total Abundance w/o Epi. | 1200 | | | | |
| Number of Taxa w/ Epi. | 10 | | | | |
| Number of Taxa w/o Epi. | 10 | | | | |
| Total Biomass w/ Epi. | | | 4.01200 | | |
| Total Biomass w/o Epi. | | | 4.01200 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|-------|-------------------------------|--|------------------------|-------|
| Watershed: Potomac River | | Station: 052 | | Rep: 01 | |
| Gear: Wildco Box Corer | | Habitat: High Mesohaline Mud | | Date: 21AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 14:37:46 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 11.7 | | Salinity (ppt): 4.10 | | Temperature (C): 25.40 | |
| Dissolved Oxygen (mg/l): 0.2 | | Sediment Silt-Clay (%): 92.44 | | Total Carbon (%): 3.26 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 1.00 | | Condition: Severely Degr. | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 0.00 | 1 | Pollution Indicative Species Abundance (%) | 100.00 | |
| Abundance (#/m2) | 0 | 1 | Pollution Indicative Species Biomass (%) | 100.00 | 1 |
| Biomass (g/m2) | 0.00 | 1 | Pollution Sensitive Species Abundance (%) | 0.00 | |
| Carnivore-Omnivore Abundance (%) | 0.00 | 1 | Pollution Sensitive Species Biomass (%) | 0.00 | 1 |
| Deep Deposit Feeder Abundance (%) | 0.00 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | | Abundance (#/m2) | | Biomass (g/m2) | |
| No Organisms Present | | | | 0.00000 | |
| Total Abundance w/ Epi. | | | | | |
| Total Abundance w/o Epi. | | | | | |
| Number of Taxa w/ Epi. | | 0 | | | |
| Number of Taxa w/o Epi. | | 0 | | | |
| Total Biomass w/ Epi. | | | | 0.00000 | |
| Total Biomass w/o Epi. | | | | 0.00000 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Potomac River | | Station: 052 | | Rep: 02 | |
| Gear: Wildco Box Corer | | Habitat: High Mesohaline Mud | | Date: 21AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 14:37:46 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 11.7 | | Salinity (ppt): 4.10 | | Temperature (C): 25.40 | |
| Dissolved Oxygen (mg/l): 0.2 | | Sediment Silt-Clay (%): 92.44 | | Total Carbon (%): 3.26 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 1.00 | | Condition: Severely Degr. | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 0.00 | 1 | Pollution Indicative Species Abundance (%) | 100.00 | |
| Abundance (#/m2) | 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 | | 0.00227 | | |
| 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. | | | 0.00227 | | |
| Total Biomass w/o Epi. | | | 0.00227 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Potomac River | | Station: 052 | | Rep: 03 | |
| Gear: Wildco Box Corer | | Habitat: High Mesohaline Mud | | Date: 21AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 14:37:46 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 11.7 | | Salinity (ppt): 4.10 | | Temperature (C): 25.40 | |
| Dissolved Oxygen (mg/l): 0.2 | | Sediment Silt-Clay (%): 92.44 | | Total Carbon (%): 3.26 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 1.00 | | Condition: Severely Degr. | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 0.00 | 1 | Pollution Indicative Species Abundance (%) | 100.00 | |
| Abundance (#/m2) | 45 | 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) | | |
| Streblospio benedicti | 45 | | 0.00909 | | |
| 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. | | | 0.00909 | | |
| Total Biomass w/o Epi. | | | 0.00909 | | |



BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Lower Eastern Shore | | Station: 062 | | Rep: 01 | |
| Gear: Petite Ponar | | Habitat: Low Mesohaline | | Date: 11SEP14 | |
| | | Sampled Area: 0.025 sq.m | | Time: 14:15:00 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 4.7 | | Salinity (ppt): 3.97 | | Temperature (C): 25.04 | |
| Dissolved Oxygen (mg/l): 7.0 | | Sediment Silt-Clay (%): 81.15 | | Total Carbon (%): 4.26 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 2.60 | | Condition: Degraded | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 0.73 | 1 | Pollution Indicative Species Abundance (%) | 0.00 | 5 |
| Abundance (#/m2) | 11880 | 1 | Pollution Indicative Species Biomass (%) | 0.00 | |
| Biomass (g/m2) | 1.06 | 3 | Pollution Sensitive Species Abundance (%) | 1.01 | |
| Carnivore-Omnivore Abundance (%) | 0.34 | | Pollution Sensitive Species Biomass (%) | 41.97 | 3 |
| Deep Deposit Feeder Abundance (%) | 88.89 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Ameroculodes species complex | 560 | | 0.03600 | | |
| Chiridotea almyra | 40 | | 0.00200 | | |
| Gammarus daiberi (Epi) | 400 | | 0.09600 | | |
| Leptocheirus plumulosus | 400 | | 0.06000 | | |
| Leucon americanus | 40 | | 0.00400 | | |
| Macoma balthica | 120 | | 0.44400 | | |
| Macoma mitchelli | 160 | | 0.38800 | | |
| Melita nitida (Epi) | 120 | | 0.01200 | | |
| Tubificoides spp. | 10560 | | 0.12400 | | |
| Total Abundance w/ Epi. | 12400 | | | | |
| Total Abundance w/o Epi. | 11880 | | | | |
| Number of Taxa w/ Epi. | 9 | | | | |
| Number of Taxa w/o Epi. | 7 | | | | |
| Total Biomass w/ Epi. | | | 1.16600 | | |
| Total Biomass w/o Epi. | | | 1.05800 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Lower Eastern Shore | | Station: 062 | | Rep: 02 | |
| Gear: Petite Ponar | | Habitat: Low Mesohaline | | Date: 11SEP14 | |
| | | Sampled Area: 0.025 sq.m | | Time: 14:15:00 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 4.7 | | Salinity (ppt): 3.97 | | Temperature (C): 25.04 | |
| Dissolved Oxygen (mg/l): 7.0 | | Sediment Silt-Clay (%): 81.15 | | Total Carbon (%): 4.26 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 2.20 | | Condition: Degraded | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 0.68 | 1 | Pollution Indicative Species Abundance (%) | 2.05 | 5 |
| Abundance (#/m2) | 13680 | 1 | Pollution Indicative Species Biomass (%) | 0.63 | |
| Biomass (g/m2) | 0.96 | 1 | Pollution Sensitive Species Abundance (%) | 0.88 | |
| Carnivore-Omnivore Abundance (%) | 0.88 | | Pollution Sensitive Species Biomass (%) | 43.42 | 3 |
| Deep Deposit Feeder Abundance (%) | 92.69 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Ameroculodes species complex | 200 | | 0.00800 | | |
| Chiridotea almyra | 80 | | 0.01200 | | |
| Cyathura polita | 40 | | 0.02400 | | |
| Edotea triloba (Epi) | 80 | | 0.01200 | | |
| Gammarus daiberi (Epi) | 480 | | 0.10800 | | |
| Geukensia demissa (Epi) | 40 | | 0.00800 | | |
| Leptocheirus plumulosus | 400 | | 0.02400 | | |
| Macoma balthica | 80 | | 0.39200 | | |
| Macoma mitchelli | 160 | | 0.32800 | | |
| Streblospio benedicti | 40 | | 0.00400 | | |
| Tubificidae imm w/o cap chaetae | 240 | | 0.00200 | | |
| Tubificoides spp. | 12440 | | 0.16400 | | |
| Total Abundance w/ Epi. | 14280 | | | | |
| Total Abundance w/o Epi. | 13680 | | | | |
| Number of Taxa w/ Epi. | 12 | | | | |
| Number of Taxa w/o Epi. | 9 | | | | |
| Total Biomass w/ Epi. | | | 1.08600 | | |
| Total Biomass w/o Epi. | | | 0.95800 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Lower Eastern Shore | | Station: 062 | | Rep: 03 | |
| Gear: Petite Ponar | | Habitat: Low Mesohaline | | Date: 11SEP14 | |
| | | Sampled Area: 0.025 sq.m | | Time: 14:15:00 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 4.7 | | Salinity (ppt): 3.97 | | Temperature (C): 25.04 | |
| Dissolved Oxygen (mg/l): 7.0 | | Sediment Silt-Clay (%): 81.15 | | Total Carbon (%): 4.26 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 2.20 | | Condition: Degraded | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 0.85 | 1 | Pollution Indicative Species Abundance (%) | 1.37 | 5 |
| Abundance (#/m2) | 11680 | 1 | Pollution Indicative Species Biomass (%) | 0.69 | |
| Biomass (g/m2) | 0.87 | 1 | Pollution Sensitive Species Abundance (%) | 1.03 | |
| Carnivore-Omnivore Abundance (%) | 0.34 | | Pollution Sensitive Species Biomass (%) | 70.80 | 3 |
| Deep Deposit Feeder Abundance (%) | 87.67 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Ameroculodes species complex | 560 | | 0.02800 | | |
| Chiridotea almyra | 40 | | 0.00400 | | |
| Edotea triloba (Epi) | 160 | | 0.00400 | | |
| Gammarus daiberi (Epi) | 280 | | 0.06000 | | |
| Geukensia demissa (Epi) | 80 | | 0.00200 | | |
| Leptocheirus plumulosus | 440 | | 0.08400 | | |
| Macoma balthica | 40 | | 0.22800 | | |
| Macoma mitchelli | 160 | | 0.02400 | | |
| Marenzelleria viridis | 80 | | 0.38800 | | |
| Neomysis americana (Epi) | 40 | | 0.00200 | | |
| Streblospio benedicti | 120 | | 0.00400 | | |
| Tubificidae imm w/o cap chaetae | 40 | | 0.00200 | | |
| Tubificoides spp. | 10200 | | 0.10800 | | |
| Total Abundance w/ Epi. | 12240 | | | | |
| Total Abundance w/o Epi. | 11680 | | | | |
| Number of Taxa w/ Epi. | 13 | | | | |
| Number of Taxa w/o Epi. | 9 | | | | |
| Total Biomass w/ Epi. | | | 0.93800 | | |
| Total Biomass w/o Epi. | | | 0.87000 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Choptank River | | Station: 064 | | Rep: 01 | |
| Gear: Wildco Box Corer | | Habitat: High Mesohaline Mud | | Date: 04SEP14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 13:30:15 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 9.5 | | Salinity (ppt): 10.51 | | Temperature (C): 26.82 | |
| Dissolved Oxygen (mg/l): 4.2 | | Sediment Silt-Clay (%): 80.97 | | Total Carbon (%): 2.18 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 4.33 | | Condition: Meets Goal | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.30 | 3 | Pollution Indicative Species Abundance (%) | 9.09 | |
| Abundance (#/m2) | 2000 | 5 | Pollution Indicative Species Biomass (%) | 0.20 | 5 |
| Biomass (g/m2) | 5.57 | 5 | Pollution Sensitive Species Abundance (%) | 50.00 | |
| Carnivore-Omnivore Abundance (%) | 22.73 | 3 | Pollution Sensitive Species Biomass (%) | 76.90 | 5 |
| Deep Deposit Feeder Abundance (%) | 20.45 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Carinoma tremaphoros | 136 | | 0.06818 | | |
| Cyathura polita | 45 | | 0.06363 | | |
| Heteromastus filiformis | 91 | | 0.02727 | | |
| Macoma balthica | 954 | | 4.21776 | | |
| Mulinia lateralis | 136 | | 0.00909 | | |
| Neanthes succinea | 273 | | 1.17716 | | |
| Streblospio benedicti | 45 | | 0.00227 | | |
| Tubificoides spp. | 318 | | 0.00227 | | |
| Total Abundance w/ Epi. | 2000 | | | | |
| Total Abundance w/o Epi. | 2000 | | | | |
| Number of Taxa w/ Epi. | 8 | | | | |
| Number of Taxa w/o Epi. | 8 | | | | |
| Total Biomass w/ Epi. | | | 5.56762 | | |
| Total Biomass w/o Epi. | | | 5.56762 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Choptank River | | Station: 064 | | Rep: 02 | |
| Gear: Wildco Box Corer | | Habitat: High Mesohaline Mud | | Date: 04SEP14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 13:30:15 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 9.5 | | Salinity (ppt): 10.51 | | Temperature (C): 26.82 | |
| Dissolved Oxygen (mg/l): 4.2 | | Sediment Silt-Clay (%): 80.97 | | Total Carbon (%): 2.18 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 4.67 | | Condition: Meets Goal | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.16 | 3 | Pollution Indicative Species Abundance (%) | 4.65 | |
| Abundance (#/m2) | 1954 | 5 | Pollution Indicative Species Biomass (%) | 0.07 | 5 |
| Biomass (g/m2) | 6.13 | 5 | Pollution Sensitive Species Abundance (%) | 60.47 | |
| Carnivore-Omnivore Abundance (%) | 25.58 | 5 | Pollution Sensitive Species Biomass (%) | 93.55 | 5 |
| Deep Deposit Feeder Abundance (%) | 11.63 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Carinoma tremaphoros | 318 | | 0.18635 | | |
| Cyathura polita | 45 | | 0.15453 | | |
| Heteromastus filiformis | 91 | | 0.04545 | | |
| Macoma balthica | 1091 | | 5.39037 | | |
| Marenzelleria viridis | 45 | | 0.19089 | | |
| Mulinia lateralis | 91 | | 0.00455 | | |
| Neanthes succinea | 91 | | 0.15453 | | |
| Parahesion luteola | 45 | | 0.00227 | | |
| Tubificoides spp. | 136 | | 0.00227 | | |
| Total Abundance w/ Epi. | 1954 | | | | |
| Total Abundance w/o Epi. | 1954 | | | | |
| Number of Taxa w/ Epi. | 9 | | | | |
| Number of Taxa w/o Epi. | 9 | | | | |
| Total Biomass w/ Epi. | | | 6.13120 | | |
| Total Biomass w/o Epi. | | | 6.13120 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Choptank River | | Station: 064 | | Rep: 03 | |
| Gear: Wildco Box Corer | | Habitat: High Mesohaline Mud | | Date: 04SEP14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 13:30:15 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 9.5 | | Salinity (ppt): 10.51 | | Temperature (C): 26.82 | |
| Dissolved Oxygen (mg/l): 4.2 | | Sediment Silt-Clay (%): 80.97 | | Total Carbon (%): 2.18 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 4.00 | | Condition: Meets Goal | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.21 | 3 | Pollution Indicative Species Abundance (%) | 7.81 | |
| Abundance (#/m2) | 2909 | 3 | Pollution Indicative Species Biomass (%) | 0.81 | 5 |
| Biomass (g/m2) | 3.65 | 5 | Pollution Sensitive Species Abundance (%) | 29.69 | |
| Carnivore-Omnivore Abundance (%) | 17.19 | 3 | Pollution Sensitive Species Biomass (%) | 86.25 | 5 |
| Deep Deposit Feeder Abundance (%) | 48.44 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Carinoma tremaphoros | 364 | | 0.28634 | | |
| Glycinde solitaria | 91 | | 0.02727 | | |
| Heteromastus filiformis | 136 | | 0.08636 | | |
| Macoma balthica | 773 | | 3.12242 | | |
| Mulinia lateralis | 182 | | 0.02727 | | |
| Neanthes succinea | 45 | | 0.08635 | | |
| Streblospio benedicti | 45 | | 0.00227 | | |
| Tubificoides spp. | 1273 | | 0.01364 | | |
| Total Abundance w/ Epi. | 2909 | | | | |
| Total Abundance w/o Epi. | 2909 | | | | |
| Number of Taxa w/ Epi. | 8 | | | | |
| Number of Taxa w/o Epi. | 8 | | | | |
| Total Biomass w/ Epi. | | | 3.65191 | | |
| Total Biomass w/o Epi. | | | 3.65191 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Choptank River | | Station: 066 | | Rep: 01 | |
| Gear: Wildco Box Corer | | Habitat: Oligohaline | | Date: 11SEP14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 10:24:47 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 4.9 | | Salinity (ppt): 3.80 | | Temperature (C): 25.40 | |
| Dissolved Oxygen (mg/l): 5.4 | | Sediment Silt-Clay (%): 60.41 | | Total Carbon (%): 4.15 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 2.33 | | Condition: Degraded | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.50 | | Oligohaline Pollution Indicative Spp. Abund. | 83.05 | 3 |
| Abundance (#/m2) | 2682 | 5 | Tolerance Score | 9.43 | 1 |
| Deep Deposit Feeder Abundance (%) | 77.97 | | Oligohaline Pollution Sensitive Spp. Abund. | 5.08 | 3 |
| Carnivore-Omnivore Abundance (%) | 8.47 | 1 | Tanypodinae/Chironomidae Abundance Ratio | 100.00 | 1 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Ameroculodes species complex | 182 | | 0.01363 | | |
| Chaoborus punctipennis | 45 | | 0.00455 | | |
| Coelotanypus spp. | 91 | | 0.00455 | | |
| Cyathura polita | 91 | | 0.00227 | | |
| Edotea triloba (Epi) | 45 | | 0.00909 | | |
| Gammarus daiberi (Epi) | 1591 | | 0.07727 | | |
| Heteromastus filiformis | 45 | | 0.00454 | | |
| Leptocheirus plumulosus | 45 | | 0.00909 | | |
| Limnodrilus hoffmeisteri | 364 | | | | |
| Littoridinops tenuipes (Epi) | 45 | | 0.00909 | | |
| Marenzelleria viridis | 136 | | 0.70448 | | |
| Neomysis americana (Epi) | 136 | | 0.01818 | | |
| Oligochaeta | | | 0.00455 | | |
| Tubificidae imm w/o cap chaetae * | 545 | | | | |
| Tubificoides spp. | 1136 | | 0.01364 | | |
| Total Abundance w/ Epi. | 4500 | | | | |
| Total Abundance w/o Epi. | 2682 | | | | |
| Number of Taxa w/ Epi. | 13 | | | | |
| Number of Taxa w/o Epi. | 9 | | | | |
| Total Biomass w/ Epi. | | | 0.87491 | | |
| Total Biomass w/o Epi. | | | 0.76129 | | |

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Choptank River | | Station: 066 | | Rep: 02 | |
| Gear: Wildco Box Corer | | Habitat: Oligohaline | | Date: 11SEP14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 10:24:47 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 4.9 | | Salinity (ppt): 3.80 | | Temperature (C): 25.40 | |
| Dissolved Oxygen (mg/l): 5.4 | | Sediment Silt-Clay (%): 60.41 | | Total Carbon (%): 4.15 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 2.67 | | Condition: Marginal | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.34 | | Oligohaline Pollution Indicative Spp. Abund. | 92.11 | 3 |
| Abundance (#/m2) | 3454 | 3 | Tolerance Score | 9.72 | 1 |
| Deep Deposit Feeder Abundance (%) | 81.58 | | Oligohaline Pollution Sensitive Spp. Abund. | 1.32 | 3 |
| Carnivore-Omnivore Abundance (%) | 3.95 | 1 | Tanypodinae/Chironomidae Abundance Ratio | 0.00 | 5 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Ameroculodes species complex | 91 | | 0.00227 | | |
| Chaoborus punctipennis | 45 | | 0.00227 | | |
| Cryptochironomus spp. | 45 | | 0.00227 | | |
| Cyathura polita | 45 | | 0.00227 | | |
| Gammarus daiberi (Epi) | 2454 | | 0.09090 | | |
| Leptocheirus plumulosus | 364 | | 0.12272 | | |
| Limnodrilus hoffmeisteri | 1000 | | | | |
| Littoridinops tenuipes (Epi) | 273 | | 0.02273 | | |
| Marenzelleria viridis | 45 | | 0.39087 | | |
| Oligochaeta | | | 0.23634 | | |
| Tubificidae imm w/o cap chaetae * | 1000 | | | | |
| Tubificoides spp. | 818 | | 0.00455 | | |
| Total Abundance w/ Epi. | 6181 | | | | |
| Total Abundance w/o Epi. | 3454 | | | | |
| Number of Taxa w/ Epi. | 10 | | | | |
| Number of Taxa w/o Epi. | 8 | | | | |
| Total Biomass w/ Epi. | | | 0.87719 | | |
| Total Biomass w/o Epi. | | | 0.76356 | | |

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|-------|-------------------------------|--|------------------------|-------|
| Watershed: Choptank River | | Station: 066 | | Rep: 03 | |
| Gear: Wildco Box Corer | | Habitat: Oligohaline | | Date: 11SEP14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 10:24:47 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 4.9 | | Salinity (ppt): 3.80 | | Temperature (C): 25.40 | |
| Dissolved Oxygen (mg/l): 5.4 | | Sediment Silt-Clay (%): 60.41 | | Total Carbon (%): 4.15 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 2.33 | | Condition: Degraded | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.65 | | Oligohaline Pollution Indicative Spp. Abund. | 76.47 | 3 |
| Abundance (#/m2) | 3091 | 5 | Tolerance Score | 9.49 | 1 |
| Deep Deposit Feeder Abundance (%) | 70.59 | | Oligohaline Pollution Sensitive Spp. Abund. | 8.82 | 3 |
| Carnivore-Omnivore Abundance (%) | 4.41 | 1 | Tanypodinae/Chironomidae Abundance Ratio | 100.00 | 1 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | | Abundance (#/m2) | | Biomass (g/m2) | |
| Ameroculodes species complex | | 273 | | 0.01363 | |
| Chaoborus punctipennis | | 45 | | 0.00455 | |
| Coelotanypus spp. | | 45 | | 0.00909 | |
| Cyathura polita | | 45 | | 0.00454 | |
| Gammarus daiberi (Epi) | | 3318 | | 0.12726 | |
| Leptocheirus plumulosus | | 136 | | 0.01364 | |
| Limnodrilus hoffmeisteri | | 545 | | | |
| Littoridinops tenuipes (Epi) | | 182 | | 0.01818 | |
| Marenzelleria viridis | | 273 | | 1.80891 | |
| Neomysis americana (Epi) | | 91 | | 0.01364 | |
| Oligochaeta | | | | 0.15453 | |
| Rangia cuneata | | 91 | | 8.88548 | |
| Tubificidae imm w/o cap chaetae * | | 1091 | | | |
| Tubificoides spp. | | 545 | | 0.00227 | |
| Total Abundance w/ Epi. | | 6681 | | | |
| Total Abundance w/o Epi. | | 3091 | | | |
| Number of Taxa w/ Epi. | | 12 | | | |
| Number of Taxa w/o Epi. | | 9 | | | |
| Total Biomass w/ Epi. | | | | 11.05571 | |
| Total Biomass w/o Epi. | | | | 10.89664 | |

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Upper Eastern Shore | | Station: 068 | | Rep: 01 | |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | | Date: 08SEP14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 10:00:31 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 6.1 | | Salinity (ppt): 8.68 | | Temperature (C): 27.37 | |
| Dissolved Oxygen (mg/l): 4.8 | | Sediment Silt-Clay (%): 85.10 | | Total Carbon (%): 3.06 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.40 | | Condition: Meets Goal | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.21 | 3 | Pollution Indicative Species Abundance (%) | 4.84 | 5 |
| Abundance (#/m2) | 2818 | 3 | Pollution Indicative Species Biomass (%) | 0.01 | |
| Biomass (g/m2) | 78.95 | 1 | Pollution Sensitive Species Abundance (%) | 53.23 | |
| Carnivore-Omnivore Abundance (%) | 9.68 | | Pollution Sensitive Species Biomass (%) | 98.41 | 5 |
| Deep Deposit Feeder Abundance (%) | 27.42 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Carinoma tremaphoros | 45 | | 0.01818 | | |
| Coelotanypus spp. | 91 | | 0.00909 | | |
| Cyathura polita | 45 | | 0.10908 | | |
| Eteone heteropoda | 45 | | 0.00227 | | |
| Heteromastus filiformis | 45 | | 0.09999 | | |
| Leptocheirus plumulosus | 182 | | 0.04090 | | |
| Macoma balthica | 1409 | | 75.15158 | | |
| Macoma mitchelli | 136 | | 1.07717 | | |
| Neanthes succinea | 45 | | 0.00455 | | |
| Neomysis americana (Epi) | 45 | | 0.02273 | | |
| Rangia cuneata | 45 | | 2.43612 | | |
| Tubificoides spp. | 727 | | 0.00454 | | |
| Total Abundance w/ Epi. | 2863 | | | | |
| Total Abundance w/o Epi. | 2818 | | | | |
| Number of Taxa w/ Epi. | 12 | | | | |
| Number of Taxa w/o Epi. | 11 | | | | |
| Total Biomass w/ Epi. | | | 78.97619 | | |
| Total Biomass w/o Epi. | | | 78.95347 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Upper Eastern Shore | | Station: 068 | | Rep: 02 | |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | | Date: 08SEP14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 10:00:31 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 6.1 | | Salinity (ppt): 8.68 | | Temperature (C): 27.37 | |
| Dissolved Oxygen (mg/l): 4.8 | | Sediment Silt-Clay (%): 85.10 | | Total Carbon (%): 3.06 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.00 | | Condition: Meets Goal | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.74 | 5 | Pollution Indicative Species Abundance (%) | 24.24 | 1 |
| Abundance (#/m2) | 3000 | 3 | Pollution Indicative Species Biomass (%) | 0.17 | |
| Biomass (g/m2) | 54.48 | 1 | Pollution Sensitive Species Abundance (%) | 28.79 | |
| Carnivore-Omnivore Abundance (%) | 22.73 | | Pollution Sensitive Species Biomass (%) | 98.23 | 5 |
| Deep Deposit Feeder Abundance (%) | 30.30 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Coelotanypus spp. | 500 | | 0.08636 | | |
| Cyathura polita | 91 | | 0.27724 | | |
| Eteone heteropoda | 91 | | 0.00454 | | |
| Heteromastus filiformis | 91 | | 0.00909 | | |
| Leptocheirus plumulosus | 409 | | 0.06818 | | |
| Macoma balthica | 727 | | 53.22649 | | |
| Macoma mitchelli | 91 | | 0.77720 | | |
| Marenzelleria viridis | 45 | | 0.01364 | | |
| Melita nitida (Epi) | 91 | | 0.00227 | | |
| Streblospio benedicti | 136 | | 0.00227 | | |
| Tubificoides spp. | 818 | | 0.01818 | | |
| Total Abundance w/ Epi. | 3091 | | | | |
| Total Abundance w/o Epi. | 3000 | | | | |
| Number of Taxa w/ Epi. | 11 | | | | |
| Number of Taxa w/o Epi. | 10 | | | | |
| Total Biomass w/ Epi. | | | 54.48546 | | |
| Total Biomass w/o Epi. | | | 54.48319 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Upper Eastern Shore | | Station: 068 | | Rep: 03 | |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | | Date: 08SEP14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 10:00:31 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 6.1 | | Salinity (ppt): 8.68 | | Temperature (C): 27.37 | |
| Dissolved Oxygen (mg/l): 4.8 | | Sediment Silt-Clay (%): 85.10 | | Total Carbon (%): 3.06 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.00 | | Condition: Meets Goal | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 1.77 | 3 | Pollution Indicative Species Abundance (%) | 13.79 | 3 |
| Abundance (#/m2) | 2636 | 3 | Pollution Indicative Species Biomass (%) | 0.10 | |
| Biomass (g/m2) | 80.30 | 1 | Pollution Sensitive Species Abundance (%) | 63.79 | |
| Carnivore-Omnivore Abundance (%) | 15.52 | | Pollution Sensitive Species Biomass (%) | 99.23 | 5 |
| Deep Deposit Feeder Abundance (%) | 8.62 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Coelotanypus spp. | 364 | | 0.07727 | | |
| Heteromastus filiformis | 91 | | 0.00455 | | |
| Leptocheirus plumulosus | 227 | | 0.05454 | | |
| Macoma balthica | 1682 | | 79.68749 | | |
| Macoma mitchelli | 91 | | 0.47268 | | |
| Melita nitida (Epi) | 182 | | 0.00455 | | |
| Neanthes succinea | 45 | | 0.00227 | | |
| Tubificoides spp. | 136 | | 0.00455 | | |
| Total Abundance w/ Epi. | 2818 | | | | |
| Total Abundance w/o Epi. | 2636 | | | | |
| Number of Taxa w/ Epi. | 8 | | | | |
| Number of Taxa w/o Epi. | 7 | | | | |
| Total Biomass w/ Epi. | | | 80.30788 | | |
| Total Biomass w/o Epi. | | | 80.30333 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Patuxent River | | Station: 071 | | Rep: 01 | |
| Gear: Wildco Box Corer | | Habitat: High Mesohaline Mud | | Date: 27AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 10:13:09 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 12.4 | | Salinity (ppt): 12.59 | | Temperature (C): 25.88 | |
| Dissolved Oxygen (mg/l): 2.8 | | Sediment Silt-Clay (%): 81.88 | | Total Carbon (%): 3.02 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 2.67 | | Condition: Marginal | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.00 | 3 | Pollution Indicative Species Abundance (%) | 25.00 | |
| Abundance (#/m2) | 364 | 1 | Pollution Indicative Species Biomass (%) | 6.52 | 3 |
| Biomass (g/m2) | 0.63 | 3 | Pollution Sensitive Species Abundance (%) | 12.50 | |
| Carnivore-Omnivore Abundance (%) | 37.50 | 5 | Pollution Sensitive Species Biomass (%) | 2.90 | 1 |
| Deep Deposit Feeder Abundance (%) | 0.00 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Eteone heteropoda | 45 | | 0.00909 | | |
| Glycinde solitaria | 45 | | 0.01818 | | |
| Macoma mitchelli | 182 | | 0.53631 | | |
| Mulinia lateralis | 45 | | 0.03182 | | |
| Neanthes succinea | 45 | | 0.03181 | | |
| Total Abundance w/ Epi. | 364 | | | | |
| Total Abundance w/o Epi. | 364 | | | | |
| Number of Taxa w/ Epi. | 5 | | | | |
| Number of Taxa w/o Epi. | 5 | | | | |
| Total Biomass w/ Epi. | | | 0.62721 | | |
| Total Biomass w/o Epi. | | | 0.62721 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|-------|-------------------------------|--|------------------------|-------|
| Watershed: Patuxent River | | Station: 071 | | Rep: 02 | |
| Gear: Wildco Box Corer | | Habitat: High Mesohaline Mud | | Date: 27AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 10:13:09 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 12.4 | | Salinity (ppt): 12.59 | | Temperature (C): 25.88 | |
| Dissolved Oxygen (mg/l): 2.8 | | Sediment Silt-Clay (%): 81.88 | | Total Carbon (%): 3.02 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 2.33 | | Condition: Degraded | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 1.00 | 1 | Pollution Indicative Species Abundance (%) | 0.00 | |
| Abundance (#/m2) | 182 | 1 | Pollution Indicative Species Biomass (%) | 0.00 | 5 |
| Biomass (g/m2) | 0.37 | 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) | |
| Macoma mitchelli | | 91 | | 0.32724 | |
| Micrura leidyi | | 91 | | 0.04545 | |
| Total Abundance w/ Epi. | | 182 | | | |
| Total Abundance w/o Epi. | | 182 | | | |
| Number of Taxa w/ Epi. | | 2 | | | |
| Number of Taxa w/o Epi. | | 2 | | | |
| Total Biomass w/ Epi. | | | | 0.37269 | |
| Total Biomass w/o Epi. | | | | 0.37269 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Patuxent River | | Station: 071 | | Rep: 03 | |
| Gear: Wildco Box Corer | | Habitat: High Mesohaline Mud | | Date: 27AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 10:13:09 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 12.4 | | Salinity (ppt): 12.59 | | Temperature (C): 25.88 | |
| Dissolved Oxygen (mg/l): 2.8 | | Sediment Silt-Clay (%): 81.88 | | Total Carbon (%): 3.02 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 2.00 | | Condition: Severely Degr. | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.25 | 3 | Pollution Indicative Species Abundance (%) | 50.00 | |
| Abundance (#/m2) | 273 | 1 | Pollution Indicative Species Biomass (%) | 72.73 | 1 |
| Biomass (g/m2) | 0.12 | 1 | Pollution Sensitive Species Abundance (%) | 16.67 | |
| Carnivore-Omnivore Abundance (%) | 33.33 | 5 | Pollution Sensitive Species Biomass (%) | 18.18 | 1 |
| Deep Deposit Feeder Abundance (%) | 0.00 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Glycinde solitaria | 45 | | 0.02273 | | |
| Macoma mitchelli | 45 | | 0.00909 | | |
| Mulinia lateralis | 45 | | 0.08635 | | |
| Neanthes succinea | 45 | | 0.00227 | | |
| Streblospio benedicti | 91 | | 0.00455 | | |
| Total Abundance w/ Epi. | 273 | | | | |
| Total Abundance w/o Epi. | 273 | | | | |
| Number of Taxa w/ Epi. | 5 | | | | |
| Number of Taxa w/o Epi. | 5 | | | | |
| Total Biomass w/ Epi. | | | 0.12499 | | |
| Total Biomass w/o Epi. | | | 0.12499 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | |
|-----------------------------------|------------------|-------------------------------|--|
| Station: 074 | | Rep: 01 | |
| Watershed: Chalk Point Discharge | | Date: 28AUG14 | |
| Gear: Wildco Box Corer | | Time: 9:07:47 | |
| Habitat: Low Mesohaline | | | |
| Sampled Area: 0.022 sq.m | | | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 2.1 | | Salinity (ppt): 8.78 | |
| Dissolved Oxygen (mg/l): 5.6 | | Temperature (C): 27.42 | |
| | | Sediment Silt-Clay (%): 82.33 | |
| | | Total Carbon (%): 2.46 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 3.40 | | Condition: Meets Goal | |
| | | # Attributes Scored: 5 | |
| | Value | Score | |
| Shannon-Wiener Index | 1.98 | 3 | Pollution Indicative Species Abundance (%) |
| Abundance (#/m2) | 7136 | 1 | Pollution Indicative Species Biomass (%) |
| Biomass (g/m2) | 14.38 | 3 | Pollution Sensitive Species Abundance (%) |
| Carnivore-Omnivore Abundance (%) | 5.10 | | Pollution Sensitive Species Biomass (%) |
| Deep Deposit Feeder Abundance (%) | 26.11 | | 89.04 |
| | | | 5 |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) |
| Eteone heteropoda | 91 | | 0.01364 |
| Heteromastus filiformis | 455 | | 0.15453 |
| Leptocheirus plumulosus | 4045 | | 0.63630 |
| Macoma balthica | 273 | | 12.75327 |
| Macoma mitchelli | 45 | | 0.01818 |
| Melita nitida (Epi) | 455 | | 0.02273 |
| Neanthes succinea | 273 | | 0.72265 |
| Rangia cuneata | 45 | | 0.05454 |
| Streblospio benedicti | 500 | | 0.01364 |
| Tubificoides spp. | 1409 | | 0.01818 |
| Total Abundance w/ Epi. | 7590 | | |
| Total Abundance w/o Epi. | 7136 | | |
| Number of Taxa w/ Epi. | 10 | | |
| Number of Taxa w/o Epi. | 9 | | |
| Total Biomass w/ Epi. | | | 14.40765 |
| Total Biomass w/o Epi. | | | 14.38492 |



BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Chalk Point Discharge | | Station: 074 | | Rep: 02 | |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | | Date: 28AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 9:07:47 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 2.1 | | Salinity (ppt): 8.78 | | Temperature (C): 27.42 | |
| Dissolved Oxygen (mg/l): 5.6 | | Sediment Silt-Clay (%): 82.33 | | Total Carbon (%): 2.46 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.40 | | Condition: Meets Goal | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 1.90 | 3 | Pollution Indicative Species Abundance (%) | 4.67 | 5 |
| Abundance (#/m2) | 6818 | 1 | Pollution Indicative Species Biomass (%) | 0.11 | |
| Biomass (g/m2) | 21.19 | 3 | Pollution Sensitive Species Abundance (%) | 5.33 | |
| Carnivore-Omnivore Abundance (%) | 6.67 | | Pollution Sensitive Species Biomass (%) | 94.32 | 5 |
| Deep Deposit Feeder Abundance (%) | 22.00 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Carinoma tremaphoros | 91 | | 0.08635 | | |
| Eteone heteropoda | 91 | | 0.01364 | | |
| Heteromastus filiformis | 273 | | 0.16817 | | |
| Leptocheirus plumulosus | 4181 | | 0.56358 | | |
| Macoma balthica | 364 | | 19.98436 | | |
| Macoma mitchelli | 91 | | 0.20453 | | |
| Melita nitida (Epi) | 864 | | 0.03636 | | |
| Micrura leidyi | 45 | | 0.04090 | | |
| Neanthes succinea | 227 | | 0.09999 | | |
| Streblospio benedicti | 227 | | 0.00909 | | |
| Tubificoides spp. | 1227 | | 0.01818 | | |
| Total Abundance w/ Epi. | 7681 | | | | |
| Total Abundance w/o Epi. | 6818 | | | | |
| Number of Taxa w/ Epi. | 11 | | | | |
| Number of Taxa w/o Epi. | 10 | | | | |
| Total Biomass w/ Epi. | | | 21.22515 | | |
| Total Biomass w/o Epi. | | | 21.18879 | | |



BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | |
|-----------------------------------|-------------------------------|---|
| Station: 074 | | Rep: 03 |
| Watershed: Chalk Point Discharge | Habitat: Low Mesohaline | Date: 28AUG14 |
| Gear: Wildco Box Corer | Sampled Area: 0.022 sq.m | Time: 9:07:47 |
| BOTTOM ENVIRONMENT | | |
| Depth (m): 2.1 | Salinity (ppt): 8.78 | Temperature (C): 27.42 |
| Dissolved Oxygen (mg/l): 5.6 | Sediment Silt-Clay (%): 82.33 | Total Carbon (%): 2.46 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | |
| B-IBI Score: 3.80 | Condition: Meets Goal | # Attributes Scored: 5 |
| | Value Score | Value Score |
| Shannon-Wiener Index | 2.07 3 | Pollution Indicative Species Abundance (%) 4.44 5 |
| Abundance (#/m2) | 4091 3 | Pollution Indicative Species Biomass (%) 0.11 |
| Biomass (g/m2) | 24.86 3 | Pollution Sensitive Species Abundance (%) 12.22 |
| Carnivore-Omnivore Abundance (%) | 4.44 | Pollution Sensitive Species Biomass (%) 96.78 5 |
| Deep Deposit Feeder Abundance (%) | 20.00 | |
| BENTHIC ABUNDANCE (per sq. meter) | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) |
| Eteone heteropoda | 91 | 0.02273 |
| Heteromastus filiformis | 227 | 0.07727 |
| Leptocheirus plumulosus | 2409 | 0.44996 |
| Macoma balthica | 455 | 24.04759 |
| Macoma mitchelli | 136 | 0.21816 |
| Melita nitida (Epi) | 636 | 0.02727 |
| Micrura leidyi | 45 | 0.00454 |
| Neanthes succinea | 45 | 0.00909 |
| Rangia cuneata | 45 | 0.01364 |
| Streblospio benedicti | 45 | 0.00227 |
| Tubificidae imm w/o cap chaetae | 45 | 0.00227 |
| Tubificoides spp. | 545 | 0.01363 |
| Total Abundance w/ Epi. | 4727 | |
| Total Abundance w/o Epi. | 4091 | |
| Number of Taxa w/ Epi. | 12 | |
| Number of Taxa w/o Epi. | 11 | |
| Total Biomass w/ Epi. | | 24.88842 |
| Total Biomass w/o Epi. | | 24.86115 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Patuxent River | | Station: 077 | | Rep: 01 | |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | | Date: 28AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 9:48:10 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 3.3 | | Salinity (ppt): 5.69 | | Temperature (C): 27.85 | |
| Dissolved Oxygen (mg/l): 5.6 | | Sediment Silt-Clay (%): 91.21 | | Total Carbon (%): 2.98 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.40 | | Condition: Meets Goal | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.40 | 3 | Pollution Indicative Species Abundance (%) | 33.33 | 1 |
| Abundance (#/m2) | 1500 | 3 | Pollution Indicative Species Biomass (%) | 0.32 | |
| Biomass (g/m2) | 5.74 | 5 | Pollution Sensitive Species Abundance (%) | 27.27 | |
| Carnivore-Omnivore Abundance (%) | 3.03 | | Pollution Sensitive Species Biomass (%) | 98.50 | 5 |
| Deep Deposit Feeder Abundance (%) | 15.15 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Cyathura polita | 45 | | 0.18180 | | |
| Edotea triloba (Epi) | 91 | | 0.01818 | | |
| Leptocheirus plumulosus | 364 | | 0.06363 | | |
| Macoma balthica | 91 | | 5.17676 | | |
| Marenzelleria viridis | 227 | | 0.28634 | | |
| Melita nitida (Epi) | 45 | | 0.00454 | | |
| Rangia cuneata | 45 | | 0.00909 | | |
| Streblospio benedicti | 500 | | 0.01818 | | |
| Tubificoides spp. | 227 | | 0.00455 | | |
| Total Abundance w/ Epi. | 1636 | | | | |
| Total Abundance w/o Epi. | 1500 | | | | |
| Number of Taxa w/ Epi. | 9 | | | | |
| Number of Taxa w/o Epi. | 7 | | | | |
| Total Biomass w/ Epi. | | | 5.76306 | | |
| Total Biomass w/o Epi. | | | 5.74034 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Patuxent River | | Station: 077 | | Rep: 02 | |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | | Date: 28AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 9:48:10 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 3.3 | | Salinity (ppt): 5.69 | | Temperature (C): 27.85 | |
| Dissolved Oxygen (mg/l): 5.6 | | Sediment Silt-Clay (%): 91.21 | | Total Carbon (%): 2.98 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.40 | | Condition: Meets Goal | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 1.95 | 3 | Pollution Indicative Species Abundance (%) | 41.18 | 1 |
| Abundance (#/m2) | 1545 | 5 | Pollution Indicative Species Biomass (%) | 0.31 | |
| Biomass (g/m2) | 4.40 | 3 | Pollution Sensitive Species Abundance (%) | 29.41 | |
| Carnivore-Omnivore Abundance (%) | 8.82 | | Pollution Sensitive Species Biomass (%) | 99.59 | 5 |
| Deep Deposit Feeder Abundance (%) | 29.41 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Cyathura polita | 136 | | 0.41360 | | |
| Edotea triloba (Epi) | 273 | | 0.03181 | | |
| Macoma balthica | 45 | | 3.56783 | | |
| Marenzelleria viridis | 273 | | 0.39542 | | |
| Streblospio benedicti | 636 | | 0.01364 | | |
| Tubificoides spp. | 455 | | 0.00454 | | |
| Total Abundance w/ Epi. | 1818 | | | | |
| Total Abundance w/o Epi. | 1545 | | | | |
| Number of Taxa w/ Epi. | 6 | | | | |
| Number of Taxa w/o Epi. | 5 | | | | |
| Total Biomass w/ Epi. | | | 4.42683 | | |
| Total Biomass w/o Epi. | | | 4.39502 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Patuxent River | | Station: 077 | | Rep: 03 | |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | | Date: 28AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 9:48:10 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 3.3 | | Salinity (ppt): 5.69 | | Temperature (C): 27.85 | |
| Dissolved Oxygen (mg/l): 5.6 | | Sediment Silt-Clay (%): 91.21 | | Total Carbon (%): 2.98 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 1.00 | | Condition: Severely Degr. | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 1.66 | 1 | Pollution Indicative Species Abundance (%) | 34.23 | 1 |
| Abundance (#/m2) | 6772 | 1 | Pollution Indicative Species Biomass (%) | 21.89 | |
| Biomass (g/m2) | 0.38 | 1 | Pollution Sensitive Species Abundance (%) | 4.03 | |
| Carnivore-Omnivore Abundance (%) | 4.70 | | Pollution Sensitive Species Biomass (%) | 24.26 | 1 |
| Deep Deposit Feeder Abundance (%) | 54.36 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Carinoma tremaphoros | 45 | | 0.00909 | | |
| Cyathura polita | 227 | | 0.00227 | | |
| Edotea triloba (Epi) | 45 | | 0.00227 | | |
| Leptocheirus plumulosus | 409 | | 0.06818 | | |
| Macoma mitchelli | 45 | | 0.09545 | | |
| Marenzelleria viridis | 45 | | 0.09090 | | |
| Melita nitida (Epi) | 45 | | 0.00455 | | |
| Procladius spp. | 45 | | 0.00227 | | |
| Streblospio benedicti | 2273 | | 0.08181 | | |
| Tubificidae imm w/o cap chaetae | 45 | | 0.00227 | | |
| Tubificoides spp. | 3636 | | 0.03182 | | |
| Total Abundance w/ Epi. | 6863 | | | | |
| Total Abundance w/o Epi. | 6772 | | | | |
| Number of Taxa w/ Epi. | 11 | | | | |
| Number of Taxa w/o Epi. | 9 | | | | |
| Total Biomass w/ Epi. | | | 0.39087 | | |
| Total Biomass w/o Epi. | | | 0.38405 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|--|-------------------------------|-------|---------------------------|-------|
| Watershed: Patuxent River | | Station: 079 | | Rep: 01 | |
| Gear: Wildco Box Corer | | Habitat: Tidal Freshwater | | Date: 28AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 10:47:54 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 0.6 | | Salinity (ppt): 0.22 | | Temperature (C): 26.48 | |
| Dissolved Oxygen (mg/l): 5.8 | | Sediment Silt-Clay (%): 86.60 | | Total Carbon (%): 3.61 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.00 | | Condition: Meets Goal | | # Attributes Scored: 3 | |
| | | Value | Score | Value | Score |
| Shannon-Wiener Index | | 1.41 | | 55.26 | 3 |
| Abundance (#/m2) | | 5181 | 3 | Tolerance Score | 7.63 |
| Deep Deposit Feeder Abundance (%) | | 97.37 | 1 | Limnodrilus Abundance (%) | 55.26 |
| Carnivore-Omnivore Abundance (%) | | 2.63 | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | | Abundance (#/m2) | | Biomass (g/m2) | |
| Aulodrilus pigueti | | 2182 | | | |
| Chironomidae | | | | 0.00227 | |
| Chironomus spp. | | 91 | | 0.04090 | |
| Cryptochironomus spp. | | 45 | | | |
| Limnodrilus hoffmeisteri | | 273 | | | |
| Oligochaeta | | | | 0.48693 | |
| Tubificidae imm w/o cap chaetae * | | 2591 | | | |
| Total Abundance w/ Epi. | | 5181 | | | |
| Total Abundance w/o Epi. | | 5181 | | | |
| Number of Taxa w/ Epi. | | 4 | | | |
| Number of Taxa w/o Epi. | | 4 | | | |
| Total Biomass w/ Epi. | | | | 0.53010 | |
| Total Biomass w/o Epi. | | | | 0.53010 | |

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|---|------------------------|-------|
| Watershed: Patuxent River | | Station: 079 | | Rep: 02 | |
| Gear: Wildco Box Corer | | Habitat: Tidal Freshwater | | Date: 28AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 10:47:54 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 0.6 | | Salinity (ppt): 0.22 | | Temperature (C): 26.48 | |
| Dissolved Oxygen (mg/l): 5.8 | | Sediment Silt-Clay (%): 86.60 | | Total Carbon (%): 3.61 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.00 | | Condition: Meets Goal | | # Attributes Scored: 3 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.40 | | T.F. Pollution Indicative Spp. Abund. (%) | 63.55 | 3 |
| Abundance (#/m2) | 4863 | 3 | Tolerance Score | 8.89 | 3 |
| Deep Deposit Feeder Abundance (%) | 83.18 | 3 | Limnodrilus Abundance (%) | 63.55 | |
| Carnivore-Omnivore Abundance (%) | 16.82 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Aulodrilus pigueti | 545 | | | | |
| Branchiura sowerbyi | 45 | | 0.23180 | | |
| Chironomidae | | | 0.00227 | | |
| Chironomus spp. | 227 | | | | |
| Coelotanypus spp. | 273 | | 0.00909 | | |
| Cryptochironomus spp. | 45 | | | | |
| Harnischia spp. | 45 | | | | |
| Limnodrilus hoffmeisteri | 545 | | | | |
| Oligochaeta | | | 0.42117 | | |
| Polypedilum halterale group | 45 | | | | |
| Procladius spp. | 91 | | | | |
| Tanypus spp. | 45 | | | | |
| Tanytarsus spp. | 45 | | | | |
| Tubificidae imm w cap chaetae * | 364 | | | | |
| Tubificidae imm w/o cap chaetae * | 2545 | | | | |
| Total Abundance w/ Epi. | 4863 | | | | |
| Total Abundance w/o Epi. | 4863 | | | | |
| Number of Taxa w/ Epi. | 11 | | | | |
| Number of Taxa w/o Epi. | 11 | | | | |
| Total Biomass w/ Epi. | | | 0.66433 | | |
| Total Biomass w/o Epi. | | | 0.66433 | | |

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|--|-------------------------------|-------|---------------------------|-------|
| Watershed: Patuxent River | | Station: 079 | | Rep: 03 | |
| Gear: Wildco Box Corer | | Habitat: Tidal Freshwater | | Date: 28AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 10:47:54 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 0.6 | | Salinity (ppt): 0.22 | | Temperature (C): 26.48 | |
| Dissolved Oxygen (mg/l): 5.8 | | Sediment Silt-Clay (%): 86.60 | | Total Carbon (%): 3.61 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.00 | | Condition: Meets Goal | | # Attributes Scored: 3 | |
| | | Value | Score | Value | Score |
| Shannon-Wiener Index | | 1.62 | | 36.11 | 5 |
| Abundance (#/m2) | | 6545 | 1 | Tolerance Score | 7.31 |
| Deep Deposit Feeder Abundance (%) | | 97.22 | 1 | Limnodrilus Abundance (%) | 36.11 |
| Carnivore-Omnivore Abundance (%) | | 2.78 | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | | Abundance (#/m2) | | Biomass (g/m2) | |
| Aulodrilus pigueti | | 3091 | | | |
| Chironomidae | | | | 0.00227 | |
| Chironomus spp. | | 91 | | | |
| Oligochaeta | | | | 0.38481 | |
| Procladius spp. | | 45 | | | |
| Tanytarsus spp. G Epler | | 45 | | | |
| Tubificidae imm w cap chaetae * | | 909 | | | |
| Tubificidae imm w/o cap chaetae | | 2363 | | | |
| Total Abundance w/ Epi. | | 6545 | | | |
| Total Abundance w/o Epi. | | 6545 | | | |
| Number of Taxa w/ Epi. | | 5 | | | |
| Number of Taxa w/o Epi. | | 5 | | | |
| Total Biomass w/ Epi. | | | | 0.38708 | |
| Total Biomass w/o Epi. | | | | 0.38708 | |

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|-------|-------------------------------|--|------------------------|-------|
| Watershed: Patapsco & Back Rivers | | Station: 201 | | Rep: 01 | |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | | Date: 29AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 11:14:54 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 4.1 | | Salinity (ppt): 10.09 | | Temperature (C): 25.76 | |
| Dissolved Oxygen (mg/l): 0.9 | | Sediment Silt-Clay (%): 71.76 | | Total Carbon (%): 3.15 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 2.20 | | Condition: Degraded | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 1.21 | 1 | Pollution Indicative Species Abundance (%) | 57.89 | 1 |
| Abundance (#/m2) | 864 | 3 | Pollution Indicative Species Biomass (%) | 1.00 | |
| Biomass (g/m2) | 2.73 | 3 | Pollution Sensitive Species Abundance (%) | 36.84 | |
| Carnivore-Omnivore Abundance (%) | 0.00 | | Pollution Sensitive Species Biomass (%) | 78.04 | 3 |
| Deep Deposit Feeder Abundance (%) | 0.00 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | | Abundance (#/m2) | | Biomass (g/m2) | |
| Macoma balthica | | 318 | | 2.13161 | |
| Macoma mitchelli | | 45 | | 0.57267 | |
| Streblospio benedicti | | 500 | | 0.02727 | |
| Total Abundance w/ Epi. | | 864 | | | |
| Total Abundance w/o Epi. | | 864 | | | |
| Number of Taxa w/ Epi. | | 3 | | | |
| Number of Taxa w/o Epi. | | 3 | | | |
| Total Biomass w/ Epi. | | | | 2.73155 | |
| Total Biomass w/o Epi. | | | | 2.73155 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|-------|-------------------------------|--|------------------------|-------|
| Watershed: Patapsco & Back Rivers | | Station: 201 | | Rep: 02 | |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | | Date: 29AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 11:14:54 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 4.1 | | Salinity (ppt): 10.09 | | Temperature (C): 25.76 | |
| Dissolved Oxygen (mg/l): 0.9 | | Sediment Silt-Clay (%): 71.76 | | Total Carbon (%): 3.15 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 2.60 | | Condition: Degraded | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 0.98 | 1 | Pollution Indicative Species Abundance (%) | 58.62 | 1 |
| Abundance (#/m2) | 1318 | 3 | Pollution Indicative Species Biomass (%) | 0.61 | |
| Biomass (g/m2) | 3.75 | 3 | Pollution Sensitive Species Abundance (%) | 41.38 | |
| Carnivore-Omnivore Abundance (%) | 0.00 | | Pollution Sensitive Species Biomass (%) | 99.39 | 5 |
| Deep Deposit Feeder Abundance (%) | 0.00 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | | Abundance (#/m2) | | Biomass (g/m2) | |
| Hydrobia truncata (Epi) | | 45 | | 0.01364 | |
| Macoma balthica | | 545 | | 3.73145 | |
| Streblospio benedicti | | 773 | | 0.02273 | |
| Total Abundance w/ Epi. | | 1364 | | | |
| Total Abundance w/o Epi. | | 1318 | | | |
| Number of Taxa w/ Epi. | | 3 | | | |
| Number of Taxa w/o Epi. | | 2 | | | |
| Total Biomass w/ Epi. | | | | 3.76781 | |
| Total Biomass w/o Epi. | | | | 3.75417 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Patapsco & Back Rivers | | Station: 201 | | Rep: 03 | |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | | Date: 29AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 11:14:54 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 4.1 | | Salinity (ppt): 10.09 | | Temperature (C): 25.76 | |
| Dissolved Oxygen (mg/l): 0.9 | | Sediment Silt-Clay (%): 71.76 | | Total Carbon (%): 3.15 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 2.60 | | Condition: Degraded | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 1.31 | 1 | Pollution Indicative Species Abundance (%) | 46.15 | 1 |
| Abundance (#/m2) | 1182 | 3 | Pollution Indicative Species Biomass (%) | 0.07 | |
| Biomass (g/m2) | 3.49 | 3 | Pollution Sensitive Species Abundance (%) | 46.15 | |
| Carnivore-Omnivore Abundance (%) | 0.00 | | Pollution Sensitive Species Biomass (%) | 99.87 | 5 |
| Deep Deposit Feeder Abundance (%) | 7.69 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Macoma balthica | 545 | | 3.48601 | | |
| Streblospio benedicti | 545 | | 0.00227 | | |
| Tubificoides spp. | 91 | | 0.00227 | | |
| Total Abundance w/ Epi. | 1182 | | | | |
| Total Abundance w/o Epi. | 1182 | | | | |
| Number of Taxa w/ Epi. | 3 | | | | |
| Number of Taxa w/o Epi. | 3 | | | | |
| Total Biomass w/ Epi. | | | 3.49056 | | |
| Total Biomass w/o Epi. | | | 3.49056 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | |
|-----------------------------------|-------------------------------|---|
| Station: 202 | | Rep: 01 |
| Watershed: Patapsco & Back Rivers | Habitat: Low Mesohaline | Date: 29AUG14 |
| Gear: Wildco Box Corer | Sampled Area: 0.022 sq.m | Time: 10:07:34 |
| BOTTOM ENVIRONMENT | | |
| Depth (m): 5.9 | Salinity (ppt): 12.49 | Temperature (C): 25.29 |
| Dissolved Oxygen (mg/l): 0.2 | Sediment Silt-Clay (%): 81.87 | Total Carbon (%): 2.55 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | |
| B-IBI Score: 1.00 | Condition: Severely Degr. | # Attributes Scored: 5 |
| | Value Score | Value Score |
| Shannon-Wiener Index | 0.00 1 | Pollution Indicative Species Abundance (%) 100.00 1 |
| Abundance (#/m2) | 0 1 | Pollution Indicative Species Biomass (%) 100.00 |
| Biomass (g/m2) | 0.00 1 | Pollution Sensitive Species Abundance (%) 0.00 |
| Carnivore-Omnivore Abundance (%) | 0.00 | Pollution Sensitive Species Biomass (%) 0.00 1 |
| Deep Deposit Feeder Abundance (%) | 0.00 | |
| BENTHIC ABUNDANCE (per sq. meter) | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) |
| No Organisms Present | | 0.00000 |
| Total Abundance w/ Epi. | | |
| Total Abundance w/o Epi. | | |
| Number of Taxa w/ Epi. | 0 | |
| Number of Taxa w/o Epi. | 0 | |
| Total Biomass w/ Epi. | | 0.00000 |
| Total Biomass w/o Epi. | | 0.00000 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Patapsco & Back Rivers | | Station: 202 | | Rep: 02 | |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | | Date: 29AUG14 | |
| | | Sampled Area: 0.022 sq.m | | Time: 10:07:34 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 5.9 | | Salinity (ppt): 12.49 | | Temperature (C): 25.29 | |
| Dissolved Oxygen (mg/l): 0.2 | | Sediment Silt-Clay (%): 81.87 | | Total Carbon (%): 2.55 | |
| 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) | 136 | 1 | Pollution Indicative Species Biomass (%) | 3.03 | |
| Biomass (g/m2) | 0.07 | 1 | Pollution Sensitive Species Abundance (%) | 0.00 | |
| Carnivore-Omnivore Abundance (%) | 33.33 | | 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 | | 0.07272 | | |
| Streblospio benedicti | 91 | | 0.00227 | | |
| Total Abundance w/ Epi. | 136 | | | | |
| Total Abundance w/o Epi. | 136 | | | | |
| Number of Taxa w/ Epi. | 2 | | | | |
| Number of Taxa w/o Epi. | 2 | | | | |
| Total Biomass w/ Epi. | | | 0.07499 | | |
| Total Biomass w/o Epi. | | | 0.07499 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | |
|-----------------------------------|------------------|-------------------------------|--|
| Station: 202 | | Rep: 03 | |
| Watershed: Patapsco & Back Rivers | | Date: 29AUG14 | |
| Gear: Wildco Box Corer | | Time: 10:07:34 | |
| Habitat: Low Mesohaline | | | |
| Sampled Area: 0.022 sq.m | | | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 5.9 | | Salinity (ppt): 12.49 | |
| Dissolved Oxygen (mg/l): 0.2 | | Sediment Silt-Clay (%): 81.87 | |
| | | Temperature (C): 25.29 | |
| | | Total Carbon (%): 2.55 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 1.00 | | Condition: Severely Degr. | |
| | | # Attributes Scored: 5 | |
| | Value | Score | |
| Shannon-Wiener Index | 1.15 | 1 | Pollution Indicative Species Abundance (%) |
| Abundance (#/m2) | 318 | 1 | Pollution Indicative Species Biomass (%) |
| Biomass (g/m2) | 0.07 | 1 | Pollution Sensitive Species Abundance (%) |
| Carnivore-Omnivore Abundance (%) | 28.57 | | Pollution Sensitive Species Biomass (%) |
| Deep Deposit Feeder Abundance (%) | 0.00 | | 0.00 |
| | | | 1 |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) |
| Carinoma tremaphoros | 45 | | 0.06363 |
| Chironomus spp. | 45 | | 0.00227 |
| Streblospio benedicti | 227 | | 0.00454 |
| Total Abundance w/ Epi. | 318 | | |
| Total Abundance w/o Epi. | 318 | | |
| Number of Taxa w/ Epi. | 3 | | |
| Number of Taxa w/o Epi. | 3 | | |
| Total Biomass w/ Epi. | | | 0.07045 |
| Total Biomass w/o Epi. | | | 0.07045 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|-------|-------------------------------|--|------------------------|-------|
| Watershed: Patapsco & Back Rivers | | Station: 203 | | Rep: 01 | |
| Gear: Young Grab | | Habitat: Oligohaline | | Date: 18AUG14 | |
| | | Sampled Area: 0.044 sq.m | | Time: 14:07:05 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 1.6 | | Salinity (ppt): 2.67 | | Temperature (C): 25.10 | |
| Dissolved Oxygen (mg/l): 6.1 | | Sediment Silt-Clay (%): 80.91 | | Total Carbon (%): 4 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.00 | | Condition: Meets Goal | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 1.80 | | Oligohaline Pollution Indicative Spp. Abund. | 98.47 | 1 |
| Abundance (#/m2) | 2976 | 5 | Tolerance Score | 9.74 | 1 |
| Deep Deposit Feeder Abundance (%) | 61.07 | | Oligohaline Pollution Sensitive Spp. Abund. | 1.53 | 3 |
| Carnivore-Omnivore Abundance (%) | 26.72 | 3 | Tanypodinae/Chironomidae Abundance Ratio | 5.71 | 5 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | | Abundance (#/m2) | | Biomass (g/m2) | |
| Chironomus spp. | | 750 | | 0.64298 | |
| Coelotanypus spp. | | 45 | | 0.00909 | |
| Leptocheirus plumulosus | | 318 | | 0.09770 | |
| Limnodrilus hoffmeisteri | | 136 | | | |
| Marenzelleria viridis | | 45 | | 0.07043 | |
| Oligochaeta | | | | 0.24341 | |
| Tubificidae imm w/o cap chaetae * | | 1636 | | | |
| Tubificoides spp. | | 45 | | 0.00114 | |
| Total Abundance w/ Epi. | | 2976 | | | |
| Total Abundance w/o Epi. | | 2976 | | | |
| Number of Taxa w/ Epi. | | 6 | | | |
| Number of Taxa w/o Epi. | | 6 | | | |
| Total Biomass w/ Epi. | | | | 1.06474 | |
| Total Biomass w/o Epi. | | | | 1.06474 | |

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|--|-------------------------------|-------|--|---------|
| Watershed: Patapsco & Back Rivers | | Station: 203 | | Rep: 02 | |
| Gear: Young Grab | | Habitat: Oligohaline | | Date: 18AUG14 | |
| | | Sampled Area: 0.044 sq.m | | Time: 14:07:05 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 1.6 | | Salinity (ppt): 2.67 | | Temperature (C): 25.10 | |
| Dissolved Oxygen (mg/l): 6.1 | | Sediment Silt-Clay (%): 80.91 | | Total Carbon (%): 4 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.67 | | Condition: Meets Goal | | # Attributes Scored: 6 | |
| | | Value | Score | Value | Score |
| Shannon-Wiener Index | | 1.94 | | Oligohaline Pollution Indicative Spp. Abund. | 87.88 3 |
| Abundance (#/m2) | | 750 | 5 | Tolerance Score | 8.51 3 |
| Deep Deposit Feeder Abundance (%) | | 12.12 | | Oligohaline Pollution Sensitive Spp. Abund. | 12.12 3 |
| Carnivore-Omnivore Abundance (%) | | 72.73 | 5 | Tanypodinae/Chironomidae Abundance Ratio | 41.67 3 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | | Abundance (#/m2) | | Biomass (g/m2) | |
| Chironomus spp. | | 318 | | 0.20221 | |
| Coelotanypus spp. | | 227 | | 0.05226 | |
| Leptocheirus plumulosus | | 23 | | 0.00909 | |
| Marenzelleria viridis | | 91 | | 0.03181 | |
| Tubificidae imm w/o cap chaetae | | 91 | | 0.00114 | |
| Total Abundance w/ Epi. | | 750 | | | |
| Total Abundance w/o Epi. | | 750 | | | |
| Number of Taxa w/ Epi. | | 5 | | | |
| Number of Taxa w/o Epi. | | 5 | | | |
| Total Biomass w/ Epi. | | | | 0.29650 | |
| Total Biomass w/o Epi. | | | | 0.29650 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|-------|-------------------------------|--|------------------------|-------|
| Watershed: Patapsco & Back Rivers | | Station: 203 | | Rep: 03 | |
| Gear: Young Grab | | Habitat: Oligohaline | | Date: 18AUG14 | |
| | | Sampled Area: 0.044 sq.m | | Time: 14:07:05 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 1.6 | | Salinity (ppt): 2.67 | | Temperature (C): 25.10 | |
| Dissolved Oxygen (mg/l): 6.1 | | Sediment Silt-Clay (%): 80.91 | | Total Carbon (%): 4 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 2.67 | | Condition: Marginal | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 1.95 | | Oligohaline Pollution Indicative Spp. Abund. | 100.00 | 1 |
| Abundance (#/m2) | 1931 | 5 | Tolerance Score | 9.61 | 1 |
| Deep Deposit Feeder Abundance (%) | 64.71 | | Oligohaline Pollution Sensitive Spp. Abund. | 0.00 | 1 |
| Carnivore-Omnivore Abundance (%) | 31.76 | 3 | Tanypodinae/Chironomidae Abundance Ratio | 14.81 | 5 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | | Abundance (#/m2) | | Biomass (g/m2) | |
| Chironomus spp. | | 523 | | 0.48848 | |
| Coelotanypus spp. | | 91 | | 0.02954 | |
| Leptocheirus plumulosus | | 68 | | 0.01818 | |
| Limnodrilus hoffmeisteri | | 182 | | | |
| Mediomastus ambiseta | | 114 | | 0.13405 | |
| Oligochaeta | | | | 0.23629 | |
| Tubificidae imm w/o cap chaetae * | | 954 | | | |
| Total Abundance w/ Epi. | | 1931 | | | |
| Total Abundance w/o Epi. | | 1931 | | | |
| Number of Taxa w/ Epi. | | 5 | | | |
| Number of Taxa w/o Epi. | | 5 | | | |
| Total Biomass w/ Epi. | | | | 0.90653 | |
| Total Biomass w/o Epi. | | | | 0.90653 | |

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Lower Western Shore | | Station: 204 | | Rep: 01 | |
| Gear: Young Grab | | Habitat: High Mesohaline Mud | | Date: 26AUG14 | |
| | | Sampled Area: 0.044 sq.m | | Time: 10:20:57 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 7.0 | | Salinity (ppt): 9.58 | | Temperature (C): 25.33 | |
| Dissolved Oxygen (mg/l): 2.7 | | Sediment Silt-Clay (%): 52.45 | | Total Carbon (%): 1.57 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.67 | | Condition: Meets Goal | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.53 | 3 | Pollution Indicative Species Abundance (%) | 4.26 | |
| Abundance (#/m2) | 3204 | 3 | Pollution Indicative Species Biomass (%) | 0.02 | 5 |
| Biomass (g/m2) | 9.46 | 5 | Pollution Sensitive Species Abundance (%) | 32.62 | |
| Carnivore-Omnivore Abundance (%) | 4.96 | 1 | Pollution Sensitive Species Biomass (%) | 89.53 | 5 |
| Deep Deposit Feeder Abundance (%) | 53.90 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Carinoma tremaphoros | 68 | | 0.03635 | | |
| Heteromastus filiformis | 682 | | 0.29990 | | |
| Leptocheirus plumulosus | 182 | | 0.03181 | | |
| Macoma balthica | 863 | | 8.10422 | | |
| Macoma mitchelli | 23 | | 0.10906 | | |
| Marenzelleria viridis | 182 | | 0.36806 | | |
| Neanthes succinea | 91 | | 0.49530 | | |
| Streblospio benedicti | 68 | | 0.00114 | | |
| Tubificidae imm w/o cap chaetae | 68 | | 0.00114 | | |
| Tubificoides spp. | 977 | | 0.01590 | | |
| Total Abundance w/ Epi. | 3204 | | | | |
| Total Abundance w/o Epi. | 3204 | | | | |
| Number of Taxa w/ Epi. | 10 | | | | |
| Number of Taxa w/o Epi. | 10 | | | | |
| Total Biomass w/ Epi. | | | 9.46288 | | |
| Total Biomass w/o Epi. | | | 9.46288 | | |



BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Lower Western Shore | | Station: 204 | | Rep: 02 | |
| Gear: Young Grab | | Habitat: High Mesohaline Mud | | Date: 26AUG14 | |
| | | Sampled Area: 0.044 sq.m | | Time: 10:20:57 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 7.0 | | Salinity (ppt): 9.58 | | Temperature (C): 25.33 | |
| Dissolved Oxygen (mg/l): 2.7 | | Sediment Silt-Clay (%): 52.45 | | Total Carbon (%): 1.57 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.67 | | Condition: Meets Goal | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 1.95 | 1 | Pollution Indicative Species Abundance (%) | 0.00 | |
| Abundance (#/m2) | 1908 | 5 | Pollution Indicative Species Biomass (%) | 0.00 | 5 |
| Biomass (g/m2) | 6.12 | 5 | Pollution Sensitive Species Abundance (%) | 44.05 | |
| Carnivore-Omnivore Abundance (%) | 5.95 | 1 | Pollution Sensitive Species Biomass (%) | 93.34 | 5 |
| Deep Deposit Feeder Abundance (%) | 42.86 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Carinoma tremaphoros | 91 | | 0.03635 | | |
| Edotea triloba (Epi) | 23 | | 0.00227 | | |
| Heteromastus filiformis | 659 | | 0.25901 | | |
| Leptocheirus plumulosus | 114 | | 0.01363 | | |
| Macoma balthica | 841 | | 5.71181 | | |
| Macoma mitchelli | 23 | | 0.05680 | | |
| Neanthes succinea | 23 | | 0.04090 | | |
| Tubificoides spp. | 159 | | 0.00114 | | |
| Total Abundance w/ Epi. | 1931 | | | | |
| Total Abundance w/o Epi. | 1908 | | | | |
| Number of Taxa w/ Epi. | 8 | | | | |
| Number of Taxa w/o Epi. | 7 | | | | |
| Total Biomass w/ Epi. | | | 6.12190 | | |
| Total Biomass w/o Epi. | | | 6.11963 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|--|------------------------|-------|
| Watershed: Lower Western Shore | | Station: 204 | | Rep: 03 | |
| Gear: Young Grab | | Habitat: High Mesohaline Mud | | Date: 26AUG14 | |
| | | Sampled Area: 0.044 sq.m | | Time: 10:20:57 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 7.0 | | Salinity (ppt): 9.58 | | Temperature (C): 25.33 | |
| Dissolved Oxygen (mg/l): 2.7 | | Sediment Silt-Clay (%): 52.45 | | Total Carbon (%): 1.57 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.67 | | Condition: Meets Goal | | # Attributes Scored: 6 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.53 | 3 | Pollution Indicative Species Abundance (%) | 7.92 | |
| Abundance (#/m2) | 4589 | 3 | Pollution Indicative Species Biomass (%) | 0.18 | 5 |
| Biomass (g/m2) | 4.95 | 5 | Pollution Sensitive Species Abundance (%) | 22.77 | |
| Carnivore-Omnivore Abundance (%) | 4.95 | 1 | Pollution Sensitive Species Biomass (%) | 79.25 | 5 |
| Deep Deposit Feeder Abundance (%) | 52.97 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Balanus improvisus (Epi) | 23 | | 0.02954 | | |
| Carinoma tremaphoros | 45 | | 0.09770 | | |
| Heteromastus filiformis | 545 | | 0.19766 | | |
| Leptocheirus plumulosus | 477 | | 0.07725 | | |
| Macoma balthica | 727 | | 3.53750 | | |
| Macoma mitchelli | 45 | | 0.11133 | | |
| Marenzelleria viridis | 318 | | 0.38397 | | |
| Mucrogammarus mucronatus (Epi) | 23 | | 0.00227 | | |
| Mytilopsis leucophaeata (Epi) | 23 | | 0.01363 | | |
| Neanthes succinea | 182 | | 0.50666 | | |
| Streblospio benedicti | 364 | | 0.00909 | | |
| Tubificoides spp. | 1886 | | 0.02726 | | |
| Total Abundance w/ Epi. | 4658 | | | | |
| Total Abundance w/o Epi. | 4589 | | | | |
| Number of Taxa w/ Epi. | 12 | | | | |
| Number of Taxa w/o Epi. | 9 | | | | |
| Total Biomass w/ Epi. | | | 4.99386 | | |
| Total Biomass w/o Epi. | | | 4.94842 | | |

DATA SUMMARY B

**BENTHIC ENVIRONMENT AND COMMUNITY
COMPOSITION AT RANDOM SITES:
SUMMER 2014**

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21401 | 21402 | 21403 | 21404 | 21405 |
|---------------------|---------------|----------------|---------------|----------------|---------------|
| Watershed | Eastern Tribs | Eastern Tribs | Eastern Tribs | Eastern Tribs | Eastern Tribs |
| Habitat | High Meso Mud | Low Mesohaline | High Meso Mud | High Meso Sand | High Meso Mud |
| Date | 09/19/14 | 09/19/14 | 09/18/14 | 09/18/14 | 09/18/14 |
| 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 | 7.8 | 5.2 | 2.1 | 3.1 |
| Salinity (ppt) | 12.71 | 6.20 | 15.08 | 14.57 | 14.36 |
| Temperature (C) | 22.70 | 22.65 | 22.87 | 23.25 | 22.63 |
| Dissolved Oxygen (mg/L) | 6.9 | 5.0 | 7.6 | 7.9 | 7.6 |
| Sediment Silt-Clay (%) | 71.71 | 20.91 | 78.54 | 11.64 | 83.78 |
| Total Carbon (%) | 3.30 | 1.12 | 2.40 | 0.44 | 1.88 |

BENTHIC INDEX OF BIOTIC INTEGRITY

| B-IBI Score | 3.67 | | 3.00 | | 2.33 | | 4.00 | | 1.67 | |
|------------------------------------|------------|-------|------------|-------|----------|-------|------------|-------|----------------|-------|
| Condition | Meets Goal | | Meets Goal | | Degraded | | Meets Goal | | Severely Degr. | |
| # Attributes Scored | 6 | | 5 | | 6 | | 6 | | 6 | |
| | Value | Score | Value | Score | Value | Score | Value | Score | Value | Score |
| Shannon-Wiener Index | 2.21 | 3 | 2.47 | 3 | 2.36 | 3 | 3.43 | 5 | 2.17 | 3 |
| Abundance (#/m2) | 4408 | 3 | 1295 | 3 | 523 | 1 | 3953 | 3 | 227 | 1 |
| Biomass (g/m2) | 0.93 | 3 | 0.62 | 1 | 0.26 | 1 | 10.25 | 5 | 0.21 | 1 |
| Pollution Indicative Spp Abund (%) | 2.58 | | 5.26 | 5 | 4.35 | | 2.30 | 5 | 40.00 | |
| Pollution Indicative Spp Biom (%) | 2.45 | 5 | 0.18 | | 8.62 | 3 | 0.69 | | 85.25 | 1 |
| Pollution Sensitive Spp Abund (%) | 43.30 | | 22.81 | | 73.91 | | 60.92 | 5 | 20.00 | |
| Pollution Sensitive Spp Biom (%) | 82.58 | 5 | 71.79 | 3 | 28.45 | 1 | 62.95 | | 0.55 | 1 |
| Carnivore-Omnivore Abund (%) | 12.89 | 3 | 26.32 | | 60.87 | 5 | 17.82 | 1 | 20.00 | 3 |
| Deep Deposit Feeder Abund (%) | 81.44 | | 26.32 | | 21.74 | | 62.07 | | 30.00 | |
| TF Poll. Indicative Spp Abund (%) | 0.00 | | 0.00 | | 0.00 | | 0.00 | | 0.00 | |
| Limnodrilus Abundance (%) | 0.00 | | 5.26 | | 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 | |

BENTHIC ABUNDANCE (per sq. meter)

| Site | 21401 | 21402 | 21403 | 21404 | 21405 |
|--------------------------------|-------|-------|-------|-------|-------|
| <i>Acteocina canaliculata</i> | 23 | | 250 | 91 | 45 |
| <i>Ampelisca abdita</i> | | | | 23 | |
| <i>Amphiporus bioculatus</i> | 45 | | 23 | 23 | |
| <i>Carinoma tremaphoros</i> | 23 | | | | |
| <i>Chiridotea almyra</i> | | 341 | | | |
| <i>Clymenella torquata</i> | | | | 1386 | |
| <i>Cyathura polita</i> | 91 | | | | |
| <i>Edotea triloba (Epi.)</i> | | 23 | | | |
| <i>Edwardsia elegans</i> | 23 | | | 23 | |
| <i>Eteone heteropoda</i> | 23 | | | | |
| <i>Gammarus daiberi (Epi.)</i> | | 159 | | | |
| <i>Glycera dibranchiata</i> | | | | 68 | |
| <i>Glycinde solitaria</i> | 341 | | | 227 | |
| <i>Haminoea solitaria</i> | | | 23 | | |
| <i>Heteromastus filiformis</i> | 204 | 182 | | 91 | |
| <i>Leitoscoloplos robustus</i> | | | | 23 | |
| <i>Leptocheirus plumulosus</i> | | 295 | | | |
| <i>Leucon americanus</i> | | | 23 | | |
| <i>Listriella barnardi</i> | | | | 341 | |
| <i>Loimia medusa</i> | | | | 91 | |
| <i>Macoma balthica</i> | 68 | | | | |
| <i>Macoma mitchelli</i> | 23 | 23 | 23 | 45 | 23 |
| <i>Marenzelleria viridis</i> | 68 | 295 | | | |
| <i>Mediomastus ambiseta</i> | 1318 | | 114 | 409 | |
| <i>Melinna maculata</i> | | | | 23 | |
| <i>Melita nitida (Epi.)</i> | | 45 | | | |
| <i>Mercenaria mercenaria</i> | | | | 68 | |
| <i>Mulinia lateralis</i> | 68 | | | | 23 |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) - Contd. | | | | | |
|--|--------|--------|--------|--------|--------|
| Site | 21401 | 21402 | 21403 | 21404 | 21405 |
| <i>Mytilus edulis</i> (Epi.) | | | | 182 | |
| <i>Neanthes succinea</i> | | | 23 | 23 | |
| <i>Parahesion luteola</i> | | | | 91 | |
| <i>Paraprionospio pinnata</i> | | | 23 | 68 | 68 |
| <i>Pectinaria gouldii</i> | | | | 68 | |
| <i>Phoronis</i> spp. | | | | 68 | |
| <i>Podarkeopsis levifuscina</i> | | | | 136 | |
| <i>Ptilanthura tenuis</i> | | | | 23 | |
| <i>Spiochaetopterus costarum</i> | | | 23 | 68 | |
| <i>Streblospio benedicti</i> | 23 | | | | |
| Tubificidae imm w/o cap chaetae | | 68 | | | |
| <i>Tubificoides</i> spp. | 2068 | 91 | | 477 | 68 |
| Total Abundance w/ Epifauna | 4408 | 1522 | 523 | 4135 | 227 |
| Total Abundance w/o Epifauna | 4408 | 1295 | 523 | 3953 | 227 |
| Number of Taxa w/ Epifauna | 15 | 10 | 9 | 25 | 5 |
| Number of Taxa w/o Epifauna | 15 | 7 | 9 | 24 | 5 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 21401 | 21402 | 21403 | 21404 | 21405 |
| <i>Acteocina canaliculata</i> | 0.0011 | | 0.0227 | 0.0045 | 0.0011 |
| <i>Ampelisca abdita</i> | | | | 0.0045 | |
| <i>Amphiporus bioculatus</i> | 0.0023 | | 0.0045 | 0.0045 | |
| <i>Carinoma tremaphoros</i> | 0.0045 | | | | |
| <i>Chiridotea almyra</i> | | 0.0886 | | | |
| <i>Clymenella torquata</i> | | | | 5.4074 | |
| <i>Cyathura polita</i> | 0.1454 | | | | |
| <i>Edotea triloba</i> (Epi.) | | 0.0011 | | | |
| <i>Edwardsia elegans</i> | 0.0068 | | | 0.0091 | |
| <i>Eteone heteropoda</i> | 0.0011 | | | | |
| <i>Gammarus daiberi</i> (Epi.) | | 0.0204 | | | |
| <i>Glycera dibranchiata</i> | | | | 3.5171 | |
| <i>Glycinde solitaria</i> | 0.0432 | | | 0.0159 | |
| <i>Haminoea solitaria</i> | | | 0.0023 | | |
| <i>Heteromastus filiformis</i> | 0.0932 | 0.0250 | | 0.0795 | |
| <i>Leitoscoloplos robustus</i> | | | | 0.0068 | |
| <i>Leptocheirus plumulosus</i> | | 0.0409 | | | |
| <i>Leucon americanus</i> | | | 0.0045 | | |
| <i>Listriella barnardi</i> | | | | 0.0204 | |
| <i>Loimia medusa</i> | | | | 0.8861 | |
| <i>Macoma balthica</i> | 0.2476 | | | | |
| <i>Macoma mitchelli</i> | 0.0159 | 0.0182 | 0.1409 | 0.0295 | 0.0273 |
| <i>Marenzelleria viridis</i> | 0.2976 | 0.4453 | | | |
| <i>Mediomastus ambiseta</i> | 0.0295 | | 0.0068 | 0.0068 | |
| <i>Melinna maculata</i> | | | | 0.0318 | |
| <i>Melita nitida</i> (Epi.) | | 0.0023 | | | |
| <i>Mercenaria mercenaria</i> | | | | 0.0500 | |
| <i>Mulinia lateralis</i> | 0.0204 | | | | 0.0863 |
| <i>Mytilus edulis</i> (Epi.) | | | | 0.0045 | |
| <i>Neanthes succinea</i> | | | 0.0136 | 0.0045 | |
| <i>Parahesion luteola</i> | | | | 0.0068 | |
| <i>Paraprionospio pinnata</i> | | | 0.0227 | 0.0636 | 0.0909 |
| <i>Pectinaria gouldii</i> | | | | 0.0045 | |
| <i>Phoronis</i> spp. | | | | 0.0091 | |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC BIOMASS (Grams per sq. meter) - Contd. | | | | | |
|--|--------|--------|--------|---------|--------|
| Site | 21401 | 21402 | 21403 | 21404 | 21405 |
| Podarkeopsis levifuscina | | | | 0.0068 | |
| Ptilanthura tenuis | | | | 0.0045 | |
| Spiochaetopterus costarum | | | 0.0454 | 0.0704 | |
| Streblospio benedicti | 0.0011 | | | | |
| Tubificidae imm w/o cap chaetae | | 0.0011 | | | |
| Tubificoides spp. | 0.0159 | 0.0011 | | 0.0023 | 0.0023 |
| Total Biomass w/ Epifauna | 0.9258 | 0.6441 | 0.2636 | 10.2513 | 0.2079 |
| Total Biomass w/o Epifauna | 0.9258 | 0.6203 | 0.2636 | 10.2467 | 0.2079 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21406 | 21407 | 21408 | 21409 | 21410 | |
|------------------------------------|----------------|----------------|----------------|----------------|---------------|-------|
| Watershed | Eastern Tribs | Eastern Tribs | Eastern Tribs | Eastern Tribs | Eastern Tribs | |
| Habitat | High Meso Sand | Low Mesohaline | Low Mesohaline | High Meso Sand | High Meso Mud | |
| Date | 09/18/14 | 09/18/14 | 09/18/14 | 09/18/14 | 09/18/14 | |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab | |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 | |
| BOTTOM ENVIRONMENT | | | | | | |
| Depth (m) | 2.6 | 2.1 | 5.3 | 1.9 | 3.3 | |
| Salinity (ppt) | 14.60 | 11.69 | 11.10 | 12.34 | 12.41 | |
| Temperature (C) | 23.02 | 22.73 | 22.79 | 22.51 | 22.82 | |
| Dissolved Oxygen (mg/L) | 8.1 | 7.6 | 6.7 | 7.8 | 7.2 | |
| Sediment Silt-Clay (%) | 5.16 | 64.45 | 83.89 | 11.28 | 77.24 | |
| Total Carbon (%) | 0.07 | 2.18 | 2.66 | 0.73 | 2.23 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | | |
| B-IBI Score | 4.67 | 3.00 | 3.40 | 3.33 | 3.33 | |
| Condition | Meets Goal | Meets Goal | Meets Goal | Meets Goal | Meets Goal | |
| # Attributes Scored | 6 | 5 | 5 | 6 | 6 | |
| | Value | Score | Value | Score | Value | Score |
| Shannon-Wiener Index | 3.30 | 5 | 1.77 | 3 | 2.81 | 5 |
| Abundance (#/m2) | 2476 | 5 | 1045 | 3 | 841 | 3 |
| Biomass (g/m2) | 3.95 | 5 | 0.53 | 1 | 1.21 | 3 |
| Pollution Indicative Spp Abund (%) | 2.75 | 5 | 0.00 | 5 | 21.62 | 1 |
| Pollution Indicative Spp Biom (%) | 1.64 | | 0.00 | | 1.88 | |
| Pollution Sensitive Spp Abund (%) | 77.06 | 5 | 10.87 | | 29.73 | 3 |
| Pollution Sensitive Spp Biom (%) | 72.50 | | 45.49 | 3 | 80.75 | 5 |
| Carnivore-Omnivore Abund (%) | 34.86 | 3 | 17.39 | | 16.22 | 3 |
| Deep Deposit Feeder Abund (%) | 45.87 | | 71.74 | | 29.73 | |
| TF Poll. Indicative Spp Abund (%) | 0.00 | | 0.00 | | 0.00 | |
| Limnodrilus Abundance (%) | 0.00 | | 0.00 | | 0.00 | |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | | 0.00 | | 0.00 | |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | | 0.00 | | 0.00 | |
| Tolerance Score | 0.00 | | 0.00 | | 0.00 | |
| Tany./Chir. Abundance Ratio | 0.00 | | 0.00 | | 0.00 | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | | |
| Site | 21406 | 21407 | 21408 | 21409 | 21410 | |
| Acteocina canaliculata | 386 | | | | | |
| Ameroculodes species complex | | | | 23 | | |
| Ampelisca abdita | 23 | | | | | |
| Amygdalum papyrium (Epi.) | 23 | | | | | |
| Carinoma tremaphoros | | 23 | 91 | 45 | 45 | |
| Clymenella torquata | 659 | | | | | |
| Cyathura polita | | 23 | 23 | | 136 | |
| Edwardsia elegans | | | | | 23 | |
| Gemma gemma | 23 | | | 91 | | |
| Glycera dibranchiata | 68 | | | | | |
| Glycinde solitaria | 295 | 45 | 23 | 409 | 23 | |
| Haminoea solitaria | 91 | | | 45 | | |
| Heteromastus filiformis | 45 | 23 | 23 | 682 | 45 | |
| Leptosynapta tenuis | 23 | | | | | |
| Leucon americanus | | 68 | 23 | | 23 | |
| Listriella barnardi | 91 | | | | | |
| Lyonsia hyalina | 45 | | | | | |
| Macoma balthica | | 45 | 159 | | 159 | |
| Macoma mitchelli | | | 45 | 227 | | |
| Marenzelleria viridis | | | 45 | 23 | | |
| Mediomastus ambiseta | 409 | | | | | |
| Mulinia lateralis | 23 | | 182 | 136 | 227 | |
| Mytilus edulis (Epi.) | | | | 23 | | |
| Neanthes succinea | | | | 204 | 23 | |
| Ogyrides alphaerostris | | | | | 23 | |
| Parahesionia luteola | | 45 | | | | |
| Paraprionospio pinnata | 45 | | | | | |
| Pectinaria gouldii | 23 | | | | | |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) - Contd. | | | | | |
|--|--------|--------|--------|--------|--------|
| Site | 21406 | 21407 | 21408 | 21409 | 21410 |
| Phoronis spp. | 136 | | | | |
| Podarkeopsis levifuscina | 23 | | | | |
| Rictaxis punctostriatus | | | | 114 | |
| Saccoglossus kowalevskii | 45 | | | | |
| Spiochaetopterus costarum | 23 | | | | |
| Streblospio benedicti | | | | 227 | |
| Stylochus ellipticus (Epi.) | 23 | | | | |
| Tubificidae imm w/o cap chaetae | | | | 409 | |
| Tubificoides spp. | | 727 | 227 | 136 | 1840 |
| Total Abundance w/ Epifauna | 2522 | 1045 | 841 | 2795 | 2567 |
| Total Abundance w/o Epifauna | 2476 | 1045 | 841 | 2772 | 2567 |
| Number of Taxa w/ Epifauna | 21 | 9 | 10 | 15 | 11 |
| Number of Taxa w/o Epifauna | 19 | 9 | 10 | 14 | 11 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 21406 | 21407 | 21408 | 21409 | 21410 |
| Acteocina canaliculata | 0.0341 | | | | |
| Ameroculodes species complex | | | | 0.0068 | |
| Ampelisca abdita | 0.0045 | | | | |
| Amygdalum papyrium (Epi.) | 0.0023 | | | | |
| Carinoma tremaphoros | | 0.0045 | 0.0727 | 0.6452 | 0.0136 |
| Clymenella torquata | 2.7173 | | | | |
| Cyathura polita | | 0.0273 | 0.0863 | | 0.4748 |
| Edwardsia elegans | | | | | 0.0068 |
| Gemma gemma | 0.0011 | | | 0.0091 | |
| Glycera dibranchiata | 0.9156 | | | | |
| Glycinde solitaria | 0.0182 | 0.0023 | 0.0204 | 0.0568 | 0.0011 |
| Haminoea solitaria | 0.0045 | | | 0.0023 | |
| Heteromastus filiformis | 0.0545 | 0.0045 | 0.0182 | 0.2681 | 0.0091 |
| Leptosynapta tenuis | 0.0227 | | | | |
| Leucon americanus | | 0.0045 | 0.0011 | | 0.0023 |
| Listriella barnardi | 0.0068 | | | | |
| Lyonsia hyalina | 0.0011 | | | | |
| Macoma balthica | | 0.2113 | 0.6407 | | 0.7043 |
| Macoma mitchelli | | | 0.1136 | 0.1250 | |
| Marenzelleria viridis | | | 0.2295 | 0.0091 | |
| Mediomastus ambiseta | 0.0045 | | | | |
| Mulinia lateralis | 0.0011 | | 0.0227 | 0.1363 | 0.0227 |
| Mytilus edulis (Epi.) | | | | 0.0045 | |
| Neanthes succinea | | 0.2613 | | 0.2545 | 0.0091 |
| Ogyrides alphaerostris | | | | | 0.0011 |
| Parahesionia luteola | | 0.0045 | | | |
| Paraprionospio pinnata | 0.0636 | | | | |
| Pectinaria gouldii | 0.0011 | | | | |
| Phoronis spp. | 0.0636 | | | | |
| Podarkeopsis levifuscina | 0.0011 | | | | |
| Rictaxis punctostriatus | | | | 0.0091 | |
| Saccoglossus kowalevskii | 0.0068 | | | | |
| Spiochaetopterus costarum | 0.0227 | | | | |
| Streblospio benedicti | | | | 0.0045 | |
| Stylochus ellipticus (Epi.) | 0.0011 | | | | |
| Tubificidae imm w/o cap chaetae | | | | 0.0045 | |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC BIOMASS (Grams per sq. meter) - Contd. | | | | | |
|--|--------|--------|--------|--------|--------|
| Site | 21406 | 21407 | 21408 | 21409 | 21410 |
| Tubificoides spp. | | 0.0091 | 0.0045 | 0.0023 | 0.0273 |
| Total Biomass w/ Epifauna | 3.9487 | 0.5294 | 1.2098 | 1.5381 | 1.2723 |
| Total Biomass w/o Epifauna | 3.9453 | 0.5294 | 1.2098 | 1.5336 | 1.2723 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21411 | 21412 | 21413 | 21414 | 21415 | | | | | |
|------------------------------------|----------------|----------------|----------------|----------------|---------------|-------|------------|-------|----------|-------|
| Watershed | Eastern Tribs | Eastern Tribs | Eastern Tribs | Eastern Tribs | Eastern Tribs | | | | | |
| Habitat | Oligohaline | Low Mesohaline | Low Mesohaline | Low Mesohaline | Oligohaline | | | | | |
| Date | 09/11/14 | 09/04/14 | 09/04/14 | 09/04/14 | 09/11/14 | | | | | |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab | | | | | |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 | | | | | |
| BOTTOM ENVIRONMENT | | | | | | | | | | |
| Depth (m) | 5.9 | 7.9 | 9.0 | 3.7 | 6.4 | | | | | |
| Salinity (ppt) | 1.30 | 9.45 | 9.41 | 8.17 | 4.25 | | | | | |
| Temperature (C) | 25.25 | 26.82 | 26.86 | 27.26 | 25.41 | | | | | |
| Dissolved Oxygen (mg/L) | 5.6 | 4.2 | 4.3 | 5.2 | 5.2 | | | | | |
| Sediment Silt-Clay (%) | 39.57 | 86.59 | 86.38 | 61.43 | 77.02 | | | | | |
| Total Carbon (%) | 6.12 | 2.24 | 2.04 | 2.18 | 3.55 | | | | | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | | | | | | |
| B-IBI Score | 2.00 | | 4.60 | | 3.40 | | 4.20 | | 2.60 | |
| Condition | Severely Degr. | | Meets Goal | | Meets Goal | | Meets Goal | | Degraded | |
| # Attributes Scored | 6 | | 5 | | 5 | | 5 | | 5 | |
| | Value | Score | Value | Score | Value | Score | Value | Score | Value | Score |
| Shannon-Wiener Index | 1.22 | | 2.29 | 3 | 2.19 | 3 | 2.18 | 3 | 2.21 | |
| Abundance (#/m2) | 6430 | 1 | 1522 | 5 | 954 | 3 | 1772 | 5 | 659 | 5 |
| Biomass (g/m2) | 4.56 | | 6.46 | 5 | 3.96 | 3 | 1.71 | 3 | 0.22 | |
| Pollution Indicative Spp Abund (%) | 95.05 | | 7.46 | 5 | 19.05 | 3 | 7.69 | 5 | 27.59 | |
| Pollution Indicative Spp Biom (%) | 12.36 | | 0.32 | | 1.15 | | 0.53 | | 2.56 | |
| Pollution Sensitive Spp Abund (%) | 3.89 | | 58.21 | | 57.14 | | 11.54 | | 13.79 | |
| Pollution Sensitive Spp Biom (%) | 87.47 | | 95.21 | 5 | 89.00 | 5 | 84.59 | 5 | 52.31 | |
| Carnivore-Omnivore Abund (%) | 1.41 | 1 | 26.87 | | 30.95 | | 8.97 | | 10.34 | 1 |
| Deep Deposit Feeder Abund (%) | 95.05 | | 25.37 | | 11.90 | | 21.79 | | 37.93 | |
| TF Poll. Indicative Spp Abund (%) | 0.00 | | 0.00 | | 0.00 | | 0.00 | | 0.00 | |
| Limnodrilus Abundance (%) | 95.05 | | 0.00 | | 0.00 | | 2.56 | | 20.69 | |
| Oligo Poll. Indic. Spp Abund (%) | 95.05 | 1 | 0.00 | | 0.00 | | 0.00 | | 86.21 | 3 |
| Oligo Poll. Sens. Spp Abund (%) | 2.83 | 3 | 0.00 | | 0.00 | | 0.00 | | 3.45 | 3 |
| Tolerance Score | 9.77 | 1 | 6.20 | | 6.20 | | 7.95 | | 9.80 | 1 |
| Tany./Chir. Abundance Ratio | 0.00 | 5 | 100.00 | | 100.00 | | 100.00 | | 0.00 | |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
|---------------------------------------|--------|--------|--------|--------|--------|
| Site | 21411 | 21412 | 21413 | 21414 | 21415 |
| Ameroculodes species complex | 23 | | | | |
| Carinoma tremaphoros | | 91 | 45 | 23 | |
| Chaoborus punctipennis | 23 | | | | |
| Coelotanypus spp. | | 114 | 182 | 23 | |
| Cryptochironomus spp. | 23 | | | | |
| Cyathura polita | 45 | 136 | 68 | 114 | 68 |
| Gammarus daiberi (Epi.) | 68 | | | | 114 |
| Glycinde solitaria | | 23 | | | |
| Heteromastus filiformis | | 295 | 68 | 68 | |
| Leptocheirus plumulosus | | | | 1022 | 273 |
| Limnodrilus hoffmeisteri | 1840 | | | | |
| Macoma balthica | | 727 | 477 | 68 | |
| Macoma mitchelli | | | 68 | 45 | |
| Marenzelleria viridis | 182 | | | | 23 |
| Melita nitida (Epi.) | | | | 114 | 273 |
| Neanthes succinea | | 45 | | | |
| Rangia cuneata | 23 | | | 23 | |
| Streblospio benedicti | | | | 68 | 45 |
| Tubificidae imm w/o cap chaetae | | | | 45 | 136 |
| Tubificidae imm w/o cap chaetae * | 4271 | | | | |
| Tubificoides spp. | | 91 | 45 | 273 | 114 |
| Total Abundance w/ Epifauna | 6498 | 1522 | 954 | 1886 | 1045 |
| Total Abundance w/o Epifauna | 6430 | 1522 | 954 | 1772 | 659 |
| Number of Taxa w/ Epifauna | 8 | 8 | 7 | 12 | 8 |
| Number of Taxa w/o Epifauna | 7 | 8 | 7 | 11 | 6 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 21411 | 21412 | 21413 | 21414 | 21415 |
| Ameroculodes species complex | 0.0023 | | | | |
| Carinoma tremaphoros | | 0.0659 | 0.0727 | 0.0023 | |
| Chaoborus punctipennis | 0.0045 | | | | |
| Coelotanypus spp. | | 0.0204 | 0.0454 | 0.0068 | |
| Cryptochironomus spp. | 0.0011 | | | | |
| Cyathura polita | 0.0045 | 0.4249 | 0.2545 | 0.2590 | 0.0136 |
| Gammarus daiberi (Epi.) | 0.0023 | | | | 0.0068 |
| Glycinde solitaria | | 0.0011 | | | |
| Heteromastus filiformis | | 0.1772 | 0.0477 | 0.0386 | |
| Leptocheirus plumulosus | | | | 0.2045 | 0.0954 |
| Macoma balthica | | 5.7209 | 3.2740 | 1.1701 | |
| Macoma mitchelli | | | 0.2658 | 0.0045 | |
| Marenzelleria viridis | 1.0020 | | | | 0.1022 |
| Melita nitida (Epi.) | | | | 0.0068 | 0.0136 |
| Neanthes succinea | | 0.0432 | | | |
| Oligochaeta | 0.5635 | | | | |
| Rangia cuneata | 2.9809 | | | 0.0182 | |
| Streblospio benedicti | | | | 0.0011 | 0.0045 |
| Tubificidae imm w/o cap chaetae | | | | 0.0011 | 0.0011 |
| Tubificoides spp. | | 0.0023 | 0.0045 | 0.0045 | 0.0045 |
| Total Biomass w/ Epifauna | 4.5610 | 6.4559 | 3.9646 | 1.7176 | 0.2420 |
| Total Biomass w/o Epifauna | 4.5588 | 6.4559 | 3.9646 | 1.7108 | 0.2215 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21416 | 21417 | 21418 | 21420 | 21421 |
|------------------------------------|----------------|----------------|---------------|----------------|----------------|
| Watershed | Eastern Tribs | Eastern Tribs | Eastern Tribs | Eastern Tribs | Eastern Tribs |
| Habitat | High Meso Sand | Low Mesohaline | High Meso Mud | Low Mesohaline | Low Mesohaline |
| Date | 09/02/14 | 09/02/14 | 09/02/14 | 09/08/14 | 09/02/14 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 9.2 | 3.9 | 8.2 | 3.6 | 2.1 |
| Salinity (ppt) | 12.23 | 10.29 | 13.41 | 7.63 | 6.12 |
| Temperature (C) | 25.18 | 25.78 | 25.03 | 27.26 | 28.16 |
| Dissolved Oxygen (mg/L) | 0.2 | 3.7 | 0.5 | 5.6 | 1.3 |
| Sediment Silt-Clay (%) | 32.83 | 1.96 | 84.21 | 89.38 | 89.43 |
| Total Carbon (%) | 0.94 | 0.06 | 2.04 | 2.15 | 3.31 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 3.00 | 2.60 | 3.00 | 4.20 | 1.80 |
| Condition | Meets Goal | Degraded | Meets Goal | Meets Goal | Severely Degr. |
| # Attributes Scored | 6 | 5 | 6 | 5 | 5 |
| | Value | Score | Value | Score | Value |
| Shannon-Wiener Index | 2.33 | 1 | 2.66 | 5 | 1.65 |
| Abundance (#/m2) | 1568 | 5 | 2658 | 3 | 795 |
| Biomass (g/m2) | 4.04 | 5 | 0.55 | 1 | 10.02 |
| Pollution Indicative Spp Abund (%) | 15.94 | 3 | 11.11 | 3 | 2.86 |
| Pollution Indicative Spp Biom (%) | 5.49 | 3 | 3.10 | 1 | 0.01 |
| Pollution Sensitive Spp Abund (%) | 26.09 | 3 | 2.56 | 1 | 62.86 |
| Pollution Sensitive Spp Biom (%) | 90.68 | 3 | 10.74 | 1 | 94.32 |
| Carnivore-Omnivore Abund (%) | 4.35 | 1 | 5.13 | 1 | 28.57 |
| Deep Deposit Feeder Abund (%) | 62.32 | 1 | 10.26 | 1 | 8.57 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 5.00 |
| Limnodrilus Abundance (%) | 8.70 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 100.00 |
| 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 | 6.19 |
| Tany./Chir. Abundance Ratio | 0.00 | 0.00 | 0.00 | 100.00 | 0.00 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| Site | 21416 | 21417 | 21418 | 21420 | 21421 |
| Ameroculodes species complex | | 68 | | | |
| Apocorophium lacustre (Epi.) | | 23 | | | |
| Carinoma tremaphoros | 23 | | 91 | 23 | |
| Coelotanypus spp. | | | | 318 | |
| Cyathura polita | | | | 204 | |
| Edotea triloba (Epi.) | | 91 | | | |
| Eteone foliosa | | 23 | | | |
| Gemma gemma | | 91 | | | |
| Heteromastus filiformis | 250 | 182 | 23 | | |
| Leitoscoloplos spp. | | 45 | | | |
| Leptocheirus plumulosus | | 1000 | | 591 | |
| Macoma balthica | 409 | | 500 | 704 | |
| Macoma mitchelli | | 772 | | 136 | |
| Marenzelleria viridis | | 68 | | | |
| Melita nitida (Epi.) | | | | 91 | |
| Micrura leidyi | | 68 | | | |
| Mulinia lateralis | 23 | 114 | | | |
| Neanthes succinea | 45 | 45 | 136 | 91 | |
| Rangia cuneata | | | | 23 | |
| Streblospio benedicti | 91 | 136 | | 68 | |
| Tubificidae imm w/o cap chaetae | 136 | | 23 | | |
| Tubificoides spp. | 591 | 45 | 23 | 114 | 136 |
| Total Abundance w/ Epifauna | 1568 | 2772 | 795 | 2363 | 136 |
| Total Abundance w/o Epifauna | 1568 | 2658 | 795 | 2272 | 136 |
| Number of Taxa w/ Epifauna | 8 | 15 | 6 | 11 | 1 |
| Number of Taxa w/o Epifauna | 8 | 13 | 6 | 10 | 1 |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
|---------------------------------------|--------|--------|---------|---------|--------|
| Site | 21416 | 21417 | 21418 | 21420 | 21421 |
| Ameroculodes species complex | | 0.0068 | | | |
| Apocorophium lacustre (Epi.) | | 0.0023 | | | |
| Carinoma tremaphoros | 0.0091 | | 0.0727 | 0.0114 | |
| Coelotanypus spp. | | | | 0.0704 | |
| Cyathura polita | | | | 0.5294 | |
| Edotea triloba (Epi.) | | 0.0045 | | | |
| Eteone foliosa | | 0.0568 | | | |
| Gemma gemma | | 0.0204 | | | |
| Heteromastus filiformis | 0.1045 | 0.0295 | 0.0386 | | |
| Leitoscoloplos spp. | | 0.0011 | | | |
| Leptocheirus plumulosus | | 0.1568 | | 0.1068 | |
| Macoma balthica | 3.6602 | | 9.4538 | 8.1633 | |
| Macoma mitchelli | | 0.1250 | | 1.3882 | |
| Marenzelleria viridis | | 0.0591 | | | |
| Melita nitida (Epi.) | | | | 0.0045 | |
| Micrura leidyi | | 0.0727 | | | |
| Mulinia lateralis | 0.2158 | 0.0136 | | | |
| Neanthes succinea | 0.0364 | 0.0045 | 0.4544 | 0.1636 | |
| Rangia cuneata | | | | 0.0432 | |
| Streblospio benedicti | 0.0045 | 0.0023 | | 0.0023 | |
| Tubificidae imm w/o cap chaetae | 0.0011 | | 0.0011 | | |
| Tubificoides spp. | 0.0045 | 0.0011 | 0.0023 | 0.0023 | 0.0023 |
| Total Biomass w/ Epifauna | 4.0362 | 0.5566 | 10.0229 | 10.4853 | 0.0023 |
| Total Biomass w/o Epifauna | 4.0362 | 0.5498 | 10.0229 | 10.4807 | 0.0023 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21422 | 21423 | 21424 | 21425 | 21426 |
|--|---------------|---------------|---------------|---------------|----------------|
| Watershed | Eastern Tribs | Eastern Tribs | Eastern Tribs | Eastern Tribs | Eastern Tribs |
| Habitat | Oligohaline | Oligohaline | Freshwater | Oligohaline | Oligohaline |
| Date | 09/08/14 | 09/08/14 | 08/25/14 | 08/25/14 | 09/11/14 |
| 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) | 5.4 | 7.8 | 1.4 | 5.3 | 7.7 |
| Salinity (ppt) | 4.21 | 1.82 | 0.49 | 1.14 | 1.84 |
| Temperature (C) | 27.40 | 27.50 | 25.23 | 25.11 | 25.24 |
| Dissolved Oxygen (mg/L) | 5.9 | 6.4 | 7.1 | 6.7 | 3.0 |
| Sediment Silt-Clay (%) | 90.96 | 27.49 | 59.05 | 48.92 | 79.71 |
| Total Carbon (%) | 2.81 | 1.66 | 2.37 | 1.66 | 4.37 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 3.00 | 4.33 | 3.50 | 2.67 | 1.40 |
| Condition | Meets Goal | Meets Goal | Meets Goal | Marginal | Severely Degr. |
| # Attributes Scored | 6 | 6 | 4 | 6 | 5 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 2.44 | 2.77 | 2.61 | 1.79 | 0.39 |
| Abundance (#/m2) | 364 3 | 1136 5 | 4408 3 | 3385 3 | 295 3 |
| Biomass (g/m2) | 23.67 | 1.61 | 70.01 | 78.35 | 0.00 |
| Pollution Indicative Spp Abund (%) | 56.25 | 2.00 | 70.10 | 20.13 | 7.69 |
| Pollution Indicative Spp Biom (%) | 0.08 | 0.07 | 0.33 | 0.03 | 50.00 |
| Pollution Sensitive Spp Abund (%) | 31.25 | 68.00 | 21.13 | 79.19 | 0.00 |
| Pollution Sensitive Spp Biom (%) | 99.50 | 93.36 | 88.32 | 99.85 | 0.00 |
| Carnivore-Omnivore Abund (%) | 50.00 5 | 30.00 3 | 18.04 | 5.37 1 | 0.00 1 |
| Deep Deposit Feeder Abund (%) | 6.25 | 12.00 | 65.98 5 | 18.79 | 100.00 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | 0.00 | 62.89 3 | 0.00 | 0.00 |
| Limnodrilus Abundance (%) | 0.00 | 2.00 | 62.89 | 18.79 | 7.69 |
| Oligo Poll. Indic. Spp Abund (%) | 62.50 3 | 22.00 5 | 0.00 | 20.13 5 | 100.00 1 |
| Oligo Poll. Sens. Spp Abund (%) | 6.25 3 | 38.00 5 | 0.00 | 16.11 3 | 0.00 1 |
| Tolerance Score | 6.13 3 | 6.38 3 | 8.92 3 | 6.90 3 | 9.80 1 |
| Tany./Chir. Abundance Ratio | 100.00 1 | 0.00 5 | 68.18 | 100.00 1 | 0.00 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| Site | 21422 | 21423 | 21424 | 21425 | 21426 |
| Ameroculodes species complex | | 23 | | | |
| Apocorophium lacustre (Epi.) | | 45 | | | |
| Carinoma tremaphoros | 23 | 23 | | 23 | |
| Chiridotea almyra | | 45 | | | |
| Coelotanypus spp. | 136 | | 318 | 45 | |
| Corbicula fluminea | | | 68 | | |
| Cricotopus bicinctus | | | 23 | | |
| Cyathura polita | 23 | 182 | 295 | 114 | |
| Dicrotendipes spp. | | | 45 | | |
| Gammarus daiberi (Epi.) | | 1181 | 23 | | 68 |
| Gyraulus spp. (Epi.) | | | 23 | | |
| Heteromastus filiformis | 23 | | | | |
| Hobsonia florida | | 23 | | | |
| Leptocheirus plumulosus | | 23 | | | |
| Limnodrilus hoffmeisteri | | 23 | 1000 | 227 | |
| Marenzelleria viridis | 23 | 386 | 204 | 545 | |
| Polypedilum halterale group | | 91 | 45 | | |
| Procladius spp. | | | 23 | | |
| Rangia cuneata | 68 | 204 | 432 | 2022 | |
| Streblospio benedicti | 68 | | | | |
| Tanytarsus spp. G Epler | | | 45 | | |
| Tubificidae imm w/o cap chaetae | | | | | 23 |
| Tubificidae imm w/o cap chaetae * | | | 1772 | 409 | |
| Tubificoides spp. | | 114 | 136 | | 273 |
| Total Abundance w/ Epifauna | 364 | 2363 | 4453 | 3385 | 364 |
| Total Abundance w/o Epifauna | 364 | 1136 | 4408 | 3385 | 295 |
| Number of Taxa w/ Epifauna | 7 | 13 | 14 | 6 | 3 |
| Number of Taxa w/o Epifauna | 7 | 11 | 12 | 6 | 2 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
|---------------------------------------|---------|--------|---------|---------|--------|
| Site | 21422 | 21423 | 21424 | 21425 | 21426 |
| Ameroculodes species complex | | 0.0068 | | | |
| Apocorophium lacustre (Epi.) | | 0.0011 | | | |
| Carinoma tremaphoros | 0.0977 | 0.0795 | | 0.0932 | |
| Chiridotea almyra | | 0.0023 | | | |
| Chironomidae | | | 0.0011 | | |
| Coelotanypus spp. | 0.0182 | | 0.0318 | 0.0023 | |
| Corbicula fluminea | | | 7.9406 | | |
| Cyathura polita | 0.0011 | 0.0182 | 0.1136 | 0.0795 | |
| Gammarus daiberi (Epi.) | | 0.1136 | 0.0023 | | 0.0045 |
| Gyraulus spp. (Epi.) | | | 0.0068 | | |
| Heteromastus filiformis | 0.0011 | | | | |
| Hobsonia florida | | 0.0068 | | | |
| Leptocheirus plumulosus | | 0.0068 | | | |
| Limnodrilus hoffmeisteri | | 0.0011 | | | |
| Marenzelleria viridis | 0.0318 | 0.4589 | 0.2931 | 0.2704 | |
| Oligochaeta | | | 0.1977 | 0.0204 | |
| Polypedilum halterale group | | 0.0011 | | | |
| Rangia cuneata | 23.5220 | 1.0247 | 61.4235 | 77.8864 | |
| Streblospio benedicti | 0.0011 | | | | |
| Tubificidae imm w/o cap chaetae | | | | | 0.0011 |
| Tubificoides spp. | | 0.0023 | 0.0045 | | 0.0011 |
| Total Biomass w/ Epifauna | 23.6731 | 1.7233 | 70.0151 | 78.3522 | 0.0068 |
| Total Biomass w/o Epifauna | 23.6731 | 1.6086 | 70.0060 | 78.3522 | 0.0023 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21501 | 21502 | 21503 | 21504 | 21505 |
|--|----------------|----------------|----------------|----------------|----------------|
| Watershed | Mainstem | Mainstem | Mainstem | Mainstem | Mainstem |
| Habitat | Low Mesohaline | Low Mesohaline | Low Mesohaline | High Meso Sand | Low Mesohaline |
| Date | 08/21/14 | 08/20/14 | 08/20/14 | 09/18/14 | 08/20/14 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 12.3 | 5.9 | 7.2 | 2.6 | 6.8 |
| Salinity (ppt) | 9.36 | 10.17 | 9.58 | 15.02 | 10.52 |
| Temperature (C) | 25.16 | 26.19 | 25.40 | 23.61 | 25.44 |
| Dissolved Oxygen (mg/L) | 1.3 | 7.4 | 6.6 | 8.4 | 4.5 |
| Sediment Silt-Clay (%) | 92.27 | 1.42 | 3.99 | 1.79 | 1.83 |
| Total Carbon (%) | 2.38 | 0.06 | 0.17 | 0.04 | 0.04 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 1.80 | 3.40 | 3.40 | 2.33 | 3.80 |
| Condition | Severely Degr. | Meets Goal | Meets Goal | Degraded | Meets Goal |
| # Attributes Scored | 5 | 5 | 5 | 6 | 5 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 0.59 1 | 3.58 5 | 3.71 5 | 2.42 1 | 4.11 5 |
| Abundance (#/m2) | 159 1 | 1318 3 | 1318 3 | 10201 1 | 1977 5 |
| Biomass (g/m2) | 0.69 1 | 1.50 3 | 1.50 3 | 1.79 3 | 2.23 3 |
| Pollution Indicative Spp Abund (%) | 0.00 5 | 0.00 5 | 0.00 5 | 0.67 5 | 3.45 5 |
| Pollution Indicative Spp Biom (%) | 0.00 | 0.00 | 0.00 | 1.90 | 0.92 |
| Pollution Sensitive Spp Abund (%) | 14.29 | 41.38 | 46.55 | 32.96 3 | 28.74 |
| Pollution Sensitive Spp Biom (%) | 10.82 1 | 12.71 1 | 25.28 1 | 49.05 | 12.86 1 |
| Carnivore-Omnivore Abund (%) | 85.71 | 22.41 | 58.62 | 14.92 1 | 22.99 |
| Deep Deposit Feeder Abund (%) | 0.00 | 8.62 | 13.79 | 74.39 | 14.94 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Limnodrilus Abundance (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tolerance Score | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tany./Chir. Abundance Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| Site | 21501 | 21502 | 21503 | 21504 | 21505 |
| <i>Acteocina canaliculata</i> | | 91 | 386 | 795 | 45 |
| <i>Ameroculodes species complex</i> | | | 68 | | |
| <i>Ampelisca abdita</i> | | | 23 | | 159 |
| <i>Ampelisca verrilli</i> | | | 45 | 91 | |
| <i>Amphiporus bioculatus</i> | | | | 23 | |
| <i>Amygdalum papyrium (Epi.)</i> | | | | 23 | 159 |
| <i>Ancistrosyllis hartmanae</i> | | | | 23 | |
| <i>Carinoma tremaphoros</i> | | | 23 | | |
| <i>Clymenella torquata</i> | | | | 68 | |
| <i>Cyathura polita</i> | | 45 | | | 182 |
| <i>Edwardsia elegans</i> | | | | 23 | 68 |
| <i>Eteone heteropoda</i> | | | | 45 | |
| <i>Gemma gemma</i> | | 114 | | | 204 |
| <i>Glycera americana</i> | | | 68 | | |
| <i>Glycera dibranchiata</i> | | 45 | 68 | 23 | 45 |
| <i>Glycinde solitaria</i> | | 45 | 23 | 341 | 45 |
| <i>Haminoea solitaria</i> | | 45 | | 91 | |
| <i>Heteromastus filiformis</i> | | 114 | 68 | 204 | 159 |
| <i>Leitoscoloplos robustus</i> | | | | 23 | |
| <i>Leitoscoloplos spp.</i> | | | | | 23 |
| <i>Lepidactylus dytiscus</i> | | 91 | | | 159 |
| <i>Leptosynapta tenuis</i> | | 136 | | | 68 |
| <i>Listriella barnardi</i> | | | 23 | 114 | |
| <i>Listriella clymenellae</i> | | | | 227 | |
| <i>Loimia medusa</i> | 23 | | 45 | 23 | 23 |
| <i>Macoma mitchelli</i> | | | 45 | | 45 |
| <i>Marenzelleria viridis</i> | | 23 | 23 | 45 | 23 |
| <i>Mediomastus ambiseta</i> | | | 23 | 1386 | |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) - Contd. | | | | | |
|--|--------|--------|--------|--------|--------|
| Site | 21501 | 21502 | 21503 | 21504 | 21505 |
| <i>Microprotopus raneyi</i> (Epi.) | | | | 23 | |
| <i>Molgula manhattensis</i> (Epi.) | | | | 68 | |
| <i>Mulinia lateralis</i> | | | | | 45 |
| <i>Neanthes succinea</i> | 136 | 23 | 68 | 91 | 45 |
| <i>Neomysis americana</i> (Epi.) | | 23 | | | |
| <i>Odostomia engonia</i> (Epi.) | | 23 | | | |
| <i>Oxyurostylis smithi</i> | | | 23 | 23 | |
| <i>Paraonis fulgens</i> | | 23 | | | 23 |
| <i>Parvilucina crenella</i> | | 68 | 23 | | 227 |
| <i>Pectinaria gouldii</i> | | | 91 | 23 | 91 |
| <i>Phoronis</i> spp. | | 318 | 45 | 364 | 182 |
| <i>Podarkeopsis levifuscina</i> | | | | 45 | |
| <i>Rictaxis punctostriatus</i> | | | 136 | 23 | 23 |
| <i>Scolecopsis texana</i> | | | | 91 | |
| <i>Sphaeroma quadridentatum</i> (Epi.) | | | | 204 | |
| <i>Spiochaetopterus costarum</i> | | | | 114 | 68 |
| <i>Spiophanes bombyx</i> | | 23 | | | |
| <i>Stylochus ellipticus</i> (Epi.) | | | | | 23 |
| <i>Tharyx</i> sp. A Morris | | 114 | | | |
| <i>Tubificoides</i> spp. | | | | 5884 | 23 |
| Total Abundance w/ Epifauna | 159 | 1363 | 1318 | 10519 | 2158 |
| Total Abundance w/o Epifauna | 159 | 1318 | 1318 | 10201 | 1977 |
| Number of Taxa w/ Epifauna | 2 | 18 | 20 | 30 | 25 |
| Number of Taxa w/o Epifauna | 2 | 16 | 20 | 26 | 23 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 21501 | 21502 | 21503 | 21504 | 21505 |
| <i>Acteocina canaliculata</i> | | 0.0091 | 0.0386 | 0.0613 | 0.0068 |
| <i>Ameroculodes species complex</i> | | | 0.0068 | | |
| <i>Ampelisca abdita</i> | | | 0.0011 | | 0.0159 |
| <i>Ampelisca verrilli</i> | | | 0.0227 | 0.0114 | |
| <i>Amphiporus bioculatus</i> | | | | 0.0011 | |
| <i>Amygdalum papyrium</i> (Epi.) | | | | 0.0045 | 0.0250 |
| <i>Ancistrosyllis hartmanae</i> | | | | 0.0011 | |
| <i>Carinoma tremaphoros</i> | | | 0.0045 | | |
| <i>Clymenella torquata</i> | | | | 0.4226 | |
| <i>Cyathura polita</i> | | 0.0182 | | | 0.0772 |
| <i>Edwardsia elegans</i> | | | | 0.0545 | 0.1250 |
| <i>Eteone heteropoda</i> | | | | 0.0023 | |
| <i>Gemma gemma</i> | | 0.0659 | | | 0.0045 |
| <i>Glycera americana</i> | | | 0.0613 | | |
| <i>Glycera dibranchiata</i> | | 0.2317 | 0.8452 | 0.1181 | 0.9088 |
| <i>Glycinde solitaria</i> | | 0.0023 | 0.0045 | 0.0273 | 0.0250 |
| <i>Haminocia solitaria</i> | | 0.0023 | | 0.0091 | |
| <i>Heteromastus filiformis</i> | | 0.0136 | 0.0045 | 0.0545 | 0.0454 |
| <i>Leitoscoloplos robustus</i> | | | | 0.0318 | |
| <i>Leitoscoloplos</i> spp. | | | | | 0.0136 |
| <i>Lepidactylus dytiscus</i> | | 0.0091 | | | 0.0295 |
| <i>Leptosynapta tenuis</i> | | 0.3726 | | 0.0909 | 0.2522 |
| <i>Listriella barnardi</i> | | | 0.0011 | | |
| <i>Listriella clymenellae</i> | | | | 0.0204 | |
| <i>Loimia medusa</i> | 0.0750 | | 0.2476 | 0.0045 | 0.0114 |
| <i>Macoma mitchelli</i> | | | 0.0011 | | 0.0023 |
| <i>Marenzelleria viridis</i> | | 0.0250 | 0.0114 | 0.0954 | 0.0182 |
| <i>Mediomastus ambiseta</i> | | | 0.0023 | 0.0273 | |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC BIOMASS (Grams per sq. meter) - Contd. | | | | | |
|--|--------|--------|--------|--------|--------|
| Site | 21501 | 21502 | 21503 | 21504 | 21505 |
| Microprotopus raneyi (Epi.) | | | | 0.0011 | |
| Molgula manhattensis (Epi.) | | | | 0.0045 | |
| Mulinia lateralis | | | | | 0.0068 |
| Neanthes succinea | 0.6180 | 0.0023 | 0.0341 | 0.0295 | 0.0023 |
| Neomysis americana (Epi.) | | 0.0023 | | | |
| Odostomia engonia (Epi.) | | 0.0023 | | | |
| Oxyurostylis smithi | | | 0.0023 | 0.0023 | |
| Paraonis fulgens | | 0.0045 | | | 0.0023 |
| Parvilucina crenella | | 0.5862 | 0.1659 | | 0.5089 |
| Pectinaria gouldii | | | 0.0295 | 0.0023 | 0.0182 |
| Phoronis spp. | | 0.0818 | 0.0136 | 0.1954 | 0.0591 |
| Podarkeopsis levifuscina | | | | 0.0011 | |
| Rictaxis punctostriatus | | | 0.0023 | 0.0011 | 0.0023 |
| Scolecopsis texana | | | | 0.0295 | |
| Sphaeroma quadridentatum (Epi.) | | | | 0.0068 | |
| Spiochaetopterus costarum | | | | 0.0250 | 0.0886 |
| Spiophanes bombyx | | 0.0545 | | | |
| Stylochus ellipticus (Epi.) | | | | | 0.0068 |
| Tharyx sp. A Morris | | 0.0227 | | | |
| Tubificoides spp. | | | | 0.4726 | 0.0011 |
| Total Biomass w/ Epifauna | 0.6930 | 1.5063 | 1.5007 | 1.8096 | 2.2572 |
| Total Biomass w/o Epifauna | 0.6930 | 1.5018 | 1.5007 | 1.7926 | 2.2254 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21506 | 21507 | 21508 | 21509 | 21510 |
|--|----------------|----------------|---------------|---------------|----------------|
| Watershed | Mainstem | Mainstem | Mainstem | Mainstem | Mainstem |
| Habitat | Low Mesohaline | High Meso Sand | High Meso Mud | High Meso Mud | Low Mesohaline |
| Date | 08/20/14 | 09/18/14 | 09/18/14 | 09/18/14 | 08/20/14 |
| 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) | 5.4 | 3.6 | 9.5 | 8.0 | 7.1 |
| Salinity (ppt) | 10.29 | 14.89 | 15.24 | 14.69 | 11.07 |
| Temperature (C) | 25.70 | 23.48 | 23.89 | 23.55 | 25.35 |
| Dissolved Oxygen (mg/L) | 6.0 | 8.0 | 6.7 | 7.8 | 2.4 |
| Sediment Silt-Clay (%) | 1.82 | 1.90 | 81.76 | 56.35 | 3.09 |
| Total Carbon (%) | 0.08 | 0.06 | 1.55 | 1.01 | 0.11 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 3.80 | 3.33 | 3.67 | 2.67 | 3.80 |
| Condition | Meets Goal | Meets Goal | Meets Goal | Marginal | Meets Goal |
| # Attributes Scored | 5 | 6 | 6 | 6 | 5 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 3.98 5 | 3.03 3 | 3.35 5 | 3.43 5 | 3.51 5 |
| Abundance (#/m2) | 1749 5 | 4589 3 | 2908 3 | 1227 3 | 1659 5 |
| Biomass (g/m2) | 2.24 3 | 3.27 5 | 2.34 5 | 0.27 1 | 2.97 3 |
| Pollution Indicative Spp Abund (%) | 9.09 5 | 0.99 5 | 14.84 | 12.96 | 0.00 5 |
| Pollution Indicative Spp Biom (%) | 39.21 | 0.35 | 5.24 3 | 39.00 1 | 0.00 |
| Pollution Sensitive Spp Abund (%) | 27.27 | 19.31 3 | 10.94 | 35.19 | 31.51 |
| Pollution Sensitive Spp Biom (%) | 10.82 1 | 7.15 | 18.72 1 | 41.91 3 | 21.35 1 |
| Carnivore-Omnivore Abund (%) | 23.38 | 13.86 1 | 49.22 5 | 14.81 3 | 35.62 |
| Deep Deposit Feeder Abund (%) | 11.69 | 56.93 | 20.31 | 27.78 | 5.48 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Limnodrilus Abundance (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tolerance Score | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tany./Chir. Abundance Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| Site | 21506 | 21507 | 21508 | 21509 | 21510 |
| Acteocina canaliculata | 23 | 182 | 91 | 68 | 250 |
| Ameroculodes species complex | 23 | | | | 23 |
| Ampelisca abdita | | | 23 | 182 | 114 |
| Ampelisca verrilli | | 273 | | | |
| Amphiporus bioculatus | | 23 | | 45 | |
| Ancistrosyllis hartmanae | | 23 | | | |
| Balanus improvisus (Epi.) | | | | 23 | |
| Cyathura polita | 114 | | | | |
| Demonax microphthalmus | | | 136 | | |
| Diadumene leucolena (Epi.) | | | 1045 | | |
| Edotea triloba (Epi.) | | | 45 | | |
| Edwardsia elegans | | 45 | 45 | | |
| Epitonium rupicola (Epi.) | 23 | | 23 | | |
| Eteone heteropoda | | 23 | | | |
| Gemma gemma | 68 | 91 | | | |
| Glycera americana | 23 | | | | 45 |
| Glycera dibranchiata | | 91 | | | |
| Glycinde solitaria | 23 | 91 | 114 | 23 | 68 |
| Haminoea solitaria | 159 | 23 | | | |
| Heteromastus filiformis | 159 | 68 | | 23 | |
| Leitoscoloplos robustus | 45 | 23 | | 23 | |
| Leitoscoloplos spp. | | | 23 | | |
| Lepidactylus dytiscus | 227 | | | | |
| Leptosynapta tenuis | 91 | 409 | | | 23 |
| Leucon americanus | | | | 136 | |
| Listriella barnardi | | | | | 23 |
| Loimia medusa | 45 | | 45 | | 45 |
| Lyonsia hyalina | | | 45 | | |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) - Contd. | | | | | |
|--|--------|--------|--------|--------|--------|
| Site | 21506 | 21507 | 21508 | 21509 | 21510 |
| <i>Macoma mitchelli</i> | 159 | | 68 | | 114 |
| <i>Marenzelleria viridis</i> | | | | | 23 |
| <i>Mediomastus ambiseta</i> | | 364 | | 91 | |
| <i>Melita nitida</i> (Epi.) | 23 | | | 23 | |
| <i>Micrura leidyi</i> | | | | | 45 |
| <i>Molgula manhattensis</i> (Epi.) | | 23 | 204 | | |
| <i>Mulinia lateralis</i> | 114 | | 136 | 45 | |
| <i>Mya arenaria</i> | | | 23 | | |
| <i>Mytilus edulis</i> (Epi.) | | | | | 45 |
| <i>Neanthes succinea</i> | 23 | | 1000 | 45 | |
| <i>Odostomia engonia</i> (Epi.) | | | 23 | | |
| <i>Oxyurostylis smithi</i> | 45 | | | | 23 |
| <i>Parahesionia luteola</i> | | | 23 | | 23 |
| <i>Paraonis fulgens</i> | | 136 | | | |
| <i>Paraprionospio pinnata</i> | | | 273 | 91 | |
| <i>Parvilucina crenella</i> | 114 | 23 | | | 477 |
| <i>Pectinaria gouldii</i> | | | 68 | 204 | 91 |
| <i>Phoronis</i> spp. | 204 | 136 | | 45 | 91 |
| <i>Podarke obscura</i> | | | 23 | | |
| <i>Podarkeopsis levifuscina</i> | | 136 | 68 | | |
| <i>Polydora cornuta</i> | | | 91 | | |
| <i>Ptilanthura tenuis</i> | | | | | 23 |
| <i>Rictaxis punctostriatus</i> | 45 | | 68 | | 136 |
| <i>Saccoglossus kowalevskii</i> | | | | | 23 |
| <i>Scolecopsis texana</i> | | 159 | | | |
| <i>Spirochaetopterus costarum</i> | 23 | 68 | 45 | 204 | |
| <i>Spiophanes bombyx</i> | 23 | 45 | | | |
| <i>Stenothoe minuta</i> (Epi.) | | | 386 | | |
| <i>Tubificoides</i> spp. | | 2158 | 500 | | |
| Total Abundance w/ Epifauna | 1795 | 4612 | 4635 | 1272 | 1704 |
| Total Abundance w/o Epifauna | 1749 | 4589 | 2908 | 1227 | 1659 |
| Number of Taxa w/ Epifauna | 23 | 23 | 27 | 16 | 20 |
| Number of Taxa w/o Epifauna | 21 | 22 | 21 | 14 | 19 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 21506 | 21507 | 21508 | 21509 | 21510 |
| <i>Acteocina canaliculata</i> | 0.0011 | 0.0250 | 0.0159 | 0.0250 | 0.0318 |
| <i>Ameroculodes species complex</i> | 0.4135 | | | | 0.0023 |
| <i>Ampelisca abdita</i> | | | 0.0023 | 0.0136 | 0.0068 |
| <i>Ampelisca verrilli</i> | | 0.1727 | | | |
| <i>Amphiporus bioculatus</i> | | 0.0045 | | 0.0023 | |
| <i>Ancistrosyllis hartmanae</i> | | 0.0023 | | | |
| <i>Balanus improvisus</i> (Epi.) | | | | 0.0636 | |
| <i>Cyathura polita</i> | 0.0477 | | | | |
| <i>Demonax microphthalmus</i> | | | 0.0045 | | |
| <i>Diadumene leucolena</i> (Epi.) | | | 0.7702 | | |
| <i>Edotea triloba</i> (Epi.) | | | 0.0045 | | |
| <i>Edwardsia elegans</i> | | 0.0386 | 0.0136 | | |
| <i>Epitonium rupicola</i> (Epi.) | 0.0045 | | 0.0045 | | |
| <i>Eteone heteropoda</i> | | 0.0023 | | | |
| <i>Gemma gemma</i> | 0.0114 | 0.0045 | | | |
| <i>Glycera americana</i> | 0.0318 | | | | 0.0863 |
| <i>Glycera dibranchiata</i> | | 2.1152 | | | |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC BIOMASS (Grams per sq. meter) - Contd. | | | | | |
|--|---------------|---------------|---------------|---------------|---------------|
| Site | 21506 | 21507 | 21508 | 21509 | 21510 |
| Glycinde solitaria | 0.0045 | 0.0045 | 0.0295 | 0.0068 | 0.0114 |
| Haminoea solitaria | 0.0250 | 0.0023 | | | |
| Heteromastus filiformis | 0.0273 | 0.0045 | | 0.0068 | |
| Leitoscoloplos robustus | 0.7520 | 0.0091 | | 0.0295 | |
| Leitoscoloplos spp. | | | 0.0454 | | |
| Lepidactylus dytiscus | 0.0386 | | | | |
| Leptosynapta tenuis | 0.1590 | 0.5476 | | | 0.0045 |
| Leucon americanus | | | | 0.0091 | |
| Listriella barnardi | | | | | 0.0045 |
| Loimia medusa | 0.0682 | | 0.3885 | | 0.4135 |
| Lyonsia hyalina | | | 0.0011 | | |
| Macoma mitchelli | 0.0818 | | 0.0023 | | 0.0023 |
| Marenzelleria viridis | | | | | 0.0250 |
| Mediomastus ambiseta | | 0.0091 | | 0.0045 | |
| Melita nitida (Epi.) | 0.0011 | | | 0.0068 | |
| Micrura leidyi | | | | | 0.1045 |
| Molgula manhattensis (Epi.) | | 0.0011 | 0.5385 | | |
| Mulinia lateralis | 0.1250 | | 0.0023 | 0.0318 | |
| Mya arenaria | | | 0.0023 | | |
| Mytilus edulis (Epi.) | | | | | 0.0011 |
| Neanthes succinea | 0.0068 | | 1.7244 | 0.0023 | |
| Odostomia engonia (Epi.) | | | 0.0023 | | |
| Oxyurostylis smithi | 0.0114 | | | | 0.0011 |
| Parahesionia luteola | | | 0.0011 | | 0.0011 |
| Paraonis fulgens | | 0.0136 | | | |
| Paraprionospio pinnata | | | 0.0750 | 0.0454 | |
| Parvilucina crenella | 0.3408 | 0.0454 | | | 2.1720 |
| Pectinaria gouldii | | | 0.0159 | 0.0182 | 0.0091 |
| Phoronis spp. | 0.0500 | 0.0568 | | 0.0011 | 0.0659 |
| Podarke obscura | | | 0.0045 | | |
| Podarkeopsis levifuscina | | 0.0204 | 0.0011 | | |
| Polydora cornuta | | | 0.0023 | | |
| Ptilanthura tenuis | | | | | 0.0136 |
| Rictaxis punctostriatus | 0.0023 | | 0.0011 | | 0.0011 |
| Saccoglossus kowalevskii | | | | | 0.0114 |
| Scoelelepis texana | | 0.0091 | | | |
| Spiochaetopterus costarum | 0.0182 | 0.0114 | 0.0023 | 0.0772 | |
| Spiophanes bombyx | 0.0204 | 0.1272 | | | |
| Stenothoe minuta (Epi.) | | | 0.0045 | | |
| Tubificoides spp. | | 0.0477 | 0.0068 | | |
| Total Biomass w/ Epifauna | 2.2425 | 3.2751 | 3.6670 | 0.3442 | 2.9695 |
| Total Biomass w/o Epifauna | 2.2368 | 3.2740 | 2.3424 | 0.2738 | 2.9684 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21511 | 21512 | 21513 | 21514 | 21515 |
|------------------------------------|----------------|----------------|----------------|---------------|----------------|
| Watershed | Mainstem | Mainstem | Mainstem | Mainstem | Mainstem |
| Habitat | Low Mesohaline | High Meso Mud | High Meso Sand | High Meso Mud | Low Mesohaline |
| Date | 08/20/14 | 09/18/14 | 09/17/14 | 09/17/14 | 08/20/14 |
| 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 | 3.5 | 2.3 | 1.0 | 6.5 |
| Salinity (ppt) | 9.40 | 13.50 | 12.99 | 12.80 | 9.53 |
| Temperature (C) | 25.80 | 22.71 | 22.63 | 21.48 | 25.18 |
| Dissolved Oxygen (mg/L) | 8.2 | 7.9 | 8.2 | 8.8 | 6.0 |
| Sediment Silt-Clay (%) | 2.78 | 80.74 | 10.20 | 72.15 | 8.29 |
| Total Carbon (%) | 0.15 | 1.71 | 0.32 | 0.34 | 0.08 |
| ===== | | | | | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| ===== | | | | | |
| B-IBI Score | 2.20 | 1.67 | 2.33 | 3.67 | 3.40 |
| Condition | Degraded | Severely Degr. | Degraded | Meets Goal | Meets Goal |
| # Attributes Scored | 5 | 6 | 6 | 6 | 5 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 2.56 5 | 2.73 3 | 2.43 1 | 2.50 3 | 2.72 5 |
| Abundance (#/m2) | 1181 3 | 204 1 | 2499 5 | 3022 3 | 659 3 |
| Biomass (g/m2) | 0.39 1 | 0.14 1 | 1.77 3 | 2.07 5 | 0.19 1 |
| Pollution Indicative Spp Abund (%) | 57.69 1 | 44.44 1 | 11.82 3 | 1.50 3 | 3.45 5 |
| Pollution Indicative Spp Biom (%) | 81.50 | 70.08 1 | 27.93 | 0.11 5 | 7.27 |
| Pollution Sensitive Spp Abund (%) | 11.54 | 11.11 | 2.73 1 | 8.27 | 31.03 |
| Pollution Sensitive Spp Biom (%) | 2.02 1 | 1.57 1 | 1.99 | 7.36 1 | 61.82 3 |
| Carnivore-Omnivore Abund (%) | 21.15 | 11.11 3 | 9.09 1 | 39.85 5 | 17.24 |
| Deep Deposit Feeder Abund (%) | 19.23 | 22.22 | 25.45 | 49.62 | 0.00 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Limnodrilus Abundance (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tolerance Score | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tany./Chir. Abundance Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ===== | | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| ===== | | | | | |
| Site | 21511 | 21512 | 21513 | 21514 | 21515 |
| Acteocina canaliculata | 114 | | | | 23 |
| Americamysis spp. (Epi.) | | | | 23 | |
| Ameroculodes species complex | 23 | | | | 68 |
| Amphiporus bioculatus | | | 23 | | |
| Carinoma tremaphoros | | 23 | 45 | 45 | |
| Cyathura polita | | | | 45 | |
| Doridella obscura (Epi.) | 23 | | | | |
| Edotea triloba (Epi.) | 23 | | 23 | | |
| Erichsonella attenuata (Epi.) | | | | 613 | |
| Gemma gemma | | | 204 | | |
| Glycera dibranchiata | | | 68 | | |
| Glycinde solitaria | 23 | | 23 | 204 | 68 |
| Haminoea solitaria | 45 | | | 23 | |
| Heteromastus filiformis | 91 | | 568 | 932 | |
| Laeonereis culveri | | | | 23 | |
| Leitoscoloplos robustus | 91 | 23 | | | |
| Leucon americanus | | 45 | | | |
| Lyonsia hyalina | | | | | 68 |
| Macoma mitchelli | 68 | 23 | 1091 | 273 | 273 |
| Marenzelleria viridis | | | 45 | | 68 |
| Mediomastus ambiseta | | 23 | | | |
| Microprotopus raneyi (Epi.) | 295 | | | 273 | |
| Micrura leidy | | | | | 23 |
| Mucrogammarus mucronatus (Epi.) | | | | 409 | |
| Mulinia lateralis | 591 | | 295 | | 23 |
| Mytilus edulis (Epi.) | | | | 45 | |
| Neanthes succinea | | | 45 | 841 | |
| Paraprionospio pinnata | | 45 | | | |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) - Contd. | | | | | |
|--|--------|--------|--------|--------|--------|
| Site | 21511 | 21512 | 21513 | 21514 | 21515 |
| Parvilucina crenella | 23 | | | | |
| Pectinaria gouldii | 45 | | | | |
| Phoronis spp. | | | | | 23 |
| Rictaxis punctostriatus | 68 | | 23 | 23 | |
| Spiophanes bombyx | | | | | 23 |
| Streblospio benedicti | | 23 | | 45 | |
| Stylochus ellipticus (Epi.) | 23 | | | | |
| Tubificoides spp. | | | 68 | 568 | |
| Total Abundance w/ Epifauna | 1545 | 204 | 2522 | 4385 | 659 |
| Total Abundance w/o Epifauna | 1181 | 204 | 2499 | 3022 | 659 |
| Number of Taxa w/ Epifauna | 15 | 7 | 13 | 16 | 10 |
| Number of Taxa w/o Epifauna | 11 | 7 | 12 | 11 | 10 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 21511 | 21512 | 21513 | 21514 | 21515 |
| Acteocina canaliculata | 0.0068 | | | | 0.0068 |
| Americamysis spp. (Epi.) | | | | 0.0023 | |
| Ameroculodes species complex | 0.0045 | | | | 0.0011 |
| Amphiporus bioculatus | | | 0.0023 | | |
| Carinoma tremaphoros | | 0.0386 | 0.0045 | 0.0250 | |
| Cyathura polita | | | | 0.0568 | |
| Doridella obscura (Epi.) | 0.0011 | | | | |
| Edotea triloba (Epi.) | 0.0011 | | 0.0023 | | |
| Erichsonella attenuata (Epi.) | | | | 0.2249 | |
| Gemma gemma | | | 0.0114 | | |
| Glycera dibranchiata | | | 0.9815 | | |
| Glycinde solitaria | 0.0011 | | 0.0011 | 0.0954 | 0.0045 |
| Haminoea solitaria | 0.0023 | | | 0.0011 | |
| Heteromastus filiformis | 0.0182 | | 0.1159 | 0.3408 | |
| Laeonereis culveri | | | | 0.0477 | |
| Leitoscoloplos robustus | 0.1068 | 0.0818 | | | |
| Leucon americanus | | 0.0011 | | | |
| Lyonsia hyalina | | | | | 0.0068 |
| Macoma mitchelli | 0.0091 | 0.0011 | 0.0204 | 0.0386 | 0.0250 |
| Marenzelleria viridis | | | 0.0341 | | 0.0772 |
| Mediomastus ambiseta | | 0.0023 | | | |
| Microprotopus raneyi (Epi.) | 0.0091 | | | 0.0227 | |
| Micrura leidyi | | | | | 0.0250 |
| Mucrogammarus mucronatus (Epi.) | | 0.0182 | | 0.0863 | |
| Mulinia lateralis | 0.2136 | | 0.4953 | | 0.0136 |
| Mytilus edulis (Epi.) | | | | 0.0045 | |
| Neanthes succinea | | | 0.1022 | 1.4495 | |
| Paraprionospio pinnata | | 0.0182 | | | |
| Parvilucina crenella | 0.0273 | | | | |
| Pectinaria gouldii | 0.0023 | | | | |
| Phoronis spp. | | | | | 0.0159 |
| Rictaxis punctostriatus | 0.0011 | | 0.0023 | 0.0011 | |
| Spiophanes bombyx | | | | | 0.0114 |
| Streblospio benedicti | | 0.0011 | | 0.0023 | |
| Stylochus ellipticus (Epi.) | 0.0045 | | | | |
| Tubificoides spp. | | | 0.0023 | 0.0091 | |
| Total Biomass w/ Epifauna | 0.4090 | 0.1443 | 1.7756 | 2.4083 | 0.1874 |
| Total Biomass w/o Epifauna | 0.3931 | 0.1443 | 1.7733 | 2.0675 | 0.1874 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21516 | 21517 | 21518 | 21519 | 21520 |
|------------------------------------|----------------|----------------|----------------|----------------|----------------|
| Watershed | Mainstem | Mainstem | Mainstem | Mainstem | Mainstem |
| Habitat | Low Mesohaline | High Meso Sand | Low Mesohaline | Low Mesohaline | Low Mesohaline |
| Date | 08/20/14 | 09/17/14 | 08/20/14 | 08/20/14 | 09/15/14 |
| 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) | 5.8 | 2.4 | 3.7 | 10.1 | 9.0 |
| Salinity (ppt) | 8.93 | 12.50 | 8.88 | 10.33 | 11.28 |
| Temperature (C) | 25.33 | 22.33 | 25.41 | 25.22 | 23.76 |
| Dissolved Oxygen (mg/L) | 6.1 | 7.5 | 6.1 | 1.1 | 6.9 |
| Sediment Silt-Clay (%) | 2.59 | 14.92 | 60.84 | 5.93 | 78.09 |
| Total Carbon (%) | 0.08 | 0.23 | 0.90 | 0.72 | 2.69 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 2.20 | 2.33 | 2.20 | 1.80 | 1.00 |
| Condition | Degraded | 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 | 3.31 5 | 2.79 3 | 2.09 3 | 1.85 3 | 0.00 1 |
| Abundance (#/m2) | 613 3 | 2045 5 | 909 3 | 1477 3 | 0 1 |
| Biomass (g/m2) | 0.46 1 | 0.61 1 | 0.67 1 | 0.62 1 | 0.00 1 |
| Pollution Indicative Spp Abund (%) | 25.93 1 | 23.33 3 | 15.00 3 | 89.23 1 | 100.00 1 |
| Pollution Indicative Spp Biom (%) | 45.32 | 62.15 | 8.66 | 92.08 | 100.00 |
| Pollution Sensitive Spp Abund (%) | 22.22 | 7.78 1 | 22.50 | 6.15 | 0.00 |
| Pollution Sensitive Spp Biom (%) | 30.05 1 | 2.60 | 26.49 1 | 5.89 1 | 0.00 1 |
| Carnivore-Omnivore Abund (%) | 29.63 | 14.44 1 | 25.00 | 3.08 | 0.00 |
| Deep Deposit Feeder Abund (%) | 18.52 | 15.56 | 0.00 | 6.15 | 0.00 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Limnodrilus Abundance (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tolerance Score | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tany./Chir. Abundance Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| Site | 21516 | 21517 | 21518 | 21519 | 21520 |
| Acteocina canaliculata | 45 | 114 | 23 | | |
| Carinoma tremaphoros | 23 | 45 | | | |
| Cyclaspis varians | | 114 | | | |
| Edotea triloba (Epi.) | | 114 | | | |
| Eteone heteropoda | 23 | | | | |
| Gemma gemma | | 68 | | | |
| Glycinde solitaria | | 45 | 136 | | |
| Heteromastus filiformis | 68 | 295 | | | |
| Leitoscoloplos robustus | | 23 | | 91 | |
| Leucon americanus | | 45 | | | |
| Macoma balthica | | | 45 | | |
| Macoma mitchelli | 91 | 750 | 500 | | |
| Marenzelleria viridis | 68 | | | | |
| Mulinia lateralis | 136 | 432 | 114 | 45 | |
| Nassarius trivittatus | 23 | | | | |
| Neanthes succinea | 45 | 45 | 45 | 45 | |
| Parahesionia luteola | | | 23 | | |
| Paraprionospio pinnata | | | | 341 | |
| Pectinaria gouldii | 45 | | | | |
| Phoronis spp. | 23 | | | 91 | |
| Rictaxis punctostriatus | 23 | 45 | | | |
| Streblospio benedicti | | 23 | 23 | 841 | |
| Tharyx sp. A Morris | | | | 23 | |
| Total Abundance w/ Epifauna | 613 | 2158 | 909 | 1477 | 0 |
| Total Abundance w/o Epifauna | 613 | 2045 | 909 | 1477 | |
| Number of Taxa w/ Epifauna | 12 | 14 | 8 | 7 | 0 |
| Number of Taxa w/o Epifauna | 12 | 13 | 8 | 7 | 0 |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
|---------------------------------------|--------|--------|--------|--------|--------|
| Site | 21516 | 21517 | 21518 | 21519 | 21520 |
| <i>Acteocina canaliculata</i> | 0.0114 | 0.0114 | 0.0023 | | |
| <i>Carinoma tremaphoros</i> | 0.0068 | 0.0114 | | | |
| <i>Cyclaspis varians</i> | | 0.0045 | | | |
| <i>Edotea triloba</i> (Epi.) | | 0.0091 | | | |
| <i>Eteone heteropoda</i> | 0.0114 | | | | |
| <i>Gemma gemma</i> | | 0.0136 | | | |
| <i>Glycinde solitaria</i> | | 0.0045 | 0.0204 | | |
| <i>Heteromastus filiformis</i> | 0.0227 | 0.1227 | | | |
| <i>Leitoscoloplos robustus</i> | | 0.1136 | | 0.2068 | |
| <i>Leucon americanus</i> | | 0.0023 | | | |
| <i>Macoma balthica</i> | | | 0.1545 | | |
| <i>Macoma mitchelli</i> | 0.0068 | 0.0227 | 0.0841 | | |
| <i>Marenzelleria viridis</i> | 0.1136 | | | | |
| <i>Mulinia lateralis</i> | 0.1977 | 0.2658 | 0.0568 | 0.2204 | |
| <i>Nassarius trivittatus</i> | 0.0182 | | | | |
| <i>Neanthes succinea</i> | 0.0523 | 0.0364 | 0.3476 | 0.0114 | |
| <i>Parahesionia luteola</i> | | | 0.0023 | | |
| <i>Paraprionospio pinnata</i> | | | | 0.1181 | |
| <i>Pectinaria gouldii</i> | 0.0045 | | | | |
| <i>Phoronis</i> spp. | 0.0136 | | | 0.0364 | |
| <i>Rictaxis punctostriatus</i> | 0.0023 | 0.0023 | | | |
| <i>Streblospio benedicti</i> | | 0.0011 | 0.0011 | 0.0227 | |
| <i>Tharyx</i> sp. A Morris | | | | 0.0011 | |
| Total Biomass w/ Epifauna | 0.4612 | 0.6214 | 0.6691 | 0.6168 | 0.0000 |
| Total Biomass w/o Epifauna | 0.4612 | 0.6123 | 0.6691 | 0.6168 | 0.0000 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21521 | 21522 | 21523 | 21524 | 21525 | |
|--------------------------------------|----------------|----------------|----------------|----------------|----------------|-------|
| Watershed | Mainstem | Mainstem | Mainstem | Mainstem | Mainstem | |
| Habitat | Low Mesohaline | Low Mesohaline | Low Mesohaline | Low Mesohaline | Low Mesohaline | |
| Date | 08/20/14 | 09/04/14 | 08/20/14 | 09/02/14 | 09/02/14 | |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab | |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 | |
| BOTTOM ENVIRONMENT | | | | | | |
| Depth (m) | 4.8 | 1.5 | 5.7 | 2.1 | 2.9 | |
| Salinity (ppt) | 8.99 | 6.10 | 6.84 | 11.11 | 10.40 | |
| Temperature (C) | 25.44 | 27.59 | 25.22 | 26.43 | 26.84 | |
| Dissolved Oxygen (mg/L) | 6.3 | 6.9 | 6.4 | 7.4 | 5.1 | |
| Sediment Silt-Clay (%) | 3.59 | 5.36 | 8.34 | 2.46 | 15.87 | |
| Total Carbon (%) | 0.13 | 0.19 | 0.29 | 0.08 | 0.35 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | | |
| B-IBI Score | 3.00 | 2.20 | 2.60 | 2.60 | 3.00 | |
| Condition | Meets Goal | Degraded | Degraded | Degraded | Meets Goal | |
| # Attributes Scored | 5 | 5 | 5 | 5 | 5 | |
| | Value | Score | Value | Score | Value | Score |
| Shannon-Wiener Index | 2.80 | 5 | 2.89 | 5 | 1.97 | 3 |
| Abundance (#/m2) | 1886 | 5 | 2840 | 3 | 1318 | 3 |
| Biomass (g/m2) | 1.64 | 3 | 0.36 | 1 | 1.07 | 3 |
| Pollution Indicative Spp Abund (%) | 26.51 | 1 | 21.60 | 1 | 10.34 | 3 |
| Pollution Indicative Spp Biom (%) | 76.14 | | 15.24 | | 34.72 | |
| Pollution Sensitive Spp Abund (%) | 10.84 | | 4.00 | | 0.00 | |
| Pollution Sensitive Spp Biom (%) | 7.07 | 1 | 28.25 | 1 | 0.00 | 1 |
| Carnivore-Omnivore Abund (%) | 16.87 | | 7.20 | | 18.97 | |
| Deep Deposit Feeder Abund (%) | 4.82 | | 5.60 | | 60.34 | |
| TF Poll. Indicative Spp Abund (%) | 0.00 | | 0.00 | | 0.00 | |
| Limnodrilus Abundance (%) | 0.00 | | 0.00 | | 0.00 | |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | | 0.00 | | 0.00 | |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | | 0.00 | | 0.00 | |
| Tolerance Score | 0.00 | | 0.00 | | 0.00 | |
| Tany./Chir. Abundance Ratio | 0.00 | | 0.00 | | 0.00 | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | | |
| Site | 21521 | 21522 | 21523 | 21524 | 21525 | |
| <i>Acteocina canaliculata</i> | 23 | | | | | |
| <i>Ameroculodes species complex</i> | | 45 | | | | |
| <i>Carinoma tremaphoros</i> | 45 | | 91 | | 68 | |
| <i>Cassidinidea ovalis</i> (Epi.) | | 23 | | | | |
| <i>Cyathura polita</i> | | 45 | | | | |
| <i>Cyclaspis varians</i> | | 386 | | | | |
| <i>Edotea triloba</i> (Epi.) | 23 | 250 | | 45 | | |
| <i>Eteone heteropoda</i> | 23 | 91 | | | | |
| <i>Gemma gemma</i> | 523 | 636 | | 113759 | | |
| <i>Glycinde solitaria</i> | 68 | | | | | |
| <i>Heteromastus filiformis</i> | 91 | 136 | 772 | 704 | 1681 | |
| <i>Laeonereis culveri</i> | | 68 | | | | |
| <i>Leitoscoloplos fragilis</i> | | | | 23 | | |
| <i>Lepidactylus dytiscus</i> | | | | 636 | | |
| <i>Leptocheirus plumulosus</i> | | 45 | | | | |
| <i>Littoridinops tenuipes</i> (Epi.) | | 68 | | | | |
| <i>Macoma balthica</i> | | 23 | | | 68 | |
| <i>Macoma mitchelli</i> | 364 | 795 | 136 | 114 | 341 | |
| <i>Marenzelleria viridis</i> | 114 | 23 | | 45 | 523 | |
| <i>Mediomastus ambiseta</i> | | 23 | | | | |
| <i>Micrura leidy</i> | | | | 45 | 45 | |
| <i>Mulinia lateralis</i> | 432 | 68 | 68 | 500 | 250 | |
| <i>Neanthes succinea</i> | 159 | | 159 | 45 | | |
| <i>Pectinaria gouldii</i> | | | 23 | | | |
| <i>Sayella chesapeakea</i> (Epi.) | | 454 | | 250 | | |
| <i>Streblospio benedicti</i> | 45 | 454 | 68 | 159 | 23 | |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) - Contd. | | | | | |
|--|--------|--------|--------|--------|--------|
| Site | 21521 | 21522 | 21523 | 21524 | 21525 |
| Tubificoides spp. | | | | 23 | |
| Total Abundance w/ Epifauna | 1908 | 3635 | 1318 | 116349 | 2999 |
| Total Abundance w/o Epifauna | 1886 | 2840 | 1318 | 116054 | 2999 |
| Number of Taxa w/ Epifauna | 12 | 18 | 7 | 13 | 8 |
| Number of Taxa w/o Epifauna | 11 | 14 | 7 | 11 | 8 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 21521 | 21522 | 21523 | 21524 | 21525 |
| Acteocina canaliculata | 0.0182 | | | | |
| Ameroculodes species complex | | 0.0068 | | | |
| Carinoma tremaphoros | 0.0045 | | 0.0273 | | 0.0091 |
| Cassidinidea ovalis (Epi.) | | 0.0045 | | | |
| Cyathura polita | | 0.0182 | | | |
| Cyclaspis varians | | 0.0182 | | | |
| Edotea triloba (Epi.) | 0.0023 | 0.0182 | | 0.0045 | |
| Eteone heteropoda | 0.1091 | 0.0159 | | | |
| Gemma gemma | 0.0841 | 0.0545 | | 5.1006 | |
| Glycinde solitaria | 0.0091 | | | | |
| Heteromastus filiformis | 0.0523 | 0.0182 | 0.3113 | 0.1522 | 0.6589 |
| Laeonereis culveri | | 0.0250 | | | |
| Leitoscoloplos fragilis | | | | 0.0432 | |
| Lepidactylus dytiscus | | | | 0.2590 | |
| Leptocheirus plumulosus | | 0.0068 | | | |
| Littoridinops tenuipes (Epi.) | | 0.0011 | | | |
| Macoma balthica | | 0.0454 | | | 0.1590 |
| Macoma mitchelli | 0.0932 | 0.0727 | 0.2045 | 0.0091 | 0.3044 |
| Marenzelleria viridis | 0.0886 | 0.0364 | | 0.0954 | 0.4544 |
| Mediomastus ambiseta | | 0.0011 | | | |
| Micrura leidyi | | | | 0.1363 | 0.1863 |
| Mulinia lateralis | 1.0656 | 0.0159 | 0.3658 | 0.3067 | 0.6498 |
| Neanthes succinea | 0.0409 | | 0.1522 | 0.0750 | |
| Pectinaria gouldii | | | 0.0011 | | |
| Sayella chesapeakea (Epi.) | | 0.0318 | | 0.0318 | |
| Streblospio benedicti | 0.0727 | 0.0227 | 0.0045 | 0.0159 | 0.0011 |
| Tubificoides spp. | | | | 0.0023 | |
| Total Biomass w/ Epifauna | 1.6404 | 0.4135 | 1.0667 | 6.2321 | 2.4231 |
| Total Biomass w/o Epifauna | 1.6381 | 0.3578 | 1.0667 | 6.1957 | 2.4231 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21301 | 21302 | 21303 | 21304 | 21305 |
|------------------------------------|----------------|----------------|----------------|----------------|----------------|
| Watershed | Western Tribs | Western Tribs | Western Tribs | Western Tribs | Western Tribs |
| Habitat | Low Mesohaline | Low Mesohaline | Low Mesohaline | Low Mesohaline | Low Mesohaline |
| Date | 08/20/14 | 08/26/14 | 08/26/14 | 08/26/14 | 08/26/14 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 5.5 | 4.7 | 4.6 | 4.2 | 3.2 |
| Salinity (ppt) | 6.26 | 7.69 | 7.75 | 7.29 | 7.59 |
| Temperature (C) | 25.32 | 25.56 | 25.59 | 25.45 | 25.96 |
| Dissolved Oxygen (mg/L) | 6.8 | 4.2 | 5.6 | 6.2 | 6.6 |
| Sediment Silt-Clay (%) | 69.24 | 74.48 | 93.06 | 91.69 | 2.45 |
| Total Carbon (%) | 0.99 | 3.90 | 4.05 | 2.18 | 0.20 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 2.60 | 1.00 | 1.00 | 3.80 | 1.40 |
| Condition | Degraded | Severely Degr. | Severely Degr. | Meets Goal | Severely Degr. |
| # Attributes Scored | 5 | 5 | 5 | 5 | 5 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 1.65 1 | 0.00 1 | 0.00 1 | 1.70 1 | 1.58 1 |
| Abundance (#/m2) | 5953 3 | 0 1 | 23 1 | 591 3 | 704 3 |
| Biomass (g/m2) | 3.93 3 | 0.00 1 | 0.00 1 | 7.97 5 | 0.12 1 |
| Pollution Indicative Spp Abund (%) | 0.00 5 | 100.00 1 | 100.00 1 | 7.69 5 | 80.65 1 |
| Pollution Indicative Spp Biom (%) | 0.00 | 100.00 | 100.00 | 0.01 | 44.66 |
| Pollution Sensitive Spp Abund (%) | 3.82 | 0.00 | 0.00 | 57.69 | 0.00 |
| Pollution Sensitive Spp Biom (%) | 33.68 1 | 0.00 1 | 0.00 1 | 99.50 5 | 0.00 1 |
| Carnivore-Omnivore Abund (%) | 5.34 | 0.00 | 0.00 | 7.69 | 22.58 |
| Deep Deposit Feeder Abund (%) | 53.44 | 0.00 | 0.00 | 26.92 | 19.35 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Limnodrilus Abundance (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tolerance Score | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tany./Chir. Abundance Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
|---------------------------------------|--------|--------|--------|--------|--------|
| Site | 21301 | 21302 | 21303 | 21304 | 21305 |
| Carinoma tremaphoros | 91 | | | | |
| Eteone heteropoda | | | | | 159 |
| Heteromastus filiformis | 3022 | | | 23 | 45 |
| Leptocheirus plumulosus | 2227 | | | | |
| Macoma balthica | 159 | | | 341 | |
| Marenzelleria viridis | 68 | | | | |
| Micrura leidyi | | | | 45 | |
| Neanthes succinea | 227 | | | | |
| Streblospio benedicti | | | 23 | 45 | 409 |
| Tubificoides spp. | 159 | | | 136 | 91 |
| Total Abundance w/ Epifauna | 5953 | 0 | 23 | 591 | 704 |
| Total Abundance w/o Epifauna | 5953 | | 23 | 591 | 704 |
| Number of Taxa w/ Epifauna | 7 | 0 | 1 | 5 | 4 |
| Number of Taxa w/o Epifauna | 7 | 0 | 1 | 5 | 4 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 21301 | 21302 | 21303 | 21304 | 21305 |
| Carinoma tremaphoros | 0.0341 | | | | |
| Eteone heteropoda | | | | | 0.0432 |
| Heteromastus filiformis | 0.8066 | | | 0.0023 | 0.0636 |
| Leptocheirus plumulosus | 0.6430 | | | | |
| Macoma balthica | 1.2746 | | | 7.9338 | |
| Marenzelleria viridis | 0.0500 | | | | |
| Micrura leidyi | | | | 0.0341 | |
| Neanthes succinea | 1.1178 | | | | |
| Streblospio benedicti | | | 0.0011 | 0.0011 | 0.0091 |
| Tubificoides spp. | 0.0068 | | | 0.0023 | 0.0011 |
| Total Biomass w/ Epifauna | 3.9328 | 0.0000 | 0.0011 | 7.9736 | 0.1170 |
| Total Biomass w/o Epifauna | 3.9328 | 0.0000 | 0.0011 | 7.9736 | 0.1170 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21306 | 21307 | 21308 | 21309 | 21310 |
|------------------------------------|----------------|----------------|---------------|----------------|----------------|
| Watershed | Western Tribs | Western Tribs | Western Tribs | Western Tribs | Western Tribs |
| Habitat | Low Mesohaline | Low Mesohaline | Oligohaline | Low Mesohaline | Low Mesohaline |
| Date | 08/26/14 | 08/29/14 | 08/29/14 | 08/29/14 | 08/29/14 |
| 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 | 3.7 | 1.1 | 2.3 | 4.7 |
| Salinity (ppt) | 7.01 | 6.45 | 4.96 | 7.17 | 7.63 |
| Temperature (C) | 25.92 | 25.26 | 26.35 | 26.19 | 25.85 |
| Dissolved Oxygen (mg/L) | 0.5 | 6.2 | 12.6 | 6.0 | 2.8 |
| Sediment Silt-Clay (%) | 68.50 | 82.89 | 3.73 | 9.19 | 31.47 |
| Total Carbon (%) | 5.18 | 2.02 | 0.29 | 1.01 | 1.21 |
| ===== | | | | | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| ===== | | | | | |
| B-IBI Score | 1.00 | 2.20 | 2.60 | 3.40 | 2.20 |
| Condition | Severely Degr. | Degraded | Degraded | Meets Goal | Degraded |
| # Attributes Scored | 5 | 5 | 5 | 5 | 5 |
| | Value | Score | Value | Score | Value |
| Shannon-Wiener Index | 0.92 | 1 | 1.51 | 1 | 2.02 |
| Abundance (#/m2) | 68 | 1 | 477 | 1 | 8338 |
| Biomass (g/m2) | 0.00 | 1 | 3.74 | 3 | 12.78 |
| Pollution Indicative Spp Abund (%) | 66.67 | 1 | 19.05 | 3 | 8.45 |
| Pollution Indicative Spp Biom (%) | 50.00 | | 0.21 | | 1.28 |
| Pollution Sensitive Spp Abund (%) | 0.00 | | 71.43 | | 20.98 |
| Pollution Sensitive Spp Biom (%) | 0.00 | 1 | 94.84 | 3 | 58.14 |
| Carnivore-Omnivore Abund (%) | 0.00 | | 9.52 | | 5.72 |
| Deep Deposit Feeder Abund (%) | 0.00 | | 0.00 | | 4.36 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | | 0.00 | | 0.00 |
| Limnodrilus Abundance (%) | 0.00 | | 0.00 | | 0.00 |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | | 0.00 | | 68.66 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | | 0.00 | | 20.44 |
| Tolerance Score | 0.00 | | 9.80 | | 6.00 |
| Tany./Chir. Abundance Ratio | 0.00 | | 0.00 | | 0.00 |
| ===== | | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| ===== | | | | | |
| Site | 21306 | 21307 | 21308 | 21309 | 21310 |
| Ameroculodes species complex | | | 45 | | |
| Chironomus spp. | | 23 | | | |
| Edotea triloba (Epi.) | | | | 23 | |
| Eteone heteropoda | | | 477 | 386 | |
| Heteromastus filiformis | | | 341 | 977 | 68 |
| Lepidactylus dytiscus | | | 591 | | |
| Leptocheirus plumulosus | 23 | 23 | 4658 | 227 | |
| Littoridinops tenuipes (Epi.) | | | 273 | | |
| Macoma balthica | | 341 | | 386 | 409 |
| Macoma mitchelli | | 23 | 227 | 136 | |
| Marenzelleria viridis | | | 1704 | 1227 | |
| Melita nitida (Epi.) | | | | 91 | |
| Mya arenaria | | | | 23 | |
| Mytilopsis leucophaeata (Epi.) | | | 68 | | |
| Neanthes succinea | | | | 23 | 182 |
| Rangia cuneata | | | 45 | | |
| Streblospio benedicti | 45 | 45 | 227 | 772 | 1136 |
| Tubificidae imm w/o cap chaetae | | | | 45 | 23 |
| Tubificoides spp. | | | 23 | 477 | 2181 |
| ===== | | | | | |
| Total Abundance w/ Epifauna | 68 | 477 | 8679 | 4794 | 3999 |
| Total Abundance w/o Epifauna | 68 | 477 | 8338 | 4680 | 3999 |
| Number of Taxa w/ Epifauna | 2 | 6 | 12 | 13 | 6 |
| Number of Taxa w/o Epifauna | 2 | 6 | 10 | 11 | 6 |
| ===== | | | | | |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
|---------------------------------------|--------|--------|---------|--------|---------|
| Site | 21306 | 21307 | 21308 | 21309 | 21310 |
| Ameroculodes species complex | | | 0.0068 | | |
| Chironomus spp. | | 0.0011 | | | |
| Edotea triloba (Epi.) | | | | 0.0011 | |
| Eteone heteropoda | | 0.0023 | 0.1568 | 0.0863 | |
| Heteromastus filiformis | | | 0.0659 | 0.4112 | 0.0023 |
| Lepidactylus dytiscus | | | 0.2976 | | |
| Leptocheirus plumulosus | 0.0011 | 0.0011 | 0.8338 | 0.4362 | |
| Littoridinops tenuipes (Epi.) | | | 0.0364 | | |
| Macoma balthica | | 3.5511 | | 2.9468 | 7.7771 |
| Macoma mitchelli | | 0.1840 | 3.9805 | 1.2996 | |
| Marenzelleria viridis | | | 0.7725 | 0.6725 | |
| Melita nitida (Epi.) | | | | 0.0045 | |
| Mya arenaria | | | | 0.3158 | |
| Mytilopsis leucophaeata (Epi.) | | | 0.0477 | | |
| Neanthes succinea | | | | 0.0954 | 3.3058 |
| Rangia cuneata | | | 6.6592 | | |
| Streblospio benedicti | 0.0011 | 0.0045 | 0.0068 | 0.0204 | 0.0318 |
| Tubificidae imm w/o cap chaetae | | | | 0.0011 | 0.0011 |
| Tubificoides spp. | | | 0.0023 | 0.0045 | 0.0318 |
| Total Biomass w/ Epifauna | 0.0023 | 3.7443 | 12.8663 | 6.2957 | 11.1498 |
| Total Biomass w/o Epifauna | 0.0023 | 3.7443 | 12.7823 | 6.2900 | 11.1498 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21311 | 21312 | 21313 | 21314 | 21315 |
|--|----------------|----------------|----------------|---------------|---------------|
| Watershed | Western Tribs | Western Tribs | Western Tribs | Western Tribs | Western Tribs |
| Habitat | Low Mesohaline | Low Mesohaline | Low Mesohaline | Oligohaline | High Meso Mud |
| Date | 08/29/14 | 08/29/14 | 08/29/14 | 08/18/14 | 08/29/14 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 4.8 | 2.6 | 3.1 | 3.0 | 6.5 |
| Salinity (ppt) | 9.38 | 7.51 | 6.82 | 4.55 | 12.58 |
| Temperature (C) | 25.56 | 25.67 | 25.64 | 24.76 | 25.33 |
| Dissolved Oxygen (mg/L) | 0.9 | 7.9 | 3.1 | 4.4 | 0.5 |
| Sediment Silt-Clay (%) | 76.16 | 14.11 | 46.59 | 82.00 | 70.43 |
| Total Carbon (%) | 1.76 | 0.90 | 1.02 | 2.74 | 3.10 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 4.20 | 2.60 | 3.40 | 3.40 | 2.33 |
| Condition | Meets Goal | Degraded | Meets Goal | Meets Goal | Degraded |
| # Attributes Scored | 5 | 5 | 5 | 5 | 6 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 1.85 3 | 2.34 3 | 2.81 5 | 1.96 | 1.21 1 |
| Abundance (#/m2) | 1704 5 | 409 1 | 3817 3 | 613 5 | 1977 5 |
| Biomass (g/m2) | 7.40 5 | 0.33 1 | 22.00 3 | 2.88 | 0.21 1 |
| Pollution Indicative Spp Abund (%) | 18.67 3 | 0.00 5 | 36.31 1 | 0.00 | 71.26 |
| Pollution Indicative Spp Biom (%) | 0.12 | 0.00 | 0.17 | 0.00 | 12.77 3 |
| Pollution Sensitive Spp Abund (%) | 52.00 | 50.00 | 30.95 | 18.52 | 0.00 |
| Pollution Sensitive Spp Biom (%) | 93.99 5 | 81.94 3 | 94.79 5 | 79.75 | 0.00 1 |
| Carnivore-Omnivore Abund (%) | 6.67 | 5.56 | 6.55 | 7.41 1 | 16.09 3 |
| Deep Deposit Feeder Abund (%) | 20.00 | 11.11 | 22.02 | 33.33 | 12.64 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Limnodrilus Abundance (%) | 0.00 | 0.00 | 1.79 | 0.00 | 0.00 |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 77.78 3 | 0.00 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 7.41 3 | 0.00 |
| Tolerance Score | 0.00 | 6.00 | 7.90 | 6.00 5 | 0.00 |
| Tany./Chir. Abundance Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| Site | 21311 | 21312 | 21313 | 21314 | 21315 |
| Carinoma tremaphoros | 91 | | 23 | | 295 |
| Cyathura polita | | | 45 | 45 | |
| Eteone heteropoda | | | 45 | | |
| Heteromastus filiformis | | 23 | 227 | | |
| Leptocheirus plumulosus | | | 250 | 273 | |
| Littoridinops tenuipes (Epi.) | | 568 | | | |
| Macoma balthica | 886 | 45 | 909 | | |
| Macoma mitchelli | 45 | 136 | 23 | 23 | |
| Marenzelleria viridis | | 23 | 159 | 45 | |
| Melita nitida (Epi.) | | | | 23 | |
| Micrura leidyi | | 23 | | | |
| Mytilopsis leucophaeata (Epi.) | | 23 | | | 23 |
| Neanthes succinea | 23 | | 136 | | 23 |
| Polydora cornuta | | | 45 | | |
| Rangia cuneata | | 136 | 68 | 23 | |
| Streblospio benedicti | 318 | | 1272 | | 1409 |
| Tubificidae imm w/o cap chaetae | | | 68 | | |
| Tubificoides spp. | 341 | 23 | 545 | 204 | 250 |
| Total Abundance w/ Epifauna | 1704 | 1000 | 3817 | 636 | 1999 |
| Total Abundance w/o Epifauna | 1704 | 409 | 3817 | 613 | 1977 |
| Number of Taxa w/ Epifauna | 6 | 9 | 14 | 7 | 5 |
| Number of Taxa w/o Epifauna | 6 | 7 | 14 | 6 | 4 |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
|---------------------------------------|--------|--------|---------|--------|--------|
| Site | 21311 | 21312 | 21313 | 21314 | 21315 |
| Carinoma tremaphoros | 0.0477 | | 0.0136 | | 0.1636 |
| Cyathura polita | | | 0.1113 | 0.1295 | |
| Eteone heteropoda | | | 0.0068 | | |
| Heteromastus filiformis | | 0.0182 | 0.0318 | | |
| Leptocheirus plumulosus | | | 0.0477 | 0.1250 | |
| Littoridinops tenuipes (Epi.) | | 0.0477 | | | |
| Macoma balthica | 6.9591 | 0.0727 | 15.6586 | | |
| Macoma mitchelli | 0.2636 | 0.0364 | 0.0250 | 0.4567 | |
| Marenzelleria viridis | | 0.0227 | 0.1000 | | |
| Melita nitida (Epi.) | | | | 0.0341 | |
| Micrura leidyi | | 0.0023 | | | |
| Mytilopsis leucophaeata (Epi.) | | 0.0023 | | | 0.0011 |
| Neanthes succinea | 0.1204 | | 0.9792 | | 0.0182 |
| Polydora cornuta | | | 0.0023 | | |
| Rangia cuneata | | 0.1727 | 4.9825 | 2.1357 | |
| Streblospio benedicti | 0.0091 | | 0.0295 | | 0.0273 |
| Tubificidae imm w/o cap chaetae | | | 0.0011 | | |
| Tubificoides spp. | 0.0045 | 0.0023 | 0.0091 | 0.0023 | 0.0045 |
| Total Biomass w/ Epifauna | 7.4044 | 0.3772 | 21.9986 | 2.8854 | 0.2147 |
| Total Biomass w/o Epifauna | 7.4044 | 0.3272 | 21.9986 | 2.8832 | 0.2136 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21316 | 21317 | 21318 | 21319 | 21320 | | | | | |
|------------------------------------|----------------|---------------|---------------|----------------|---------------|-------|------------|-------|------------|-------|
| Watershed | Western Tribs | Western Tribs | Western Tribs | Western Tribs | Western Tribs | | | | | |
| Habitat | High Meso Mud | Oligohaline | Oligohaline | Low Mesohaline | Oligohaline | | | | | |
| Date | 08/29/14 | 08/18/14 | 08/18/14 | 09/19/14 | 09/19/14 | | | | | |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab | | | | | |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 | | | | | |
| ===== | | | | | | | | | | |
| BOTTOM ENVIRONMENT | | | | | | | | | | |
| ===== | | | | | | | | | | |
| Depth (m) | 13.6 | 0.5 | 2.2 | 2.4 | 2.1 | | | | | |
| Salinity (ppt) | 14.52 | 2.14 | 2.57 | 5.42 | 3.38 | | | | | |
| Temperature (C) | 24.99 | 26.32 | 24.71 | 22.06 | 21.30 | | | | | |
| Dissolved Oxygen (mg/L) | 0.3 | 7.4 | 8.0 | 8.2 | 8.8 | | | | | |
| Sediment Silt-Clay (%) | 78.40 | 84.27 | 87.52 | 23.81 | 80.76 | | | | | |
| Total Carbon (%) | 4.42 | 2.60 | 1.72 | 0.62 | 1.70 | | | | | |
| ===== | | | | | | | | | | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | | | | | | |
| ===== | | | | | | | | | | |
| B-IBI Score | 1.67 | | 2.67 | | 3.67 | | 3.80 | | 3.33 | |
| Condition | Severely Degr. | | Marginal | | Meets Goal | | Meets Goal | | Meets Goal | |
| # Attributes Scored | 6 | | 6 | | 6 | | 5 | | 6 | |
| | Value | Score | Value | Score | Value | Score | Value | Score | Value | Score |
| Shannon-Wiener Index | 1.00 | 1 | 1.58 | | 0.92 | | 2.01 | 3 | 2.32 | |
| Abundance (#/m2) | 45 | 1 | 636 | 5 | 841 | 5 | 5271 | 3 | 1568 | 5 |
| Biomass (g/m2) | 0.01 | 1 | 0.07 | | 0.52 | | 22.62 | 3 | 7.88 | |
| Pollution Indicative Spp Abund (%) | 0.00 | | 82.14 | | 0.00 | | 2.59 | 5 | 46.38 | |
| Pollution Indicative Spp Biom (%) | 0.00 | 5 | 66.67 | | 0.00 | | 0.28 | | 1.17 | |
| Pollution Sensitive Spp Abund (%) | 0.00 | | 3.57 | | 16.22 | | 28.02 | | 31.88 | |
| Pollution Sensitive Spp Biom (%) | 0.00 | 1 | 12.70 | | 71.77 | | 99.15 | 5 | 98.41 | |
| Carnivore-Omnivore Abund (%) | 0.00 | 1 | 7.14 | 1 | 16.22 | 3 | 5.17 | | 50.72 | 5 |
| Deep Deposit Feeder Abund (%) | 100.00 | | 78.57 | | 0.00 | | 54.31 | | 7.25 | |
| TF Poll. Indicative Spp Abund (%) | 0.00 | | 0.00 | | 0.00 | | 0.00 | | 0.00 | |
| Limnodrilus Abundance (%) | 0.00 | | 78.57 | | 0.00 | | 0.43 | | 0.00 | |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | | 89.29 | 3 | 81.08 | 3 | 0.00 | | 68.12 | 3 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | | 3.57 | 3 | 2.70 | 3 | 0.00 | | 18.84 | 3 |
| Tolerance Score | 0.00 | | 9.66 | 1 | 7.30 | 3 | 6.14 | | 6.18 | 3 |
| Tany./Chir. Abundance Ratio | 0.00 | | 50.00 | 3 | 0.00 | 5 | 100.00 | | 100.00 | 1 |
| ===== | | | | | | | | | | |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
|---------------------------------------|--------|--------|--------|---------|--------|
| Site | 21316 | 21317 | 21318 | 21319 | 21320 |
| Apocorophium lacustre (Epi.) | | | | 68 | |
| Carinoma tremaphoros | | | | 23 | |
| Coelotanypus spp. | | 23 | | 68 | 682 |
| Cricotopus sylvestris | | 23 | | | |
| Cryptochironomus spp. | | | 23 | | |
| Cyathura polita | | | 114 | 182 | 114 |
| Heteromastus filiformis | 23 | | | | |
| Hobsonia florida | | 23 | | | |
| Leptocheirus plumulosus | | 45 | 682 | 795 | 227 |
| Limnodrilus hoffmeisteri | | 45 | | | |
| Marenzelleria viridis | | 23 | 23 | 659 | 295 |
| Rangia cuneata | | | | 636 | 91 |
| Streblospio benedicti | | | | 45 | 45 |
| Tubificidae imm w/o cap chaetae | | | | 23 | |
| Tubificidae imm w/o cap chaetae * | | 454 | | | |
| Tubificoides spp. | 23 | | | 2840 | 114 |
| Total Abundance w/ Epifauna | 45 | 636 | 841 | 5339 | 1568 |
| Total Abundance w/o Epifauna | 45 | 636 | 841 | 5271 | 1568 |
| Number of Taxa w/ Epifauna | 2 | 6 | 4 | 10 | 7 |
| Number of Taxa w/o Epifauna | 2 | 6 | 4 | 9 | 7 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 21316 | 21317 | 21318 | 21319 | 21320 |
| Apocorophium lacustre (Epi.) | | | | 0.0159 | |
| Carinoma tremaphoros | | | | 0.0068 | |
| Coelotanypus spp. | | 0.0091 | | 0.0295 | 0.0909 |
| Cricotopus sylvestris | | 0.0011 | | | |
| Cryptochironomus spp. | | | 0.0011 | | |
| Cyathura polita | | | 0.3522 | 0.0613 | 0.1954 |
| Heteromastus filiformis | 0.0068 | | | | |
| Hobsonia florida | | 0.0045 | | | |
| Leptocheirus plumulosus | | 0.0091 | 0.1454 | 0.1091 | 0.0318 |
| Marenzelleria viridis | | 0.0091 | 0.0204 | 0.6452 | 0.4726 |
| Oligochaeta | | 0.0386 | | | |
| Rangia cuneata | | | | 21.7249 | 7.0886 |
| Streblospio benedicti | | | | 0.0318 | 0.0011 |
| Tubificidae imm w/o cap chaetae | | | | 0.0011 | |
| Tubificoides spp. | 0.0023 | | | 0.0136 | 0.0011 |
| Total Biomass w/ Epifauna | 0.0091 | 0.0716 | 0.5192 | 22.6393 | 7.8816 |
| Total Biomass w/o Epifauna | 0.0091 | 0.0716 | 0.5192 | 22.6234 | 7.8816 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21321 | 21322 | 21323 | 21324 | 21325 |
|--|---------------|---------------|---------------|---------------|----------------|
| Watershed | Western Tribs | Western Tribs | Western Tribs | Western Tribs | Western Tribs |
| Habitat | Oligohaline | Oligohaline | Oligohaline | Oligohaline | Freshwater |
| Date | 09/19/14 | 09/19/14 | 08/19/14 | 09/19/14 | 08/19/14 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 1.6 | 2.2 | 0.5 | 0.9 | 0.6 |
| Salinity (ppt) | 3.48 | 3.54 | 1.69 | 2.83 | 0.19 |
| Temperature (C) | 21.33 | 21.79 | 25.93 | 21.47 | 26.23 |
| Dissolved Oxygen (mg/L) | 8.6 | 8.5 | 8.4 | 9.8 | 11.0 |
| Sediment Silt-Clay (%) | 78.01 | 85.95 | 93.63 | 91.39 | 66.08 |
| Total Carbon (%) | 1.96 | 1.54 | 3.45 | 1.67 | 1.94 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 3.00 | 2.67 | 3.67 | 3.33 | 2.00 |
| Condition | Meets Goal | Marginal | Meets Goal | Meets Goal | Severely Degr. |
| # Attributes Scored | 6 | 6 | 6 | 6 | 4 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 2.36 | 2.73 | 2.05 | 2.40 | 2.46 |
| Abundance (#/m2) | 273 3 | 204 3 | 841 5 | 613 5 | 454 1 |
| Biomass (g/m2) | 7.53 | 4.16 | 0.31 | 0.35 | 0.56 |
| Pollution Indicative Spp Abund (%) | 41.67 | 11.11 | 67.57 | 59.26 | 75.00 |
| Pollution Indicative Spp Biom (%) | 0.17 | 0.11 | 54.98 | 29.26 | 5.49 |
| Pollution Sensitive Spp Abund (%) | 50.00 | 44.44 | 2.70 | 22.22 | 10.00 |
| Pollution Sensitive Spp Biom (%) | 99.77 | 96.80 | 3.69 | 64.95 | 74.19 |
| Carnivore-Omnivore Abund (%) | 58.33 5 | 33.33 3 | 64.86 5 | 40.74 5 | 20.00 |
| Deep Deposit Feeder Abund (%) | 0.00 | 22.22 | 5.41 | 33.33 | 75.00 1 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 60.00 3 |
| Limnodrilus Abundance (%) | 0.00 | 0.00 | 5.41 | 18.52 | 65.00 |
| Oligo Poll. Indic. Spp Abund (%) | 50.00 3 | 44.44 3 | 94.59 3 | 77.78 3 | 0.00 |
| Oligo Poll. Sens. Spp Abund (%) | 25.00 3 | 11.11 3 | 2.70 3 | 22.22 3 | 0.00 |
| Tolerance Score | 6.66 3 | 6.07 3 | 8.41 3 | 7.64 3 | 9.07 3 |
| Tany./Chir. Abundance Ratio | 80.00 1 | 100.00 1 | 39.13 3 | 90.00 1 | 66.67 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| Site | 21321 | 21322 | 21323 | 21324 | 21325 |
| Branchiura sowerbyi | | | | | 45 |
| Carinoma tremaphoros | | 23 | | | |
| Ceratopogonidae | | | 23 | | |
| Chironomus spp. | 23 | | 318 | 23 | 23 |
| Coelotanypus spp. | 91 | 23 | 204 | 204 | 45 |
| Cyathura polita | 23 | 23 | | | 23 |
| Eteone heteropoda | | | | 23 | |
| Hirudinea (Epi.) | | | | | 45 |
| Leptocheirus plumulosus | | 23 | 227 | 23 | |
| Limnodrilus hoffmeisteri | | | 45 | | 68 |
| Limnodrilus udekemianus | | | | | 23 |
| Marenzelleria viridis | 68 | 23 | 23 | 136 | |
| Neanthes succinea | 23 | | | | |
| Rangia cuneata | 45 | 45 | | | 23 |
| Tubificidae imm w/o cap chaetae | | | | 114 | |
| Tubificidae imm w/o cap chaetae * | | | | | 204 |
| Tubificoides spp. | | 45 | | 91 | |
| Total Abundance w/ Epifauna | 273 | 204 | 841 | 613 | 500 |
| Total Abundance w/o Epifauna | 273 | 204 | 841 | 613 | 454 |
| Number of Taxa w/ Epifauna | 6 | 7 | 6 | 7 | 8 |
| Number of Taxa w/o Epifauna | 6 | 7 | 6 | 7 | 7 |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
|---------------------------------------|--------|--------|--------|--------|--------|
| Site | 21321 | 21322 | 21323 | 21324 | 21325 |
| Branchiura sowerbyi | | | | | 0.1136 |
| Carinoma tremaphoros | | 0.1227 | | | |
| Ceratopogonidae | | | 0.0091 | | |
| Chironomus spp. | 0.0011 | | 0.1431 | 0.0454 | 0.0273 |
| Coelotanypus spp. | 0.0114 | 0.0045 | 0.0250 | 0.0545 | 0.0023 |
| Cyathura polita | 0.0068 | 0.1386 | | | 0.0011 |
| Eteone heteropoda | | | | 0.0023 | |
| Hirudinea (Epi.) | | | | | 0.0227 |
| Leptocheirus plumulosus | | 0.0045 | 0.1181 | 0.0182 | |
| Limnodrilus hoffmeisteri | | | 0.0011 | | |
| Marenzelleria viridis | 0.1749 | 0.0182 | 0.0114 | 0.2295 | |
| Neanthes succinea | 0.0045 | | | | |
| Oligochaeta | | | | | 0.0011 |
| Rangia cuneata | 7.3340 | 3.8669 | | | 0.4135 |
| Tubificidae imm w/o cap chaetae | | | | 0.0011 | |
| Tubificoides spp. | | 0.0011 | | 0.0023 | |
| Total Biomass w/ Epifauna | 7.5328 | 4.1566 | 0.3079 | 0.3533 | 0.5816 |
| Total Biomass w/o Epifauna | 7.5328 | 4.1566 | 0.3079 | 0.3533 | 0.5589 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21101 | 21102 | 21103 | 21104 | 21105 |
|------------------------------------|----------------|----------------|----------------|----------------|----------------|
| Watershed | Potomac R | Potomac R | Potomac R | Potomac R | Potomac R |
| Habitat | Low Mesohaline | Low Mesohaline | High Meso Mud | High Meso Mud | High Meso Mud |
| Date | 08/21/14 | 08/21/14 | 08/21/14 | 08/21/14 | 08/21/14 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 7.6 | 9.7 | 12.8 | 14.0 | 17.8 |
| Salinity (ppt) | 10.04 | 11.20 | 13.11 | 14.07 | 14.14 |
| Temperature (C) | 25.45 | 25.39 | 25.01 | 24.97 | 24.92 |
| Dissolved Oxygen (mg/L) | 4.7 | 1.5 | 0.2 | 0.3 | 0.2 |
| Sediment Silt-Clay (%) | 1.76 | 79.56 | 92.61 | 84.42 | 89.27 |
| Total Carbon (%) | 0.04 | 3.19 | 3.43 | 3.47 | 4.00 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 2.60 | 1.80 | 1.00 | 1.00 | 1.00 |
| Condition | Degraded | Severely Degr. | Severely Degr. | Severely Degr. | Severely Degr. |
| # Attributes Scored | 5 | 5 | 6 | 6 | 6 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 2.90 5 | 0.00 1 | 0.00 1 | 0.00 1 | 0.00 1 |
| Abundance (#/m2) | 1749 5 | 23 1 | 23 1 | 0 1 | 0 1 |
| Biomass (g/m2) | 0.88 1 | 0.00 1 | 0.00 1 | 0.00 1 | 0.00 1 |
| Pollution Indicative Spp Abund (%) | 28.57 1 | 0.00 5 | 100.00 1 | 100.00 1 | 100.00 1 |
| Pollution Indicative Spp Biom (%) | 47.23 | 0.00 | 100.00 1 | 100.00 1 | 100.00 1 |
| Pollution Sensitive Spp Abund (%) | 10.39 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pollution Sensitive Spp Biom (%) | 4.13 1 | 0.00 1 | 0.00 1 | 0.00 1 | 0.00 1 |
| Carnivore-Omnivore Abund (%) | 22.08 | 0.00 | 0.00 1 | 0.00 1 | 0.00 1 |
| Deep Deposit Feeder Abund (%) | 36.36 | 100.00 | 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 . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
|---------------------------------------|--------|--------|--------|--------|--------|
| Site | 21101 | 21102 | 21103 | 21104 | 21105 |
| <i>Acteocina canaliculata</i> | 91 | | | | |
| <i>Glycinde solitaria</i> | 23 | | | | |
| <i>Heteromastus filiformis</i> | 204 | | | | |
| <i>Leitoscoloplos robustus</i> | 23 | | | | |
| <i>Lyonsia hyalina</i> | 23 | | | | |
| <i>Macoma mitchelli</i> | 91 | | | | |
| <i>Micrura leidyi</i> | 23 | | | | |
| <i>Mulinia lateralis</i> | 477 | | | | |
| <i>Parvilucina crenella</i> | 68 | | | | |
| <i>Pectinaria gouldii</i> | 409 | 23 | | | |
| <i>Phoronis spp.</i> | 68 | | | | |
| <i>Rictaxis punctostriatus</i> | 250 | | | | |
| <i>Streblospio benedicti</i> | | | 23 | | |
| Total Abundance w/ Epifauna | 1749 | 23 | 23 | 0 | 0 |
| Total Abundance w/o Epifauna | 1749 | 23 | 23 | | |
| Number of Taxa w/ Epifauna | 12 | 1 | 1 | 0 | 0 |
| Number of Taxa w/o Epifauna | 12 | 1 | 1 | 0 | 0 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 21101 | 21102 | 21103 | 21104 | 21105 |
| <i>Acteocina canaliculata</i> | 0.0227 | | | | |
| <i>Glycinde solitaria</i> | 0.0023 | | | | |
| <i>Heteromastus filiformis</i> | 0.0432 | | | | |
| <i>Leitoscoloplos robustus</i> | 0.1000 | | | | |
| <i>Lyonsia hyalina</i> | 0.0011 | | | | |
| <i>Macoma mitchelli</i> | 0.0045 | | | | |
| <i>Micrura leidyi</i> | 0.0545 | | | | |
| <i>Mulinia lateralis</i> | 0.3158 | | | | |
| <i>Parvilucina crenella</i> | 0.2681 | | | | |
| <i>Pectinaria gouldii</i> | 0.0454 | 0.0023 | | | |
| <i>Phoronis spp.</i> | 0.0114 | | | | |
| <i>Rictaxis punctostriatus</i> | 0.0114 | | | | |
| <i>Streblospio benedicti</i> | | | 0.0023 | | |
| Total Biomass w/ Epifauna | 0.8804 | 0.0023 | 0.0023 | 0.0000 | 0.0000 |
| Total Biomass w/o Epifauna | 0.8804 | 0.0023 | 0.0023 | 0.0000 | 0.0000 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21107 | 21108 | 21109 | 21110 | 21111 |
|------------------------------------|----------------|----------------|----------------|----------------|----------------|
| Watershed | Potomac R | Potomac R | Potomac R | Potomac R | Potomac R |
| Habitat | Low Mesohaline | Low Mesohaline | High Meso Mud | Oligohaline | Low Mesohaline |
| Date | 08/21/14 | 08/21/14 | 08/21/14 | 08/21/14 | 08/21/14 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 7.4 | 3.9 | 14.9 | 14.2 | 6.9 |
| Salinity (ppt) | 9.83 | 9.76 | 12.27 | 4.02 | 6.58 |
| Temperature (C) | 25.87 | 26.43 | 24.99 | 25.14 | 25.52 |
| Dissolved Oxygen (mg/L) | 5.1 | 5.5 | 0.2 | 0.4 | 2.2 |
| Sediment Silt-Clay (%) | 2.29 | 20.03 | 46.20 | 73.91 | 84.32 |
| Total Carbon (%) | 0.09 | 0.71 | 1.48 | 2.44 | 2.49 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 2.60 | 2.20 | 1.00 | 1.00 | 1.00 |
| Condition | Degraded | Degraded | Severely Degr. | Severely Degr. | Severely Degr. |
| # Attributes Scored | 5 | 5 | 6 | 4 | 5 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 2.48 3 | 2.91 5 | 0.00 1 | 0.00 1 | 0.00 1 |
| Abundance (#/m2) | 1204 3 | 3317 3 | 0 1 | 0 1 | 0 1 |
| Biomass (g/m2) | 0.54 1 | 0.83 1 | 0.00 1 | 0.00 1 | 0.00 1 |
| Pollution Indicative Spp Abund (%) | 0.00 5 | 30.82 1 | 100.00 1 | 100.00 1 | 100.00 1 |
| Pollution Indicative Spp Biom (%) | 0.00 | 13.88 | 100.00 1 | 100.00 | 100.00 |
| Pollution Sensitive Spp Abund (%) | 24.53 | 3.42 | 0.00 | 0.00 | 0.00 |
| Pollution Sensitive Spp Biom (%) | 12.24 1 | 2.72 1 | 0.00 1 | 0.00 1 | 0.00 1 |
| Carnivore-Omnivore Abund (%) | 67.92 | 54.11 | 0.00 1 | 0.00 1 | 0.00 |
| Deep Deposit Feeder Abund (%) | 22.64 | 8.90 | 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 | 100.00 1 | 0.00 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 1 | 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 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| Site | 21107 | 21108 | 21109 | 21110 | 21111 |
| Acteocina canaliculata | 68 | 23 | | | |
| Americamysis bigelowi (Epi.) | | 23 | | | |
| Chironomus spp. | | 636 | | | |
| Edotea triloba (Epi.) | | 68 | | | |
| Gemma gemma | 23 | 613 | | | |
| Glycera dibranchiata | 23 | | | | |
| Glycinde solitaria | 204 | 91 | | | |
| Heteromastus filiformis | | 91 | | | |
| Littoridinops tenuipes (Epi.) | | 409 | | | |
| Macoma mitchelli | | 227 | | | |
| Micrura leidy | | 23 | | | |
| Mulinia lateralis | | 91 | | | |
| Neanthes succinea | 68 | 45 | | | |
| Parvilucina crenella | 68 | | | | |
| Pectinaria gouldii | 273 | 159 | | | |
| Rictaxis punctostriatus | 454 | 977 | | | |
| Spiochaetopterus costarum | 23 | | | | |
| Streblospio benedicti | | 295 | | | |
| Tubificoides spp. | | 45 | | | |
| Total Abundance w/ Epifauna | 1204 | 3817 | 0 | 0 | 0 |
| Total Abundance w/o Epifauna | 1204 | 3317 | | | |
| Number of Taxa w/ Epifauna | 9 | 16 | 0 | 0 | 0 |
| Number of Taxa w/o Epifauna | 9 | 13 | 0 | 0 | 0 |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
|---------------------------------------|--------|--------|--------|--------|--------|
| Site | 21107 | 21108 | 21109 | 21110 | 21111 |
| <i>Acteocina canaliculata</i> | 0.0295 | 0.0045 | | | |
| <i>Americamysis bigelowi</i> (Epi.) | | 0.0023 | | | |
| <i>Chironomus</i> spp. | | 0.0932 | | | |
| <i>Edotea triloba</i> (Epi.) | | 0.0136 | | | |
| <i>Gemma gemma</i> | 0.0023 | 0.0295 | | | |
| <i>Glycera dibranchiata</i> | 0.0454 | | | | |
| <i>Glycinde solitaria</i> | 0.0227 | 0.0182 | | | |
| <i>Heteromastus filiformis</i> | | 0.1522 | | | |
| <i>Littoridinops tenuipes</i> (Epi.) | | 0.0159 | | | |
| <i>Macoma mitchelli</i> | | 0.0545 | | | |
| <i>Micrura leidyi</i> | | 0.3885 | | | |
| <i>Mulinia lateralis</i> | | 0.0114 | | | |
| <i>Neanthes succinea</i> | 0.0136 | 0.0364 | | | |
| <i>Parvilucina crenella</i> | 0.3885 | | | | |
| <i>Pectinaria gouldii</i> | 0.0136 | 0.0159 | | | |
| <i>Rictaxis punctostriatus</i> | 0.0091 | 0.0182 | | | |
| <i>Spiochaetopterus costarum</i> | 0.0136 | | | | |
| <i>Streblospio benedicti</i> | | 0.0114 | | | |
| <i>Tubificoides</i> spp. | | 0.0011 | | | |
| Total Biomass w/ Epifauna | 0.5385 | 0.8668 | 0.0000 | 0.0000 | 0.0000 |
| Total Biomass w/o Epifauna | 0.5385 | 0.8350 | 0.0000 | 0.0000 | 0.0000 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21112 | 21113 | 21114 | 21115 | 21116 |
|--|-------------|----------------|----------------|----------------|----------------|
| Watershed | Potomac R | Potomac R | Potomac R | Potomac R | Potomac R |
| Habitat | Oligohaline | Oligohaline | Oligohaline | Oligohaline | Oligohaline |
| Date | 08/21/14 | 08/21/14 | 08/21/14 | 08/21/14 | 08/21/14 |
| 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 | 17.2 | 8.1 | 6.5 | 7.2 |
| Salinity (ppt) | 4.37 | 4.02 | 2.90 | 1.81 | 2.46 |
| Temperature (C) | 25.52 | 25.09 | 25.54 | 25.66 | 25.40 |
| Dissolved Oxygen (mg/L) | 1.6 | 0.2 | 0.9 | 1.7 | 0.6 |
| Sediment Silt-Clay (%) | 83.18 | 91.13 | 88.07 | 95.95 | 96.19 |
| Total Carbon (%) | 2.62 | 2.30 | 3.01 | 2.60 | 2.57 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 3.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Condition | Meets Goal | Severely Degr. | Severely Degr. | Severely Degr. | Severely Degr. |
| # Attributes Scored | 4 | 4 | 4 | 4 | 4 |
| | Value | Score | Value | Score | Value |
| Shannon-Wiener Index | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Abundance (#/m2) | 23 | 1 | 0 | 1 | 0 |
| Biomass (g/m2) | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pollution Indicative Spp Abund (%) | 0.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Pollution Indicative Spp Biom (%) | 0.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Pollution Sensitive Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pollution Sensitive Spp Biom (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Carnivore-Omnivore Abund (%) | 100.00 | 5 | 0.00 | 1 | 0.00 |
| Deep Deposit Feeder Abund (%) | 0.00 | 0.00 | 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 | 5 | 100.00 | 1 | 100.00 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | 1 | 0.00 | 1 | 0.00 |
| Tolerance Score | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tany./Chir. Abundance Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| Site | 21112 | 21113 | 21114 | 21115 | 21116 |
| Micrura leidyi | 23 | | | | |
| Total Abundance w/ Epifauna | 23 | 0 | 0 | 0 | 0 |
| Total Abundance w/o Epifauna | 23 | | | | |
| Number of Taxa w/ Epifauna | 1 | 0 | 0 | 0 | 0 |
| Number of Taxa w/o Epifauna | 1 | 0 | 0 | 0 | 0 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 21112 | 21113 | 21114 | 21115 | 21116 |
| Micrura leidyi | 0.0204 | | | | |
| Total Biomass w/ Epifauna | 0.0204 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total Biomass w/o Epifauna | 0.0204 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21117 | 21118 | 21120 | 21121 | 21122 |
|--|----------------|----------------|-------------|----------------|-------------|
| Watershed | Potomac R | Potomac R | Potomac R | Potomac R | Potomac R |
| Habitat | Low Mesohaline | Oligohaline | Oligohaline | Low Mesohaline | Oligohaline |
| Date | 09/15/14 | 08/21/14 | 09/03/14 | 09/15/14 | 09/03/14 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 1.4 | 5.8 | 3.4 | 2.3 | 5.5 |
| Salinity (ppt) | 6.70 | 3.11 | 1.41 | 7.47 | 1.83 |
| Temperature (C) | 24.26 | 25.92 | 27.94 | 22.96 | 27.52 |
| Dissolved Oxygen (mg/L) | 7.7 | 4.3 | 6.4 | 7.2 | 6.2 |
| Sediment Silt-Clay (%) | 2.12 | 95.26 | 68.48 | 37.99 | 94.10 |
| Total Carbon (%) | 0.10 | 2.40 | 2.23 | 0.83 | 2.69 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 2.60 | 2.00 | 4.00 | 3.80 | 3.80 |
| Condition | Degraded | Severely Degr. | Meets Goal | Meets Goal | Meets Goal |
| # Attributes Scored | 5 | 4 | 6 | 5 | 5 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 1.85 3 | 0.80 | 2.47 | 2.40 3 | 1.60 |
| Abundance (#/m2) | 1454 3 | 409 3 | 772 5 | 932 3 | 1159 5 |
| Biomass (g/m2) | 0.57 1 | 0.51 | 40.28 | 3.46 3 | 165.87 |
| Pollution Indicative Spp Abund (%) | 3.13 5 | 83.33 | 14.71 | 7.32 5 | 0.00 |
| Pollution Indicative Spp Biom (%) | 2.41 | 1.35 | 0.05 | 0.20 | 0.00 |
| Pollution Sensitive Spp Abund (%) | 1.56 | 11.11 | 58.82 | 53.66 | 90.20 |
| Pollution Sensitive Spp Biom (%) | 1.61 1 | 98.21 | 99.84 | 85.10 5 | 99.98 |
| Carnivore-Omnivore Abund (%) | 3.13 | 5.56 1 | 41.18 5 | 24.39 | 9.80 1 |
| Deep Deposit Feeder Abund (%) | 1.56 | 0.00 | 2.94 | 31.71 | 0.00 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Limnodrilus Abundance (%) | 0.00 | 0.00 | 2.94 | 0.00 | 0.00 |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | 83.33 3 | 23.53 5 | 0.00 | 7.84 5 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | 0.00 1 | 38.24 5 | 0.00 | 60.78 5 |
| Tolerance Score | 0.00 | 0.00 | 7.40 3 | 6.20 | 6.21 3 |
| Tany./Chir. Abundance Ratio | 0.00 | 0.00 | 100.00 1 | 100.00 | 0.00 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| Site | 21117 | 21118 | 21120 | 21121 | 21122 |
| Ameroculodes species complex | 45 | | | | |
| Apocorophium lacustre (Epi.) | | | | | 45 |
| Chaoborus punctipennis | | | 136 | | 23 |
| Coelotanypus spp. | | | 91 | | |
| Cyathura polita | | | 91 | 182 | 91 |
| Eteone heteropoda | 23 | | | | |
| Gammarus daiberi (Epi.) | | | | | 45 |
| Laeonereis culveri | 23 | | | | |
| Leitoscoloplos spp. | 23 | | | | |
| Lepidactylus dytiscus | 727 | | | | |
| Leptocheirus plumulosus | 477 | | 68 | 45 | 91 |
| Limnodrilus hoffmeisteri | | | 23 | | |
| Macoma balthica | | 45 | | 273 | |
| Macoma mitchelli | 114 | | | | |
| Marenzelleria viridis | 23 | | 295 | 45 | 704 |
| Melita nitida (Epi.) | | | 23 | 23 | 45 |
| Micrura leidy | | 23 | | | |
| Mytilopsis leucophaeata (Epi.) | | | | | 23 |
| Neanthes succinea | | | | 23 | |
| Rangia cuneata | | | 68 | | 250 |
| Streblospio benedicti | | 341 | | 45 | |
| Tubificoides spp. | | | | 295 | |
| Total Abundance w/ Epifauna | 1454 | 409 | 795 | 954 | 1318 |
| Total Abundance w/o Epifauna | 1454 | 409 | 772 | 932 | 1159 |
| Number of Taxa w/ Epifauna | 8 | 3 | 8 | 9 | 9 |
| Number of Taxa w/o Epifauna | 8 | 3 | 7 | 8 | 5 |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
|---------------------------------------|--------|--------|---------|--------|----------|
| Site | 21117 | 21118 | 21120 | 21121 | 21122 |
| Ameroculodes species complex | 0.0068 | | | | |
| Apocorophium lacustre (Epi.) | | | | | 0.0023 |
| Chaoborus punctipennis | | | 0.0068 | | 0.0045 |
| Coelotanypus spp. | | | 0.0204 | 0.0023 | |
| Cyathura polita | | | 0.2249 | 0.3181 | 0.1590 |
| Eteone heteropoda | 0.0091 | | | | |
| Gammarus daiberi (Epi.) | | | | | 0.0114 |
| Laeonereis culveri | 0.0500 | | | | |
| Leitoscoloplos spp. | 0.0045 | | | | |
| Lepidactylus dytiscus | 0.2022 | | | | |
| Leptocheirus plumulosus | 0.0954 | | 0.0341 | 0.0159 | 0.0227 |
| Limnodrilus hoffmeisteri | | | 0.0011 | | |
| Macoma balthica | | 0.4976 | | 2.4038 | |
| Macoma mitchelli | 0.1886 | | | | |
| Marenzelleria viridis | 0.0091 | | 0.3499 | 0.2249 | 1.3564 |
| Melita nitida (Epi.) | | | 0.0011 | 0.0023 | 0.0011 |
| Micrura leidyi | | 0.0023 | | | |
| Mytilopsis leucophaeata (Epi.) | | | | | 0.0045 |
| Neanthes succinea | | | | 0.4908 | |
| Rangia cuneata | | | 39.6441 | | 164.3269 |
| Streblospio benedicti | | 0.0068 | | 0.0045 | |
| Tubificoides spp. | | | | 0.0023 | |
| Total Biomass w/ Epifauna | 0.5657 | 0.5067 | 40.2826 | 3.4648 | 165.8889 |
| Total Biomass w/o Epifauna | 0.5657 | 0.5067 | 40.2814 | 3.4625 | 165.8696 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21123 | 21124 | 21125 | 21126 | 21127 | | | | | |
|--|-------------|------------|------------|----------------|----------------|-------|----------------|-------|------------|-------|
| Watershed | Potomac R | Potomac R | Potomac R | Potomac R | Potomac R | | | | | |
| Habitat | Oligohaline | Freshwater | Freshwater | Low Mesohaline | Low Mesohaline | | | | | |
| Date | 09/03/14 | 09/03/14 | 09/10/14 | 08/21/14 | 09/03/14 | | | | | |
| 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 | 3.6 | 2.7 | 7.9 | 3.1 | | | | | |
| Salinity (ppt) | 1.98 | 0.45 | 0.21 | 10.00 | 5.70 | | | | | |
| Temperature (C) | 27.64 | 27.35 | 25.24 | 25.45 | 27.85 | | | | | |
| Dissolved Oxygen (mg/L) | 6.7 | 6.8 | 6.4 | 1.0 | 6.2 | | | | | |
| Sediment Silt-Clay (%) | 85.11 | 79.90 | 90.15 | 78.59 | 76.48 | | | | | |
| Total Carbon (%) | 2.59 | 2.31 | 2.47 | 2.59 | 1.38 | | | | | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | | | | | | |
| B-IBI Score | 3.67 | | 2.50 | | 3.00 | | 1.00 | | 3.00 | |
| Condition | Meets Goal | | Degraded | | Meets Goal | | Severely Degr. | | Meets Goal | |
| # Attributes Scored | 6 | | 4 | | 4 | | 5 | | 5 | |
| | Value | Score | Value | Score | Value | Score | Value | Score | Value | Score |
| Shannon-Wiener Index | 1.71 | | 2.24 | | 2.05 | | 0.00 | 1 | 2.46 | 3 |
| Abundance (#/m2) | 682 | 5 | 500 | 1 | 2340 | 5 | 23 | 1 | 1295 | 3 |
| Biomass (g/m2) | 76.72 | | 84.81 | | 0.79 | | 0.00 | 1 | 1.05 | 3 |
| Pollution Indicative Spp Abund (%) | 13.33 | | 27.27 | | 77.67 | | 100.00 | 1 | 12.28 | 3 |
| Pollution Indicative Spp Biom (%) | 0.02 | | 0.01 | | 45.34 | | 100.00 | | 0.65 | |
| Pollution Sensitive Spp Abund (%) | 86.67 | | 59.09 | | 0.00 | | 0.00 | | 8.77 | |
| Pollution Sensitive Spp Biom (%) | 99.98 | | 99.99 | | 0.00 | | 0.00 | 1 | 77.85 | 3 |
| Carnivore-Omnivore Abund (%) | 16.67 | 3 | 27.27 | | 2.91 | | 0.00 | | 5.26 | |
| Deep Deposit Feeder Abund (%) | 3.33 | | 13.64 | 1 | 92.23 | 3 | 0.00 | | 36.84 | |
| TF Poll. Indicative Spp Abund (%) | 0.00 | | 13.64 | 5 | 75.73 | 3 | 0.00 | | 0.00 | |
| Limnodrilus Abundance (%) | 3.33 | | 13.64 | | 82.52 | | 0.00 | | 0.00 | |
| Oligo Poll. Indic. Spp Abund (%) | 13.33 | 5 | 0.00 | | 0.00 | | 0.00 | | 0.00 | |
| Oligo Poll. Sens. Spp Abund (%) | 56.67 | 5 | 0.00 | | 0.00 | | 0.00 | | 0.00 | |
| Tolerance Score | 6.40 | 3 | 8.25 | 3 | 9.64 | 1 | 0.00 | | 0.00 | |
| Tany./Chir. Abundance Ratio | 100.00 | 1 | 80.00 | | 0.00 | | 0.00 | | 0.00 | |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
|-----------------------------------|-------|-------|-------|-------|-------|
| Site | 21123 | 21124 | 21125 | 21126 | 21127 |
| Apocorophium lacustre (Epi.) | 91 | | | | 818 |
| Branchiura sowerbyi | | | 227 | | |
| Chaoborus punctipennis | | 23 | | | |
| Chironomus spp. | | 23 | 23 | | |
| Coelotanypus spp. | 68 | 45 | | | |
| Cryptochironomus spp. | | | 23 | | |
| Cyathura polita | 45 | | | | 68 |
| Eteone heteropoda | | | 23 | | |
| Gammarus daiberi (Epi.) | 45 | | | | |
| Heteromastus filiformis | | | | | 91 |
| Leptocheirus plumulosus | | | | | 454 |
| Limnodrilus cervix | | | 159 | | |
| Limnodrilus hoffmeisteri | 23 | | 636 | | |
| Macoma balthica | | | | | 23 |
| Macoma mitchelli | | | | | 45 |
| Marenzelleria viridis | 386 | 250 | | | 23 |
| Melita nitida (Epi.) | | | | | 250 |
| Musculium transversum | | | 91 | | |
| Mytilopsis leucophaeata (Epi.) | 23 | | | | |
| Pisidium spp. | | | 23 | | |
| Polydora cornuta | | | | | 45 |
| Procladius spp. | | 45 | | | |
| Rangia cuneata | 159 | 45 | | | |
| Streblospio benedicti | | | | 23 | 159 |
| Tubificidae imm w/o cap chaetae | | 68 | | | |
| Tubificidae imm w/o cap chaetae * | | | 1136 | | |
| Tubificoides spp. | | | | | 386 |
| Total Abundance w/ Epifauna | 841 | 500 | 2340 | 23 | 2363 |
| Total Abundance w/o Epifauna | 682 | 500 | 2340 | 23 | 1295 |
| Number of Taxa w/ Epifauna | 8 | 7 | 8 | 1 | 11 |
| Number of Taxa w/o Epifauna | 5 | 7 | 8 | 1 | 9 |

| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
|---------------------------------------|--------|--------|--------|-------|--------|
| Site | 21123 | 21124 | 21125 | 21126 | 21127 |
| Apocorophium lacustre (Epi.) | 0.0045 | | | | 0.0613 |
| Branchiura sowerbyi | | | 0.4112 | | |
| Chaoborus punctipennis | | 0.0023 | | | |
| Chironomidae | | 0.0011 | 0.0011 | | |
| Coelotanypus spp. | 0.0114 | 0.0045 | | | |
| Cyathura polita | 0.0795 | | | | 0.0011 |
| Eteone heteropoda | | | 0.0091 | | |
| Gammarus daiberi (Epi.) | 0.0023 | | | | |
| Heteromastus filiformis | | | | | 0.0704 |
| Leptocheirus plumulosus | | | | | 0.1000 |
| Limnodrilus hoffmeisteri | 0.0068 | | | | |
| Macoma balthica | | | | | 0.8088 |
| Macoma mitchelli | | | | | 0.0454 |
| Marenzelleria viridis | 0.7952 | 0.1977 | | | 0.0045 |
| Melita nitida (Epi.) | | | | | 0.0114 |
| Musculium transversum | | | 0.0114 | | |
| Mytilopsis leucophaeata (Epi.) | 0.0023 | | | | |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC BIOMASS (Grams per sq. meter) - Contd. | | | | | |
|--|---------|---------|--------|--------|--------|
| Site | 21123 | 21124 | 21125 | 21126 | 21127 |
| Oligochaeta | | | 0.3460 | | |
| Pisidium spp. | | | 0.0068 | | |
| Polydora cornuta | | | | | 0.0023 |
| Rangia cuneata | 75.8257 | 84.6025 | | | |
| Streblospio benedicti | | | | 0.0023 | 0.0068 |
| Tubificidae imm w/o cap chaetae | | 0.0011 | | | |
| Tubificoides spp. | | | | | 0.0068 |
| Total Biomass w/ Epifauna | 76.7277 | 84.8092 | 0.7856 | 0.0023 | 1.1190 |
| Total Biomass w/o Epifauna | 76.7186 | 84.8092 | 0.7856 | 0.0023 | 1.0463 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21202 | 21203 | 21204 | 21205 | 21206 |
|--|----------------|----------------|----------------|----------------|----------------|
| Watershed | Patuxent R | Patuxent R | Patuxent R | Patuxent R | Patuxent R |
| Habitat | Oligohaline | Low Mesohaline | Low Mesohaline | Low Mesohaline | High Meso Mud |
| Date | 08/20/14 | 08/20/14 | 08/20/14 | 08/20/14 | 08/27/14 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 15.1 | 15.8 | 13.9 | 17.5 | 12.9 |
| Salinity (ppt) | 2.65 | 8.02 | 7.28 | 7.93 | 12.74 |
| Temperature (C) | 25.60 | 25.87 | 25.53 | 25.57 | 25.80 |
| Dissolved Oxygen (mg/L) | 4.4 | 4.6 | 2.9 | 4.5 | 4.1 |
| Sediment Silt-Clay (%) | 86.71 | 58.51 | 73.39 | 86.32 | 84.04 |
| Total Carbon (%) | 3.19 | 1.80 | 2.49 | 2.56 | 2.82 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 1.00 | 1.80 | 1.00 | 1.00 | 1.67 |
| Condition | Severely Degr. | Severely Degr. | Severely Degr. | Severely Degr. | Severely Degr. |
| # Attributes Scored | 4 | 5 | 5 | 5 | 6 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 0.00 | 1.00 | 1.50 | 0.00 | 0.00 |
| Abundance (#/m2) | 0 1 | 45 1 | 91 1 | 0 1 | 23 1 |
| Biomass (g/m2) | 0.00 | 0.08 | 0.30 | 0.00 | 0.15 |
| Pollution Indicative Spp Abund (%) | 100.00 | 0.00 | 25.00 | 100.00 | 0.00 |
| Pollution Indicative Spp Biom (%) | 100.00 | 0.00 | 19.85 | 100.00 | 0.00 |
| Pollution Sensitive Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pollution Sensitive Spp Biom (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Carnivore-Omnivore Abund (%) | 0.00 1 | 100.00 | 50.00 | 0.00 | 0.00 1 |
| Deep Deposit Feeder Abund (%) | 0.00 | 0.00 | 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 (%) | 100.00 1 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 1 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tolerance Score | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tany./Chir. Abundance Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| Site | 21202 | 21203 | 21204 | 21205 | 21206 |
| Carinoma tremaphoros | | 23 | | | |
| Macoma mitchelli | | | 23 | | 23 |
| Mulinia lateralis | | | 23 | | |
| Neanthes succinea | | 23 | 45 | | |
| Total Abundance w/ Epifauna | 0 | 45 | 91 | 0 | 23 |
| Total Abundance w/o Epifauna | | 45 | 91 | | 23 |
| Number of Taxa w/ Epifauna | 0 | 2 | 3 | 0 | 1 |
| Number of Taxa w/o Epifauna | 0 | 2 | 3 | 0 | 1 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 21202 | 21203 | 21204 | 21205 | 21206 |
| Carinoma tremaphoros | | 0.0568 | | | |
| Macoma mitchelli | | | 0.0932 | | 0.1545 |
| Mulinia lateralis | | | 0.0591 | | |
| Neanthes succinea | | 0.0204 | 0.1454 | | |
| Total Biomass w/ Epifauna | 0.0000 | 0.0772 | 0.2976 | 0.0000 | 0.1545 |
| Total Biomass w/o Epifauna | 0.0000 | 0.0772 | 0.2976 | 0.0000 | 0.1545 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21207 | 21208 | 21209 | 21210 | 21211 |
|------------------------------------|----------------|----------------|----------------|----------------|---------------|
| 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 Mud |
| Date | 08/27/14 | 08/27/14 | 08/27/14 | 08/27/14 | 08/27/14 |
| 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) | 10.0 | 13.6 | 13.6 | 4.4 | 3.5 |
| Salinity (ppt) | 12.46 | 12.79 | 12.82 | 12.57 | 12.16 |
| Temperature (C) | 25.91 | 25.80 | 25.80 | 25.97 | 25.99 |
| Dissolved Oxygen (mg/L) | 4.4 | 4.0 | 4.2 | 2.4 | 4.6 |
| Sediment Silt-Clay (%) | 83.35 | 87.57 | 86.39 | 72.09 | 50.62 |
| Total Carbon (%) | 2.80 | 3.85 | 3.88 | 3.76 | 2.36 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 1.00 | 1.00 | 1.67 | 2.00 | 3.00 |
| 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 | 0.99 1 | 2.69 3 |
| Abundance (#/m2) | 0 1 | 0 1 | 23 1 | 204 1 | 2726 3 |
| Biomass (g/m2) | 0.00 1 | 0.00 1 | 0.28 1 | 0.15 1 | 1.28 3 |
| Pollution Indicative Spp Abund (%) | 100.00 | 100.00 | 0.00 | 77.78 | 60.83 |
| Pollution Indicative Spp Biom (%) | 100.00 1 | 100.00 1 | 0.00 5 | 48.89 1 | 14.50 3 |
| Pollution Sensitive Spp Abund (%) | 0.00 | 0.00 | 0.00 | 11.11 | 0.83 |
| Pollution Sensitive Spp Biom (%) | 0.00 1 | 0.00 1 | 0.00 1 | 50.37 3 | 16.73 1 |
| Carnivore-Omnivore Abund (%) | 0.00 1 | 0.00 1 | 0.00 1 | 77.78 5 | 57.50 5 |
| Deep Deposit Feeder Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 21.67 |
| 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 | 8.33 |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tolerance Score | 0.00 | 0.00 | 0.00 | 9.80 | 9.80 |
| Tany./Chir. Abundance Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
|---------------------------------------|--------|--------|--------|--------|--------|
| Site | 21207 | 21208 | 21209 | 21210 | 21211 |
| Carinoma tremaphoros | | | | | 45 |
| Chironomus spp. | | | | 159 | 1181 |
| Edotea triloba (Epi.) | | | | | 23 |
| Heteromastus filiformis | | | | | 68 |
| Hobsonia florida | | | | | 45 |
| Leptocheirus plumulosus | | | | 23 | 23 |
| Macoma balthica | | | | 23 | 23 |
| Macoma mitchelli | | | 23 | | 227 |
| Mulinia lateralis | | | | | 23 |
| Neanthes succinea | | | | | 341 |
| Pectinaria gouldii | | | | | 23 |
| Streblospio benedicti | | | | | 227 |
| Tubificidae imm w/o cap chaetae | | | | | 227 |
| Tubificoides spp. | | | | | 273 |
| Total Abundance w/ Epifauna | 0 | 0 | 23 | 204 | 2749 |
| Total Abundance w/o Epifauna | | | 23 | 204 | 2726 |
| Number of Taxa w/ Epifauna | 0 | 0 | 1 | 3 | 14 |
| Number of Taxa w/o Epifauna | 0 | 0 | 1 | 3 | 13 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 21207 | 21208 | 21209 | 21210 | 21211 |
| Carinoma tremaphoros | | | | | 0.0182 |
| Chironomus spp. | | | | 0.0750 | 0.1636 |
| Edotea triloba (Epi.) | | | | | 0.0045 |
| Heteromastus filiformis | | | | | 0.0204 |
| Hobsonia florida | | | | | 0.0011 |
| Leptocheirus plumulosus | | | | 0.0011 | 0.0023 |
| Macoma balthica | | | | 0.0772 | 0.2136 |
| Macoma mitchelli | | | 0.2772 | | 0.0295 |
| Mulinia lateralis | | | | | 0.0091 |
| Neanthes succinea | | | | | 0.7952 |
| Pectinaria gouldii | | | | | 0.0091 |
| Streblospio benedicti | | | | | 0.0114 |
| Tubificidae imm w/o cap chaetae | | | | | 0.0011 |
| Tubificoides spp. | | | | | 0.0023 |
| Total Biomass w/ Epifauna | 0.0000 | 0.0000 | 0.2772 | 0.1534 | 1.2814 |
| Total Biomass w/o Epifauna | 0.0000 | 0.0000 | 0.2772 | 0.1534 | 1.2769 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21212 | 21213 | 21214 | 21215 | 21216 |
|--|----------------|----------------|----------------|---------------|----------------|
| Watershed | Patuxent R | Patuxent R | Patuxent R | Patuxent R | Patuxent R |
| Habitat | High Meso Mud | High Meso Sand | Low Mesohaline | High Meso Mud | Low Mesohaline |
| Date | 08/27/14 | 08/27/14 | 08/27/14 | 08/27/14 | 08/27/14 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 4.2 | 3.2 | 1.4 | 6.4 | 1.2 |
| Salinity (ppt) | 12.48 | 12.00 | 11.22 | 12.34 | 10.97 |
| Temperature (C) | 26.07 | 25.65 | 26.83 | 25.91 | 25.77 |
| Dissolved Oxygen (mg/L) | 1.5 | 6.9 | 7.4 | 1.9 | 6.6 |
| Sediment Silt-Clay (%) | 82.81 | 4.59 | 3.92 | 89.17 | 2.85 |
| Total Carbon (%) | 2.89 | 0.24 | 0.17 | 2.64 | 0.11 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 1.67 | 1.33 | 3.40 | 2.33 | 3.00 |
| Condition | Severely Degr. | Severely Degr. | Meets Goal | Degraded | Meets Goal |
| # Attributes Scored | 6 | 6 | 5 | 6 | 5 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 0.00 1 | 2.29 1 | 2.58 5 | 1.00 1 | 2.20 3 |
| Abundance (#/m2) | 45 1 | 886 1 | 1863 5 | 91 1 | 1659 5 |
| Biomass (g/m2) | 0.00 1 | 0.65 1 | 0.62 1 | 0.28 1 | 0.92 1 |
| Pollution Indicative Spp Abund (%) | 0.00 | 33.33 1 | 1.22 5 | 0.00 | 8.22 5 |
| Pollution Indicative Spp Biom (%) | 0.00 5 | 22.54 | 0.18 | 0.00 5 | 47.03 |
| Pollution Sensitive Spp Abund (%) | 0.00 | 7.69 1 | 9.76 | 0.00 | 8.22 |
| Pollution Sensitive Spp Biom (%) | 0.00 1 | 21.48 | 14.34 1 | 0.00 1 | 5.69 1 |
| Carnivore-Omnivore Abund (%) | 0.00 1 | 33.33 3 | 13.41 | 100.00 5 | 8.22 |
| Deep Deposit Feeder Abund (%) | 0.00 | 33.33 | 19.51 | 0.00 | 35.62 |
| 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 | 9.80 | 0.00 | 0.00 | 0.00 |
| Tany./Chir. Abundance Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
|---------------------------------------|--------|--------|--------|--------|--------|
| Site | 21212 | 21213 | 21214 | 21215 | 21216 |
| Carinoma tremaphoros | | | | 45 | |
| Chironomus spp. | | 250 | | | |
| Gemma gemma | | | 68 | | 23 |
| Glycinde solitaria | | 23 | 23 | | |
| Hargeria rapax | | | 23 | | |
| Heteromastus filiformis | | 295 | 364 | | 591 |
| Laeonereis culveri | | | 114 | | 68 |
| Leptocheirus plumulosus | 45 | | 250 | | |
| Macoma balthica | | 45 | | | |
| Macoma mitchelli | | 204 | 727 | | 636 |
| Marenzelleria viridis | | | 159 | | 136 |
| Micrura leidyi | | 23 | | | |
| Mulinia lateralis | | 23 | | | 68 |
| Neanthes succinea | | | 114 | 45 | 68 |
| Streblospio benedicti | | 23 | 23 | | 68 |
| Total Abundance w/ Epifauna | 45 | 886 | 1863 | 91 | 1659 |
| Total Abundance w/o Epifauna | 45 | 886 | 1863 | 91 | 1659 |
| Number of Taxa w/ Epifauna | 1 | 8 | 10 | 2 | 8 |
| Number of Taxa w/o Epifauna | 1 | 8 | 10 | 2 | 8 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 21212 | 21213 | 21214 | 21215 | 21216 |
| Carinoma tremaphoros | | | | 0.1159 | |
| Chironomus spp. | | 0.0068 | | | |
| Gemma gemma | | | 0.1727 | | 0.0023 |
| Glycinde solitaria | | 0.0273 | 0.0045 | | |
| Hargeria rapax | | | 0.0011 | | |
| Heteromastus filiformis | | 0.1704 | 0.2158 | | 0.2817 |
| Laeonereis culveri | | | 0.0068 | | 0.0318 |
| Leptocheirus plumulosus | 0.0011 | | 0.0545 | | |
| Macoma balthica | | 0.1113 | | | |
| Macoma mitchelli | | 0.0159 | 0.0432 | | 0.0477 |
| Marenzelleria viridis | | | 0.0841 | | 0.0523 |
| Micrura leidyi | | 0.1749 | | | |
| Mulinia lateralis | | 0.1363 | | | 0.4271 |
| Neanthes succinea | | | 0.0341 | 0.1659 | 0.0704 |
| Streblospio benedicti | | 0.0023 | 0.0011 | | 0.0045 |
| Total Biomass w/ Epifauna | 0.0011 | 0.6452 | 0.6180 | 0.2817 | 0.9179 |
| Total Biomass w/o Epifauna | 0.0011 | 0.6452 | 0.6180 | 0.2817 | 0.9179 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21217 | 21218 | 21219 | 21220 | 21221 |
|--|----------------|----------------|----------------|----------------|----------------|
| Watershed | Patuxent R | Patuxent R | Patuxent R | Patuxent R | Patuxent R |
| Habitat | Low Mesohaline | Low Mesohaline | Low Mesohaline | Low Mesohaline | Low Mesohaline |
| Date | 08/27/14 | 08/27/14 | 08/27/14 | 08/27/14 | 08/27/14 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 1.0 | 4.7 | 2.4 | 2.4 | 5.3 |
| Salinity (ppt) | 11.18 | 10.87 | 9.15 | 9.87 | 8.75 |
| Temperature (C) | 25.61 | 26.06 | 25.88 | 26.72 | 26.12 |
| Dissolved Oxygen (mg/L) | 6.5 | 3.8 | 5.4 | 6.0 | 3.7 |
| Sediment Silt-Clay (%) | 7.40 | 82.61 | 4.42 | 8.83 | 87.87 |
| Total Carbon (%) | 0.26 | 1.83 | 0.18 | 0.28 | 2.60 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 3.00 | 2.20 | 3.00 | 3.00 | 2.20 |
| Condition | Meets Goal | Degraded | Meets Goal | Meets Goal | Degraded |
| # Attributes Scored | 5 | 5 | 5 | 5 | 5 |
| | Value | Score | Value | Score | Value |
| Shannon-Wiener Index | 2.78 | 5 | 1.26 | 1 | 1.89 |
| Abundance (#/m2) | 1295 | 3 | 613 | 3 | 1431 |
| Biomass (g/m2) | 0.70 | 1 | 0.52 | 1 | 0.52 |
| Pollution Indicative Spp Abund (%) | 7.02 | 5 | 0.00 | 5 | 4.76 |
| Pollution Indicative Spp Biom (%) | 0.32 | | 0.00 | | 0.44 |
| Pollution Sensitive Spp Abund (%) | 1.75 | | 0.00 | | 6.35 |
| Pollution Sensitive Spp Biom (%) | 35.60 | 1 | 0.00 | 1 | 49.67 |
| Carnivore-Omnivore Abund (%) | 38.60 | | 18.52 | | 9.52 |
| Deep Deposit Feeder Abund (%) | 10.53 | | 7.41 | | 26.98 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | | 0.00 | | 0.00 |
| Limnodrilus Abundance (%) | 1.75 | | 0.00 | | 0.00 |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | | 0.00 | | 0.00 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | | 0.00 | | 0.00 |
| Tolerance Score | 9.80 | | 0.00 | | 0.00 |
| Tany./Chir. Abundance Ratio | 0.00 | | 0.00 | | 0.00 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| Site | 21217 | 21218 | 21219 | 21220 | 21221 |
| Carinoma tremaphoros | 23 | 23 | 23 | 23 | 91 |
| Edotea triloba (Epi.) | 23 | | | | |
| Gemma gemma | 182 | | | | |
| Glycinde solitaria | | | 23 | 23 | |
| Heteromastus filiformis | 114 | 23 | 386 | 364 | |
| Laeonereis culveri | 114 | | | | |
| Leptocheirus plumulosus | 68 | 454 | | 318 | 500 |
| Macoma balthica | 23 | | 45 | 45 | |
| Macoma mitchelli | 318 | | 772 | 182 | |
| Marenzelleria viridis | | | | 23 | |
| Mya arenaria | | | 23 | | |
| Neanthes succinea | 364 | 91 | 91 | 91 | 45 |
| Streblospio benedicti | 68 | | 68 | 23 | 23 |
| Tubificidae imm w/o cap chaetae | 23 | | | 23 | |
| Tubificoides spp. | | 23 | | | 114 |
| Total Abundance w/ Epifauna | 1318 | 613 | 1431 | 1113 | 772 |
| Total Abundance w/o Epifauna | 1295 | 613 | 1431 | 1113 | 772 |
| Number of Taxa w/ Epifauna | 11 | 5 | 8 | 10 | 5 |
| Number of Taxa w/o Epifauna | 10 | 5 | 8 | 10 | 5 |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
|---------------------------------------|--------|--------|--------|--------|--------|
| Site | 21217 | 21218 | 21219 | 21220 | 21221 |
| Carinoma tremaphoros | 0.0023 | 0.0011 | 0.0011 | 0.0023 | 0.0591 |
| Edotea triloba (Epi.) | 0.0023 | | | | |
| Gemma gemma | 0.0250 | | | | |
| Glycinde solitaria | | | 0.0136 | 0.0023 | |
| Heteromastus filiformis | 0.0227 | 0.0204 | 0.1363 | 0.2772 | |
| Laeonereis culveri | 0.0523 | | | | |
| Leptocheirus plumulosus | 0.0114 | 0.2704 | | 0.0500 | 0.1727 |
| Macoma balthica | 0.2499 | | 0.2431 | 0.3317 | |
| Macoma mitchelli | 0.0727 | | 0.0886 | 0.2340 | |
| Marenzelleria viridis | | | | 0.0136 | |
| Mya arenaria | | | 0.0023 | | |
| Neanthes succinea | 0.2636 | 0.2272 | 0.0341 | 0.0477 | 0.0364 |
| Streblospio benedicti | 0.0011 | | 0.0023 | 0.0023 | 0.0045 |
| Tubificidae imm w/o cap chaetae | 0.0011 | | | 0.0011 | |
| Tubificoides spp. | | 0.0011 | | | 0.0023 |
| Total Biomass w/ Epifauna | 0.7043 | 0.5203 | 0.5214 | 0.9622 | 0.2749 |
| Total Biomass w/o Epifauna | 0.7020 | 0.5203 | 0.5214 | 0.9622 | 0.2749 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21222 | 21223 | 21225 | 21226 | 21227 |
|--|----------------|----------------|----------------|----------------|----------------|
| Watershed | Patuxent R | Patuxent R | Patuxent R | Patuxent R | Patuxent R |
| Habitat | Low Mesohaline | Low Mesohaline | Oligohaline | Low Mesohaline | Low Mesohaline |
| Date | 08/27/14 | 08/27/14 | 08/28/14 | 08/27/14 | 08/27/14 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 0.7 | 3.3 | 4.7 | 0.9 | 6.0 |
| Salinity (ppt) | 8.70 | 10.24 | 4.26 | 9.76 | 10.05 |
| Temperature (C) | 27.52 | 26.13 | 27.25 | 27.55 | 25.90 |
| Dissolved Oxygen (mg/L) | 5.6 | 3.0 | 5.9 | 7.7 | 1.4 |
| Sediment Silt-Clay (%) | 88.80 | 78.03 | 81.84 | 91.90 | 93.43 |
| Total Carbon (%) | 2.83 | 2.42 | 2.48 | 2.58 | 2.17 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 4.20 | 2.20 | 2.00 | 2.20 | 2.20 |
| Condition | Meets Goal | Degraded | Severely Degr. | Degraded | Degraded |
| # Attributes Scored | 5 | 5 | 4 | 5 | 5 |
| | Value | Score | Value | Score | Value |
| Shannon-Wiener Index | 2.74 | 5 | 1.04 | 1 | 0.62 |
| Abundance (#/m2) | 772 | 3 | 2772 | 3 | 591 |
| Biomass (g/m2) | 4.04 | 3 | 0.74 | 1 | 0.04 |
| Pollution Indicative Spp Abund (%) | 0.00 | 5 | 0.00 | 5 | 7.69 |
| Pollution Indicative Spp Biom (%) | 0.00 | | 0.00 | | 11.11 |
| Pollution Sensitive Spp Abund (%) | 26.47 | | 0.00 | | 0.00 |
| Pollution Sensitive Spp Biom (%) | 93.53 | 5 | 0.00 | 1 | 0.00 |
| Carnivore-Omnivore Abund (%) | 32.35 | | 9.84 | | 3.85 |
| Deep Deposit Feeder Abund (%) | 17.65 | | 9.02 | | 88.46 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | | 0.00 | | 0.00 |
| Limnodrilus Abundance (%) | 0.00 | | 0.00 | | 0.00 |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | | 0.00 | | 96.15 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | | 0.00 | | 0.00 |
| Tolerance Score | 0.00 | | 0.00 | | 0.00 |
| Tany./Chir. Abundance Ratio | 0.00 | | 0.00 | | 0.00 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| Site | 21222 | 21223 | 21225 | 21226 | 21227 |
| Carinoma tremaphoros | 114 | 91 | 23 | | 23 |
| Cyathura polita | 68 | | | | |
| Heteromastus filiformis | 45 | 204 | | 68 | |
| Leptocheirus plumulosus | 227 | 2249 | | 1045 | 23 |
| Macoma balthica | 136 | | | | |
| Macoma mitchelli | 23 | | | | |
| Melita nitida (Epi.) | 45 | 273 | | 318 | |
| Neanthes succinea | 68 | 182 | | 68 | 23 |
| Streblospio benedicti | | | 45 | 23 | |
| Tubificoides spp. | 91 | 45 | 523 | 68 | 23 |
| Total Abundance w/ Epifauna | 818 | 3044 | 591 | 1590 | 91 |
| Total Abundance w/o Epifauna | 772 | 2772 | 591 | 1272 | 91 |
| Number of Taxa w/ Epifauna | 9 | 6 | 3 | 6 | 4 |
| Number of Taxa w/o Epifauna | 8 | 5 | 3 | 5 | 4 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 21222 | 21223 | 21225 | 21226 | 21227 |
| Carinoma tremaphoros | 0.0364 | 0.0136 | 0.0273 | | 0.0523 |
| Cyathura polita | 0.1113 | | | | |
| Heteromastus filiformis | 0.0409 | 0.0772 | | 0.0500 | |
| Leptocheirus plumulosus | 0.0341 | 0.5680 | | 0.2408 | 0.0136 |
| Macoma balthica | 3.6670 | | | | |
| Macoma mitchelli | 0.0727 | | | | |
| Melita nitida (Epi.) | 0.0023 | 0.0204 | | 0.0159 | |
| Neanthes succinea | 0.0750 | 0.0818 | | 0.1068 | 0.0954 |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC BIOMASS (Grams per sq. meter) - Contd. | | | | | |
|--|--------|--------|--------|--------|--------|
| Site | 21222 | 21223 | 21225 | 21226 | 21227 |
| Streblospio benedicti | | | 0.0045 | 0.0011 | |
| Tubificoides spp. | 0.0023 | 0.0023 | 0.0091 | 0.0023 | 0.0023 |
| Total Biomass w/ Epifauna | 4.0419 | 0.7634 | 0.0409 | 0.4169 | 0.1636 |
| Total Biomass w/o Epifauna | 4.0396 | 0.7429 | 0.0409 | 0.4010 | 0.1636 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21601 | 21602 | 21603 | 21604 | 21605 |
|------------------------------------|----------------|----------------|----------------|----------------|---------------|
| Watershed | Upper Bay | Upper Bay | Upper Bay | Upper Bay | Upper Bay |
| Habitat | Low Mesohaline | High Meso Mud | High Meso Mud | High Meso Mud | High Meso Mud |
| Date | 08/19/14 | 08/19/14 | 08/19/14 | 08/19/14 | 08/19/14 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 5.9 | 14.7 | 14.3 | 7.6 | 8.9 |
| Salinity (ppt) | 11.31 | 16.32 | 16.37 | 13.80 | 13.53 |
| Temperature (C) | 25.15 | 25.19 | 25.20 | 25.13 | 25.15 |
| Dissolved Oxygen (mg/L) | 2.0 | 0.4 | 0.3 | 0.7 | 0.8 |
| Sediment Silt-Clay (%) | 2.55 | 78.87 | 88.91 | 88.37 | 81.69 |
| Total Carbon (%) | 0.13 | 3.17 | 3.22 | 2.51 | 1.88 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 3.80 | 1.67 | 1.00 | 1.00 | 3.00 |
| Condition | Meets Goal | Severely Degr. | Severely Degr. | Severely Degr. | Meets Goal |
| # Attributes Scored | 5 | 6 | 6 | 6 | 6 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 2.48 3 | 0.00 1 | 0.00 1 | 0.00 1 | 1.93 1 |
| Abundance (#/m2) | 1999 5 | 23 1 | 0 1 | 0 1 | 545 1 |
| Biomass (g/m2) | 1.45 3 | 0.00 1 | 0.00 1 | 0.00 1 | 2.13 5 |
| Pollution Indicative Spp Abund (%) | 4.55 5 | 100.00 | 100.00 | 100.00 | 8.33 |
| Pollution Indicative Spp Biom (%) | 12.17 | 100.00 1 | 100.00 1 | 100.00 1 | 15.34 3 |
| Pollution Sensitive Spp Abund (%) | 6.82 | 0.00 | 0.00 | 0.00 | 41.67 |
| Pollution Sensitive Spp Biom (%) | 61.85 3 | 0.00 1 | 0.00 1 | 0.00 1 | 63.19 3 |
| Carnivore-Omnivore Abund (%) | 2.27 | 100.00 5 | 0.00 1 | 0.00 1 | 41.67 5 |
| Deep Deposit Feeder Abund (%) | 26.14 | 0.00 | 0.00 | 0.00 | 4.17 |
| 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 | 9.80 | 0.00 | 0.00 | 0.00 |
| Tany./Chir. Abundance Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
|---------------------------------------|--------|--------|--------|--------|--------|
| Site | 21601 | 21602 | 21603 | 21604 | 21605 |
| Carinoma tremaphoros | | | | | 23 |
| Chironomus spp. | | 23 | | | |
| Heteromastus filiformis | 432 | | | | |
| Leitoscoloplos fragilis | 23 | | | | |
| Lepidactylus dytiscus | 23 | | | | |
| Leptocheirus plumulosus | 523 | | | | |
| Macoma balthica | | | | | 227 |
| Macoma mitchelli | 682 | | | | 23 |
| Marenzelleria viridis | 114 | | | | |
| Micrura leidyi | 23 | | | | |
| Mulinia lateralis | 45 | | | | 45 |
| Mya arenaria | 23 | | | | |
| Neanthes succinea | 23 | | | | 204 |
| Streblospio benedicti | 23 | | | | |
| Tubificoides spp. | 68 | | | | 23 |
| Total Abundance w/ Epifauna | 1999 | 23 | 0 | 0 | 545 |
| Total Abundance w/o Epifauna | 1999 | 23 | | | 545 |
| Number of Taxa w/ Epifauna | 12 | 1 | 0 | 0 | 6 |
| Number of Taxa w/o Epifauna | 12 | 1 | 0 | 0 | 6 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 21601 | 21602 | 21603 | 21604 | 21605 |
| Carinoma tremaphoros | | | | | 0.0011 |
| Chironomus spp. | | 0.0011 | | | |
| Heteromastus filiformis | 0.1704 | | | | |
| Leitoscoloplos fragilis | 0.1727 | | | | |
| Lepidactylus dytiscus | 0.0250 | | | | |
| Leptocheirus plumulosus | 0.1204 | | | | |
| Macoma balthica | | | | | 1.3473 |
| Macoma mitchelli | 0.0454 | | | | 0.0023 |
| Marenzelleria viridis | 0.0909 | | | | |
| Micrura leidyi | 0.0091 | | | | |
| Mulinia lateralis | 0.0023 | | | | 0.3272 |
| Mya arenaria | 0.8043 | | | | |
| Neanthes succinea | 0.0045 | | | | 0.4521 |
| Streblospio benedicti | 0.0011 | | | | |
| Tubificoides spp. | 0.0011 | | | | 0.0023 |
| Total Biomass w/ Epifauna | 1.4473 | 0.0011 | 0.0000 | 0.0000 | 2.1323 |
| Total Biomass w/o Epifauna | 1.4473 | 0.0011 | 0.0000 | 0.0000 | 2.1323 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21606 | 21607 | 21610 | 21611 | 21612 | |
|--|----------------|----------------|---------------|----------------|----------------|-------|
| Watershed | Upper Bay | Upper Bay | Upper Bay | Upper Bay | Upper Bay | |
| Habitat | Low Mesohaline | Low Mesohaline | High Meso Mud | Low Mesohaline | Low Mesohaline | |
| Date | 08/19/14 | 08/19/14 | 08/19/14 | 08/19/14 | 08/19/14 | |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab | |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 | |
| BOTTOM ENVIRONMENT | | | | | | |
| Depth (m) | 3.5 | 6.5 | 6.7 | 5.8 | 5.3 | |
| Salinity (ppt) | 8.69 | 8.01 | 12.87 | 10.10 | 5.51 | |
| Temperature (C) | 25.29 | 25.00 | 25.08 | 25.09 | 25.05 | |
| Dissolved Oxygen (mg/L) | 7.4 | 4.7 | 0.5 | 1.9 | 6.8 | |
| Sediment Silt-Clay (%) | 6.09 | 25.87 | 92.35 | 88.95 | 85.63 | |
| Total Carbon (%) | 0.15 | 1.78 | 2.21 | 1.89 | 3.06 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | | |
| B-IBI Score | 2.60 | 4.20 | 2.67 | 3.80 | 4.20 | |
| Condition | Degraded | Meets Goal | Marginal | Meets Goal | Meets Goal | |
| # Attributes Scored | 5 | 5 | 6 | 5 | 5 | |
| | Value | Score | Value | Score | Value | Score |
| Shannon-Wiener Index | 1.65 | 1 | 2.82 | 5 | 1.18 | 1 |
| Abundance (#/m2) | 2045 | 5 | 3931 | 3 | 500 | 1 |
| Biomass (g/m2) | 0.87 | 1 | 13.96 | 3 | 2.56 | 5 |
| Pollution Indicative Spp Abund (%) | 1.11 | 5 | 4.62 | 5 | 0.00 | 0.00 |
| Pollution Indicative Spp Biom (%) | 0.52 | | 0.02 | | 0.00 | 5 |
| Pollution Sensitive Spp Abund (%) | 7.78 | | 24.86 | | 68.18 | 38.30 |
| Pollution Sensitive Spp Biom (%) | 4.72 | 1 | 83.75 | 5 | 95.83 | 3 |
| Carnivore-Omnivore Abund (%) | 1.11 | | 12.72 | | 9.09 | 1 |
| Deep Deposit Feeder Abund (%) | 11.11 | | 30.64 | | 22.73 | 29.79 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | | 0.00 | | 0.00 | 0.00 |
| Limnodrilus Abundance (%) | 0.00 | | 0.00 | | 0.00 | 0.00 |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | | 0.00 | | 0.00 | 0.00 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | | 0.00 | | 0.00 | 0.00 |
| Tolerance Score | 0.00 | | 0.00 | | 0.00 | 6.00 |
| Tany./Chir. Abundance Ratio | 0.00 | | 0.00 | | 0.00 | 0.00 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | | |
| Site | 21606 | 21607 | 21610 | 21611 | 21612 | |
| Carinoma tremaphoros | | 68 | | 45 | | |
| Cyathura polita | | | | 45 | 295 | |
| Eteone heteropoda | 23 | 45 | | | | |
| Heteromastus filiformis | 227 | 704 | 114 | 227 | 23 | |
| Leptocheirus plumulosus | 1181 | 1000 | | 136 | 227 | |
| Macoma balthica | | 795 | 341 | 364 | 954 | |
| Macoma mitchelli | 454 | 114 | | 23 | | |
| Marenzelleria viridis | 159 | 182 | | | 182 | |
| Melita nitida (Epi.) | | 45 | | 68 | 45 | |
| Neanthes succinea | | 386 | 45 | 136 | 23 | |
| Rangia cuneata | | | | | 23 | |
| Streblospio benedicti | | 136 | | | 23 | |
| Tubificoides spp. | | 500 | | 91 | 159 | |
| Total Abundance w/ Epifauna | 2045 | 3976 | 500 | 1136 | 1954 | |
| Total Abundance w/o Epifauna | 2045 | 3931 | 500 | 1068 | 1908 | |
| Number of Taxa w/ Epifauna | 5 | 11 | 3 | 9 | 10 | |
| Number of Taxa w/o Epifauna | 5 | 10 | 3 | 8 | 9 | |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | | |
| Site | 21606 | 21607 | 21610 | 21611 | 21612 | |
| Carinoma tremaphoros | | 0.0068 | | 0.0454 | | |
| Cyathura polita | | | | 0.0341 | 0.4271 | |
| Eteone heteropoda | 0.0045 | 0.0023 | | | | |
| Heteromastus filiformis | 0.0750 | 0.2045 | 0.0364 | 0.0750 | 0.0023 | |
| Leptocheirus plumulosus | 0.1590 | 0.1772 | | 0.0659 | 0.0295 | |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC BIOMASS (Grams per sq. meter) - Contd. | | | | | |
|--|--------|---------|--------|--------|---------|
| Site | 21606 | 21607 | 21610 | 21611 | 21612 |
| <i>Macoma balthica</i> | | 11.5758 | 2.4538 | 2.0902 | 18.5213 |
| <i>Macoma mitchelli</i> | 0.5862 | 0.0932 | | 0.0136 | |
| <i>Marenzelleria viridis</i> | 0.0409 | 0.1159 | | | 0.0863 |
| <i>Melita nitida</i> (Epi.) | | 0.0011 | | 0.0011 | 0.0023 |
| <i>Neanthes succinea</i> | | 1.7812 | 0.0704 | 0.3817 | 0.1250 |
| <i>Rangia cuneata</i> | | | | | 0.3204 |
| <i>Streblospio benedicti</i> | | 0.0011 | | | 0.0011 |
| <i>Tubificoides</i> spp. | | 0.0023 | | 0.0011 | 0.0023 |
| Total Biomass w/ Epifauna | 0.8656 | 13.9614 | 2.5605 | 2.7082 | 19.5176 |
| Total Biomass w/o Epifauna | 0.8656 | 13.9603 | 2.5605 | 2.7071 | 19.5153 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21613 | 21614 | 21615 | 21616 | 21617 |
|--|----------------|----------------|-------------|-------------|----------------|
| Watershed | Upper Bay | Upper Bay | Upper Bay | Upper Bay | Upper Bay |
| Habitat | Low Mesohaline | Low Mesohaline | Oligohaline | Oligohaline | Low Mesohaline |
| Date | 08/19/14 | 08/19/14 | 08/19/14 | 08/19/14 | 08/19/14 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 12.6 | 5.3 | 4.9 | 3.5 | 7.0 |
| Salinity (ppt) | 10.35 | 5.11 | 4.40 | 3.45 | 5.90 |
| Temperature (C) | 25.02 | 24.85 | 24.92 | 24.81 | 25.01 |
| Dissolved Oxygen (mg/L) | 1.6 | 6.8 | 7.3 | 7.9 | 4.3 |
| Sediment Silt-Clay (%) | 95.52 | 84.36 | 92.11 | 93.80 | 52.61 |
| Total Carbon (%) | 5.49 | 1.64 | 1.65 | 2.32 | 3.93 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 3.80 | 4.20 | 3.50 | 3.40 | 4.20 |
| Condition | Meets Goal | Meets Goal | Meets Goal | Meets Goal | Meets Goal |
| # Attributes Scored | 5 | 5 | 4 | 5 | 5 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 0.50 1 | 2.72 5 | 2.12 5 | 1.53 3 | 1.84 3 |
| Abundance (#/m2) | 1636 5 | 2181 5 | 227 3 | 682 5 | 3044 3 |
| Biomass (g/m2) | 20.27 3 | 2.15 3 | 0.26 3 | 3.47 5 | 9.20 5 |
| Pollution Indicative Spp Abund (%) | 0.00 5 | 18.75 3 | 0.00 3 | 0.00 3 | 2.24 5 |
| Pollution Indicative Spp Biom (%) | 0.00 5 | 0.63 3 | 0.00 3 | 0.00 3 | 0.01 5 |
| Pollution Sensitive Spp Abund (%) | 93.06 5 | 54.17 3 | 60.00 3 | 30.00 3 | 76.12 5 |
| Pollution Sensitive Spp Biom (%) | 98.39 5 | 87.45 5 | 89.08 3 | 95.03 3 | 93.02 5 |
| Carnivore-Omnivore Abund (%) | 4.17 3 | 14.58 3 | 40.00 5 | 13.33 1 | 18.66 3 |
| Deep Deposit Feeder Abund (%) | 1.39 3 | 8.33 3 | 30.00 3 | 0.00 3 | 15.67 3 |
| TF Poll. Indicative Spp Abund (%) | 0.00 3 | 0.00 3 | 0.00 3 | 0.00 3 | 0.00 3 |
| Limnodrilus Abundance (%) | 0.00 3 | 0.00 3 | 0.00 3 | 0.00 3 | 0.00 3 |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 3 | 0.00 3 | 40.00 3 | 66.67 3 | 0.00 3 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 3 | 0.00 3 | 20.00 3 | 13.33 3 | 0.00 3 |
| Tolerance Score | 0.00 3 | 6.00 3 | 0.00 3 | 6.00 5 | 6.00 3 |
| Tany./Chir. Abundance Ratio | 0.00 3 | 0.00 3 | 0.00 3 | 0.00 3 | 0.00 3 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| Site | 21613 | 21614 | 21615 | 21616 | 21617 |
| Balanus improvisus (Epi.) | | | | | 114 |
| Carinoma tremaphoros | | 23 | | 23 | |
| Cyathura polita | | 227 | 91 | 68 | 386 |
| Edotea triloba (Epi.) | | | | | 91 |
| Heteromastus filiformis | | 91 | 45 | | 114 |
| Leptocheirus plumulosus | 23 | 227 | 23 | 454 | |
| Macoma balthica | 1522 | 23 | | | |
| Macoma mitchelli | | 68 | | | |
| Marenzelleria viridis | | 863 | 45 | 91 | 1863 |
| Melita nitida (Epi.) | | | 23 | 136 | |
| Micrura leidyi | 23 | | | | |
| Mytilopsis leucophaeata (Epi.) | | 45 | | | |
| Neanthes succinea | 45 | 68 | | | 182 |
| Polydora cornuta | | 23 | | | |
| Rangia cuneata | | 68 | | 45 | 68 |
| Rhithropanopeus harrisi (Epi.) | | | | 45 | 45 |
| Streblospio benedicti | | 409 | | | 68 |
| Tubificoides spp. | | 91 | 23 | | 364 |
| Total Abundance w/ Epifauna | 1636 | 2227 | 250 | 863 | 3294 |
| Total Abundance w/o Epifauna | 1636 | 2181 | 227 | 682 | 3044 |
| Number of Taxa w/ Epifauna | 5 | 13 | 6 | 7 | 10 |
| Number of Taxa w/o Epifauna | 5 | 12 | 5 | 5 | 7 |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
|---------------------------------------|---------|--------|--------|--------|---------|
| Site | 21613 | 21614 | 21615 | 21616 | 21617 |
| <i>Balanus improvisus</i> (Epi.) | | | | | 1.0383 |
| <i>Carinoma tremaphoros</i> | | 0.0818 | | 0.0114 | |
| <i>Cyathura polita</i> | | 0.2068 | 0.2068 | 0.0750 | 0.5135 |
| <i>Edotea triloba</i> (Epi.) | | | | | 0.0159 |
| <i>Heteromastus filiformis</i> | 0.0227 | 0.0250 | 0.0250 | | 0.0841 |
| <i>Leptocheirus plumulosus</i> | 0.0011 | 0.0409 | 0.0023 | 0.1613 | |
| <i>Macoma balthica</i> | 19.9436 | 0.0273 | | | |
| <i>Macoma mitchelli</i> | | 0.0136 | | | |
| <i>Marenzelleria viridis</i> | | 0.4635 | 0.0250 | 0.0364 | 0.8770 |
| <i>Melita nitida</i> (Epi.) | | | 0.0023 | 0.0091 | |
| <i>Micrura leidyi</i> | 0.0068 | | | | |
| <i>Mytilopsis leucophaeata</i> (Epi.) | | 0.0136 | | | |
| <i>Neanthes succinea</i> | 0.2954 | 0.0863 | | | 0.5498 |
| <i>Polydora cornuta</i> | | 0.0023 | | | |
| <i>Rangia cuneata</i> | | 1.1860 | | 3.1876 | 7.1636 |
| <i>Rhithropanopeus harrisi</i> (Epi.) | | | | 0.2295 | 1.0315 |
| <i>Streblospio benedicti</i> | | 0.0136 | | | 0.0011 |
| <i>Tubificoides</i> spp. | | 0.0068 | 0.0011 | | 0.0068 |
| Total Biomass w/ Epifauna | 20.2696 | 2.1675 | 0.2624 | 3.7102 | 11.2816 |
| Total Biomass w/o Epifauna | 20.2696 | 2.1539 | 0.2601 | 3.4716 | 9.1959 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21618 | 21619 | 21620 | 21621 | 21622 | | | | | |
|--|-------------|----------------|-------------|------------|-------------|-------|-------|------|-----|---|
| Watershed | Upper Bay | Upper Bay | Upper Bay | Upper Bay | Upper Bay | | | | | |
| Habitat | Oligohaline | Low Mesohaline | Oligohaline | Freshwater | Oligohaline | | | | | |
| Date | 09/19/14 | 09/19/14 | 09/19/14 | 08/19/14 | 09/19/14 | | | | | |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab | | | | | |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 | | | | | |
| BOTTOM ENVIRONMENT | | | | | | | | | | |
| Depth (m) | 3.1 | 3.7 | 4.3 | 6.5 | 1.7 | | | | | |
| Salinity (ppt) | 4.39 | 5.13 | 4.50 | 0.48 | 0.65 | | | | | |
| Temperature (C) | 22.01 | 22.19 | 22.03 | 25.11 | 20.58 | | | | | |
| Dissolved Oxygen (mg/L) | 7.8 | 7.1 | 7.3 | 6.5 | 7.8 | | | | | |
| Sediment Silt-Clay (%) | 90.50 | 89.08 | 94.15 | 77.56 | 52.25 | | | | | |
| Total Carbon (%) | 1.60 | 2.28 | 2.46 | 1.84 | 2.84 | | | | | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | | | | | | |
| B-IBI Score | 2.67 | 3.00 | 3.33 | 5.00 | 2.60 | | | | | |
| Condition | Marginal | Meets Goal | Meets Goal | Meets Goal | Degraded | | | | | |
| # Attributes Scored | 6 | 5 | 6 | 4 | 5 | | | | | |
| | Value | Score | Value | Score | Value | Score | | | | |
| Shannon-Wiener Index | 1.84 | 2.10 | 3 | 1.19 | 2.24 | 1.51 | | | | |
| Abundance (#/m2) | 159 | 1 | 3363 | 3 | 1045 | 5 | 2408 | 5 | 704 | 5 |
| Biomass (g/m2) | 25.35 | 46.54 | 1 | 15.30 | 69.05 | 7.54 | | | | |
| Pollution Indicative Spp Abund (%) | 28.57 | 15.54 | 3 | 2.17 | 16.04 | 87.10 | | | | |
| Pollution Indicative Spp Biom (%) | 0.03 | 0.01 | 0.03 | 0.03 | 0.03 | 0.96 | | | | |
| Pollution Sensitive Spp Abund (%) | 57.14 | 72.97 | 97.83 | 76.42 | 12.90 | | | | | |
| Pollution Sensitive Spp Biom (%) | 99.88 | 99.97 | 5 | 99.97 | 97.50 | 99.04 | | | | |
| Carnivore-Omnivore Abund (%) | 42.86 | 5 | 14.19 | 4.35 | 1 | 5.66 | 3.23 | 1 | | |
| Deep Deposit Feeder Abund (%) | 0.00 | 1.35 | 0.00 | 16.04 | 5 | 87.10 | | | | |
| TF Poll. Indicative Spp Abund (%) | 0.00 | 0.00 | 0.00 | 16.04 | 5 | 0.00 | | | | |
| Limnodrilus Abundance (%) | 0.00 | 0.00 | 0.00 | 16.04 | 87.10 | | | | | |
| Oligo Poll. Indic. Spp Abund (%) | 42.86 | 3 | 0.00 | 2.17 | 5 | 0.00 | 87.10 | 3 | | |
| Oligo Poll. Sens. Spp Abund (%) | 14.29 | 3 | 0.00 | 63.04 | 5 | 0.00 | 6.45 | 3 | | |
| Tolerance Score | 6.08 | 3 | 6.00 | 6.01 | 3 | 7.38 | 5 | 9.66 | 1 | |
| Tany./Chir. Abundance Ratio | 100.00 | 1 | 0.00 | 100.00 | 1 | 0.00 | 0.00 | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | | | | | | |
| Site | 21618 | 21619 | 21620 | 21621 | 21622 | | | | | |
| Balanus improvisus (Epi.) | | 68 | | | | | | | | |
| Boccardiella ligERICA | | 23 | | | | | | | | |
| Coelotanypus spp. | 45 | | 23 | | | | | | | |
| Corbicula fluminea | | | | 23 | | | | | | |
| Cyathura polita | | 477 | 23 | 136 | 23 | | | | | |
| Gammarus daiberi (Epi.) | | 68 | | 45 | | | | | | |
| Hobsonia florida | | 45 | | 91 | | | | | | |
| Leptocheirus plumulosus | | | | 68 | | | | | | |
| Limnodrilus hoffmeisteri | | | | 182 | 182 | | | | | |
| Marenzelleria viridis | 23 | 1727 | 659 | 1045 | 45 | | | | | |
| Mytilopsis leucophaeata (Epi.) | | 182 | 23 | | | | | | | |
| Neanthes succinea | 23 | | | | | | | | | |
| Polydora cornuta | | 273 | | | | | | | | |
| Rangia cuneata | 68 | 250 | 341 | 659 | 23 | | | | | |
| Streblospio benedicti | | 523 | | | | | | | | |
| Stylochus ellipticus (Epi.) | | 23 | | | | | | | | |
| Tubificidae imm w/o cap chaetae * | | | | 204 | 432 | | | | | |
| Tubificoides spp. | | 45 | | | | | | | | |
| Total Abundance w/ Epifauna | 159 | 3703 | 1068 | 2454 | 704 | | | | | |
| Total Abundance w/o Epifauna | 159 | 3363 | 1045 | 2408 | 704 | | | | | |
| Number of Taxa w/ Epifauna | 4 | 12 | 5 | 8 | 4 | | | | | |
| Number of Taxa w/o Epifauna | 4 | 8 | 4 | 7 | 4 | | | | | |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
|---------------------------------------|---------|---------|---------|---------|--------|
| Site | 21618 | 21619 | 21620 | 21621 | 21622 |
| Balanus improvisus (Epi.) | | 0.4180 | | | |
| Boccardiella ligERICA | | 0.0011 | | | |
| Coelotanypus spp. | 0.0068 | | 0.0045 | | |
| Corbicula fluminea | | | | 1.6676 | |
| Cyathura polita | | 0.2090 | 0.0091 | | 0.0182 |
| Gammarus daiberi (Epi.) | | 0.0114 | | 0.0091 | |
| Hobsonia florida | | 0.0011 | | 0.0341 | |
| Leptocheirus plumulosus | | | | 0.0045 | |
| Marenzelleria viridis | 0.1931 | 0.8611 | 1.8903 | 0.6044 | 0.0477 |
| Mytilopsis leucophaeata (Epi.) | | 0.0136 | 0.0011 | | |
| Neanthes succinea | 0.0227 | | | | |
| Oligochaeta | | | | 0.0216 | 0.0727 |
| Polydora cornuta | | 0.0045 | | | |
| Rangia cuneata | 25.1238 | 45.4536 | 13.3980 | 66.5401 | 7.4044 |
| Streblospio benedicti | | 0.0045 | | | |
| Stylochus ellipticus (Epi.) | | 0.0011 | | | |
| Tubificoides spp. | | 0.0011 | | | |
| Total Biomass w/ Epifauna | 25.3464 | 46.9804 | 15.3031 | 69.0563 | 7.5430 |
| Total Biomass w/o Epifauna | 25.3464 | 46.5362 | 15.3019 | 69.0472 | 7.5430 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| Site | 21623 | 21624 | 21625 | 21627 | 21628 | |
|------------------------------------|------------|------------|------------|---------------|------------|-------|
| Watershed | Upper Bay | Upper Bay | Upper Bay | Upper Bay | Upper Bay | |
| Habitat | Freshwater | Freshwater | Freshwater | High Meso Mud | Freshwater | |
| Date | 08/25/14 | 08/25/14 | 08/25/14 | 08/19/14 | 08/19/14 | |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab | |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 | |
| BOTTOM ENVIRONMENT | | | | | | |
| Depth (m) | 2.0 | 1.6 | 2.2 | 7.3 | 3.5 | |
| Salinity (ppt) | 0.17 | 0.17 | 0.17 | 14.09 | 0.15 | |
| Temperature (C) | 24.40 | 23.99 | 25.09 | 25.12 | 25.33 | |
| Dissolved Oxygen (mg/L) | 9.7 | 10.1 | 10.0 | 0.4 | 6.9 | |
| Sediment Silt-Clay (%) | 15.77 | 5.27 | 7.81 | 92.52 | 70.77 | |
| Total Carbon (%) | 0.86 | 0.88 | 0.28 | 2.49 | 1.84 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | | |
| B-IBI Score | 4.50 | 5.00 | 5.00 | 2.67 | 5.00 | |
| Condition | Meets Goal | Meets Goal | Meets Goal | Marginal | Meets Goal | |
| # Attributes Scored | 4 | 4 | 4 | 6 | 4 | |
| | Value | Score | Value | Score | Value | Score |
| Shannon-Wiener Index | 2.03 | | 2.89 | | 1.55 | |
| Abundance (#/m2) | 5067 | 3 | 1749 | 5 | 1681 | 5 |
| Biomass (g/m2) | 1.20 | | 1.02 | | 0.35 | |
| Pollution Indicative Spp Abund (%) | 12.56 | | 33.77 | | 13.51 | |
| Pollution Indicative Spp Biom (%) | 8.70 | | 15.11 | | 31.78 | |
| Pollution Sensitive Spp Abund (%) | 0.00 | | 5.19 | | 5.41 | |
| Pollution Sensitive Spp Biom (%) | 0.00 | | 7.33 | | 7.21 | |
| Carnivore-Omnivore Abund (%) | 23.32 | | 31.17 | | 90.54 | |
| Deep Deposit Feeder Abund (%) | 17.04 | 5 | 28.57 | 5 | 0.00 | 5 |
| TF Poll. Indicative Spp Abund (%) | 12.56 | 5 | 25.97 | 5 | 0.00 | 5 |
| Limnodrilus Abundance (%) | 13.45 | | 25.97 | | 0.00 | |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | | 0.00 | | 0.00 | |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | | 0.00 | | 0.00 | |
| Tolerance Score | 7.05 | 5 | 7.51 | 5 | 7.89 | 5 |
| Tany./Chir. Abundance Ratio | 5.77 | | 0.00 | | 14.93 | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | | |
| Site | 21623 | 21624 | 21625 | 21627 | 21628 | |
| Ablabesmyia mallochi | 68 | | | | | |
| Branchiura sowerbyi | 182 | | | | | |
| Chironomus spp. | | | 91 | | | |
| Cladotanytarsus viridiventris | | 136 | | | | |
| Coelotanypus spp. | | | 136 | | 45 | |
| Corbicula fluminea | 3022 | 364 | 45 | | 591 | |
| Cryptochironomus spp. | 68 | 364 | | | | |
| Cyathura polita | | | | | 273 | |
| Dicrotendipes spp. | 136 | | | | | |
| Dugesia spp. (Epi.) | 23 | | | | | |
| Gammarus daiberi (Epi.) | 19721 | | | | 45 | |
| Harnischia spp. | 68 | | | | | |
| Heteromastus filiformis | | | | 23 | | |
| Leptocheirus plumulosus | | | | | 68 | |
| Limnodrilus hoffmeisteri | 318 | 45 | | | 68 | |
| Limnodrilus udekemianus | 45 | | | | | |
| Lipiniella spp. | | | 1204 | | | |
| Macoma balthica | | | | 250 | | |
| Marenzelleria viridis | | 91 | 91 | | 750 | |
| Musculium transversum | | 114 | 23 | | | |
| Mytilopsis leucophaeata (Epi.) | 23 | | | | | |
| Nanocladus crassicornus | 818 | | | | | |
| Nanocladus distinctus | 23 | | | | | |
| Neanthes succinea | | | | 23 | | |
| Oecetis spp. (Epi.) | 114 | 23 | | | | |
| Piguetiella michiganensis | | 45 | | | | |
| Pisidium spp. | | 136 | | | | |
| Polypedilum halterale group | | 45 | | | | |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2014 (CRUISE 01:2014/2015) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) - Contd. | | | | | |
|--|--------|--------|--------|--------|----------|
| Site | 21623 | 21624 | 21625 | 21627 | 21628 |
| Procladius spp. | | | 91 | | 23 |
| Rangia cuneata | | | | | 568 |
| Tubificidae imm w/o cap chaetae * | 318 | 409 | | | 341 |
| Total Abundance w/ Epifauna | 24947 | 1772 | 1681 | 295 | 2772 |
| Total Abundance w/o Epifauna | 5067 | 1749 | 1681 | 295 | 2726 |
| Number of Taxa w/ Epifauna | 14 | 10 | 7 | 3 | 9 |
| Number of Taxa w/o Epifauna | 10 | 9 | 7 | 3 | 8 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 21623 | 21624 | 21625 | 21627 | 21628 |
| Branchiura sowerbyi | 0.3976 | | | | |
| Chironomidae | 0.0409 | 0.0318 | 0.1662 | | |
| Chironomus spp. | | | 0.0886 | | |
| Coelotanypus spp. | | | 0.0136 | | 0.0011 |
| Corbicula fluminea | 0.6589 | 0.7520 | 0.0227 | | 15.5382 |
| Cyathura polita | | | | | 0.1454 |
| Dugesia spp. (Epi.) | 0.0011 | | | | |
| Gammarus daiberi (Epi.) | 1.8131 | | | | 0.0159 |
| Heteromastus filiformis | | | | 0.1272 | |
| Leptocheirus plumulosus | | | | | 0.0091 |
| Macoma balthica | | | | 2.0971 | |
| Marenzelleria viridis | | 0.0750 | 0.0250 | | 0.3999 |
| Musculium transversum | | 0.0045 | 0.0227 | | |
| Mytilopsis leucophaeata (Epi.) | 0.0068 | | | | |
| Neanthes succinea | | | | 0.0068 | |
| Oecetis spp. (Epi.) | 0.0068 | 0.0068 | | | |
| Oligochaeta | 0.1045 | 0.1545 | 0.0080 | | 0.0080 |
| Pisidium spp. | | 0.0045 | | | |
| Procladius spp. | | | | | 0.0011 |
| Rangia cuneata | | | | | 119.3186 |
| Total Biomass w/ Epifauna | 3.0297 | 1.0292 | 0.3468 | 2.2311 | 135.4373 |
| Total Biomass w/o Epifauna | 1.2019 | 1.0224 | 0.3468 | 2.2311 | 135.4214 |