



VERSAR

Final Report

Chesapeake Bay Water Quality Monitoring Program

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

July 1984 – December 2017
(Volume 2)

Prepared for

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

Prepared by

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October 2018

**CHESAPEAKE BAY WATER QUALITY
MONITORING PROGRAM
LONG-TERM BENTHIC MONITORING
AND ASSESSMENT COMPONENT
LEVEL I COMPREHENSIVE REPORT
JULY 1984 - DECEMBER 2017 (VOLUME 2)**

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DATA SUMMARY A

**BENTHIC ENVIRONMENT AND COMMUNITY
COMPOSITION AT FIXED SITES:
SUMMER 2017**

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|------------------------------|-------------------------------|---|
| Watershed: Mainstem | | Station: 001 | Rep: 01 |
| Gear: Modified Box Corer | | Habitat: High Mesohaline Sand | Date: 25SEP17 |
| | | Sampled Area: 0.025 sq.m | Time: 12:51:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 2.0 | Salinity (ppt): 14.08 | Temperature (C): 25.13 | |
| Dissolved Oxygen (mg/l): 9.3 | Sediment Silt-Clay (%): 1.54 | Total Carbon (%): 0.12 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 2.67 | | Condition: Marginal | # Attributes Scored: 6 |
| | Value | Score | Value Score |
| Shannon-Wiener Index | 2.66 | 3 | 9.09 5 |
| Abundance (#/m2) | 440 | 1 | Pollution Indicative Species Biomass (%) 34.69 |
| Biomass (g/m2) | 0.98 | 1 | Pollution Sensitive Species Abundance (%) 27.27 3 |
| Carnivore-Omnivore Abundance (%) | 27.27 | 3 | Pollution Sensitive Species Biomass (%) 6.94 |
| Deep Deposit Feeder Abundance (%) | 9.09 | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Gemma gemma | 40 | 0.01200 | |
| Glycinde solitaria | 80 | 0.01200 | |
| Laeonereis culveri | 40 | 0.52400 | |
| Leitoscoloplos spp. | 40 | 0.34000 | |
| Lepidactylus dytiscus | 80 | 0.03200 | |
| Macoma mitchelli | 120 | 0.00400 | |
| Marenzelleria viridis | 40 | 0.05600 | |
| Total Abundance w/ Epi. | 440 | | |
| Total Abundance w/o Epi. | 440 | | |
| Number of Taxa w/ Epi. | 7 | | |
| Number of Taxa w/o Epi. | 7 | | |
| Total Biomass w/ Epi. | | 0.98000 | |
| Total Biomass w/o Epi. | | 0.98000 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 001 | | Rep: 02 |
|-----------------------------------|-------------------------------|---|
| Watershed: Mainstem | Habitat: High Mesohaline Sand | Date: 25SEP17 |
| Gear: Modified Box Corer | Sampled Area: 0.025 sq.m | Time: 12:51:00 |
| BOTTOM ENVIRONMENT | | |
| Depth (m): 2.0 | Salinity (ppt): 14.08 | Temperature (C): 25.13 |
| Dissolved Oxygen (mg/l): 9.3 | Sediment Silt-Clay (%): 1.54 | Total Carbon (%): 0.12 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | |
| B-IBI Score: 3.67 | Condition: Meets Goal | # Attributes Scored: 6 |
| | Value Score | Value Score |
| Shannon-Wiener Index | 3.35 5 | Pollution Indicative Species Abundance (%) 6.90 5 |
| Abundance (#/m2) | 1160 3 | Pollution Indicative Species Biomass (%) 0.58 |
| Biomass (g/m2) | 2.06 3 | Pollution Sensitive Species Abundance (%) 13.79 3 |
| Carnivore-Omnivore Abundance (%) | 24.14 3 | Pollution Sensitive Species Biomass (%) 2.92 |
| Deep Deposit Feeder Abundance (%) | 20.69 | |
| BENTHIC ABUNDANCE (per sq. meter) | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) |
| Ameroculodes species complex | 120 | 0.00200 |
| Gemma gemma | 40 | 0.02800 |
| Glycinde solitaria | 120 | 0.02000 |
| Haminoea solitaria | 40 | 0.00400 |
| Heteromastus filiformis | 240 | 0.05600 |
| Laeonereis culveri | 40 | 0.82400 |
| Lepidactylus dytiscus | 160 | 0.05600 |
| Leptosynapta tenuis | 120 | 0.95200 |
| Macoma mitchelli | 80 | 0.00200 |
| Micrura leidyi | 80 | 0.06000 |
| Mulinia lateralis | 80 | 0.01200 |
| Spiophanes bombyx | 40 | 0.04000 |
| Total Abundance w/ Epi. | 1160 | |
| Total Abundance w/o Epi. | 1160 | |
| Number of Taxa w/ Epi. | 12 | |
| Number of Taxa w/o Epi. | 12 | |
| Total Biomass w/ Epi. | | 2.05600 |
| Total Biomass w/o Epi. | | 2.05600 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 001 | | Rep: 03 |
|-----------------------------------|-------------------------------|---|
| Watershed: Mainstem | Habitat: High Mesohaline Sand | Date: 25SEP17 |
| Gear: Modified Box Corer | Sampled Area: 0.025 sq.m | Time: 12:51:00 |
| BOTTOM ENVIRONMENT | | |
| Depth (m): 2.0 | Salinity (ppt): 14.08 | Temperature (C): 25.13 |
| Dissolved Oxygen (mg/l): 9.3 | Sediment Silt-Clay (%): 1.54 | Total Carbon (%): 0.12 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | |
| B-IBI Score: 3.67 | Condition: Meets Goal | # Attributes Scored: 6 |
| | Value Score | Value Score |
| Shannon-Wiener Index | 2.95 3 | Pollution Indicative Species Abundance (%) 3.13 5 |
| Abundance (#/m2) | 1280 3 | Pollution Indicative Species Biomass (%) 0.93 |
| Biomass (g/m2) | 1.29 3 | Pollution Sensitive Species Abundance (%) 21.88 3 |
| Carnivore-Omnivore Abundance (%) | 37.50 5 | Pollution Sensitive Species Biomass (%) 2.79 |
| Deep Deposit Feeder Abundance (%) | 3.13 | |
| BENTHIC ABUNDANCE (per sq. meter) | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) |
| Gemma gemma | 120 | 0.00200 |
| Glycinde solitaria | 280 | 0.03600 |
| Haminoea solitaria | 80 | 0.01200 |
| Heteromastus filiformis | 40 | 0.01200 |
| Lepidactylus dytiscus | 80 | 0.03600 |
| Leptosynapta tenuis | 80 | 0.54000 |
| Macoma mitchelli | 400 | 0.36400 |
| Micrura leidyi | 80 | 0.17200 |
| Mulinia lateralis | 40 | 0.01200 |
| Parvilucina crenella | 40 | 0.09600 |
| Podarkeopsis levifuscina | 40 | 0.00800 |
| Total Abundance w/ Epi. | 1280 | |
| Total Abundance w/o Epi. | 1280 | |
| Number of Taxa w/ Epi. | 11 | |
| Number of Taxa w/o Epi. | 11 | |
| Total Biomass w/ Epi. | | 1.29000 |
| Total Biomass w/o Epi. | | 1.29000 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-------------------------------------|------------------------------|-------------------------------|------------------------|
| Watershed: Calvert Cliffs Discharge | | Station: 006 | Rep: 01 |
| Gear: Modified Box Corer | | Habitat: High Mesohaline Sand | Date: 25SEP17 |
| | | Sampled Area: 0.025 sq.m | Time: 12:10:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 1.5 | Salinity (ppt): 14.38 | Temperature (C): 25.78 | |
| Dissolved Oxygen (mg/l): 9.3 | Sediment Silt-Clay (%): 1.37 | Total Carbon (%): 0.05 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 2.67 | | Condition: Marginal | # Attributes Scored: 6 |
| | Value | Score | Value |
| Shannon-Wiener Index | 2.16 | 1 | 0.00 |
| Abundance (#/m2) | 320 | 1 | 5 |
| Biomass (g/m2) | 0.25 | 1 | 0.00 |
| Carnivore-Omnivore Abundance (%) | 37.50 | 5 | 25.00 |
| Deep Deposit Feeder Abundance (%) | 12.50 | | 3 |
| | | | 4.80 |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Gemma gemma | 120 | 0.00200 | |
| Glycinde solitaria | 80 | 0.01200 | |
| Heteromastus filiformis | 40 | 0.01200 | |
| Macoma mitchelli | 40 | 0.18000 | |
| Neanthes succinea | 40 | 0.04400 | |
| Total Abundance w/ Epi. | 320 | | |
| Total Abundance w/o Epi. | 320 | | |
| Number of Taxa w/ Epi. | 5 | | |
| Number of Taxa w/o Epi. | 5 | | |
| Total Biomass w/ Epi. | | 0.25000 | |
| Total Biomass w/o Epi. | | 0.25000 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 006 | | Rep: 02 |
|-------------------------------------|-------------------------------|---|
| Watershed: Calvert Cliffs Discharge | Habitat: High Mesohaline Sand | Date: 25SEP17 |
| Gear: Modified Box Corer | Sampled Area: 0.025 sq.m | Time: 12:10:00 |
| BOTTOM ENVIRONMENT | | |
| Depth (m): 1.5 | Salinity (ppt): 14.38 | Temperature (C): 25.78 |
| Dissolved Oxygen (mg/l): 9.3 | Sediment Silt-Clay (%): 1.37 | Total Carbon (%): 0.05 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | |
| B-IBI Score: 3.00 | Condition: Meets Goal | # Attributes Scored: 6 |
| | Value Score | Value Score |
| Shannon-Wiener Index | 2.85 3 | Pollution Indicative Species Abundance (%) 9.09 5 |
| Abundance (#/m2) | 440 1 | Pollution Indicative Species Biomass (%) 27.50 |
| Biomass (g/m2) | 0.64 1 | Pollution Sensitive Species Abundance (%) 36.36 3 |
| Carnivore-Omnivore Abundance (%) | 63.64 5 | Pollution Sensitive Species Biomass (%) 30.00 |
| Deep Deposit Feeder Abundance (%) | 18.18 | |
| BENTHIC ABUNDANCE (per sq. meter) | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) |
| Carinoma tremaphoros | 40 | 0.00800 |
| Cyathura polita | 40 | 0.17600 |
| Edwardsia elegans | 40 | 0.02400 |
| Gemma gemma | 40 | 0.00400 |
| Glycinde solitaria | 120 | 0.01600 |
| Heteromastus filiformis | 40 | 0.00400 |
| Leitoscoloplos fragilis | 40 | 0.17600 |
| Macoma mitchelli | 40 | 0.00400 |
| Micrura leidyi | 40 | 0.22800 |
| Total Abundance w/ Epi. | 440 | |
| Total Abundance w/o Epi. | 440 | |
| Number of Taxa w/ Epi. | 9 | |
| Number of Taxa w/o Epi. | 9 | |
| Total Biomass w/ Epi. | | 0.64000 |
| Total Biomass w/o Epi. | | 0.64000 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| BOTTOM ENVIRONMENT | | |
|-------------------------------------|-------------------------------|------------------------|
| Watershed: Calvert Cliffs Discharge | Station: 006 | Rep: 03 |
| Gear: Modified Box Corer | Habitat: High Mesohaline Sand | Date: 25SEP17 |
| | Sampled Area: 0.025 sq.m | Time: 12:10:00 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | |
| B-IBI Score: 3.33 | Condition: Meets Goal | # Attributes Scored: 6 |
| | Value | Score |
| Shannon-Wiener Index | 2.62 | 3 |
| Abundance (#/m2) | 800 | 1 |
| Biomass (g/m2) | 2.08 | 3 |
| Carnivore-Omnivore Abundance (%) | 40.00 | 5 |
| Deep Deposit Feeder Abundance (%) | 5.00 | |
| | | |
| | | |
| BENTHIC ABUNDANCE (per sq. meter) | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) |
| Ameroculodes species complex | 40 | 0.00800 |
| Gemma gemma | 40 | 0.00200 |
| Glycinde solitaria | 160 | 0.02400 |
| Heteromastus filiformis | 40 | 0.03200 |
| Laeonereis culveri | 40 | 1.58800 |
| Leptosynapta tenuis | 40 | 0.15600 |
| Macoma balthica | 320 | 0.22400 |
| Micrura leidyi | 80 | 0.04000 |
| Podarkeopsis levifuscina | 40 | 0.00400 |
| Total Abundance w/ Epi. | 800 | |
| Total Abundance w/o Epi. | 800 | |
| Number of Taxa w/ Epi. | 9 | |
| Number of Taxa w/o Epi. | 9 | |
| Total Biomass w/ Epi. | | 2.07800 |
| Total Biomass w/o Epi. | | 2.07800 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| STATION INFORMATION | | | |
|-----------------------------------|-------------------------------|------------------------|---|
| Watershed: Mainstem | Station: 015 | Rep: 01 | |
| Gear: Modified Box Corer | Habitat: High Mesohaline Sand | Date: 25SEP17 | |
| | Sampled Area: 0.025 sq.m | Time: 11:06:00 | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 2.5 | Salinity (ppt): 13.55 | Temperature (C): 25.09 | |
| Dissolved Oxygen (mg/l): 8.8 | Sediment Silt-Clay (%): 4.30 | Total Carbon (%): 0.11 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 2.33 | Condition: Degraded | | # Attributes Scored: 6 |
| | Value | Score | Value Score |
| Shannon-Wiener Index | 2.09 | 1 | |
| Abundance (#/m2) | 800 | 1 | Pollution Indicative Species Abundance (%) 0.00 5 |
| Biomass (g/m2) | 31.92 | 3 | Pollution Indicative Species Biomass (%) 0.00 |
| Carnivore-Omnivore Abundance (%) | 20.00 | 3 | Pollution Sensitive Species Abundance (%) 5.00 1 |
| Deep Deposit Feeder Abundance (%) | 10.00 | | Pollution Sensitive Species Biomass (%) 96.94 |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) |
| Carinoma tremaphoros | 80 | | 0.03200 |
| Gemma gemma | 400 | | 0.29200 |
| Heteromastus filiformis | 80 | | 0.02400 |
| Macoma mitchelli | 120 | | 0.37600 |
| Micrura leidyi | 40 | | 0.24000 |
| Neanthes succinea | 40 | | 0.01200 |
| Tagelus plebeius | 40 | | 30.94000 |
| Total Abundance w/ Epi. | 800 | | |
| Total Abundance w/o Epi. | 800 | | |
| Number of Taxa w/ Epi. | 7 | | |
| Number of Taxa w/o Epi. | 7 | | |
| Total Biomass w/ Epi. | | | 31.91600 |
| Total Biomass w/o Epi. | | | 31.91600 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 015 | | Rep: 02 | |
|-----------------------------------|-------------------------------|--|-------|
| Watershed: Mainstem | Habitat: High Mesohaline Sand | Date: 25SEP17 | |
| Gear: Modified Box Corer | Sampled Area: 0.025 sq.m | Time: 11:06:00 | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 2.5 | Salinity (ppt): 13.55 | Temperature (C): 25.09 | |
| Dissolved Oxygen (mg/l): 8.8 | Sediment Silt-Clay (%): 4.30 | Total Carbon (%): 0.11 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 2.33 | Condition: Degraded | # Attributes Scored: 6 | |
| Value | Score | Value | Score |
| Shannon-Wiener Index | 1.79 | Pollution Indicative Species Abundance (%) | 0.00 |
| Abundance (#/m2) | 1480 | Pollution Indicative Species Biomass (%) | 0.00 |
| Biomass (g/m2) | 1.05 | Pollution Sensitive Species Abundance (%) | 2.70 |
| Carnivore-Omnivore Abundance (%) | 8.11 | Pollution Sensitive Species Biomass (%) | 0.38 |
| Deep Deposit Feeder Abundance (%) | 21.62 | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Carinoma tremaphoros | 40 | 0.00800 | |
| Gemma gemma | 760 | 0.09600 | |
| Glycinde solitaria | 40 | 0.00400 | |
| Heteromastus filiformis | 320 | 0.24000 | |
| Macoma mitchelli | 280 | 0.68400 | |
| Micrura leidyi | 40 | 0.01600 | |
| Total Abundance w/ Epi. | 1480 | | |
| Total Abundance w/o Epi. | 1480 | | |
| Number of Taxa w/ Epi. | 6 | | |
| Number of Taxa w/o Epi. | 6 | | |
| Total Biomass w/ Epi. | | 1.04800 | |
| Total Biomass w/o Epi. | | 1.04800 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 015 | | Rep: 03 | |
|-----------------------------------|-------------------------------|------------------------|---|
| Watershed: Mainstem | Habitat: High Mesohaline Sand | Date: 25SEP17 | |
| Gear: Modified Box Corer | Sampled Area: 0.025 sq.m | Time: 11:06:00 | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 2.5 | Salinity (ppt): 13.55 | Temperature (C): 25.09 | |
| Dissolved Oxygen (mg/l): 8.8 | Sediment Silt-Clay (%): 4.30 | Total Carbon (%): 0.11 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 2.67 | Condition: Marginal | | # Attributes Scored: 6 |
| | Value | Score | Value Score |
| Shannon-Wiener Index | 2.66 | 3 | Pollution Indicative Species Abundance (%) 6.67 5 |
| Abundance (#/m2) | 600 | 1 | Pollution Indicative Species Biomass (%) 17.47 |
| Biomass (g/m2) | 2.40 | 3 | Pollution Sensitive Species Abundance (%) 6.67 1 |
| Carnivore-Omnivore Abundance (%) | 33.33 | 3 | Pollution Sensitive Species Biomass (%) 0.50 |
| Deep Deposit Feeder Abundance (%) | 13.33 | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Acteocina canaliculata | 40 | 0.01200 | |
| Gemma gemma | 160 | 0.18000 | |
| Heteromastus filiformis | 80 | 0.06400 | |
| Macoma mitchelli | 120 | 0.93600 | |
| Micrura leidyi | 80 | 0.76400 | |
| Mulinia lateralis | 40 | 0.42000 | |
| Neanthes succinea | 80 | 0.02800 | |
| Total Abundance w/ Epi. | 600 | | |
| Total Abundance w/o Epi. | 600 | | |
| Number of Taxa w/ Epi. | 7 | | |
| Number of Taxa w/o Epi. | 7 | | |
| Total Biomass w/ Epi. | | 2.40400 | |
| Total Biomass w/o Epi. | | 2.40400 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 022 | | Rep: 01 | |
|-----------------------------------|-------------------------------|------------------------|--|
| Watershed: Patapsco & Back Rivers | Habitat: Low Mesohaline | Date: 08SEP17 | |
| Gear: Wildco Box Corer | Sampled Area: 0.022 sq.m | Time: 9:15:00 | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 5.0 | Salinity (ppt): 11.92 | Temperature (C): 24.17 | |
| Dissolved Oxygen (mg/l): 1.1 | Sediment Silt-Clay (%): 76.41 | Total Carbon (%): 3.22 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 1.00 | Condition: Severely Degr. | # Attributes Scored: 5 | |
| | Value | Score | |
| Shannon-Wiener Index | 0.81 | 1 | |
| Abundance (#/m2) | 364 | 1 | Pollution Indicative Species Abundance (%) 75.00 1 |
| Biomass (g/m2) | 0.01 | 1 | Pollution Indicative Species Biomass (%) 80.00 |
| Carnivore-Omnivore Abundance (%) | 0.00 | | Pollution Sensitive Species Abundance (%) 0.00 |
| Deep Deposit Feeder Abundance (%) | 25.00 | | Pollution Sensitive Species Biomass (%) 0.00 1 |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Streblospio benedicti | 273 | 0.00909 | |
| Tubificoides spp. | 91 | 0.00227 | |
| Total Abundance w/ Epi. | 364 | | |
| Total Abundance w/o Epi. | 364 | | |
| Number of Taxa w/ Epi. | 2 | | |
| Number of Taxa w/o Epi. | 2 | | |
| Total Biomass w/ Epi. | | 0.01136 | |
| Total Biomass w/o Epi. | | 0.01136 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 022 | | Rep: 02 | |
|-----------------------------------|-------------------------------|------------------------|--|
| Watershed: Patapsco & Back Rivers | Habitat: Low Mesohaline | Date: 08SEP17 | |
| Gear: Wildco Box Corer | Sampled Area: 0.022 sq.m | Time: 9:15:00 | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 5.0 | Salinity (ppt): 11.92 | Temperature (C): 24.17 | |
| Dissolved Oxygen (mg/l): 1.1 | Sediment Silt-Clay (%): 76.41 | Total Carbon (%): 3.22 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 1.00 | Condition: Severely Degr. | # Attributes Scored: 5 | |
| | Value | Score | |
| Shannon-Wiener Index | 1.00 | 1 | |
| Abundance (#/m2) | 91 | 1 | Pollution Indicative Species Abundance (%) 50.00 1 |
| Biomass (g/m2) | 0.03 | 1 | Pollution Indicative Species Biomass (%) 33.33 |
| Carnivore-Omnivore Abundance (%) | 50.00 | | Pollution Sensitive Species Abundance (%) 0.00 |
| Deep Deposit Feeder Abundance (%) | 0.00 | | Pollution Sensitive Species Biomass (%) 0.00 1 |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Carinoma tremaphoros | 45 | 0.01818 | |
| Streblospio benedicti | 45 | 0.00909 | |
| Total Abundance w/ Epi. | 91 | | |
| Total Abundance w/o Epi. | 91 | | |
| Number of Taxa w/ Epi. | 2 | | |
| Number of Taxa w/o Epi. | 2 | | |
| Total Biomass w/ Epi. | | 0.02727 | |
| Total Biomass w/o Epi. | | 0.02727 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 022 | | Rep: 03 | |
|-----------------------------------|-------------------------------|------------------------|--|
| Watershed: Patapsco & Back Rivers | Habitat: Low Mesohaline | Date: 08SEP17 | |
| Gear: Wildco Box Corer | Sampled Area: 0.022 sq.m | Time: 9:15:00 | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 5.0 | Salinity (ppt): 11.92 | Temperature (C): 24.17 | |
| Dissolved Oxygen (mg/l): 1.1 | Sediment Silt-Clay (%): 76.41 | Total Carbon (%): 3.22 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 1.00 | Condition: Severely Degr. | # Attributes Scored: 5 | |
| | Value | Score | |
| Shannon-Wiener Index | 1.50 | 1 | |
| Abundance (#/m2) | 182 | 1 | Pollution Indicative Species Abundance (%) 50.00 1 |
| Biomass (g/m2) | 0.03 | 1 | Pollution Indicative Species Biomass (%) 42.86 |
| Carnivore-Omnivore Abundance (%) | 25.00 | | Pollution Sensitive Species Abundance (%) 0.00 |
| Deep Deposit Feeder Abundance (%) | 25.00 | | Pollution Sensitive Species Biomass (%) 0.00 1 |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Carinoma tremaphoros | 45 | 0.01364 | |
| Streblospio benedicti | 91 | 0.01364 | |
| Tubificoides spp. | 45 | 0.00454 | |
| Total Abundance w/ Epi. | 182 | | |
| Total Abundance w/o Epi. | 182 | | |
| Number of Taxa w/ Epi. | 3 | | |
| Number of Taxa w/o Epi. | 3 | | |
| Total Biomass w/ Epi. | | 0.03181 | |
| Total Biomass w/o Epi. | | 0.03181 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|-------|-------------------------------|--|
| Station: 023 | | Rep: 01 | |
| Watershed: Patapsco & Back Rivers | | Date: 08SEP17 | |
| Gear: Wildco Box Corer | | Time: 11:25:00 | |
| Habitat: Low Mesohaline | | | |
| Sampled Area: 0.022 sq.m | | | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 6.0 | | Salinity (ppt): 11.54 | |
| Dissolved Oxygen (mg/l): 2.7 | | Temperature (C): 23.30 | |
| | | Sediment Silt-Clay (%): 65.44 | |
| | | Total Carbon (%): 2.23 | |
| 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) | 91 | 1 | Pollution Indicative Species Biomass (%) |
| Biomass (g/m2) | 0.00 | 1 | Pollution Sensitive Species Abundance (%) |
| Carnivore-Omnivore Abundance (%) | 0.00 | | Pollution Sensitive Species Biomass (%) |
| Deep Deposit Feeder Abundance (%) | 0.00 | | |
| | | | Value Score |
| | | | 50.00 1 |
| | | | 50.00 |
| | | | 0.00 |
| | | | 0.00 1 |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | | Abundance (#/m2) | Biomass (g/m2) |
| Leptocheirus plumulosus | | 45 | 0.00227 |
| Streblospio benedicti | | 45 | 0.00227 |
| Total Abundance w/ Epi. | | 91 | |
| Total Abundance w/o Epi. | | 91 | |
| Number of Taxa w/ Epi. | | 2 | |
| Number of Taxa w/o Epi. | | 2 | |
| Total Biomass w/ Epi. | | | 0.00455 |
| Total Biomass w/o Epi. | | | 0.00455 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|-------------------------------|---------------------------|---|
| Station: 023 | | Rep: 02 | |
| Watershed: Patapsco & Back Rivers | | Date: 08SEP17 | |
| Gear: Wildco Box Corer | | Time: 11:25:00 | |
| Habitat: Low Mesohaline | | | |
| Sampled Area: 0.022 sq.m | | | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 6.0 | Salinity (ppt): 11.54 | Temperature (C): 23.30 | |
| Dissolved Oxygen (mg/l): 2.7 | Sediment Silt-Clay (%): 65.44 | Total Carbon (%): 2.23 | |
| 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 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 023 | | Rep: 03 | |
|-----------------------------------|-------------------------------|------------------------|--|
| Watershed: Patapsco & Back Rivers | Habitat: Low Mesohaline | Date: 08SEP17 | |
| Gear: Wildco Box Corer | Sampled Area: 0.022 sq.m | Time: 11:25:00 | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 6.0 | Salinity (ppt): 11.54 | Temperature (C): 23.30 | |
| Dissolved Oxygen (mg/l): 2.7 | Sediment Silt-Clay (%): 65.44 | Total Carbon (%): 2.23 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 1.40 | Condition: Severely Degr. | # Attributes Scored: 5 | |
| | Value | Score | |
| Shannon-Wiener Index | 1.79 | 3 | |
| Abundance (#/m2) | 273 | 1 | Pollution Indicative Species Abundance (%) 50.00 1 |
| Biomass (g/m2) | 0.07 | 1 | Pollution Indicative Species Biomass (%) 25.00 |
| Carnivore-Omnivore Abundance (%) | 33.33 | | Pollution Sensitive Species Abundance (%) 0.00 |
| Deep Deposit Feeder Abundance (%) | 16.67 | | Pollution Sensitive Species Biomass (%) 0.00 1 |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Carinoma tremaphoros | 45 | 0.00455 | |
| Heteromastus filiformis | 45 | 0.00909 | |
| Neanthes succinea | 45 | 0.04090 | |
| Streblospio benedicti | 136 | 0.01818 | |
| Total Abundance w/ Epi. | 273 | | |
| Total Abundance w/o Epi. | 273 | | |
| Number of Taxa w/ Epi. | 4 | | |
| Number of Taxa w/o Epi. | 4 | | |
| Total Biomass w/ Epi. | | 0.07272 | |
| Total Biomass w/o Epi. | | 0.07272 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| BOTTOM ENVIRONMENT | | |
|--|------------------------------|------------------------|
| Watershed: Mainstem | Station: 024 | Rep: 01 |
| Gear: Wildco Box Corer | Habitat: High Mesohaline Mud | Date: 17AUG17 |
| | Sampled Area: 0.022 sq.m | Time: 14:15:00 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | |
| B-IBI Score: 3.67 | Condition: Meets Goal | # Attributes Scored: 6 |
| | Value | Score |
| Shannon-Wiener Index | 2.40 | 3 |
| Abundance (#/m2) | 1227 | 3 |
| Biomass (g/m2) | 12.52 | 3 |
| Carnivore-Omnivore Abundance (%) | 22.22 | 3 |
| Deep Deposit Feeder Abundance (%) | 48.15 | |
| | | Value |
| | | Score |
| Pollution Indicative Species Abundance (%) | 14.81 | |
| Pollution Indicative Species Biomass (%) | 1.18 | 5 |
| Pollution Sensitive Species Abundance (%) | 18.52 | |
| Pollution Sensitive Species Biomass (%) | 90.98 | 5 |
| BENTHIC ABUNDANCE (per sq. meter) | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) |
| Macoma balthica | 182 | 11.06253 |
| Macoma mitchelli | 45 | 0.31361 |
| Mulinia lateralis | 45 | 0.14089 |
| Neanthes succinea | 273 | 0.64994 |
| Rangia cuneata | 45 | 0.32724 |
| Streblospio benedicti | 45 | 0.00455 |
| Tubificidae imm w/o cap chaetae | 91 | 0.00227 |
| Tubificoides spp. | 500 | 0.01818 |
| Total Abundance w/ Epi. | 1227 | |
| Total Abundance w/o Epi. | 1227 | |
| Number of Taxa w/ Epi. | 8 | |
| Number of Taxa w/o Epi. | 8 | |
| Total Biomass w/ Epi. | | 12.51920 |
| Total Biomass w/o Epi. | | 12.51920 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 024 | | Rep: 02 | |
|-----------------------------------|-------------------------------|------------------------|---|
| Watershed: Mainstem | Habitat: High Mesohaline Mud | Date: 17AUG17 | |
| Gear: Wildco Box Corer | Sampled Area: 0.022 sq.m | Time: 14:15:00 | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 6.5 | Salinity (ppt): 10.05 | Temperature (C): 25.78 | |
| Dissolved Oxygen (mg/l): 2.4 | Sediment Silt-Clay (%): 93.12 | Total Carbon (%): 3.54 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 3.33 | Condition: Meets Goal | | # Attributes Scored: 6 |
| | Value | Score | Value Score |
| Shannon-Wiener Index | 2.52 | 3 | Pollution Indicative Species Abundance (%) 0.00 |
| Abundance (#/m2) | 1000 | 1 | Pollution Indicative Species Biomass (%) 0.00 5 |
| Biomass (g/m2) | 14.39 | 3 | Pollution Sensitive Species Abundance (%) 31.82 |
| Carnivore-Omnivore Abundance (%) | 40.91 | 5 | Pollution Sensitive Species Biomass (%) 94.28 3 |
| Deep Deposit Feeder Abundance (%) | 13.64 | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) |
| Glycinde solitaria | 45 | | 0.00227 |
| Leptocheirus plumulosus | 91 | | 0.00227 |
| Macoma balthica | 182 | | 12.71691 |
| Macoma mitchelli | 91 | | 0.31815 |
| Neanthes succinea | 364 | | 0.49995 |
| Rangia cuneata | 91 | | 0.84537 |
| Tubificoides spp. | 136 | | 0.00227 |
| 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. | | | 14.38720 |
| Total Biomass w/o Epi. | | | 14.38720 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|-------------------------------|------------------------------|--|
| Watershed: Mainstem | | Station: 024 | Rep: 03 |
| Gear: Wildco Box Corer | | Habitat: High Mesohaline Mud | Date: 17AUG17 |
| | | Sampled Area: 0.022 sq.m | Time: 14:15:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 6.5 | Salinity (ppt): 10.05 | Temperature (C): 25.78 | |
| Dissolved Oxygen (mg/l): 2.4 | Sediment Silt-Clay (%): 93.12 | Total Carbon (%): 3.54 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 4.00 | Condition: Meets Goal | | # Attributes Scored: 6 |
| | Value | Score | Value Score |
| Shannon-Wiener Index | 2.75 | 3 | Pollution Indicative Species Abundance (%) 14.81 |
| Abundance (#/m2) | 1227 | 3 | Pollution Indicative Species Biomass (%) 6.53 3 |
| Biomass (g/m2) | 6.09 | 5 | Pollution Sensitive Species Abundance (%) 3.70 |
| Carnivore-Omnivore Abundance (%) | 33.33 | 5 | Pollution Sensitive Species Biomass (%) 65.22 5 |
| Deep Deposit Feeder Abundance (%) | 14.81 | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Carinoma tremaphoros | 91 | 0.06818 | |
| Leptocheirus plumulosus | 227 | 0.91809 | |
| Macoma balthica | 45 | 3.97233 | |
| Macoma mitchelli | 182 | 0.72720 | |
| Mulinia lateralis | 136 | 0.39542 | |
| Neanthes succinea | 318 | 0.00227 | |
| Streblospio benedicti | 45 | 0.00227 | |
| Tubificoides spp. | 182 | 0.00455 | |
| Total Abundance w/ Epi. | 1227 | | |
| Total Abundance w/o Epi. | 1227 | | |
| Number of Taxa w/ Epi. | 8 | | |
| Number of Taxa w/o Epi. | 8 | | |
| Total Biomass w/ Epi. | | 6.09030 | |
| Total Biomass w/o Epi. | | 6.09030 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|-------------------------|--------------------------|---|
| Watershed: Upper Western Shore | | Station: 026 | Rep: 01 |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | Date: 17AUG17 |
| | | Sampled Area: 0.022 sq.m | Time: 10:55:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 3.9 | Salinity (ppt): 3.06 | Temperature (C): 26.29 | |
| Dissolved Oxygen (mg/l): 5.7 | Sediment Silt-Clay (%): | | Total Carbon (%): |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 3.80 | | Condition: Meets Goal | # Attributes Scored: 5 |
| | Value | Score | Value |
| Shannon-Wiener Index | 2.84 | 5 | Pollution Indicative Species Abundance (%) 3.57 |
| Abundance (#/m2) | 1273 | 3 | Pollution Indicative Species Biomass (%) 0.00 |
| Biomass (g/m2) | 63.41 | 1 | Pollution Sensitive Species Abundance (%) 46.43 |
| Carnivore-Omnivore Abundance (%) | 10.71 | | Pollution Sensitive Species Biomass (%) 99.78 |
| Deep Deposit Feeder Abundance (%) | 39.29 | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) |
| Coelotanypus spp. | 45 | | 0.00227 |
| Cyathura polita | 91 | | 0.21816 |
| Heteromastus filiformis | 182 | | 0.03181 |
| Macoma balthica | 182 | | 2.63156 |
| Macoma mitchelli | 136 | | 0.10454 |
| Marenzelleria viridis | 136 | | 0.49086 |
| Mytilopsis leucophaeata (Epi) | 45 | | 0.08181 |
| Rangia cuneata | 182 | | 59.93037 |
| Tubificoides spp. | 318 | | 0.00227 |
| Total Abundance w/ Epi. | 1318 | | |
| Total Abundance w/o Epi. | 1273 | | |
| Number of Taxa w/ Epi. | 9 | | |
| Number of Taxa w/o Epi. | 8 | | |
| Total Biomass w/ Epi. | | | 63.49365 |
| Total Biomass w/o Epi. | | | 63.41184 |

Note: Silt-Clay and Total Carbon data missing because of loss of sample in the laboratory

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|-------------------------|--------------------------|---|
| Watershed: Upper Western Shore | | Station: 026 | Rep: 02 |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | Date: 17AUG17 |
| | | Sampled Area: 0.022 sq.m | Time: 10:55:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 3.9 | Salinity (ppt): 3.06 | Temperature (C): 26.29 | |
| Dissolved Oxygen (mg/l): 5.7 | Sediment Silt-Clay (%): | | Total Carbon (%): |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 4.20 | Condition: Meets Goal | | # Attributes Scored: 5 |
| | Value | Score | Value Score |
| Shannon-Wiener Index | 2.51 | 5 | Pollution Indicative Species Abundance (%) 0.00 5 |
| Abundance (#/m2) | 1591 | 5 | Pollution Indicative Species Biomass (%) 0.00 |
| Biomass (g/m2) | 99.77 | 1 | Pollution Sensitive Species Abundance (%) 54.29 |
| Carnivore-Omnivore Abundance (%) | 11.43 | | Pollution Sensitive Species Biomass (%) 99.97 5 |
| Deep Deposit Feeder Abundance (%) | 34.29 | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) |
| Cyathura polita | 182 | | 0.26361 |
| Edotea triloba (Epi) | 45 | | 0.00227 |
| Heteromastus filiformis | 45 | | 0.00455 |
| Macoma balthica | 227 | | 5.84942 |
| Marenzelleria viridis | 91 | | 0.05454 |
| Mytilopsis leucophaeata (Epi) | 45 | | 0.06363 |
| Polydora cornuta | 182 | | 0.02273 |
| Rangia cuneata | 364 | | 93.57246 |
| Tubificoides spp. | 500 | | 0.00454 |
| Total Abundance w/ Epi. | 1682 | | |
| Total Abundance w/o Epi. | 1591 | | |
| Number of Taxa w/ Epi. | 9 | | |
| Number of Taxa w/o Epi. | 7 | | |
| Total Biomass w/ Epi. | | | 99.83774 |
| Total Biomass w/o Epi. | | | 99.77184 |

Note: Silt-Clay and Total Carbon data missing because of loss of sample in the laboratory

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|-------------------------|--------------------------|---|
| Watershed: Upper Western Shore | | Station: 026 | Rep: 03 |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | Date: 17AUG17 |
| | | Sampled Area: 0.022 sq.m | Time: 10:55:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 3.9 | Salinity (ppt): 3.06 | Temperature (C): 26.29 | |
| Dissolved Oxygen (mg/l): 5.7 | Sediment Silt-Clay (%): | | Total Carbon (%): |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 3.80 | Condition: Meets Goal | | # Attributes Scored: 5 |
| | Value | Score | Value Score |
| Shannon-Wiener Index | 2.68 | 5 | Pollution Indicative Species Abundance (%) 0.00 5 |
| Abundance (#/m2) | 864 | 3 | Pollution Indicative Species Biomass (%) 0.00 |
| Biomass (g/m2) | 45.94 | 1 | Pollution Sensitive Species Abundance (%) 52.63 |
| Carnivore-Omnivore Abundance (%) | 15.79 | | Pollution Sensitive Species Biomass (%) 99.98 5 |
| Deep Deposit Feeder Abundance (%) | 36.84 | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) |
| Cyathura polita | 136 | | 0.19998 |
| Heteromastus filiformis | 91 | | 0.00455 |
| Macoma balthica | 136 | | 2.58611 |
| Marenzelleria viridis | 45 | | 0.06818 |
| Mytilopsis leucophaeata (Epi) | 91 | | 0.47268 |
| Polydora cornuta | 91 | | 0.00227 |
| Rangia cuneata | 136 | | 43.07751 |
| Tubificoides spp. | 227 | | 0.00227 |
| Total Abundance w/ Epi. | 954 | | |
| Total Abundance w/o Epi. | 864 | | |
| Number of Taxa w/ Epi. | 8 | | |
| Number of Taxa w/o Epi. | 7 | | |
| Total Biomass w/ Epi. | | | 46.41354 |
| Total Biomass w/o Epi. | | | 45.94086 |

Note: Silt-Clay and Total Carbon data missing because of loss of sample in the laboratory

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|-------------------------------|--------------------------|--|
| Watershed: Upper Eastern Shore | | Station: 029 | Rep: 01 |
| Gear: Wildco Box Corer | | Habitat: Oligohaline | Date: 21AUG17 |
| | | Sampled Area: 0.022 sq.m | Time: 15:00:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 5.0 | Salinity (ppt): 0.45 | Temperature (C): 28.01 | |
| Dissolved Oxygen (mg/l): 7.1 | Sediment Silt-Clay (%): 59.54 | Total Carbon (%): 1.6 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 3.33 | Condition: Meets Goal | | # Attributes Scored: 6 |
| | Value | Score | Value Score |
| Shannon-Wiener Index | 3.08 | | 34.78 3 |
| Abundance (#/m2) | 1045 | 5 | Tolerance Score 7.11 3 |
| Deep Deposit Feeder Abundance (%) | 13.04 | | Oligohaline Pollution Sensitive Spp. Abund. 8.70 3 |
| Carnivore-Omnivore Abundance (%) | 52.17 | 5 | Tanypodinae/Chironomidae Abundance Ratio 80.00 1 |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Ameroculodes species complex | 45 | 0.00455 | |
| Apocorophium lacustre (Epi) | 136 | 0.00455 | |
| Carinoma tremaphoros | 45 | 0.04545 | |
| Ceratopogonidae | 45 | 0.06818 | |
| Coelotanypus spp. | 182 | 0.00454 | |
| Cyathura polita | 227 | 0.19543 | |
| Gammarus spp. (Epi) | 45 | 0.00454 | |
| Hobsonia florida | 91 | 0.00455 | |
| Marenzelleria viridis | 91 | 0.01818 | |
| Polypedilum halterale group | 45 | 0.00227 | |
| Rangia cuneata | 136 | 48.60878 | |
| Tubificidae imm w/o cap chaetae | 136 | 0.00227 | |
| Total Abundance w/ Epi. | 1227 | | |
| Total Abundance w/o Epi. | 1045 | | |
| Number of Taxa w/ Epi. | 12 | | |
| Number of Taxa w/o Epi. | 10 | | |
| Total Biomass w/ Epi. | | 48.96329 | |
| Total Biomass w/o Epi. | | 48.95420 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 029 | | Rep: 02 |
|-----------------------------------|-------------------------------|--|
| Watershed: Upper Eastern Shore | Habitat: Oligohaline | Date: 21AUG17 |
| Gear: Wildco Box Corer | Sampled Area: 0.022 sq.m | Time: 15:00:00 |
| BOTTOM ENVIRONMENT | | |
| Depth (m): 5.0 | Salinity (ppt): 0.45 | Temperature (C): 28.01 |
| Dissolved Oxygen (mg/l): 7.1 | Sediment Silt-Clay (%): 59.54 | Total Carbon (%): 1.6 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | |
| B-IBI Score: 3.67 | Condition: Meets Goal | # Attributes Scored: 6 |
| | Value | Score |
| Shannon-Wiener Index | 3.02 | Oligohaline Pollution Indicative Spp. Abund. 38.89 3 |
| Abundance (#/m2) | 1636 | Tolerance Score 6.78 3 |
| Deep Deposit Feeder Abundance (%) | 13.89 | Oligohaline Pollution Sensitive Spp. Abund. 2.78 3 |
| Carnivore-Omnivore Abundance (%) | 44.44 | Tanypodinae/Chironomidae Abundance Ratio 45.45 3 |
| BENTHIC ABUNDANCE (per sq. meter) | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) |
| Ameroculodes species complex | 45 | 0.01364 |
| Chironomidae | | 0.00227 |
| Coelotanypus spp. | 182 | 0.00909 |
| Cyathura polita | 227 | 0.04545 |
| Dicrotendipes simpsoni | 45 | |
| Hobsonia florida | 45 | 0.00227 |
| Marenzelleria viridis | 45 | 0.04090 |
| Nanocladius distinctus | 45 | |
| Polypedilum halterale group | 182 | |
| Procladius spp. | 45 | |
| Rangia cuneata | 545 | 187.54942 |
| Tubificidae imm w/o cap chaetae | 136 | 0.00227 |
| Tubificoides spp. | 91 | 0.00227 |
| Total Abundance w/ Epi. | 1636 | |
| Total Abundance w/o Epi. | 1636 | |
| Number of Taxa w/ Epi. | 12 | |
| Number of Taxa w/o Epi. | 12 | |
| Total Biomass w/ Epi. | | 187.66759 |
| Total Biomass w/o Epi. | | 187.66759 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 029 | | Rep: 03 | |
|-----------------------------------|-------------------------------|------------------------|--|
| Watershed: Upper Eastern Shore | Habitat: Oligohaline | Date: 21AUG17 | |
| Gear: Wildco Box Corer | Sampled Area: 0.022 sq.m | Time: 15:00:00 | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 5.0 | Salinity (ppt): 0.45 | Temperature (C): 28.01 | |
| Dissolved Oxygen (mg/l): 7.1 | Sediment Silt-Clay (%): 59.54 | Total Carbon (%): 1.6 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 3.33 | Condition: Meets Goal | # Attributes Scored: 6 | |
| | Value | Score | Value |
| Shannon-Wiener Index | 2.97 | | |
| Abundance (#/m2) | 1273 | 5 | Oligohaline Pollution Indicative Spp. Abund. 35.71 3 |
| Deep Deposit Feeder Abundance (%) | 7.14 | | Tolerance Score 6.84 3 |
| Carnivore-Omnivore Abundance (%) | 35.71 | 5 | Oligohaline Pollution Sensitive Spp. Abund. 7.14 3 |
| | | | Tanypodinae/Chironomidae Abundance Ratio 66.67 1 |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Carinoma tremaphoros | 45 | 0.03181 | |
| Chironomidae | | 0.00227 | |
| Coelotanypus spp. | 45 | 0.00227 | |
| Corbicula fluminea | 227 | 0.13181 | |
| Cyathura polita | 273 | 0.05000 | |
| Gammarus spp. (Epi) | 182 | 0.00909 | |
| Hobsonia florida | 136 | 0.00455 | |
| Marenzelleria viridis | 91 | 0.29088 | |
| Polypedilum halterale group | 45 | | |
| Procladius spp. | 45 | | |
| Rangia cuneata | 273 | 72.87907 | |
| Tubificidae imm w/o cap chaetae | 91 | 0.00227 | |
| Total Abundance w/ Epi. | 1454 | | |
| Total Abundance w/o Epi. | 1273 | | |
| Number of Taxa w/ Epi. | 11 | | |
| Number of Taxa w/o Epi. | 10 | | |
| Total Biomass w/ Epi. | | 73.40402 | |
| Total Biomass w/o Epi. | | 73.39493 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| BOTTOM ENVIRONMENT | | |
|-----------------------------------|---------------------------|---|
| Watershed: Potomac River | Station: 036 | Rep: 01 |
| Gear: Wildco Box Corer | Habitat: Tidal Freshwater | Date: 30AUG17 |
| | Sampled Area: 0.022 sq.m | Time: 13:00:00 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | |
| B-IBI Score: 3.00 | Condition: Meets Goal | # Attributes Scored: 3 |
| | Value | Score |
| Shannon-Wiener Index | 2.80 | T.F. Pollution Indicative Spp. Abund. (%) 52.14 3 |
| Abundance (#/m2) | 5318 | Tolerance Score 9.34 3 |
| Deep Deposit Feeder Abundance (%) | 80.34 | Limnodrilus Abundance (%) 52.14 |
| Carnivore-Omnivore Abundance (%) | 8.55 | |
| BENTHIC ABUNDANCE (per sq. meter) | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) |
| Branchiura sowerbyi | 409 | 0.74992 |
| Chironomidae | | 0.00227 |
| Chironomus spp. | 136 | 0.05909 |
| Coelotanypus spp. | 227 | 0.03636 |
| Corbicula fluminea | 136 | 0.18180 |
| Dero digitata | 182 | |
| Ilyodrilus templetoni | 364 | |
| Limnodrilus hoffmeisteri | 545 | |
| Oligochaeta | | 0.34239 |
| Pisidium spp. | 455 | 0.03636 |
| Polypedilum halterale group | 45 | |
| Procladius spp. | 45 | |
| Tubificidae imm w cap chaetae * | 545 | |
| Tubificidae imm w/o cap chaetae * | 2227 | |
| Total Abundance w/ Epi. | 5318 | |
| Total Abundance w/o Epi. | 5318 | |
| Number of Taxa w/ Epi. | 10 | |
| Number of Taxa w/o Epi. | 10 | |
| Total Biomass w/ Epi. | | 1.40819 |
| Total Biomass w/o Epi. | | 1.40819 |

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 036 | | Rep: 02 |
|-----------------------------------|-------------------------------|---|
| Watershed: Potomac River | Habitat: Tidal Freshwater | Date: 30AUG17 |
| Gear: Wildco Box Corer | Sampled Area: 0.022 sq.m | Time: 13:00:00 |
| BOTTOM ENVIRONMENT | | |
| Depth (m): 1.5 | Salinity (ppt): 0.13 | Temperature (C): 24.85 |
| Dissolved Oxygen (mg/l): 7.5 | Sediment Silt-Clay (%): 85.54 | Total Carbon (%): 3.46 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | |
| B-IBI Score: 3.00 | Condition: Meets Goal | # Attributes Scored: 3 |
| | Value | Score |
| Shannon-Wiener Index | 2.66 | T.F. Pollution Indicative Spp. Abund. (%) 50.91 3 |
| Abundance (#/m2) | 5000 | Tolerance Score 9.14 3 |
| Deep Deposit Feeder Abundance (%) | 77.27 | Limnodrilus Abundance (%) 50.91 |
| Carnivore-Omnivore Abundance (%) | 11.82 | |
| BENTHIC ABUNDANCE (per sq. meter) | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) |
| Aulodrilus pigueti | 227 | |
| Branchiura sowerbyi | 136 | 0.02727 |
| Chironomus spp. | 273 | 0.07726 |
| Coelotanypus spp. | 273 | 0.02273 |
| Corbicula fluminea | 136 | 0.04090 |
| Cryptochironomus spp. | 45 | 0.00227 |
| Dero digitata | 455 | |
| Limnodrilus hoffmeisteri | 227 | |
| Oligochaeta | | 0.26702 |
| Pisidium spp. | 409 | 0.02273 |
| Tubificidae imm w cap chaetae * | 500 | |
| Tubificidae imm w/o cap chaetae * | 2318 | |
| Total Abundance w/ Epi. | 5000 | |
| Total Abundance w/o Epi. | 5000 | |
| Number of Taxa w/ Epi. | 9 | |
| Number of Taxa w/o Epi. | 9 | |
| Total Biomass w/ Epi. | | 0.46018 |
| Total Biomass w/o Epi. | | 0.46018 |

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | | | |
|-----------------------------------|--|-------------------------------|--|---|--|
| Watershed: Potomac River | | Station: 036 | | Rep: 03 | |
| Gear: Wildco Box Corer | | Habitat: Tidal Freshwater | | Date: 30AUG17 | |
| | | Sampled Area: 0.022 sq.m | | Time: 13:00:00 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 1.5 | | Salinity (ppt): 0.13 | | Temperature (C): 24.85 | |
| Dissolved Oxygen (mg/l): 7.5 | | Sediment Silt-Clay (%): 85.54 | | Total Carbon (%): 3.46 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 2.50 | | Condition: Degraded | | # Attributes Scored: 3 | |
| | | Value Score | | Value Score | |
| Shannon-Wiener Index | | 2.55 | | T.F. Pollution Indicative Spp. Abund. (%) 53.39 3 | |
| Abundance (#/m2) | | 5363 3 | | Tolerance Score 9.39 1 | |
| Deep Deposit Feeder Abundance (%) | | 81.36 3 | | Limnodrilus Abundance (%) 53.39 | |
| Carnivore-Omnivore Abundance (%) | | 5.08 | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | | Abundance (#/m2) | | Biomass (g/m2) | |
| Branchiura sowerbyi | | 500 | | 0.67720 | |
| Chironomus spp. | | 45 | | 0.00455 | |
| Coelotanypus spp. | | 227 | | 0.00909 | |
| Gammarus spp. (Epi) | | 45 | | 0.00909 | |
| Ilyodrilus templetoni | | 227 | | | |
| Limnodrilus hoffmeisteri | | 1045 | | | |
| Oligochaeta | | | | 0.27462 | |
| Pisidium spp. | | 727 | | 0.09090 | |
| Tubificidae imm w cap chaetae * | | 773 | | | |
| Tubificidae imm w/o cap chaetae * | | 1818 | | | |
| Total Abundance w/ Epi. | | 5409 | | | |
| Total Abundance w/o Epi. | | 5363 | | | |
| Number of Taxa w/ Epi. | | 7 | | | |
| Number of Taxa w/o Epi. | | 6 | | | |
| Total Biomass w/ Epi. | | | | 1.06545 | |
| Total Biomass w/o Epi. | | | | 1.05636 | |

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|-------------------------------|--------------------------|--|
| Watershed: Potomac River | | Station: 040 | Rep: 01 |
| Gear: Wildco Box Corer | | Habitat: Oligohaline | Date: 28AUG17 |
| | | Sampled Area: 0.022 sq.m | Time: 10:35:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 7.4 | Salinity (ppt): 3.86 | Temperature (C): 26.64 | |
| Dissolved Oxygen (mg/l): 5.2 | Sediment Silt-Clay (%): 84.75 | Total Carbon (%): 2.68 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 3.80 | Condition: Meets Goal | | # Attributes Scored: 5 |
| | Value | Score | Value |
| Shannon-Wiener Index | 2.29 | | Score |
| Abundance (#/m2) | 1000 | 5 | Oligohaline Pollution Indicative Spp. Abund. 40.91 3 |
| Deep Deposit Feeder Abundance (%) | 9.09 | | Tolerance Score 8.50 3 |
| Carnivore-Omnivore Abundance (%) | 22.73 | 3 | Oligohaline Pollution Sensitive Spp. Abund. 36.36 5 |
| | | | Tanypodinae/Chironomidae Abundance Ratio 0.00 |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) |
| Americamysis bigelowi (Epi) | 91 | | 0.04545 |
| Carinoma tremaphoros | 91 | | 0.08635 |
| Chaoborus punctipennis | 45 | | 0.00227 |
| Cyathura polita | 91 | | 0.09090 |
| Leptocheirus plumulosus | 318 | | 0.02727 |
| Littoridinops tenuipes (Epi) | 136 | | 0.00909 |
| Marenzelleria viridis | 364 | | 0.83628 |
| Mediomastus ambiseta | 45 | | 0.00455 |
| Tubificoides spp. | 45 | | 0.00227 |
| Total Abundance w/ Epi. | 1227 | | |
| Total Abundance w/o Epi. | 1000 | | |
| Number of Taxa w/ Epi. | 9 | | |
| Number of Taxa w/o Epi. | 7 | | |
| Total Biomass w/ Epi. | | | 1.10444 |
| Total Biomass w/o Epi. | | | 1.04990 |

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| BOTTOM ENVIRONMENT | | |
|-----------------------------------|--------------------------|------------------------|
| Watershed: Potomac River | Station: 040 | Rep: 02 |
| Gear: Wildco Box Corer | Habitat: Oligohaline | Date: 28AUG17 |
| | Sampled Area: 0.022 sq.m | Time: 10:35:00 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | |
| B-IBI Score: 2.33 | Condition: Degraded | # Attributes Scored: 6 |
| | Value | Score |
| Shannon-Wiener Index | 2.10 | |
| Abundance (#/m2) | 3681 | 3 |
| Deep Deposit Feeder Abundance (%) | 75.31 | 3 |
| Carnivore-Omnivore Abundance (%) | 3.70 | 1 |
| BENTHIC ABUNDANCE (per sq. meter) | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) |
| Ameroculodes species complex | 45 | 0.00227 |
| Coelotanypus spp. | 45 | 0.00227 |
| Cyathura polita | 91 | 0.14998 |
| Leptocheirus plumulosus | 227 | 0.02273 |
| Marenzelleria viridis | 45 | 0.64085 |
| Mediomastus ambiseta | 1500 | 0.10454 |
| Neomysis americana (Epi) | 91 | 0.02273 |
| Rangia cuneata | 45 | 60.13035 |
| Streblospio benedicti | 409 | 0.00909 |
| Tubificoides spp. | 1273 | 0.00455 |
| Total Abundance w/ Epi. | 3772 | |
| Total Abundance w/o Epi. | 3681 | |
| Number of Taxa w/ Epi. | 10 | |
| Number of Taxa w/o Epi. | 9 | |
| Total Biomass w/ Epi. | | 61.08935 |
| Total Biomass w/o Epi. | | 61.06662 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|-------------------------------|--|------------------------|
| Watershed: Potomac River | | Station: 040 | Rep: 03 |
| Gear: Wildco Box Corer | | Habitat: Oligohaline | Date: 28AUG17 |
| | | Sampled Area: 0.022 sq.m | Time: 10:35:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 7.4 | Salinity (ppt): 3.86 | Temperature (C): 26.64 | |
| Dissolved Oxygen (mg/l): 5.2 | Sediment Silt-Clay (%): 84.75 | Total Carbon (%): 2.68 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 3.00 | | Condition: Meets Goal | # Attributes Scored: 6 |
| | Value | Score | Value Score |
| Shannon-Wiener Index | 2.58 | Oligohaline Pollution Indicative Spp. Abund. | 80.00 3 |
| Abundance (#/m2) | 2500 | Tolerance Score | 6.84 3 |
| Deep Deposit Feeder Abundance (%) | 60.00 | Oligohaline Pollution Sensitive Spp. Abund. | 1.82 3 |
| Carnivore-Omnivore Abundance (%) | 16.36 | Tanypodinae/Chironomidae Abundance Ratio | 66.67 1 |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Americamysis bigelowi (Epi) | 91 | 0.02273 | |
| Carinoma tremaphoros | 91 | 0.01818 | |
| Chaoborus punctipennis | 45 | 0.01363 | |
| Coelotanypus spp. | 91 | 0.02727 | |
| Cryptochironomus spp. | 45 | 0.00227 | |
| Cyathura polita | 136 | 0.14090 | |
| Leptocheirus plumulosus | 318 | 0.03181 | |
| Littoridinops tenuipes (Epi) | 136 | 0.04545 | |
| Macoma mitchelli | 91 | 2.24523 | |
| Marenzelleria viridis | 45 | 0.59085 | |
| Mediomastus ambiseta | 1227 | 0.03636 | |
| Rangia cuneata | 45 | 0.04545 | |
| Streblospio benedicti | 91 | 0.00227 | |
| Tubificoides spp. | 273 | 0.00454 | |
| Total Abundance w/ Epi. | 2727 | | |
| Total Abundance w/o Epi. | 2500 | | |
| Number of Taxa w/ Epi. | 14 | | |
| Number of Taxa w/o Epi. | 12 | | |
| Total Biomass w/ Epi. | | 3.22695 | |
| Total Biomass w/o Epi. | | 3.15877 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|------------------------------|--|------------------------|-------|
| Watershed: Potomac River | | Station: 043 | | Rep: 01 | |
| Gear: Modified Box Corer | | Habitat: Low Mesohaline | | Date: 23AUG17 | |
| | | Sampled Area: 0.025 sq.m | | Time: 9:50:00 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 2.0 | | Salinity (ppt): 6.80 | | Temperature (C): 28.10 | |
| Dissolved Oxygen (mg/l): 4.2 | | Sediment Silt-Clay (%): 5.01 | | Total Carbon (%): 0.13 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 2.60 | | Condition: Degraded | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 2.78 | 5 | Pollution Indicative Species Abundance (%) | 15.49 | 3 |
| Abundance (#/m2) | 2840 | 3 | Pollution Indicative Species Biomass (%) | 2.82 | |
| Biomass (g/m2) | 0.85 | 1 | Pollution Sensitive Species Abundance (%) | 39.44 | |
| Carnivore-Omnivore Abundance (%) | 7.04 | | Pollution Sensitive Species Biomass (%) | 28.64 | 1 |
| Deep Deposit Feeder Abundance (%) | 36.62 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Caprella penantis (Epi) | 200 | | 0.02000 | | |
| Cyathura polita | 40 | | 0.02800 | | |
| Eteone heteropoda | 80 | | 0.01600 | | |
| Heteromastus filiformis | 120 | | 0.38000 | | |
| Leptocheirus plumulosus | 320 | | 0.05200 | | |
| Macoma mitchelli | 720 | | 0.05600 | | |
| Marenzelleria viridis | 120 | | 0.14800 | | |
| Mediomastus ambiseta | 880 | | 0.04000 | | |
| Micrura leidyi | 40 | | 0.00800 | | |
| Neanthes succinea | 40 | | 0.08400 | | |
| Rangia cuneata | 80 | | 0.02800 | | |
| Streblospio benedicti | 360 | | 0.00800 | | |
| Tubificoides spp. | 40 | | 0.00400 | | |
| Total Abundance w/ Epi. | 3040 | | | | |
| Total Abundance w/o Epi. | 2840 | | | | |
| Number of Taxa w/ Epi. | 13 | | | | |
| Number of Taxa w/o Epi. | 12 | | | | |
| Total Biomass w/ Epi. | | | 0.87200 | | |
| Total Biomass w/o Epi. | | | 0.85200 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 043 | | Rep: 02 |
|--|------------------------------|------------------------|
| Watershed: Potomac River | Habitat: Low Mesohaline | Date: 23AUG17 |
| Gear: Modified Box Corer | Sampled Area: 0.025 sq.m | Time: 9:50:00 |
| BOTTOM ENVIRONMENT | | |
| Depth (m): 2.0 | Salinity (ppt): 6.80 | Temperature (C): 28.10 |
| Dissolved Oxygen (mg/l): 4.2 | Sediment Silt-Clay (%): 5.01 | Total Carbon (%): 0.13 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | |
| B-IBI Score: 2.60 | Condition: Degraded | # Attributes Scored: 5 |
| | Value | Score |
| Shannon-Wiener Index | 2.78 | 5 |
| Abundance (#/m2) | 3320 | 3 |
| Biomass (g/m2) | 1.28 | 3 |
| Carnivore-Omnivore Abundance (%) | 8.43 | |
| Deep Deposit Feeder Abundance (%) | 32.53 | |
| | | Value |
| | | Score |
| Pollution Indicative Species Abundance (%) | | 33.73 |
| Pollution Indicative Species Biomass (%) | | 6.58 |
| Pollution Sensitive Species Abundance (%) | | 27.71 |
| Pollution Sensitive Species Biomass (%) | | 39.50 |
| BENTHIC ABUNDANCE (per sq. meter) | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) |
| Apocorophium lacustre (Epi) | 240 | 0.04400 |
| Cyathura polita | 80 | 0.04400 |
| Eteone heteropoda | 80 | 0.02800 |
| Heteromastus filiformis | 400 | 0.57200 |
| Leptocheirus plumulosus | 240 | 0.08800 |
| Macoma mitchelli | 480 | 0.02400 |
| Marenzelleria viridis | 200 | 0.44400 |
| Mediomastus ambiseta | 640 | 0.01600 |
| Neanthes succinea | 120 | 0.00200 |
| Streblospio benedicti | 1040 | 0.05600 |
| Tubificoides spp. | 40 | 0.00200 |
| Total Abundance w/ Epi. | 3560 | |
| Total Abundance w/o Epi. | 3320 | |
| Number of Taxa w/ Epi. | 11 | |
| Number of Taxa w/o Epi. | 10 | |
| Total Biomass w/ Epi. | | 1.32000 |
| Total Biomass w/o Epi. | | 1.27600 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 043 | | Rep: 03 | |
|-----------------------------------|------------------------------|------------------------|-------|
| Watershed: Potomac River | Habitat: Low Mesohaline | Date: 23AUG17 | |
| Gear: Modified Box Corer | Sampled Area: 0.025 sq.m | Time: 9:50:00 | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 2.0 | Salinity (ppt): 6.80 | Temperature (C): 28.10 | |
| Dissolved Oxygen (mg/l): 4.2 | Sediment Silt-Clay (%): 5.01 | Total Carbon (%): 0.13 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 2.60 | Condition: Degraded | # Attributes Scored: 5 | |
| | Value | Score | Value |
| Shannon-Wiener Index | 2.70 | 5 | 26.76 |
| Abundance (#/m2) | 2840 | 3 | 4.91 |
| Biomass (g/m2) | 0.98 | 1 | 40.85 |
| Carnivore-Omnivore Abundance (%) | 5.63 | | 44.17 |
| Deep Deposit Feeder Abundance (%) | 42.25 | | 3 |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Eteone heteropoda | 120 | 0.04000 | |
| Heteromastus filiformis | 160 | 0.40000 | |
| Leptocheirus plumulosus | 360 | 0.05600 | |
| Macoma mitchelli | 280 | 0.02400 | |
| Marenzelleria viridis | 160 | 0.27200 | |
| Mediomastus ambiseta | 960 | 0.01600 | |
| Neanthes succinea | 40 | 0.01600 | |
| Rangia cuneata | 40 | 0.14400 | |
| Streblospio benedicti | 640 | 0.00800 | |
| Tubificoides spp. | 80 | 0.00200 | |
| Total Abundance w/ Epi. | 2840 | | |
| Total Abundance w/o Epi. | 2840 | | |
| Number of Taxa w/ Epi. | 10 | | |
| Number of Taxa w/o Epi. | 10 | | |
| Total Biomass w/ Epi. | | 0.97800 | |
| Total Biomass w/o Epi. | | 0.97800 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| ===== | | | | | |
|-----------------------------------|-------|-------------------------------|--|------------------------|-------|
| Watershed: Potomac River | | Station: 044 | | Rep: 01 | |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | | Date: 23AUG17 | |
| | | Sampled Area: 0.022 sq.m | | Time: 10:30:00 | |
| ===== | | | | | |
| BOTTOM ENVIRONMENT | | | | | |
| ===== | | | | | |
| Depth (m): 12.0 | | Salinity (ppt): 8.03 | | Temperature (C): 27.95 | |
| Dissolved Oxygen (mg/l): 3.8 | | Sediment Silt-Clay (%): 86.55 | | Total Carbon (%): 2.25 | |
| ===== | | | | | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| ===== | | | | | |
| B-IBI Score: 3.00 | | Condition: Meets Goal | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 1.27 | 1 | Pollution Indicative Species Abundance (%) | 9.94 | 5 |
| Abundance (#/m2) | 7772 | 1 | Pollution Indicative Species Biomass (%) | 0.23 | |
| Biomass (g/m2) | 17.87 | 3 | Pollution Sensitive Species Abundance (%) | 78.36 | |
| Carnivore-Omnivore Abundance (%) | 2.34 | | Pollution Sensitive Species Biomass (%) | 98.96 | 5 |
| Deep Deposit Feeder Abundance (%) | 85.38 | | | | |
| ===== | | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| ===== | | | | | |
| TAXA | | | Abundance (#/m2) | Biomass (g/m2) | |
| Carinoma tremaphoros | | | 45 | 0.04545 | |
| Eteone heteropoda | | | 45 | 0.01818 | |
| Macoma balthica | | | 227 | 17.18919 | |
| Mediomastus ambiseta | | | 5863 | 0.49540 | |
| Neanthes succinea | | | 91 | 0.08635 | |
| Streblospio benedicti | | | 727 | 0.02273 | |
| Tubificoides spp. | | | 773 | 0.01364 | |
| Total Abundance w/ Epi. | | | 7772 | | |
| Total Abundance w/o Epi. | | | 7772 | | |
| Number of Taxa w/ Epi. | | | 7 | | |
| Number of Taxa w/o Epi. | | | 7 | | |
| Total Biomass w/ Epi. | | | | 17.87094 | |
| Total Biomass w/o Epi. | | | | 17.87094 | |
| ===== | | | | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|-------------------------------|--------------------------|---|
| Watershed: Potomac River | | Station: 044 | Rep: 02 |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | Date: 23AUG17 |
| | | Sampled Area: 0.022 sq.m | Time: 10:30:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 12.0 | Salinity (ppt): 8.03 | Temperature (C): 27.95 | |
| Dissolved Oxygen (mg/l): 3.8 | Sediment Silt-Clay (%): 86.55 | Total Carbon (%): 2.25 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 3.40 | Condition: Meets Goal | | # Attributes Scored: 5 |
| | Value | Score | Value Score |
| Shannon-Wiener Index | 1.66 | 1 | Pollution Indicative Species Abundance (%) 7.59 5 |
| Abundance (#/m2) | 3591 | 3 | Pollution Indicative Species Biomass (%) 0.07 |
| Biomass (g/m2) | 20.20 | 3 | Pollution Sensitive Species Abundance (%) 70.89 |
| Carnivore-Omnivore Abundance (%) | 3.80 | | Pollution Sensitive Species Biomass (%) 96.54 5 |
| Deep Deposit Feeder Abundance (%) | 82.28 | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Carinoma tremaphoros | 45 | 0.05000 | |
| Macoma balthica | 136 | 18.86629 | |
| Macoma mitchelli | 45 | 0.58176 | |
| Mediomastus ambiseta | 2363 | 0.14999 | |
| Neanthes succinea | 91 | 0.03636 | |
| Rangia cuneata | 45 | 0.48631 | |
| Streblospio benedicti | 273 | 0.01364 | |
| Tubificoides spp. | 591 | 0.01818 | |
| Total Abundance w/ Epi. | 3591 | | |
| Total Abundance w/o Epi. | 3591 | | |
| Number of Taxa w/ Epi. | 8 | | |
| Number of Taxa w/o Epi. | 8 | | |
| Total Biomass w/ Epi. | | 20.20252 | |
| Total Biomass w/o Epi. | | 20.20252 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 044 | | Rep: 03 | |
|-----------------------------------|-------------------------------|--|-------------|
| Watershed: Potomac River | Habitat: Low Mesohaline | Date: 23AUG17 | |
| Gear: Wildco Box Corer | Sampled Area: 0.022 sq.m | Time: 10:30:00 | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 12.0 | Salinity (ppt): 8.03 | Temperature (C): 27.95 | |
| Dissolved Oxygen (mg/l): 3.8 | Sediment Silt-Clay (%): 86.55 | Total Carbon (%): 2.25 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 3.40 | Condition: Meets Goal | # Attributes Scored: 5 | |
| | Value | Score | |
| Shannon-Wiener Index | 1.53 | 1 | |
| Abundance (#/m2) | 3818 | 3 | |
| Biomass (g/m2) | 17.33 | 3 | |
| Carnivore-Omnivore Abundance (%) | 4.76 | | |
| Deep Deposit Feeder Abundance (%) | 79.76 | | |
| | | | Value Score |
| | | Pollution Indicative Species Abundance (%) | 9.52 5 |
| | | Pollution Indicative Species Biomass (%) | 0.08 |
| | | Pollution Sensitive Species Abundance (%) | 75.00 |
| | | Pollution Sensitive Species Biomass (%) | 99.11 5 |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Macoma balthica | 227 | 17.00285 | |
| Mediomastus ambiseta | 2636 | 0.17726 | |
| Micrura leidyi | 136 | 0.08181 | |
| Neanthes succinea | 45 | 0.05000 | |
| Streblospio benedicti | 364 | 0.01364 | |
| Tubificoides spp. | 409 | 0.00909 | |
| Total Abundance w/ Epi. | 3818 | | |
| Total Abundance w/o Epi. | 3818 | | |
| Number of Taxa w/ Epi. | 6 | | |
| Number of Taxa w/o Epi. | 6 | | |
| Total Biomass w/ Epi. | | 17.33463 | |
| Total Biomass w/o Epi. | | 17.33463 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|------------------|------------------------------|---|
| Watershed: Morgantown Discharge | | Station: 047 | Rep: 01 |
| Gear: Modified Box Corer | | Habitat: Low Mesohaline | Date: 23AUG17 |
| | | Sampled Area: 0.025 sq.m | Time: 9:10:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 1.8 | | Salinity (ppt): 6.96 | Temperature (C): 28.14 |
| Dissolved Oxygen (mg/l): 4.3 | | Sediment Silt-Clay (%): 4.87 | Total Carbon (%): 0.18 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 2.60 | | Condition: Degraded | # Attributes Scored: 5 |
| | Value | Score | Value Score |
| Shannon-Wiener Index | 2.25 | 3 | 10.58 3 |
| Abundance (#/m2) | 4160 | 3 | Pollution Indicative Species Abundance (%) 0.94 |
| Biomass (g/m2) | 1.70 | 3 | Pollution Indicative Species Biomass (%) 62.50 |
| Carnivore-Omnivore Abundance (%) | 6.73 | | Pollution Sensitive Species Abundance (%) 18.63 |
| Deep Deposit Feeder Abundance (%) | 63.46 | | Pollution Sensitive Species Biomass (%) 1 |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Edotea triloba (Epi) | 40 | 0.00800 | |
| Heteromastus filiformis | 200 | 0.13200 | |
| Leptocheirus plumulosus | 240 | 0.04800 | |
| Macoma mitchelli | 320 | 0.06800 | |
| Marenzelleria viridis | 80 | 0.10800 | |
| Mediomastus ambiseta | 2400 | 0.06400 | |
| Micrura leidyi | 120 | 0.96800 | |
| Neanthes succinea | 160 | 0.14400 | |
| Polydora cornuta | 40 | 0.00200 | |
| Rangia cuneata | 120 | 0.14400 | |
| Streblospio benedicti | 440 | 0.01600 | |
| Tubificoides spp. | 40 | 0.00200 | |
| Total Abundance w/ Epi. | 4200 | | |
| Total Abundance w/o Epi. | 4160 | | |
| Number of Taxa w/ Epi. | 12 | | |
| Number of Taxa w/o Epi. | 11 | | |
| Total Biomass w/ Epi. | | 1.70400 | |
| Total Biomass w/o Epi. | | 1.69600 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 047 | | Rep: 02 |
|-----------------------------------|------------------------------|---|
| Watershed: Morgantown Discharge | Habitat: Low Mesohaline | Date: 23AUG17 |
| Gear: Modified Box Corer | Sampled Area: 0.025 sq.m | Time: 9:10:00 |
| BOTTOM ENVIRONMENT | | |
| Depth (m): 1.8 | Salinity (ppt): 6.96 | Temperature (C): 28.14 |
| Dissolved Oxygen (mg/l): 4.3 | Sediment Silt-Clay (%): 4.87 | Total Carbon (%): 0.18 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | |
| B-IBI Score: 3.80 | Condition: Meets Goal | # Attributes Scored: 5 |
| | Value Score | Value Score |
| Shannon-Wiener Index | 2.77 5 | Pollution Indicative Species Abundance (%) 6.38 5 |
| Abundance (#/m2) | 1880 5 | Pollution Indicative Species Biomass (%) 0.40 |
| Biomass (g/m2) | 1.00 1 | Pollution Sensitive Species Abundance (%) 48.94 |
| Carnivore-Omnivore Abundance (%) | 6.38 | Pollution Sensitive Species Biomass (%) 59.44 3 |
| Deep Deposit Feeder Abundance (%) | 36.17 | |
| BENTHIC ABUNDANCE (per sq. meter) | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) |
| Carinoma tremaphoros | 80 | 0.01200 |
| Heteromastus filiformis | 120 | 0.04800 |
| Leptocheirus plumulosus | 280 | 0.03200 |
| Macoma balthica | 160 | 0.26000 |
| Macoma mitchelli | 320 | 0.04800 |
| Marenzelleria viridis | 200 | 0.30800 |
| Mediomastus ambiseta | 560 | 0.02400 |
| Micrura leidyi | 40 | 0.26000 |
| Mytilopsis leucophaeata (Epi) | 40 | 0.00200 |
| Streblospio benedicti | 120 | 0.00400 |
| Total Abundance w/ Epi. | 1920 | |
| Total Abundance w/o Epi. | 1880 | |
| Number of Taxa w/ Epi. | 10 | |
| Number of Taxa w/o Epi. | 9 | |
| Total Biomass w/ Epi. | | 0.99800 |
| Total Biomass w/o Epi. | | 0.99600 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|------------------------------|--------------------------|---|
| Watershed: Morgantown Discharge | | Station: 047 | Rep: 03 |
| Gear: Modified Box Corer | | Habitat: Low Mesohaline | Date: 23AUG17 |
| | | Sampled Area: 0.025 sq.m | Time: 9:10:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 1.8 | Salinity (ppt): 6.96 | Temperature (C): 28.14 | |
| Dissolved Oxygen (mg/l): 4.3 | Sediment Silt-Clay (%): 4.87 | Total Carbon (%): 0.18 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 3.40 | | Condition: Meets Goal | # Attributes Scored: 5 |
| | Value | Score | Value Score |
| Shannon-Wiener Index | 2.54 | 5 | 14.29 3 |
| Abundance (#/m2) | 2520 | 3 | Pollution Indicative Species Biomass (%) 1.34 |
| Biomass (g/m2) | 1.20 | 3 | Pollution Sensitive Species Abundance (%) 50.79 |
| Carnivore-Omnivore Abundance (%) | 4.76 | | Pollution Sensitive Species Biomass (%) 64.55 3 |
| Deep Deposit Feeder Abundance (%) | 52.38 | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Carinoma tremaphoros | 40 | 0.02000 | |
| Heteromastus filiformis | 240 | 0.09200 | |
| Leptocheirus plumulosus | 280 | 0.04800 | |
| Macoma balthica | 120 | 0.64400 | |
| Macoma mitchelli | 240 | 0.22000 | |
| Marenzelleria viridis | 80 | 0.10000 | |
| Mediomastus ambiseta | 1080 | 0.02800 | |
| Neanthes succinea | 80 | 0.02800 | |
| Streblospio benedicti | 360 | 0.01600 | |
| Total Abundance w/ Epi. | 2520 | | |
| Total Abundance w/o Epi. | 2520 | | |
| Number of Taxa w/ Epi. | 9 | | |
| Number of Taxa w/o Epi. | 9 | | |
| Total Biomass w/ Epi. | | 1.19600 | |
| Total Biomass w/o Epi. | | 1.19600 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 051 | | Rep: 01 |
|-----------------------------------|-------------------------------|---|
| Watershed: Potomac River | Habitat: High Mesohaline Sand | Date: 23AUG17 |
| Gear: Modified Box Corer | Sampled Area: 0.025 sq.m | Time: 12:50:00 |
| BOTTOM ENVIRONMENT | | |
| Depth (m): 1.9 | Salinity (ppt): 9.63 | Temperature (C): 28.18 |
| Dissolved Oxygen (mg/l): 6.3 | Sediment Silt-Clay (%): 2.43 | Total Carbon (%): 0.16 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | |
| B-IBI Score: 3.33 | Condition: Meets Goal | # Attributes Scored: 6 |
| | Value Score | Value Score |
| Shannon-Wiener Index | 3.14 3 | Pollution Indicative Species Abundance (%) 5.00 5 |
| Abundance (#/m2) | 800 1 | Pollution Indicative Species Biomass (%) 0.24 |
| Biomass (g/m2) | 16.68 3 | Pollution Sensitive Species Abundance (%) 50.00 3 |
| Carnivore-Omnivore Abundance (%) | 35.00 5 | Pollution Sensitive Species Biomass (%) 96.98 |
| Deep Deposit Feeder Abundance (%) | 25.00 | |
| BENTHIC ABUNDANCE (per sq. meter) | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) |
| Carinoma tremaphoros | 160 | 0.02000 |
| Edwardsia elegans | 40 | 0.02400 |
| Gemma gemma | 40 | 0.02400 |
| Laeonereis culveri | 40 | 0.01200 |
| Leitoscoloplos spp. | 40 | 0.04000 |
| Macoma balthica | 80 | 0.00800 |
| Macoma mitchelli | 40 | 0.08000 |
| Marenzelleria viridis | 40 | 0.02800 |
| Mediomastus ambiseta | 160 | 0.00800 |
| Micrura leidyi | 40 | 0.30400 |
| Phoronis spp. | 80 | 0.10000 |
| Tagelus plebeius | 40 | 16.03200 |
| Total Abundance w/ Epi. | 800 | |
| Total Abundance w/o Epi. | 800 | |
| Number of Taxa w/ Epi. | 12 | |
| Number of Taxa w/o Epi. | 12 | |
| Total Biomass w/ Epi. | | 16.68000 |
| Total Biomass w/o Epi. | | 16.68000 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|------------------------------|-------------------------------|---|
| Watershed: Potomac River | | Station: 051 | Rep: 02 |
| Gear: Modified Box Corer | | Habitat: High Mesohaline Sand | Date: 23AUG17 |
| | | Sampled Area: 0.025 sq.m | Time: 12:50:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 1.9 | Salinity (ppt): 9.63 | Temperature (C): 28.18 | |
| Dissolved Oxygen (mg/l): 6.3 | Sediment Silt-Clay (%): 2.43 | Total Carbon (%): 0.16 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 3.00 | Condition: Meets Goal | | # Attributes Scored: 6 |
| | Value | Score | Value Score |
| Shannon-Wiener Index | 3.38 | 5 | Pollution Indicative Species Abundance (%) 6.25 5 |
| Abundance (#/m2) | 640 | 1 | Pollution Indicative Species Biomass (%) 0.75 |
| Biomass (g/m2) | 17.57 | 3 | Pollution Sensitive Species Abundance (%) 50.00 3 |
| Carnivore-Omnivore Abundance (%) | 18.75 | 1 | Pollution Sensitive Species Biomass (%) 97.60 |
| Deep Deposit Feeder Abundance (%) | 31.25 | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Carinoma tremaphoros | 40 | 0.08800 | |
| Gemma gemma | 80 | 0.00200 | |
| Glycera dibranchiata | 40 | 0.14800 | |
| Heteromastus filiformis | 80 | 0.00400 | |
| Leitoscoloplos spp. | 40 | 0.13200 | |
| Macoma balthica | 80 | 0.00400 | |
| Marenzelleria viridis | 80 | 0.04800 | |
| Mediomastus ambiseta | 80 | 0.00800 | |
| Neanthes succinea | 40 | 0.04800 | |
| Phoronis spp. | 40 | 0.00400 | |
| Tagelus plebeius | 40 | 17.08000 | |
| Total Abundance w/ Epi. | 640 | | |
| Total Abundance w/o Epi. | 640 | | |
| Number of Taxa w/ Epi. | 11 | | |
| Number of Taxa w/o Epi. | 11 | | |
| Total Biomass w/ Epi. | | 17.56600 | |
| Total Biomass w/o Epi. | | 17.56600 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 051 | | Rep: 03 |
|-----------------------------------|-------------------------------|---|
| Watershed: Potomac River | Habitat: High Mesohaline Sand | Date: 23AUG17 |
| Gear: Modified Box Corer | Sampled Area: 0.025 sq.m | Time: 12:50:00 |
| BOTTOM ENVIRONMENT | | |
| Depth (m): 1.9 | Salinity (ppt): 9.63 | Temperature (C): 28.18 |
| Dissolved Oxygen (mg/l): 6.3 | Sediment Silt-Clay (%): 2.43 | Total Carbon (%): 0.16 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | |
| B-IBI Score: 4.00 | Condition: Meets Goal | # Attributes Scored: 6 |
| | Value Score | Value Score |
| Shannon-Wiener Index | 3.12 3 | Pollution Indicative Species Abundance (%) 7.41 5 |
| Abundance (#/m2) | 1080 3 | Pollution Indicative Species Biomass (%) 0.03 |
| Biomass (g/m2) | 7.44 5 | Pollution Sensitive Species Abundance (%) 48.15 5 |
| Carnivore-Omnivore Abundance (%) | 33.33 3 | Pollution Sensitive Species Biomass (%) 2.18 |
| Deep Deposit Feeder Abundance (%) | 0.00 | |
| BENTHIC ABUNDANCE (per sq. meter) | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) |
| Acteocina canaliculata | 40 | 0.02800 |
| Carinoma tremaphoros | 40 | 0.01200 |
| Edwardsia elegans | 80 | 0.02000 |
| Gemma gemma | 120 | 0.01600 |
| Glycera dibranchiata | 40 | 6.97200 |
| Glycinde solitaria | 80 | 0.01200 |
| Laeonereis culveri | 40 | 0.18800 |
| Macoma balthica | 360 | 0.00200 |
| Macoma mitchelli | 120 | 0.06400 |
| Neanthes succinea | 40 | 0.00800 |
| Phoronis spp. | 40 | 0.12000 |
| Streblospio benedicti | 80 | 0.00200 |
| Total Abundance w/ Epi. | 1080 | |
| Total Abundance w/o Epi. | 1080 | |
| Number of Taxa w/ Epi. | 12 | |
| Number of Taxa w/o Epi. | 12 | |
| Total Biomass w/ Epi. | | 7.44400 |
| Total Biomass w/o Epi. | | 7.44400 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|-------------------------------|------------------------------|---|
| Watershed: Potomac River | | Station: 052 | Rep: 01 |
| Gear: Wildco Box Corer | | Habitat: High Mesohaline Mud | Date: 15AUG17 |
| | | Sampled Area: 0.022 sq.m | Time: 14:20:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 11.2 | Salinity (ppt): 13.20 | Temperature (C): 26.34 | |
| Dissolved Oxygen (mg/l): 0.9 | Sediment Silt-Clay (%): 88.34 | Total Carbon (%): 3.48 | |
| 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 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|-------------------------------|------------------------------|---|
| Watershed: Potomac River | | Station: 052 | Rep: 02 |
| Gear: Wildco Box Corer | | Habitat: High Mesohaline Mud | Date: 15AUG17 |
| | | Sampled Area: 0.022 sq.m | Time: 14:20:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 11.2 | Salinity (ppt): 13.20 | Temperature (C): 26.34 | |
| Dissolved Oxygen (mg/l): 0.9 | Sediment Silt-Clay (%): 88.34 | Total Carbon (%): 3.48 | |
| 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 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|-------------------------------|------------------------------|---|
| Watershed: Potomac River | | Station: 052 | Rep: 03 |
| Gear: Wildco Box Corer | | Habitat: High Mesohaline Mud | Date: 15AUG17 |
| | | Sampled Area: 0.022 sq.m | Time: 14:20:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 11.2 | Salinity (ppt): 13.20 | Temperature (C): 26.34 | |
| Dissolved Oxygen (mg/l): 0.9 | Sediment Silt-Clay (%): 88.34 | Total Carbon (%): 3.48 | |
| 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 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 062 | | Rep: 01 | |
|-----------------------------------|-------------------------------|------------------------|---|
| Watershed: Lower Eastern Shore | Habitat: Low Mesohaline | Date: 06SEP17 | |
| Gear: Petite Ponar | Sampled Area: 0.025 sq.m | Time: 14:10:00 | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 4.0 | Salinity (ppt): 3.98 | Temperature (C): 23.62 | |
| Dissolved Oxygen (mg/l): 6.5 | Sediment Silt-Clay (%): 83.51 | Total Carbon (%): 3.3 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 2.20 | Condition: Degraded | # Attributes Scored: 5 | |
| | Value | Score | |
| Shannon-Wiener Index | 0.96 | 1 | Pollution Indicative Species Abundance (%) 9.39 5 |
| Abundance (#/m2) | 9800 | 1 | Pollution Indicative Species Biomass (%) 1.94 |
| Biomass (g/m2) | 1.34 | 3 | Pollution Sensitive Species Abundance (%) 1.63 |
| Carnivore-Omnivore Abundance (%) | 0.82 | | Pollution Sensitive Species Biomass (%) 37.07 1 |
| Deep Deposit Feeder Abundance (%) | 88.98 | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Ameroculodes species complex | 80 | 0.00800 | |
| Carinoma tremaphoros | 40 | 0.00400 | |
| Cyathura polita | 40 | 0.00400 | |
| Gammarus spp. (Epi) | 160 | 0.01600 | |
| Heteromastus filiformis | 40 | 0.00800 | |
| Leptocheirus plumulosus | 160 | 0.02000 | |
| Macoma mitchelli | 40 | 0.61200 | |
| Marenzelleria viridis | 120 | 0.49200 | |
| Streblospio benedicti | 600 | 0.02400 | |
| Tubificidae imm w/o cap chaetae | 320 | 0.00200 | |
| Tubificoides spp. | 8360 | 0.16400 | |
| Total Abundance w/ Epi. | 9960 | | |
| Total Abundance w/o Epi. | 9800 | | |
| Number of Taxa w/ Epi. | 11 | | |
| Number of Taxa w/o Epi. | 10 | | |
| Total Biomass w/ Epi. | | 1.35400 | |
| Total Biomass w/o Epi. | | 1.33800 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 062 | | Rep: 02 | |
|-----------------------------------|-------------------------------|------------------------|--|
| Watershed: Lower Eastern Shore | Habitat: Low Mesohaline | Date: 06SEP17 | |
| Gear: Petite Ponar | Sampled Area: 0.025 sq.m | Time: 14:10:00 | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 4.0 | Salinity (ppt): 3.98 | Temperature (C): 23.62 | |
| Dissolved Oxygen (mg/l): 6.5 | Sediment Silt-Clay (%): 83.51 | Total Carbon (%): 3.3 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 2.60 | Condition: Degraded | # Attributes Scored: 5 | |
| | Value | Score | Value |
| Shannon-Wiener Index | 1.84 | 3 | Pollution Indicative Species Abundance (%) 24.49 |
| Abundance (#/m2) | 3920 | 3 | Pollution Indicative Species Biomass (%) 2.27 |
| Biomass (g/m2) | 0.79 | 1 | Pollution Sensitive Species Abundance (%) 3.06 |
| Carnivore-Omnivore Abundance (%) | 3.06 | | Pollution Sensitive Species Biomass (%) 83.63 |
| Deep Deposit Feeder Abundance (%) | 77.55 | | 5 |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Ameroculodes species complex | 320 | 0.01600 | |
| Carinoma tremaphoros | 40 | 0.00400 | |
| Cyathura polita | 80 | 0.00800 | |
| Gammarus daiberi (Epi) | 560 | 0.10800 | |
| Heteromastus filiformis | 40 | 0.02400 | |
| Leptocheirus plumulosus | 40 | 0.01600 | |
| Macoma balthica | 40 | 0.65600 | |
| Streblospio benedicti | 360 | 0.01600 | |
| Tubificidae imm w/o cap chaetae | 600 | 0.00200 | |
| Tubificoides spp. | 2400 | 0.05200 | |
| Total Abundance w/ Epi. | 4480 | | |
| Total Abundance w/o Epi. | 3920 | | |
| Number of Taxa w/ Epi. | 10 | | |
| Number of Taxa w/o Epi. | 9 | | |
| Total Biomass w/ Epi. | | 0.90200 | |
| Total Biomass w/o Epi. | | 0.79400 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Watershed: Lower Eastern Shore | | Station: 062 | | Rep: 03 | |
|-----------------------------------|------------------|--------------------------|--|------------------------|-------|
| Gear: Petite Ponar | | Habitat: Low Mesohaline | | Date: 06SEP17 | |
| | | Sampled Area: 0.025 sq.m | | Time: 14:10:00 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): | 4.0 | Salinity (ppt): | 3.98 | Temperature (C): | 23.62 |
| Dissolved Oxygen (mg/l): | 6.5 | Sediment Silt-Clay (%): | 83.51 | Total Carbon (%): | 3.3 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 2.20 | | Condition: Degraded | | # Attributes Scored: 5 | |
| | Value | Score | | Value | Score |
| Shannon-Wiener Index | 1.29 | 1 | Pollution Indicative Species Abundance (%) | 5.96 | 5 |
| Abundance (#/m2) | 6040 | 1 | Pollution Indicative Species Biomass (%) | 1.77 | |
| Biomass (g/m2) | 0.57 | 1 | Pollution Sensitive Species Abundance (%) | 1.99 | |
| Carnivore-Omnivore Abundance (%) | 2.65 | | Pollution Sensitive Species Biomass (%) | 56.54 | 3 |
| Deep Deposit Feeder Abundance (%) | 82.78 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Ameroculodes species complex | 360 | | 0.02400 | | |
| Carinoma tremaphoros | 40 | | 0.01600 | | |
| Cyathura polita | 80 | | 0.01600 | | |
| Gammarus dalberi (Epi) | 760 | | 0.16400 | | |
| Heteromastus filiformis | 40 | | 0.00800 | | |
| Leptocheirus plumulosus | 280 | | 0.04800 | | |
| Macoma balthica | 40 | | 0.30400 | | |
| Mytilopsis leucophaeata (Epi) | 40 | | 0.01200 | | |
| Neanthes succinea | 40 | | 0.00800 | | |
| Streblospio benedicti | 200 | | 0.00800 | | |
| Tubificidae imm w/o cap chaetae | 160 | | 0.00200 | | |
| Tubificoides spp. | 4800 | | 0.13200 | | |
| Total Abundance w/ Epi. | 6840 | | | | |
| Total Abundance w/o Epi. | 6040 | | | | |
| Number of Taxa w/ Epi. | 12 | | | | |
| Number of Taxa w/o Epi. | 10 | | | | |
| Total Biomass w/ Epi. | | | 0.74200 | | |
| Total Biomass w/o Epi. | | | 0.56600 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 064 | | Rep: 01 |
|-----------------------------------|-------------------------------|--|
| Watershed: Choptank River | Habitat: High Mesohaline Mud | Date: 06SEP17 |
| Gear: Wildco Box Corer | Sampled Area: 0.022 sq.m | Time: 11:00:00 |
| BOTTOM ENVIRONMENT | | |
| Depth (m): 9.0 | Salinity (ppt): 11.31 | Temperature (C): 23.76 |
| Dissolved Oxygen (mg/l): 4.8 | Sediment Silt-Clay (%): 90.43 | Total Carbon (%): 1.99 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | |
| B-IBI Score: 2.67 | Condition: Marginal | # Attributes Scored: 6 |
| | Value Score | Value Score |
| Shannon-Wiener Index | 2.11 3 | Pollution Indicative Species Abundance (%) 44.44 |
| Abundance (#/m2) | 409 1 | Pollution Indicative Species Biomass (%) 14.21 3 |
| Biomass (g/m2) | 0.83 3 | Pollution Sensitive Species Abundance (%) 22.22 |
| Carnivore-Omnivore Abundance (%) | 11.11 3 | Pollution Sensitive Species Biomass (%) 85.25 3 |
| Deep Deposit Feeder Abundance (%) | 44.44 | |
| BENTHIC ABUNDANCE (per sq. meter) | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) |
| Glycinde solitaria | 45 | 0.00909 |
| Leitoscoloplos robustus | 45 | 0.02273 |
| Macoma balthica | 45 | 0.69993 |
| Mulinia lateralis | 136 | 0.09544 |
| Tubificoides spp. | 136 | 0.00455 |
| Total Abundance w/ Epi. | 409 | |
| Total Abundance w/o Epi. | 409 | |
| Number of Taxa w/ Epi. | 5 | |
| Number of Taxa w/o Epi. | 5 | |
| Total Biomass w/ Epi. | | 0.83174 |
| Total Biomass w/o Epi. | | 0.83174 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|-------------------------------|------------------------------|--|
| Watershed: Choptank River | | Station: 064 | Rep: 02 |
| Gear: Wildco Box Corer | | Habitat: High Mesohaline Mud | Date: 06SEP17 |
| | | Sampled Area: 0.022 sq.m | Time: 11:00:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 9.0 | Salinity (ppt): 11.31 | Temperature (C): 23.76 | |
| Dissolved Oxygen (mg/l): 4.8 | Sediment Silt-Clay (%): 90.43 | Total Carbon (%): 1.99 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 3.00 | | Condition: Meets Goal | # Attributes Scored: 6 |
| | Value | Score | Value Score |
| Shannon-Wiener Index | 2.53 | 3 | Pollution Indicative Species Abundance (%) 42.86 |
| Abundance (#/m2) | 954 | 1 | Pollution Indicative Species Biomass (%) 2.78 5 |
| Biomass (g/m2) | 9.14 | 5 | Pollution Sensitive Species Abundance (%) 19.05 |
| Carnivore-Omnivore Abundance (%) | 9.52 | 1 | Pollution Sensitive Species Biomass (%) 97.14 3 |
| Deep Deposit Feeder Abundance (%) | 28.57 | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) |
| Americamysis bigelowi (Epi) | 91 | | 0.00909 |
| Cyathura polita | 45 | | 0.02273 |
| Glycinde solitaria | 45 | | 0.00227 |
| Leucon americanus | 45 | | 0.00227 |
| Macoma balthica | 91 | | 8.85821 |
| Macoma mitchelli | 45 | | 0.00227 |
| Mulinia lateralis | 91 | | 0.24089 |
| Streblospio benedicti | 318 | | 0.01364 |
| Tubificoides spp. | 273 | | 0.00227 |
| Total Abundance w/ Epi. | 1045 | | |
| Total Abundance w/o Epi. | 954 | | |
| Number of Taxa w/ Epi. | 9 | | |
| Number of Taxa w/o Epi. | 8 | | |
| Total Biomass w/ Epi. | | | 9.15363 |
| Total Biomass w/o Epi. | | | 9.14454 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 064 | | Rep: 03 | |
|-----------------------------------|-------------------------------|------------------------|--|
| Watershed: Choptank River | | Date: 06SEP17 | |
| Gear: Wildco Box Corer | | Time: 11:00:00 | |
| Habitat: High Mesohaline Mud | | | |
| Sampled Area: 0.022 sq.m | | | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 9.0 | Salinity (ppt): 11.31 | Temperature (C): 23.76 | |
| Dissolved Oxygen (mg/l): 4.8 | Sediment Silt-Clay (%): 90.43 | Total Carbon (%): 1.99 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 2.33 | Condition: Degraded | | # Attributes Scored: 6 |
| | Value | Score | |
| Shannon-Wiener Index | 2.41 | 3 | Pollution Indicative Species Abundance (%) 42.86 |
| Abundance (#/m2) | 636 | 1 | Pollution Indicative Species Biomass (%) 33.06 1 |
| Biomass (g/m2) | 1.13 | 3 | Pollution Sensitive Species Abundance (%) 14.29 |
| Carnivore-Omnivore Abundance (%) | 42.86 | 5 | Pollution Sensitive Species Biomass (%) 3.23 1 |
| Deep Deposit Feeder Abundance (%) | 14.29 | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) |
| Cyathura polita | 45 | | 0.01364 |
| Glycinde solitaria | 45 | | 0.02273 |
| Heteromastus filiformis | 45 | | 0.08181 |
| Mulinia lateralis | 273 | | 0.37269 |
| Neanthes succinea | 91 | | 0.61358 |
| Podarkeopsis levifuscina | 91 | | 0.01364 |
| Tubificoides spp. | 45 | | 0.00909 |
| Total Abundance w/ Epi. | 636 | | |
| Total Abundance w/o Epi. | 636 | | |
| Number of Taxa w/ Epi. | 7 | | |
| Number of Taxa w/o Epi. | 7 | | |
| Total Biomass w/ Epi. | | | 1.12716 |
| Total Biomass w/o Epi. | | | 1.12716 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| BOTTOM ENVIRONMENT | | |
|--|--------------------------|------------------------|
| Watershed: Choptank River | Station: 066 | Rep: 01 |
| Gear: Wildco Box Corer | Habitat: Oligohaline | Date: 05SEP17 |
| | Sampled Area: 0.022 sq.m | Time: 11:50:00 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | |
| B-IBI Score: 2.33 | Condition: Degraded | # Attributes Scored: 6 |
| | Value | Score |
| Shannon-Wiener Index | 2.27 | |
| Abundance (#/m2) | 3363 | 3 |
| Deep Deposit Feeder Abundance (%) | 56.76 | |
| Carnivore-Omnivore Abundance (%) | 32.43 | 3 |
| | Value | Score |
| Oligohaline Pollution Indicative Spp. Abund. | 63.51 | 3 |
| Tolerance Score | 9.18 | 1 |
| Oligohaline Pollution Sensitive Spp. Abund. | 2.70 | 3 |
| Tanypodinae/Chironomidae Abundance Ratio | 100.00 | 1 |
| BENTHIC ABUNDANCE (per sq. meter) | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) |
| Ameroculodes species complex | 136 | 0.00909 |
| Chaoborus punctipennis | 909 | 0.08181 |
| Coelotanypus spp. | 136 | 0.01364 |
| Cyathura polita | 45 | 0.06363 |
| Gammarus spp. (Epi) | 409 | 0.01818 |
| Leptocheirus plumulosus | 91 | 0.02273 |
| Limnodrilus hoffmeisteri | 500 | |
| Littoridinops tenuipes (Epi) | 318 | 0.04090 |
| Marenzelleria viridis | 91 | 0.44541 |
| Oligochaeta | | 0.40299 |
| Rangia cuneata | 45 | 0.90900 |
| Tubificidae imm w/o cap chaetae * | 1409 | |
| Total Abundance w/ Epi. | 4091 | |
| Total Abundance w/o Epi. | 3363 | |
| Number of Taxa w/ Epi. | 10 | |
| Number of Taxa w/o Epi. | 8 | |
| Total Biomass w/ Epi. | | 2.00738 |
| Total Biomass w/o Epi. | | 1.94829 |

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|-------------------------------|--|------------------------|
| Watershed: Choptank River | | Station: 066 | Rep: 02 |
| Gear: Wildco Box Corer | | Habitat: Oligohaline | Date: 05SEP17 |
| | | Sampled Area: 0.022 sq.m | Time: 11:50:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 3.7 | Salinity (ppt): 0.24 | Temperature (C): 23.22 | |
| Dissolved Oxygen (mg/l): 5.4 | Sediment Silt-Clay (%): 87.47 | Total Carbon (%): 5.88 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 2.00 | | Condition: Severely Degr. | # Attributes Scored: 6 |
| | Value | Score | Value Score |
| Shannon-Wiener Index | 2.11 | Oligohaline Pollution Indicative Spp. Abund. | 83.00 3 |
| Abundance (#/m2) | 4545 | Tolerance Score | 9.31 1 |
| Deep Deposit Feeder Abundance (%) | 70.00 | Oligohaline Pollution Sensitive Spp. Abund. | 1.00 3 |
| Carnivore-Omnivore Abundance (%) | 21.00 | Tanypodinae/Chironomidae Abundance Ratio | 88.89 1 |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Americamysis bigelowi (Epi) | 45 | 0.02273 | |
| Ameroculodes species complex | 182 | 0.02273 | |
| Chaoborus punctipennis | 545 | 0.06818 | |
| Chironomus spp. | 45 | 0.00227 | |
| Coelotanypus spp. | 364 | 0.08181 | |
| Gammarus spp. (Epi) | 818 | 0.04091 | |
| Leptocheirus plumulosus | 182 | 0.02727 | |
| Limnodrilus hoffmeisteri | 864 | | |
| Marenzelleria viridis | 45 | 0.03636 | |
| Oligochaeta | | 0.47224 | |
| Tubificidae imm w/o cap chaetae * | 2318 | | |
| Total Abundance w/ Epi. | 5409 | | |
| Total Abundance w/o Epi. | 4545 | | |
| Number of Taxa w/ Epi. | 9 | | |
| Number of Taxa w/o Epi. | 7 | | |
| Total Biomass w/ Epi. | | 0.77448 | |
| Total Biomass w/o Epi. | | 0.71085 | |

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 066 | | Rep: 03 |
|-----------------------------------|-------------------------------|--|
| Watershed: Choptank River | Habitat: Oligohaline | Date: 05SEP17 |
| Gear: Wildco Box Corer | Sampled Area: 0.022 sq.m | Time: 11:50:00 |
| BOTTOM ENVIRONMENT | | |
| Depth (m): 3.7 | Salinity (ppt): 0.24 | Temperature (C): 23.22 |
| Dissolved Oxygen (mg/l): 5.4 | Sediment Silt-Clay (%): 87.47 | Total Carbon (%): 5.88 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | |
| B-IBI Score: 1.67 | Condition: Severely Degr. | # Attributes Scored: 6 |
| | Value | Score |
| Shannon-Wiener Index | 1.92 | Oligohaline Pollution Indicative Spp. Abund. 78.26 3 |
| Abundance (#/m2) | 5227 1 | Tolerance Score 9.27 1 |
| Deep Deposit Feeder Abundance (%) | 69.57 | Oligohaline Pollution Sensitive Spp. Abund. 0.00 1 |
| Carnivore-Omnivore Abundance (%) | 25.22 3 | Tanypodinae/Chironomidae Abundance Ratio 100.00 1 |
| BENTHIC ABUNDANCE (per sq. meter) | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) |
| Ameroculodes species complex | 182 | 0.01818 |
| Apocorophium lacustre (Epi) | 45 | 0.02273 |
| Chaoborus punctipennis | 909 | 0.09999 |
| Coelotanypus spp. | 364 | 0.04545 |
| Corbicula fluminea | 45 | 0.13635 |
| Cyathura polita | 45 | 0.01818 |
| Gammarus spp. (Epi) | 727 | 0.03182 |
| Leptocheirus plumulosus | 45 | 0.01364 |
| Limnodrilus hoffmeisteri | 727 | |
| Oligochaeta | | 0.70561 |
| Tubificidae imm w/o cap chaetae | 2909 | |
| Total Abundance w/ Epi. | 5999 | |
| Total Abundance w/o Epi. | 5227 | |
| Number of Taxa w/ Epi. | 10 | |
| Number of Taxa w/o Epi. | 8 | |
| Total Biomass w/ Epi. | | 1.09194 |
| Total Biomass w/o Epi. | | 1.03740 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|-------------------------------|--------------------------|------------------------|
| Watershed: Upper Eastern Shore | | Station: 068 | Rep: 01 |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | Date: 31AUG17 |
| | | Sampled Area: 0.022 sq.m | Time: 9:01:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 4.0 | Salinity (ppt): 7.99 | Temperature (C): 24.76 | |
| Dissolved Oxygen (mg/l): 4.5 | Sediment Silt-Clay (%): 82.26 | | Total Carbon (%): 2.66 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 2.60 | | Condition: Degraded | |
| | | # Attributes Scored: 5 | |
| | Value | Score | Value |
| Shannon-Wiener Index | 2.02 | 3 | 32.50 |
| Abundance (#/m2) | 5454 | 3 | 0.08 |
| Biomass (g/m2) | 52.90 | 1 | 11.67 |
| Carnivore-Omnivore Abundance (%) | 10.00 | | 98.58 |
| Deep Deposit Feeder Abundance (%) | 52.50 | | 5 |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) |
| Carinoma tremaphoros | 136 | | 0.11363 |
| Cyathura polita | 182 | | 0.70448 |
| Diadumene leucolena (Epi) | 45 | | 0.09544 |
| Eteone heteropoda | 227 | | 0.00454 |
| Heteromastus filiformis | 45 | | 0.08181 |
| Macoma balthica | 273 | | 17.50734 |
| Macoma mitchelli | 45 | | 0.45450 |
| Marenzelleria viridis | 91 | | 1.13171 |
| Rangia cuneata | 91 | | 32.80581 |
| Streblospio benedicti | 1545 | | 0.03636 |
| Tubificoides spp. | 2818 | | 0.05908 |
| Total Abundance w/ Epi. | 5499 | | |
| Total Abundance w/o Epi. | 5454 | | |
| Number of Taxa w/ Epi. | 11 | | |
| Number of Taxa w/o Epi. | 10 | | |
| Total Biomass w/ Epi. | | | 52.99470 |
| Total Biomass w/o Epi. | | | 52.89926 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|-------|--|-------|
| Watershed: Upper Eastern Shore | | Station: 068 | | Rep: 02 | |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | | Date: 31AUG17 | |
| | | Sampled Area: 0.022 sq.m | | Time: 9:01:00 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 4.0 | | Salinity (ppt): 7.99 | | Temperature (C): 24.76 | |
| Dissolved Oxygen (mg/l): 4.5 | | Sediment Silt-Clay (%): 82.26 | | Total Carbon (%): 2.66 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 3.00 | | Condition: Meets Goal | | # Attributes Scored: 5 | |
| | | Value | Score | Value | Score |
| Shannon-Wiener Index | | 2.14 | 3 | Pollution Indicative Species Abundance (%) | 28.40 |
| Abundance (#/m2) | | 7363 | 1 | Pollution Indicative Species Biomass (%) | 0.93 |
| Biomass (g/m2) | | 6.57 | 5 | Pollution Sensitive Species Abundance (%) | 8.64 |
| Carnivore-Omnivore Abundance (%) | | 5.56 | | Pollution Sensitive Species Biomass (%) | 94.92 |
| Deep Deposit Feeder Abundance (%) | | 62.96 | | | 5 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | | | |
| Ameroculodes species complex | 45 | 0.00455 | | | |
| Coelotanytus spp. | 136 | 0.01363 | | | |
| Cyathura polita | 136 | 0.10454 | | | |
| Eteone heteropoda | 91 | 0.01364 | | | |
| Heteromastus filiformis | 91 | 0.09999 | | | |
| Leptocheirus plumulosus | 364 | 0.09090 | | | |
| Macoma balthica | 455 | 5.80851 | | | |
| Ogyrides alphaerostris | 45 | 0.00909 | | | |
| Rangia cuneata | 45 | 0.32724 | | | |
| Streblospio benedicti | 1409 | 0.03181 | | | |
| Tubificidae imm w/o cap chaetae | 455 | 0.00227 | | | |
| Tubificoides spp. | 4091 | 0.06818 | | | |
| Total Abundance w/ Epi. | 7363 | | | | |
| Total Abundance w/o Epi. | 7363 | | | | |
| Number of Taxa w/ Epi. | 12 | | | | |
| Number of Taxa w/o Epi. | 12 | | | | |
| Total Biomass w/ Epi. | | 6.57434 | | | |
| Total Biomass w/o Epi. | | 6.57434 | | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 068 | | Rep: 03 | | | |
|-----------------------------------|-------------------------------|------------------------|--|-------|---|
| Watershed: Upper Eastern Shore | Habitat: Low Mesohaline | Date: 31AUG17 | | | |
| Gear: Wildco Box Corer | Sampled Area: 0.022 sq.m | Time: 9:01:00 | | | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 4.0 | Salinity (ppt): 7.99 | Temperature (C): 24.76 | | | |
| Dissolved Oxygen (mg/l): 4.5 | Sediment Silt-Clay (%): 82.26 | Total Carbon (%): 2.66 | | | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 2.60 | Condition: Degraded | # Attributes Scored: 5 | | | |
| Value | Score | Value | Score | | |
| Shannon-Wiener Index | 2.04 | 3 | Pollution Indicative Species Abundance (%) | 40.67 | 1 |
| Abundance (#/m2) | 6818 | 1 | Pollution Indicative Species Biomass (%) | 3.16 | |
| Biomass (g/m2) | 2.87 | 3 | Pollution Sensitive Species Abundance (%) | 6.67 | |
| Carnivore-Omnivore Abundance (%) | 7.33 | | Pollution Sensitive Species Biomass (%) | 85.28 | 5 |
| Deep Deposit Feeder Abundance (%) | 50.00 | | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | | | |
| Ameroculodes species complex | 91 | 0.00455 | | | |
| Carinoma tremaphoros | 227 | 0.07727 | | | |
| Coelotanypus spp. | 45 | 0.01818 | | | |
| Cyathura polita | 182 | 0.43177 | | | |
| Eteone heteropoda | 45 | 0.00227 | | | |
| Heteromastus filiformis | 91 | 0.19089 | | | |
| Leptocheirus plumulosus | 45 | 0.00454 | | | |
| Macoma balthica | 182 | 1.36350 | | | |
| Marenzelleria viridis | 45 | 0.35905 | | | |
| Rangia cuneata | 45 | 0.29543 | | | |
| Streblospio benedicti | 2500 | 0.06818 | | | |
| Tubificidae imm w/o cap chaetae | 182 | 0.00227 | | | |
| Tubificoides spp. | 3136 | 0.05454 | | | |
| Total Abundance w/ Epi. | 6818 | | | | |
| Total Abundance w/o Epi. | 6818 | | | | |
| Number of Taxa w/ Epi. | 13 | | | | |
| Number of Taxa w/o Epi. | 13 | | | | |
| Total Biomass w/ Epi. | | 2.87244 | | | |
| Total Biomass w/o Epi. | | 2.87244 | | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|------------------|-------------------------------|---|
| Watershed: Patuxent River | | Station: 071 | Rep: 01 |
| Gear: Wildco Box Corer | | Habitat: High Mesohaline Mud | Date: 12SEP17 |
| | | Sampled Area: 0.022 sq.m | Time: 12:38:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 11.8 | | Salinity (ppt): 12.29 | Temperature (C): 23.33 |
| Dissolved Oxygen (mg/l): 2.6 | | Sediment Silt-Clay (%): 87.15 | Total Carbon (%): 3.38 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 1.67 | | Condition: Severely Degr. | # Attributes Scored: 6 |
| | Value | Score | Value Score |
| Shannon-Wiener Index | 1.58 | 1 | Pollution Indicative Species Abundance (%) 100.00 |
| Abundance (#/m2) | 136 | 1 | Pollution Indicative Species Biomass (%) 100.00 1 |
| Biomass (g/m2) | 0.10 | 1 | Pollution Sensitive Species Abundance (%) 0.00 |
| Carnivore-Omnivore Abundance (%) | 33.33 | 5 | Pollution Sensitive Species Biomass (%) 0.00 1 |
| Deep Deposit Feeder Abundance (%) | 33.33 | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Eteone heteropoda | 45 | 0.01364 | |
| Leitoscoloplos robustus | 45 | 0.08181 | |
| Streblospio benedicti | 45 | 0.00454 | |
| Total Abundance w/ Epi. | 136 | | |
| Total Abundance w/o Epi. | 136 | | |
| Number of Taxa w/ Epi. | 3 | | |
| Number of Taxa w/o Epi. | 3 | | |
| Total Biomass w/ Epi. | | 0.09999 | |
| Total Biomass w/o Epi. | | 0.09999 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|-------------------------------|------------------------------|---|
| Watershed: Patuxent River | | Station: 071 | Rep: 02 |
| Gear: Wildco Box Corer | | Habitat: High Mesohaline Mud | Date: 12SEP17 |
| | | Sampled Area: 0.022 sq.m | Time: 12:38:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 11.8 | Salinity (ppt): 12.29 | Temperature (C): 23.33 | |
| Dissolved Oxygen (mg/l): 2.6 | Sediment Silt-Clay (%): 87.15 | Total Carbon (%): 3.38 | |
| 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 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 071 | | Rep: 03 | |
|-----------------------------------|-------------------------------|------------------------|--|
| Watershed: Patuxent River | Habitat: High Mesohaline Mud | Date: 12SEP17 | |
| Gear: Wildco Box Corer | Sampled Area: 0.022 sq.m | Time: 12:38:00 | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 11.8 | Salinity (ppt): 12.29 | Temperature (C): 23.33 | |
| Dissolved Oxygen (mg/l): 2.6 | Sediment Silt-Clay (%): 87.15 | Total Carbon (%): 3.38 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 2.33 | Condition: Degraded | | # Attributes Scored: 6 |
| | Value | Score | Value Score |
| Shannon-Wiener Index | 1.92 | 1 | Pollution Indicative Species Abundance (%) 40.00 |
| Abundance (#/m2) | 227 | 1 | Pollution Indicative Species Biomass (%) 0.98 5 |
| Biomass (g/m2) | 0.46 | 1 | Pollution Sensitive Species Abundance (%) 20.00 |
| Carnivore-Omnivore Abundance (%) | 40.00 | 5 | Pollution Sensitive Species Biomass (%) 1.96 1 |
| Deep Deposit Feeder Abundance (%) | 0.00 | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Glycinde solitaria | 45 | 0.00909 | |
| Macoma mitchelli | 45 | 0.44541 | |
| Paraprionospio pinnata | 91 | 0.00455 | |
| Sigambra tentaculata | 45 | 0.00454 | |
| Total Abundance w/ Epi. | 227 | | |
| Total Abundance w/o Epi. | 227 | | |
| Number of Taxa w/ Epi. | 4 | | |
| Number of Taxa w/o Epi. | 4 | | |
| Total Biomass w/ Epi. | | 0.46359 | |
| Total Biomass w/o Epi. | | 0.46359 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 074 | | Rep: 01 | |
|-----------------------------------|-------------------------------|------------------------|---|
| Watershed: Chalk Point Discharge | Habitat: Low Mesohaline | Date: 13SEP17 | |
| Gear: Wildco Box Corer | Sampled Area: 0.022 sq.m | Time: 9:40:00 | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 1.7 | Salinity (ppt): 9.24 | Temperature (C): 22.91 | |
| Dissolved Oxygen (mg/l): 5.6 | Sediment Silt-Clay (%): 88.60 | Total Carbon (%): 2.79 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 5.00 | Condition: Meets Goal | # Attributes Scored: 5 | |
| | Value | Score | |
| Shannon-Wiener Index | 2.74 | 5 | Pollution Indicative Species Abundance (%) 2.70 5 |
| Abundance (#/m2) | 1682 | 5 | Pollution Indicative Species Biomass (%) 0.11 |
| Biomass (g/m2) | 8.43 | 5 | Pollution Sensitive Species Abundance (%) 27.03 |
| Carnivore-Omnivore Abundance (%) | 18.92 | | Pollution Sensitive Species Biomass (%) 87.22 5 |
| Deep Deposit Feeder Abundance (%) | 18.92 | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Carinoma tremaphoros | 136 | 0.04090 | |
| Cyathura polita | 136 | 0.05909 | |
| Eteone heteropoda | 45 | 0.00909 | |
| Heteromastus filiformis | 45 | 0.04545 | |
| Leptocheirus plumulosus | 545 | 0.20907 | |
| Macoma balthica | 273 | 7.24019 | |
| Macoma mitchelli | 182 | 0.76811 | |
| Rangia cuneata | 45 | 0.04999 | |
| Tubificoides spp. | 273 | 0.00455 | |
| Total Abundance w/ Epi. | 1682 | | |
| Total Abundance w/o Epi. | 1682 | | |
| Number of Taxa w/ Epi. | 9 | | |
| Number of Taxa w/o Epi. | 9 | | |
| Total Biomass w/ Epi. | | 8.42643 | |
| Total Biomass w/o Epi. | | 8.42643 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|-------------------------------|--------------------------|---|
| Watershed: Chalk Point Discharge | | Station: 074 | Rep: 02 |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | Date: 13SEP17 |
| | | Sampled Area: 0.022 sq.m | Time: 9:40:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 1.7 | Salinity (ppt): 9.24 | Temperature (C): 22.91 | |
| Dissolved Oxygen (mg/l): 5.6 | Sediment Silt-Clay (%): 88.60 | Total Carbon (%): 2.79 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 4.60 | | Condition: Meets Goal | # Attributes Scored: 5 |
| | Value | Score | Value Score |
| Shannon-Wiener Index | 2.67 | 5 | 6.06 5 |
| Abundance (#/m2) | 1500 | 3 | Pollution Indicative Species Biomass (%) 0.03 |
| Biomass (g/m2) | 7.15 | 5 | Pollution Sensitive Species Abundance (%) 21.21 |
| Carnivore-Omnivore Abundance (%) | 18.18 | | Pollution Sensitive Species Biomass (%) 85.39 5 |
| Deep Deposit Feeder Abundance (%) | 21.21 | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Carinoma tremaphoros | 136 | 0.00909 | |
| Heteromastus filiformis | 91 | 0.19998 | |
| Leptocheirus plumulosus | 455 | 0.07727 | |
| Macoma balthica | 318 | 6.10848 | |
| Macoma mitchelli | 45 | 0.71811 | |
| Micrura leidyi | 45 | 0.01364 | |
| Neanthes succinea | 91 | 0.02273 | |
| Streblospio benedicti | 91 | 0.00227 | |
| Tubificoides spp. | 227 | 0.00227 | |
| Total Abundance w/ Epi. | 1500 | | |
| Total Abundance w/o Epi. | 1500 | | |
| Number of Taxa w/ Epi. | 9 | | |
| Number of Taxa w/o Epi. | 9 | | |
| Total Biomass w/ Epi. | | 7.15383 | |
| Total Biomass w/o Epi. | | 7.15383 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 074 | | Rep: 03 | |
|-----------------------------------|-------------------------------|------------------------|---|
| Watershed: Chalk Point Discharge | Habitat: Low Mesohaline | Date: 13SEP17 | |
| Gear: Wildco Box Corer | Sampled Area: 0.022 sq.m | Time: 9:40:00 | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 1.7 | Salinity (ppt): 9.24 | Temperature (C): 22.91 | |
| Dissolved Oxygen (mg/l): 5.6 | Sediment Silt-Clay (%): 88.60 | Total Carbon (%): 2.79 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 4.60 | Condition: Meets Goal | # Attributes Scored: 5 | |
| | Value | Score | |
| Shannon-Wiener Index | 2.73 | 5 | |
| Abundance (#/m2) | 1000 | 3 | Pollution Indicative Species Abundance (%) 4.55 5 |
| Biomass (g/m2) | 7.45 | 5 | Pollution Indicative Species Biomass (%) 0.31 |
| Carnivore-Omnivore Abundance (%) | 18.18 | | Pollution Sensitive Species Abundance (%) 50.00 |
| Deep Deposit Feeder Abundance (%) | 13.64 | | Pollution Sensitive Species Biomass (%) 95.42 5 |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Coelotanypus spp. | 45 | 0.02273 | |
| Cyathura polita | 136 | 0.35906 | |
| Gemma gemma | 45 | 0.00227 | |
| Heteromastus filiformis | 91 | 0.21361 | |
| Leptocheirus plumulosus | 227 | 0.08181 | |
| Macoma balthica | 318 | 6.74023 | |
| Macoma mitchelli | 45 | 0.01818 | |
| Rangia cuneata | 45 | 0.00909 | |
| Tubificoides spp. | 45 | 0.00227 | |
| Total Abundance w/ Epi. | 1000 | | |
| Total Abundance w/o Epi. | 1000 | | |
| Number of Taxa w/ Epi. | 9 | | |
| Number of Taxa w/o Epi. | 9 | | |
| Total Biomass w/ Epi. | | 7.44925 | |
| Total Biomass w/o Epi. | | 7.44925 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 077 | | Rep: 01 |
|-----------------------------------|-------------------------------|---|
| Watershed: Patuxent River | Habitat: Low Mesohaline | Date: 13SEP17 |
| Gear: Wildco Box Corer | Sampled Area: 0.022 sq.m | Time: 9:50:00 |
| BOTTOM ENVIRONMENT | | |
| Depth (m): 2.7 | Salinity (ppt): 6.92 | Temperature (C): 22.77 |
| Dissolved Oxygen (mg/l): 5.5 | Sediment Silt-Clay (%): 91.19 | Total Carbon (%): 3.16 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | |
| B-IBI Score: 2.60 | Condition: Degraded | # Attributes Scored: 5 |
| | Value Score | Value Score |
| Shannon-Wiener Index | 1.68 1 | Pollution Indicative Species Abundance (%) 9.09 5 |
| Abundance (#/m2) | 500 1 | Pollution Indicative Species Biomass (%) 0.08 |
| Biomass (g/m2) | 2.72 3 | Pollution Sensitive Species Abundance (%) 81.82 |
| Carnivore-Omnivore Abundance (%) | 54.55 | Pollution Sensitive Species Biomass (%) 95.25 3 |
| Deep Deposit Feeder Abundance (%) | 0.00 | |
| BENTHIC ABUNDANCE (per sq. meter) | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) |
| Cyathura polita | 227 | 0.45905 |
| Littoridinops tenuipes (Epi) | 136 | 0.00455 |
| Macoma balthica | 182 | 2.13615 |
| Neanthes succinea | 45 | 0.12726 |
| Streblospio benedicti | 45 | 0.00227 |
| Total Abundance w/ Epi. | 636 | |
| Total Abundance w/o Epi. | 500 | |
| Number of Taxa w/ Epi. | 5 | |
| Number of Taxa w/o Epi. | 4 | |
| Total Biomass w/ Epi. | | 2.72927 |
| Total Biomass w/o Epi. | | 2.72473 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | |
|-----------------------------------|-------------------------------|--|
| Station: 077 | | Rep: 02 |
| Watershed: Patuxent River | Habitat: Low Mesohaline | Date: 13SEP17 |
| Gear: Wildco Box Corer | Sampled Area: 0.022 sq.m | Time: 9:50:00 |
| BOTTOM ENVIRONMENT | | |
| Depth (m): 2.7 | Salinity (ppt): 6.92 | Temperature (C): 22.77 |
| Dissolved Oxygen (mg/l): 5.5 | Sediment Silt-Clay (%): 91.19 | Total Carbon (%): 3.16 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | |
| B-IBI Score: 3.80 | Condition: Meets Goal | # Attributes Scored: 5 |
| | Value Score | Value Score |
| Shannon-Wiener Index | 2.23 3 | Pollution Indicative Species Abundance (%) 13.33 3 |
| Abundance (#/m2) | 682 3 | Pollution Indicative Species Biomass (%) 0.04 |
| Biomass (g/m2) | 5.62 5 | Pollution Sensitive Species Abundance (%) 53.33 |
| Carnivore-Omnivore Abundance (%) | 40.00 | Pollution Sensitive Species Biomass (%) 99.56 5 |
| Deep Deposit Feeder Abundance (%) | 13.33 | |
| BENTHIC ABUNDANCE (per sq. meter) | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) |
| Carinoma tremaphoros | 136 | 0.01818 |
| Cyathura polita | 136 | 0.21362 |
| Macoma balthica | 227 | 5.38128 |
| Streblospio benedicti | 91 | 0.00227 |
| Tubificoides spp. | 91 | 0.00455 |
| Total Abundance w/ Epi. | 682 | |
| Total Abundance w/o Epi. | 682 | |
| Number of Taxa w/ Epi. | 5 | |
| Number of Taxa w/o Epi. | 5 | |
| Total Biomass w/ Epi. | | 5.61989 |
| Total Biomass w/o Epi. | | 5.61989 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|-------------------------------|--------------------------|--|
| Watershed: Patuxent River | | Station: 077 | Rep: 03 |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | Date: 13SEP17 |
| | | Sampled Area: 0.022 sq.m | Time: 9:50:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 2.7 | Salinity (ppt): 6.92 | Temperature (C): 22.77 | |
| Dissolved Oxygen (mg/l): 5.5 | Sediment Silt-Clay (%): 91.19 | Total Carbon (%): 3.16 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 3.40 | | Condition: Meets Goal | # Attributes Scored: 5 |
| | Value | Score | Value Score |
| Shannon-Wiener Index | 2.98 | 5 | Pollution Indicative Species Abundance (%) 30.43 1 |
| Abundance (#/m2) | 1045 | 3 | Pollution Indicative Species Biomass (%) 0.75 |
| Biomass (g/m2) | 2.42 | 3 | Pollution Sensitive Species Abundance (%) 39.13 |
| Carnivore-Omnivore Abundance (%) | 34.78 | | Pollution Sensitive Species Biomass (%) 94.92 5 |
| Deep Deposit Feeder Abundance (%) | 17.39 | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Carinoma tremaphoros | 91 | 0.01818 | |
| Coelotanytus spp. | 136 | 0.01364 | |
| Cyathura polita | 136 | 0.26361 | |
| Macoma balthica | 182 | 2.01798 | |
| Macoma mitchelli | 45 | 0.07272 | |
| Marenzelleria viridis | 45 | 0.00455 | |
| Rangia cuneata | 45 | 0.00909 | |
| Streblospio benedicti | 182 | 0.00455 | |
| Tubificoides spp. | 182 | 0.01364 | |
| Total Abundance w/ Epi. | 1045 | | |
| Total Abundance w/o Epi. | 1045 | | |
| Number of Taxa w/ Epi. | 9 | | |
| Number of Taxa w/o Epi. | 9 | | |
| Total Biomass w/ Epi. | | 2.41794 | |
| Total Biomass w/o Epi. | | 2.41794 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|-------------------------------|---------------------------|---|
| Watershed: Patuxent River | | Station: 079 | Rep: 01 |
| Gear: Wildco Box Corer | | Habitat: Tidal Freshwater | Date: 13SEP17 |
| | | Sampled Area: 0.022 sq.m | Time: 13:29:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 0.5 | Salinity (ppt): 0.14 | Temperature (C): 22.29 | |
| Dissolved Oxygen (mg/l): 9.9 | Sediment Silt-Clay (%): 87.28 | Total Carbon (%): 4.11 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 3.50 | Condition: Meets Goal | | # Attributes Scored: 3 |
| | Value | Score | |
| Shannon-Wiener Index | 0.90 | | |
| Abundance (#/m2) | 1318 | 5 | T.F. Pollution Indicative Spp. Abund. (%) 82.76 3 |
| Deep Deposit Feeder Abundance (%) | 82.76 | 3 | Tolerance Score 9.34 3 |
| Carnivore-Omnivore Abundance (%) | 17.24 | | Limnodrilus Abundance (%) 82.76 |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) |
| Chironomidae | | | 0.00227 |
| Chironomus spp. | 45 | | |
| Coelotanypus spp. | 136 | | 0.01363 |
| Cryptochironomus spp. | 45 | | |
| Oligochaeta | | | 0.18635 |
| Tubificidae imm w/o cap chaetae | 1091 | | 0.09999 |
| Total Abundance w/ Epi. | 1318 | | |
| Total Abundance w/o Epi. | 1318 | | |
| Number of Taxa w/ Epi. | 4 | | |
| Number of Taxa w/o Epi. | 4 | | |
| Total Biomass w/ Epi. | | | 0.30224 |
| Total Biomass w/o Epi. | | | 0.30224 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|-------------------------------|---------------------------|------------------------|
| Watershed: Patuxent River | | Station: 079 | Rep: 02 |
| Gear: Wildco Box Corer | | Habitat: Tidal Freshwater | Date: 13SEP17 |
| | | Sampled Area: 0.022 sq.m | Time: 13:29:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 0.5 | Salinity (ppt): 0.14 | Temperature (C): 22.29 | |
| Dissolved Oxygen (mg/l): 9.9 | Sediment Silt-Clay (%): 87.28 | Total Carbon (%): 4.11 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 2.00 | Condition: Severely Degr. | | # Attributes Scored: 3 |
| | Value | Score | Value |
| Shannon-Wiener Index | 2.24 | | 42.86 |
| Abundance (#/m2) | 318 | 1 | 8.24 |
| Deep Deposit Feeder Abundance (%) | 42.86 | 1 | 42.86 |
| Carnivore-Omnivore Abundance (%) | 57.14 | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Chironomidae | | 0.00227 | |
| Chironomus spp. | 45 | | |
| Coelotanypus spp. | 91 | 0.04545 | |
| Cryptotendipes spp. | 45 | | |
| Limnodrilus hoffmeisteri | 45 | | |
| Oligochaeta | | 0.01591 | |
| Tubificidae imm w/o cap chaetae * | 91 | | |
| Total Abundance w/ Epi. | 318 | | |
| Total Abundance w/o Epi. | 318 | | |
| Number of Taxa w/ Epi. | 4 | | |
| Number of Taxa w/o Epi. | 4 | | |
| Total Biomass w/ Epi. | | 0.06363 | |
| Total Biomass w/o Epi. | | 0.06363 | |

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|-------------------------------|---------------------------|--|
| Watershed: Patuxent River | | Station: 079 | Rep: 03 |
| Gear: Wildco Box Corer | | Habitat: Tidal Freshwater | Date: 13SEP17 |
| | | Sampled Area: 0.022 sq.m | Time: 13:29:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 0.5 | Salinity (ppt): 0.14 | Temperature (C): 22.29 | |
| Dissolved Oxygen (mg/l): 9.9 | Sediment Silt-Clay (%): 87.28 | Total Carbon (%): 4.11 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 2.00 | Condition: Severely Degr. | | # Attributes Scored: 3 |
| | Value | Score | Value Score |
| Shannon-Wiener Index | 2.12 | | 45.45 3 |
| Abundance (#/m2) | 500 | 1 | T.F. Pollution Indicative Spp. Abund. (%) 8.16 3 |
| Deep Deposit Feeder Abundance (%) | 45.45 | 1 | Tolerance Score 45.45 |
| Carnivore-Omnivore Abundance (%) | 54.55 | | Limnodrilus Abundance (%) |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Chironomidae | | 0.00227 | |
| Coelotanypus spp. | 182 | 0.02273 | |
| Limnodrilus hoffmeisteri | 91 | | |
| Oligochaeta | | 0.04318 | |
| Procladius spp. | 45 | | |
| Tanytarsus spp. G Epler | 45 | | |
| Tubificidae imm w/o cap chaetae * | 136 | | |
| Total Abundance w/ Epi. | 500 | | |
| Total Abundance w/o Epi. | 500 | | |
| Number of Taxa w/ Epi. | 4 | | |
| Number of Taxa w/o Epi. | 4 | | |
| Total Biomass w/ Epi. | | 0.06817 | |
| Total Biomass w/o Epi. | | 0.06817 | |

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 201 | | Rep: 01 | |
|-----------------------------------|-------------------------------|------------------------|---|
| Watershed: Patapsco & Back Rivers | Habitat: Low Mesohaline | Date: 08AUG17 | |
| Gear: Wildco Box Corer | Sampled Area: 0.022 sq.m | Time: 10:25:00 | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 3.6 | Salinity (ppt): 6.04 | Temperature (C): 26.23 | |
| Dissolved Oxygen (mg/l): 3.3 | Sediment Silt-Clay (%): 80.54 | Total Carbon (%): 5.17 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 1.80 | Condition: Severely Degr. | # Attributes Scored: 5 | |
| | Value | Score | |
| Shannon-Wiener Index | 1.00 | 1 | Pollution Indicative Species Abundance (%) 0.00 5 |
| Abundance (#/m2) | 91 | 1 | Pollution Indicative Species Biomass (%) 0.00 |
| Biomass (g/m2) | 0.52 | 1 | Pollution Sensitive Species Abundance (%) 50.00 |
| Carnivore-Omnivore Abundance (%) | 0.00 | | Pollution Sensitive Species Biomass (%) 22.81 1 |
| Deep Deposit Feeder Abundance (%) | 0.00 | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Macoma balthica | 45 | 0.11817 | |
| Macoma mitchelli | 45 | 0.39996 | |
| Total Abundance w/ Epi. | 91 | | |
| Total Abundance w/o Epi. | 91 | | |
| Number of Taxa w/ Epi. | 2 | | |
| Number of Taxa w/o Epi. | 2 | | |
| Total Biomass w/ Epi. | | 0.51813 | |
| Total Biomass w/o Epi. | | 0.51813 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 201 | | Rep: 02 | |
|-----------------------------------|-------------------------------|------------------------|---|
| Watershed: Patapsco & Back Rivers | Habitat: Low Mesohaline | Date: 08AUG17 | |
| Gear: Wildco Box Corer | Sampled Area: 0.022 sq.m | Time: 10:25:00 | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 3.6 | Salinity (ppt): 6.04 | Temperature (C): 26.23 | |
| Dissolved Oxygen (mg/l): 3.3 | Sediment Silt-Clay (%): 80.54 | Total Carbon (%): 5.17 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 1.80 | Condition: Severely Degr. | | # Attributes Scored: 5 |
| | Value | Score | Value Score |
| Shannon-Wiener Index | 0.00 | 1 | Pollution Indicative Species Abundance (%) 0.00 5 |
| Abundance (#/m2) | 45 | 1 | Pollution Indicative Species Biomass (%) 0.00 |
| Biomass (g/m2) | 0.22 | 1 | Pollution Sensitive Species Abundance (%) 0.00 |
| Carnivore-Omnivore Abundance (%) | 0.00 | | Pollution Sensitive Species Biomass (%) 0.00 1 |
| Deep Deposit Feeder Abundance (%) | 0.00 | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) |
| Macoma mitchelli | 45 | | 0.21816 |
| 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. | | | 0.21816 |
| Total Biomass w/o Epi. | | | 0.21816 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|-------------------------------|--------------------------|---|
| Watershed: Patapsco & Back Rivers | | Station: 201 | Rep: 03 |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | Date: 08AUG17 |
| | | Sampled Area: 0.022 sq.m | Time: 10:25:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 3.6 | Salinity (ppt): 6.04 | Temperature (C): 26.23 | |
| Dissolved Oxygen (mg/l): 3.3 | Sediment Silt-Clay (%): 80.54 | Total Carbon (%): 5.17 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 1.80 | Condition: Severely Degr. | | # Attributes Scored: 5 |
| | Value | Score | Value Score |
| Shannon-Wiener Index | 0.00 | 1 | Pollution Indicative Species Abundance (%) 0.00 5 |
| Abundance (#/m2) | 45 | 1 | Pollution Indicative Species Biomass (%) 0.00 |
| Biomass (g/m2) | 0.22 | 1 | Pollution Sensitive Species Abundance (%) 0.00 |
| Carnivore-Omnivore Abundance (%) | 0.00 | | Pollution Sensitive Species Biomass (%) 0.00 1 |
| Deep Deposit Feeder Abundance (%) | 0.00 | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Macoma mitchelli | 45 | 0.22271 | |
| 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. | | 0.22271 | |
| Total Biomass w/o Epi. | | 0.22271 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|-------------------------------|--------------------------|---|
| Watershed: Patapsco & Back Rivers | | Station: 202 | Rep: 01 |
| Gear: Wildco Box Corer | | Habitat: Low Mesohaline | Date: 08SEP17 |
| | | Sampled Area: 0.022 sq.m | Time: 9:50:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 5.5 | Salinity (ppt): 11.52 | Temperature (C): 23.79 | |
| Dissolved Oxygen (mg/l): 1.6 | Sediment Silt-Clay (%): 76.58 | Total Carbon (%): 3.055 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 1.00 | Condition: Severely Degr. | | # Attributes Scored: 5 |
| | Value | Score | Value Score |
| Shannon-Wiener Index | 0.00 | 1 | Pollution Indicative Species Abundance (%) 100.00 1 |
| Abundance (#/m2) | 45 | 1 | Pollution Indicative Species Biomass (%) 100.00 |
| Biomass (g/m2) | 0.21 | 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) | |
| Mulinia lateralis | 45 | 0.21361 | |
| 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. | | 0.21361 | |
| Total Biomass w/o Epi. | | 0.21361 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 202 | | Rep: 02 | |
|-----------------------------------|-------------------------------|-------------------------|---|
| Watershed: Patapsco & Back Rivers | Habitat: Low Mesohaline | Date: 08SEP17 | |
| Gear: Wildco Box Corer | Sampled Area: 0.022 sq.m | Time: 9:50:00 | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 5.5 | Salinity (ppt): 11.52 | Temperature (C): 23.79 | |
| Dissolved Oxygen (mg/l): 1.6 | Sediment Silt-Clay (%): 76.58 | Total Carbon (%): 3.055 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 1.80 | Condition: Severely Degr. | # Attributes Scored: 5 | |
| | Value | Score | |
| Shannon-Wiener Index | 0.00 | 1 | Pollution Indicative Species Abundance (%) 0.00 5 |
| Abundance (#/m2) | 45 | 1 | Pollution Indicative Species Biomass (%) 0.00 |
| Biomass (g/m2) | 0.02 | 1 | Pollution Sensitive Species Abundance (%) 0.00 |
| Carnivore-Omnivore Abundance (%) | 0.00 | | Pollution Sensitive Species Biomass (%) 0.00 1 |
| Deep Deposit Feeder Abundance (%) | 100.00 | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Heteromastus filiformis | 45 | 0.01818 | |
| 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. | | 0.01818 | |
| Total Biomass w/o Epi. | | 0.01818 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | |
|-----------------------------------|-------------------------------|---|
| Station: 202 | | Rep: 03 |
| Watershed: Patapsco & Back Rivers | Habitat: Low Mesohaline | Date: 08SEP17 |
| Gear: Wildco Box Corer | Sampled Area: 0.022 sq.m | Time: 9:50:00 |
| BOTTOM ENVIRONMENT | | |
| Depth (m): 5.5 | Salinity (ppt): 11.52 | Temperature (C): 23.79 |
| Dissolved Oxygen (mg/l): 1.6 | Sediment Silt-Clay (%): 76.58 | Total Carbon (%): 3.055 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | |
| B-IBI Score: 1.00 | Condition: Severely Degr. | # Attributes Scored: 5 |
| | Value Score | Value Score |
| Shannon-Wiener Index | 0.00 1 | Pollution Indicative Species Abundance (%) 100.00 1 |
| Abundance (#/m2) | 45 1 | Pollution Indicative Species Biomass (%) 100.00 |
| Biomass (g/m2) | 0.23 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) |
| Mulinia lateralis | 45 | 0.23180 |
| 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. | | 0.23180 |
| Total Biomass w/o Epi. | | 0.23180 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| BOTTOM ENVIRONMENT | | |
|-----------------------------------|--------------------------|------------------------|
| Station: 203 | Rep: 01 | |
| Watershed: Patapsco & Back Rivers | Habitat: Oligohaline | Date: 09AUG17 |
| Gear: Young Grab | Sampled Area: 0.044 sq.m | Time: 13:06:00 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | |
| B-IBI Score: 3.33 | Condition: Meets Goal | # Attributes Scored: 6 |
| | Value | Score |
| Shannon-Wiener Index | 0.94 | |
| Abundance (#/m2) | 1999 | 5 |
| Deep Deposit Feeder Abundance (%) | 3.41 | |
| Carnivore-Omnivore Abundance (%) | 82.95 | 5 |
| BENTHIC ABUNDANCE (per sq. meter) | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) |
| Chironomus spp. | 1659 | 1.84714 |
| Leptocheirus plumulosus | 182 | 0.09088 |
| Limnodrilus hoffmeisteri | 45 | 0.00114 |
| Marenzelleria viridis | 91 | 0.02726 |
| Tubificoides spp. | 23 | 0.00454 |
| Total Abundance w/ Epi. | 1999 | |
| Total Abundance w/o Epi. | 1999 | |
| Number of Taxa w/ Epi. | 5 | |
| Number of Taxa w/o Epi. | 5 | |
| Total Biomass w/ Epi. | | 1.97096 |
| Total Biomass w/o Epi. | | 1.97096 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 203 | | Rep: 02 |
|-----------------------------------|-------------------------------|--|
| Watershed: Patapsco & Back Rivers | Habitat: Oligohaline | Date: 09AUG17 |
| Gear: Young Grab | Sampled Area: 0.044 sq.m | Time: 13:06:00 |
| BOTTOM ENVIRONMENT | | |
| Depth (m): 1.8 | Salinity (ppt): 0.91 | Temperature (C): 24.85 |
| Dissolved Oxygen (mg/l): 4.8 | Sediment Silt-Clay (%): 84.90 | Total Carbon (%): 4.52 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | |
| B-IBI Score: 3.33 | Condition: Meets Goal | # Attributes Scored: 6 |
| | Value | Score |
| Shannon-Wiener Index | 1.29 | Oligohaline Pollution Indicative Spp. Abund. 97.14 1 |
| Abundance (#/m2) | 1590 | Tolerance Score 9.62 1 |
| Deep Deposit Feeder Abundance (%) | 7.14 | Oligohaline Pollution Sensitive Spp. Abund. 2.86 3 |
| Carnivore-Omnivore Abundance (%) | 78.57 | Tanypodinae/Chironomidae Abundance Ratio 5.45 5 |
| BENTHIC ABUNDANCE (per sq. meter) | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) |
| Chironomus spp. | 1181 | 1.08829 |
| Coelotanypus spp. | 68 | 0.01363 |
| Leptocheirus plumulosus | 182 | 0.07952 |
| Limnodrilus hoffmeisteri | 114 | 0.00114 |
| Marenzelleria viridis | 45 | 0.06589 |
| Total Abundance w/ Epi. | 1590 | |
| Total Abundance w/o Epi. | 1590 | |
| Number of Taxa w/ Epi. | 5 | |
| Number of Taxa w/o Epi. | 5 | |
| Total Biomass w/ Epi. | | 1.24846 |
| Total Biomass w/o Epi. | | 1.24846 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | |
|-----------------------------------|-------------------------------|--------------------------|--|
| Watershed: Patapsco & Back Rivers | | Station: 203 | Rep: 03 |
| Gear: Young Grab | | Habitat: Oligohaline | Date: 09AUG17 |
| | | Sampled Area: 0.044 sq.m | Time: 13:06:00 |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 1.8 | Salinity (ppt): 0.91 | Temperature (C): 24.85 | |
| Dissolved Oxygen (mg/l): 4.8 | Sediment Silt-Clay (%): 84.90 | Total Carbon (%): 4.52 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 3.33 | Condition: Meets Goal | | # Attributes Scored: 6 |
| | Value | Score | Value Score |
| Shannon-Wiener Index | 1.81 | | 99.17 1 |
| Abundance (#/m2) | 2749 | 5 | Tolerance Score 9.58 1 |
| Deep Deposit Feeder Abundance (%) | 24.79 | | Oligohaline Pollution Sensitive Spp. Abund. 0.83 3 |
| Carnivore-Omnivore Abundance (%) | 64.46 | 5 | Tanypodinae/Chironomidae Abundance Ratio 7.69 5 |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Chironomus spp. | 1636 | 1.32003 | |
| Coelotanypus spp. | 136 | 0.03862 | |
| Leptocheirus plumulosus | 250 | 0.10451 | |
| Limnodrilus hoffmeisteri | 477 | 0.01363 | |
| Marenzelleria viridis | 23 | 0.00682 | |
| Streblospio benedicti | 23 | 0.00454 | |
| Tubificoides spp. | 204 | 0.00682 | |
| Total Abundance w/ Epi. | 2749 | | |
| Total Abundance w/o Epi. | 2749 | | |
| Number of Taxa w/ Epi. | 7 | | |
| Number of Taxa w/o Epi. | 7 | | |
| Total Biomass w/ Epi. | | 1.49498 | |
| Total Biomass w/o Epi. | | 1.49498 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| | | | | | |
|-----------------------------------|------------------|-------------------------------|----------------|--|---------|
| Watershed: Lower Western Shore | | Station: 204 | | Rep: 01 | |
| Gear: Young Grab | | Habitat: High Mesohaline Mud | | Date: 24AUG17 | |
| | | Sampled Area: 0.044 sq.m | | Time: 12:08:00 | |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m): 6.4 | | Salinity (ppt): 9.13 | | Temperature (C): 27.64 | |
| Dissolved Oxygen (mg/l): 3.5 | | Sediment Silt-Clay (%): 64.87 | | Total Carbon (%): 1.95 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score: 4.00 | | Condition: Meets Goal | | # Attributes Scored: 6 | |
| | | Value | Score | Value | Score |
| Shannon-Wiener Index | | 2.42 | 3 | Pollution Indicative Species Abundance (%) | 29.58 |
| Abundance (#/m2) | | 1613 | 5 | Pollution Indicative Species Biomass (%) | 11.02 3 |
| Biomass (g/m2) | | 1.26 | 3 | Pollution Sensitive Species Abundance (%) | 5.63 |
| Carnivore-Omnivore Abundance (%) | | 32.39 | 5 | Pollution Sensitive Species Biomass (%) | 60.07 5 |
| Deep Deposit Feeder Abundance (%) | | 9.86 | | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| TAXA | Abundance (#/m2) | | Biomass (g/m2) | | |
| Carinoma tremaphoros | 114 | | 0.03181 | | |
| Chironomus spp. | 341 | | 0.08406 | | |
| Eteone heteropoda | 23 | | 0.00227 | | |
| Heteromastus filiformis | 45 | | 0.02726 | | |
| Leitoscoloplos spp. | 23 | | 0.04998 | | |
| Leptocheirus plumulosus | 772 | | 0.23856 | | |
| Macoma balthica | 68 | | 0.75430 | | |
| Mediomastus ambiseta | 23 | | 0.00114 | | |
| Neanthes succinea | 45 | | 0.06134 | | |
| Streblospio benedicti | 91 | | 0.00227 | | |
| Tubificoides spp. | 68 | | 0.00454 | | |
| Total Abundance w/ Epi. | 1613 | | | | |
| Total Abundance w/o Epi. | 1613 | | | | |
| Number of Taxa w/ Epi. | 11 | | | | |
| Number of Taxa w/o Epi. | 11 | | | | |
| Total Biomass w/ Epi. | | | 1.25755 | | |
| Total Biomass w/o Epi. | | | 1.25755 | | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| Station: 204 | | Rep: 02 | |
|-----------------------------------|-------------------------------|------------------------|--|
| Watershed: Lower Western Shore | Habitat: High Mesohaline Mud | Date: 24AUG17 | |
| Gear: Young Grab | Sampled Area: 0.044 sq.m | Time: 12:08:00 | |
| BOTTOM ENVIRONMENT | | | |
| Depth (m): 6.4 | Salinity (ppt): 9.13 | Temperature (C): 27.64 | |
| Dissolved Oxygen (mg/l): 3.5 | Sediment Silt-Clay (%): 64.87 | Total Carbon (%): 1.95 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | |
| B-IBI Score: 3.33 | Condition: Meets Goal | | # Attributes Scored: 6 |
| | Value | Score | Value Score |
| Shannon-Wiener Index | 2.05 | 3 | Pollution Indicative Species Abundance (%) 22.41 |
| Abundance (#/m2) | 1318 | 3 | Pollution Indicative Species Biomass (%) 13.67 3 |
| Biomass (g/m2) | 0.63 | 3 | Pollution Sensitive Species Abundance (%) 5.17 |
| Carnivore-Omnivore Abundance (%) | 27.59 | 5 | Pollution Sensitive Species Biomass (%) 43.17 3 |
| Deep Deposit Feeder Abundance (%) | 10.34 | | |
| BENTHIC ABUNDANCE (per sq. meter) | | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) | |
| Chironomus spp. | 273 | 0.08179 | |
| Cyathura polita | 23 | 0.06589 | |
| Heteromastus filiformis | 45 | 0.01590 | |
| Leptocheirus plumulosus | 750 | 0.19312 | |
| Macoma balthica | 23 | 0.20448 | |
| Macoma mitchelli | 23 | 0.04317 | |
| Mediomastus ambiseta | 23 | 0.00227 | |
| Neanthes succinea | 68 | 0.01818 | |
| Streblospio benedicti | 23 | 0.00454 | |
| Tubificoides spp. | 68 | 0.00227 | |
| Total Abundance w/ Epi. | 1318 | | |
| Total Abundance w/o Epi. | 1318 | | |
| Number of Taxa w/ Epi. | 10 | | |
| Number of Taxa w/o Epi. | 10 | | |
| Total Biomass w/ Epi. | | 0.63162 | |
| Total Biomass w/o Epi. | | 0.63162 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) FIXED STATIONS

| BOTTOM ENVIRONMENT | | |
|--|------------------------------|------------------------|
| Watershed: Lower Western Shore | Station: 204 | Rep: 03 |
| Gear: Young Grab | Habitat: High Mesohaline Mud | Date: 24AUG17 |
| | Sampled Area: 0.044 sq.m | Time: 12:08:00 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | |
| B-IBI Score: 4.00 | Condition: Meets Goal | # Attributes Scored: 6 |
| | Value | Score |
| Shannon-Wiener Index | 2.57 | 3 |
| Abundance (#/m2) | 1318 | 3 |
| Biomass (g/m2) | 2.04 | 5 |
| Carnivore-Omnivore Abundance (%) | 25.86 | 5 |
| Deep Deposit Feeder Abundance (%) | 12.07 | |
| | | Value |
| | | Score |
| Pollution Indicative Species Abundance (%) | | 15.52 |
| Pollution Indicative Species Biomass (%) | | 0.33 |
| Pollution Sensitive Species Abundance (%) | | 5.17 |
| Pollution Sensitive Species Biomass (%) | | 48.63 |
| | | 3 |
| BENTHIC ABUNDANCE (per sq. meter) | | |
| TAXA | Abundance (#/m2) | Biomass (g/m2) |
| Apocorophium lacustre (Epi) | 45 | 0.01136 |
| Balanus improvisus (Epi) | 136 | 0.56346 |
| Carinoma tremaphoros | 45 | 0.00682 |
| Chironomus spp. | 45 | 0.00454 |
| Geukensia demissa (Epi) | 23 | 0.19085 |
| Heteromastus filiformis | 68 | 0.08634 |
| Leptocheirus plumulosus | 591 | 0.18403 |
| Macoma balthica | 68 | 0.99059 |
| Macoma mitchelli | 45 | 0.08861 |
| Neanthes succinea | 250 | 0.67251 |
| Polydora cornuta | 45 | 0.00114 |
| Streblospio benedicti | 68 | 0.00114 |
| Tubificidae imm w/o cap chaetae | 91 | 0.00114 |
| Total Abundance w/ Epi. | 1522 | |
| Total Abundance w/o Epi. | 1318 | |
| Number of Taxa w/ Epi. | 13 | |
| Number of Taxa w/o Epi. | 10 | |
| Total Biomass w/ Epi. | | 2.80251 |
| Total Biomass w/o Epi. | | 2.03685 |

DATA SUMMARY B

**BENTHIC ENVIRONMENT AND COMMUNITY
COMPOSITION AT RANDOM SITES:
SUMMER 2017**

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24401 | 24402 | 24403 | 24404 | 24405 |
|------------------------------------|----------------|---------------|----------------|---------------|----------------|
| Watershed | Eastern Tribs | Eastern Tribs | Eastern Tribs | Eastern Tribs | Eastern Tribs |
| Habitat | High Meso Mud | High Meso Mud | High Meso Sand | Freshwater | High Meso Sand |
| Date | 09/21/17 | 09/21/17 | 09/21/17 | 09/21/17 | 09/21/17 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 3.0 | 3.9 | 2.5 | 7.5 | 1.7 |
| Salinity (ppt) | 12.18 | 16.65 | 16.80 | 0.15 | 16.86 |
| Temperature (C) | 23.89 | 24.57 | 24.53 | 22.90 | 25.16 |
| Dissolved Oxygen (mg/L) | 7.1 | 7.7 | 8.2 | 3.6 | 9.1 |
| Sediment Silt-Clay (%) | 76.62 | 84.02 | 23.80 | 3.82 | 2.52 |
| Total Carbon (%) | 2.10 | 2.68 | 0.69 | 0.25 | 0.07 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 1.67 | 2.33 | 4.33 | 5.00 | 3.00 |
| Condition | Severely Degr. | Degraded | Meets Goal | Meets Goal | Meets Goal |
| # Attributes Scored | 6 | 6 | 6 | 4 | 6 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 2.83 3 | 2.45 3 | 3.50 5 | 0.68 | 3.73 5 |
| Abundance (#/m2) | 909 1 | 227 1 | 1659 5 | 1772 5 | 977 1 |
| Biomass (g/m2) | 0.42 1 | 0.35 1 | 1.32 3 | 0.06 | 0.94 1 |
| Pollution Indicative Spp Abund (%) | 20.00 | 20.00 | 10.96 3 | 1.28 | 9.30 5 |
| Pollution Indicative Spp Biom (%) | 57.91 1 | 12.26 3 | 17.53 | 1.96 | 0.24 |
| Pollution Sensitive Spp Abund (%) | 40.00 | 30.00 | 64.38 5 | 2.56 | 18.60 3 |
| Pollution Sensitive Spp Biom (%) | 12.33 1 | 1.29 1 | 41.41 | 15.69 | 9.71 |
| Carnivore-Omnivore Abund (%) | 20.00 3 | 50.00 5 | 47.95 5 | 8.97 | 25.58 3 |
| Deep Deposit Feeder Abund (%) | 32.50 | 0.00 | 15.07 | 1.28 5 | 20.93 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | 0.00 | 0.00 | 1.28 5 | 0.00 |
| Limnodrilus Abundance (%) | 0.00 | 0.00 | 0.00 | 1.28 | 0.00 |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tolerance Score | 0.00 | 0.00 | 0.00 | 6.35 5 | 0.00 |
| Tany./Chir. Abundance Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
|---------------------------------------|--------|--------|--------|--------|--------|
| Site | 24401 | 24402 | 24403 | 24404 | 24405 |
| Acteocina canaliculata | | 68 | 432 | | 45 |
| Amerocolodes species complex | | | | | 23 |
| Ampelisca abdita | | | 45 | | |
| Chiridotea almyra | | | | 136 | |
| Clymenella torquata | | | 68 | | |
| Corbicula fluminea | | | | 1568 | |
| Cyathura polita | 45 | | | 23 | |
| Edwardsia elegans | | | 91 | | 23 |
| Gemma gemma | | | | | 114 |
| Glycera dibranchiata | | | 45 | | 68 |
| Glycinde solitaria | 114 | | 159 | | 68 |
| Leitoscoloplos robustus | 68 | | | | |
| Leitoscoloplos spp. | | | | | 23 |
| Leptosynapta tenuis | | | | | 23 |
| Leucon americanus | 91 | | | | |
| Listriella barnardi | | | | | 23 |
| Listriella clymenellae | | | 136 | | |
| Macoma mitchelli | 227 | 45 | | | |
| Marenzelleria viridis | | | | 23 | |
| Mediomastus ambiseta | 204 | | 68 | | |
| Melinna maculata | | 23 | | | |
| Micrura leidyi | | | | | 23 |
| Mulinia lateralis | 114 | 23 | 23 | | |
| Neanthes succinea | 23 | | 45 | | |
| Paraonis fulgens | | | | | 68 |
| Paraprionospio pinnata | | 23 | 159 | | |
| Parvilucina crenella | | | 45 | | |
| Pectinaria gouldii | | | 114 | | |
| Phoronis spp. | | | 182 | | |
| Podarkeopsis levifuscina | | 45 | | | 23 |
| Scolecopsis texana | | | | | 23 |
| Sigambra tentaculata | | | 23 | | |
| Spiochaetopterus costarum | | | 23 | | |
| Spiophanes bombyx | | | | | 68 |
| Streblospio benedicti | | | | | 68 |
| Tharyx spp. | | | | | 114 |
| Tubificidae imm w/o cap chaetae | | | | 23 | |
| Tubificoides spp. | 23 | | | | 182 |
| Total Abundance w/ Epifauna | 909 | 227 | 1659 | 1772 | 977 |
| Total Abundance w/o Epifauna | 909 | 227 | 1659 | 1772 | 977 |
| Number of Taxa w/ Epifauna | 9 | 6 | 16 | 5 | 17 |
| Number of Taxa w/o Epifauna | 9 | 6 | 16 | 5 | 17 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 24401 | 24402 | 24403 | 24404 | 24405 |
| Acteocina canaliculata | | 0.0045 | 0.0250 | | 0.0091 |
| Amerocolodes species complex | | | | | 0.0114 |
| Ampelisca abdita | | | 0.0023 | | |
| Chiridotea almyra | | | | 0.0250 | |
| Clymenella torquata | | | 0.4044 | | |
| Corbicula fluminea | | | | 0.0227 | |
| Cyathura polita | 0.0091 | | | 0.0023 | |
| Edwardsia elegans | | | 0.0068 | | 0.0091 |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| BENTHIC BIOMASS (Grams per sq. meter) - Contd. | | | | | |
|--|--------|--------|--------|--------|--------|
| Site | 24401 | 24402 | 24403 | 24404 | 24405 |
| Gemma gemma | | | | | 0.0023 |
| Glycera dibranchiata | | | 0.4976 | | 0.5498 |
| Glycinde solitaria | 0.0318 | | 0.0091 | | 0.0045 |
| Leitoscoloplos robustus | 0.1999 | | | | 0.0011 |
| Leitoscoloplos spp. | | | | | 0.1931 |
| Leptosynapta tenuis | | | | | |
| Leucon americanus | 0.0045 | | | | |
| Listriella barnardi | | | | | 0.0023 |
| Listriella clymenellae | | | 0.0091 | | |
| Macoma mitchelli | 0.1159 | 0.2454 | | 0.0068 | |
| Marenzelleria viridis | | | | | |
| Mediomastus ambiseta | 0.0114 | | 0.0023 | | |
| Melinna maculata | | 0.0568 | | | |
| Micrura leidyi | | | | | 0.0432 |
| Mulinia lateralis | 0.0454 | 0.0250 | 0.1454 | | |
| Neanthes succinea | 0.0045 | | 0.0068 | | |
| Paraonis fulgens | | | | | 0.0068 |
| Paraprionospio pinnata | | 0.0182 | 0.0863 | | |
| Parvilucina crenella | | | 0.0114 | | |
| Pectinaria gouldii | | | 0.0159 | | |
| Phoronis spp. | | | 0.0818 | | |
| Podarkeopsis levifuscina | | 0.0023 | | | 0.0023 |
| Scolecopsis texana | | | | | 0.0045 |
| Sigambra tentaculata | | | 0.0023 | | |
| Spiochaetopterus costarum | | | 0.0159 | | |
| Spiophanes bombyx | | | | | 0.0772 |
| Streblospio benedicti | | | | | 0.0011 |
| Tharyx spp. | | | | | 0.0159 |
| Tubificidae imm w/o cap chaetae | | | | 0.0011 | |
| Tubificoides spp. | 0.0011 | | | | 0.0023 |
| Total Biomass w/ Epifauna | 0.4237 | 0.3522 | 1.3223 | 0.0579 | 0.9361 |
| Total Biomass w/o Epifauna | 0.4237 | 0.3522 | 1.3223 | 0.0579 | 0.9361 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24406 | 24407 | 24408 | 24409 | 24410 |
|--|---------------|----------------|----------------|----------------|----------------|
| Watershed | Eastern Tribs | Eastern Tribs | Eastern Tribs | Eastern Tribs | Eastern Tribs |
| Habitat | High Meso Mud | High Meso Sand | High Meso Sand | High Meso Sand | High Meso Sand |
| Date | 09/21/17 | 09/21/17 | 09/21/17 | 09/21/17 | 09/21/17 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 6.0 | 3.3 | 3.0 | 3.8 | 3.9 |
| Salinity (ppt) | 16.99 | 16.25 | 16.49 | 16.54 | 16.44 |
| Temperature (C) | 23.87 | 24.34 | 24.59 | 24.45 | 24.25 |
| Dissolved Oxygen (mg/L) | 6.9 | 8.6 | 8.0 | 8.4 | 8.1 |
| Sediment Silt-Clay (%) | 75.77 | 3.17 | 22.56 | 8.80 | 4.14 |
| Total Carbon (%) | 2.32 | 0.07 | 1.28 | 0.30 | 0.14 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 2.33 | 3.00 | 4.00 | 3.33 | 2.33 |
| Condition | Degraded | Meets Goal | Meets Goal | Meets Goal | Degraded |
| # Attributes Scored | 6 | 6 | 6 | 6 | 6 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 2.21 3 | 3.18 3 | 3.79 5 | 3.81 5 | 2.23 1 |
| Abundance (#/m2) | 795 1 | 750 1 | 4976 3 | 1295 3 | 4317 3 |
| Biomass (g/m2) | 0.56 3 | 0.70 1 | 4.65 5 | 1.04 3 | 1.37 3 |
| Pollution Indicative Spp Abund (%) | 48.57 | 9.09 5 | 8.68 5 | 12.28 3 | 4.74 5 |
| Pollution Indicative Spp Biom (%) | 41.87 1 | 16.48 | 0.44 | 36.24 | 8.96 |
| Pollution Sensitive Spp Abund (%) | 34.29 | 39.39 3 | 53.42 5 | 38.60 3 | 5.26 1 |
| Pollution Sensitive Spp Biom (%) | 6.10 1 | 6.95 | 41.44 | 16.00 | 11.70 |
| Carnivore-Omnivore Abund (%) | 40.00 5 | 48.48 5 | 12.33 1 | 33.33 3 | 9.47 1 |
| Deep Deposit Feeder Abund (%) | 5.71 | 12.12 | 25.11 | 29.82 | 71.05 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Limnodrilus Abundance (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tolerance Score | 0.00 | 0.00 | 0.00 | 0.00 | 6.00 |
| Tany./Chir. Abundance Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| Site | 24406 | 24407 | 24408 | 24409 | 24410 |
| Acteocina canaliculata | 204 | 227 | 114 | 273 | 91 |
| Americamysis almyra (Epi.) | | | 23 | | 23 |
| Ameroculodes species complex | | | 45 | | |
| Ampelisca abdita | | | | 23 | |
| Ampelisca verrilli | | | | 45 | |
| Apocorophium lacustre (Epi.) | | | 45 | | |
| Carinoma tremaphoros | | | | | 23 |
| Chiridotea almyra | | | 23 | | |
| Clymenella torquata | | | 204 | | |
| Cyathura polita | | | 114 | | 45 |
| Drilonereis longa | | | | 23 | |
| Edotea triloba (Epi.) | | | 91 | | |
| Edwardsia elegans | | | 68 | 23 | |
| Glycera dibranchiata | | 45 | 136 | 45 | 45 |
| Glycinde solitaria | 68 | 45 | 114 | 23 | 45 |
| Haminoea solitaria | | | | | 23 |
| Heteromastus filiformis | 23 | 23 | 45 | 182 | 318 |
| Leitoscoloplos robustus | | 68 | | 68 | |
| Leitoscoloplos spp. | 23 | | | | |
| Leptocheirus plumulosus | | | 227 | | |
| Leptosynapta tenuis | | 45 | 23 | 23 | |
| Listriella clymenellae | | | 454 | | |
| Loimia medusa | | | 23 | | |
| Lyonsia hyalina | | 23 | | | 23 |
| Macoma mitchelli | 68 | 136 | 204 | 114 | 409 |
| Maldanidae | | | | | 45 |
| Marenzelleria viridis | | | 886 | | |
| Mediomastus ambiseta | | | 159 | 114 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) - Contd. | | | | | |
|--|--------|--------|--------|--------|--------|
| Site | 24406 | 24407 | 24408 | 24409 | 24410 |
| Micrura leidyi | | | 23 | | 68 |
| Molgula manhattensis (Epi.) | | | | 23 | |
| Mulinia lateralis | | | 45 | 68 | 45 |
| Mytilidae (Epi.) | | | 23 | | |
| Neanthes succinea | | | | 45 | 68 |
| Ogyrides alphaerostris | 23 | | | | |
| Paraprionospio pinnata | 364 | | | | |
| Parvilucina crenella | | 23 | 23 | | |
| Pectinaria gouldii | | | | 23 | |
| Phoronis spp. | | 23 | 591 | 23 | 23 |
| Podarkeopsis levifuscina | 23 | 23 | 23 | | |
| Polydora cornuta | | | 182 | | |
| Ptilanthura tenuis | | 23 | | | |
| Rangia cuneata | | | | | 23 |
| Scolecopsis texana | | | | 23 | 23 |
| Spiophanes bombyx | | | | 68 | |
| Streblospio benedicti | | | 386 | 23 | 159 |
| Stylochus ellipticus (Epi.) | | | 23 | | |
| Tharyx spp. | | 45 | | 68 | 136 |
| Tubificoides spp. | | | 841 | | 2704 |
| Total Abundance w/ Epifauna | 795 | 750 | 5157 | 1318 | 4340 |
| Total Abundance w/o Epifauna | 795 | 750 | 4976 | 1295 | 4317 |
| Number of Taxa w/ Epifauna | 8 | 13 | 29 | 21 | 20 |
| Number of Taxa w/o Epifauna | 8 | 13 | 25 | 20 | 19 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 24406 | 24407 | 24408 | 24409 | 24410 |
| Acteocina canaliculata | 0.0295 | 0.0227 | 0.0091 | 0.0386 | 0.0068 |
| Americamysis almyra (Epi.) | | | | | 0.0045 |
| Ameroculodes species complex | | | 0.0011 | | |
| Ampelisca abdita | | | 0.0045 | 0.0114 | |
| Ampelisca verrilli | | | | 0.0295 | |
| Apocorophium lacustre (Epi.) | | | 0.0068 | | |
| Carinoma tremaphoros | | | | | 0.0136 |
| Chiridotea almyra | | | 0.0023 | | |
| Clymenella torquata | | | 0.8202 | | |
| Cyathura polita | | | 0.0523 | | 0.1022 |
| Drilonereis longa | | | | 0.0204 | |
| Edotea triloba (Epi.) | | | 0.0068 | | |
| Edwardsia elegans | | | 0.0091 | 0.0068 | |
| Glycera dibranchiata | | 0.4362 | 2.4992 | 0.2704 | 0.2908 |
| Glycinde solitaria | 0.0045 | 0.0011 | 0.0068 | 0.0011 | 0.0011 |
| Haminoea solitaria | | | | | 0.0023 |
| Heteromastus filiformis | 0.0159 | 0.0182 | 0.0204 | 0.0659 | 0.0432 |
| Leitoscoloplos robustus | | 0.1159 | | 0.1749 | |
| Leitoscoloplos spp. | 0.0523 | | | | |
| Leptocheirus plumulosus | | | 0.0364 | | |
| Leptosynapta tenuis | | 0.0295 | 0.0045 | 0.0568 | |
| Listriella clymenellae | | | 0.0227 | | |
| Loimia medusa | | | 0.0341 | | |
| Lyonsia hyalina | | 0.0011 | | | 0.0023 |
| Macoma mitchelli | 0.1886 | 0.0023 | 0.0045 | 0.0045 | 0.5839 |
| Maldanidae | | | | | 0.0227 |
| Marenzelleria viridis | | | 0.7793 | | |
| Mediomastus ambiseta | | | 0.0045 | 0.0045 | |
| Micrura leidyi | | | 0.0568 | | 0.0136 |
| Molgula manhattensis (Epi.) | | | | 0.0045 | |
| Mulinia lateralis | | | 0.0136 | 0.2022 | 0.1204 |
| Mytilidae (Epi.) | | | 0.0023 | | |
| Neanthes succinea | | | | 0.0136 | 0.0682 |
| Ogyrides alphaerostris | 0.0795 | | | | |
| Paraprionospio pinnata | 0.1818 | | | | |
| Parvilucina crenella | | 0.0432 | 0.0295 | | |
| Pectinaria gouldii | | | | 0.0023 | |
| Phoronis spp. | | 0.0250 | 0.1999 | 0.0045 | 0.0114 |
| Podarkeopsis levifuscina | 0.0068 | 0.0011 | 0.0023 | | |
| Polydora cornuta | | | 0.0068 | | |
| Ptilanthura tenuis | | 0.0045 | | | |
| Rangia cuneata | | | | | 0.0386 |
| Scolecopsis texana | | | | 0.0011 | 0.0068 |
| Spiophanes bombyx | | | | 0.1181 | |
| Streblospio benedicti | | | 0.0068 | 0.0011 | 0.0023 |
| Stylochus ellipticus (Epi.) | | | 0.0011 | | |
| Tharyx spp. | | 0.0023 | | 0.0159 | 0.0114 |
| Tubificoides spp. | | | 0.0273 | | 0.0273 |
| Total Biomass w/ Epifauna | 0.5589 | 0.7032 | 4.6712 | 1.0485 | 1.3734 |
| Total Biomass w/o Epifauna | 0.5589 | 0.7032 | 4.6542 | 1.0440 | 1.3689 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24411 | 24412 | 24413 | 24414 | 24415 |
|------------------------------------|----------------|----------------|----------------|----------------|----------------|
| Watershed | Eastern Tribs | Eastern Tribs | Eastern Tribs | Eastern Tribs | Eastern Tribs |
| Habitat | High Meso Sand | High Meso Sand | High Meso Sand | High Meso Sand | Low Mesohaline |
| Date | 09/22/17 | 09/22/17 | 09/22/17 | 09/22/17 | 09/06/17 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 1.5 | 0.5 | 0.5 | 1.0 | 0.5 |
| Salinity (ppt) | 13.81 | 12.16 | 13.29 | 12.36 | 9.03 |
| Temperature (C) | 24.66 | 24.65 | 24.53 | 24.47 | 24.01 |
| Dissolved Oxygen (mg/L) | 7.7 | 6.7 | 4.2 | 6.5 | 7.4 |
| Sediment Silt-Clay (%) | 8.33 | 14.45 | 20.89 | 20.40 | 3.06 |
| Total Carbon (%) | 0.30 | 0.55 | 0.85 | 0.61 | 0.08 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 3.00 | 3.00 | 2.33 | 2.67 | 2.20 |
| Condition | Meets Goal | Meets Goal | Degraded | Marginal | Degraded |
| # Attributes Scored | 6 | 6 | 6 | 6 | 5 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 2.66 3 | 2.89 3 | 2.59 3 | 1.98 1 | 2.98 5 |
| Abundance (#/m2) | 1545 5 | 659 1 | 1500 3 | 500 1 | 5067 3 |
| Biomass (g/m2) | 0.40 1 | 1.88 3 | 0.24 1 | 0.34 1 | 0.81 1 |
| Pollution Indicative Spp Abund (%) | 7.35 5 | 10.34 3 | 36.36 1 | 9.09 5 | 28.25 1 |
| Pollution Indicative Spp Biom (%) | 63.22 | 0.12 | 33.49 | 8.00 | 6.89 |
| Pollution Sensitive Spp Abund (%) | 19.12 3 | 27.59 3 | 34.85 3 | 18.18 3 | 0.45 |
| Pollution Sensitive Spp Biom (%) | 5.17 | 3.62 | 14.88 | 3.33 | 3.09 1 |
| Carnivore-Omnivore Abund (%) | 16.18 1 | 41.38 5 | 30.30 3 | 68.18 5 | 19.73 |
| Deep Deposit Feeder Abund (%) | 14.71 | 6.90 | 16.67 | 13.64 | 35.87 |
| 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 | 3.70 |
| Tany./Chir. Abundance Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| Site | 24411 | 24412 | 24413 | 24414 | 24415 |
| Acteocina canaliculata | 45 | | | | |
| Amphiporus bioculatus | | | 45 | | |
| Arcuatula papyria (Epi.) | | | | 23 | |
| Carinoma tremaphoros | | 23 | | | |
| Cladotanytarsus viridiventris | | | | | 159 |
| Diadumene leucolela (Epi.) | | | 45 | | |
| Doridella obscura (Epi.) | | | | 23 | |
| Edotea triloba (Epi.) | | | 23 | | |
| Edwardsia elegans | | 23 | | | |
| Epitonium rupicola (Epi.) | 23 | | | | |
| Eteone heteropoda | | | | | 432 |
| Gemma gemma | 295 | 23 | | | 1272 |
| Geukensia demissa (Epi.) | 23 | | | 23 | |
| Glycera dibranchiata | | 45 | 23 | | |
| Glycinde solitaria | 159 | 159 | 341 | 68 | |
| Heteromastus filiformis | 159 | | 45 | 23 | 409 |
| Laeonereis culveri | | 23 | | | 295 |
| Leitoscoloplos robustus | | | 23 | | |
| Leitoscoloplos spp. | 23 | | | 45 | 182 |
| Leptocheirus plumulosus | | | | | 45 |
| Leucon americanus | | 23 | 45 | | |
| Macoma mitchelli | 636 | 204 | 227 | 68 | 250 |
| Marenzelleria viridis | | 23 | | | 23 |
| Mediomastus ambiseta | 45 | | 182 | | |
| Molgula manhattensis (Epi.) | | | 45 | | |
| Mulinia lateralis | 23 | | | | |
| Mya arenaria | 23 | | | | |
| Mytilidae (Epi.) | 318 | | | | |
| Neanthes succinea | 45 | | 45 | 273 | 114 |
| Phoronis spp. | | | | 23 | |
| Spiochaetopterus costarum | 23 | | | | |
| Streblospio benedicti | 68 | 68 | 523 | | 659 |
| Tubificoides spp. | | 45 | | | 1227 |
| Total Abundance w/ Epifauna | 1908 | 659 | 1613 | 568 | 5067 |
| Total Abundance w/o Epifauna | 1545 | 659 | 1500 | 500 | 5067 |
| Number of Taxa w/ Epifauna | 15 | 11 | 13 | 9 | 12 |
| Number of Taxa w/o Epifauna | 12 | 11 | 10 | 6 | 12 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
|---------------------------------------|--------|--------|--------|--------|--------|
| Site | 24411 | 24412 | 24413 | 24414 | 24415 |
| <i>Acteocina canaliculata</i> | 0.0045 | | | | |
| <i>Amphiporus bioculatus</i> | | | 0.0045 | | |
| <i>Arcuatula papyria</i> (Epi.) | | | | 0.0045 | |
| <i>Carinoma tremaphoros</i> | | 0.0114 | | | |
| <i>Cladotanytarsus viridiventris</i> | | | | | 0.0011 |
| <i>Diadumene leucolena</i> (Epi.) | | | 0.0341 | | |
| <i>Doridella obscura</i> (Epi.) | | | | 0.0045 | |
| <i>Edotea triloba</i> (Epi.) | | | 0.0045 | | |
| <i>Edwardsia elegans</i> | | 0.0068 | | | |
| <i>Epitonium rupicola</i> (Epi.) | 0.0159 | | | | |
| <i>Eteone heteropoda</i> | | | | | 0.0341 |
| <i>Gemma gemma</i> | 0.0114 | 0.0023 | | | 0.0818 |
| <i>Geukensia demissa</i> (Epi.) | 0.0023 | | | 0.0023 | |
| <i>Glycera dibranchiata</i> | | 1.6926 | 0.0591 | | |
| <i>Glycinde solitaria</i> | 0.0091 | 0.0250 | 0.0318 | 0.0045 | |
| <i>Heteromastus filiformis</i> | 0.0886 | | 0.0136 | 0.0182 | 0.1863 |
| <i>Laeonereis culveri</i> | | 0.0136 | | | 0.3590 |
| <i>Leitoscoloplos robustus</i> | | | 0.0613 | | |
| <i>Leitoscoloplos</i> spp. | 0.0364 | | | 0.0273 | 0.0045 |
| <i>Leptocheirus plumulosus</i> | | | | | 0.0114 |
| <i>Leucon americanus</i> | | 0.0011 | 0.0011 | | |
| <i>Macoma mitchelli</i> | 0.0204 | 0.0841 | 0.0432 | 0.1454 | 0.0545 |
| <i>Marenzelleria viridis</i> | | 0.0432 | | | 0.0250 |
| <i>Mediomastus ambiseta</i> | 0.0023 | | 0.0045 | | |
| <i>Molgula manhattensis</i> (Epi.) | | | 0.0182 | | |
| <i>Mulinia lateralis</i> | 0.2113 | | | | |
| <i>Mya arenaria</i> | 0.0023 | | | | |
| Mytilidae (Epi.) | 0.0091 | | | | |
| <i>Neanthes succinea</i> | 0.0045 | | 0.0045 | | 0.0182 |
| Phoronis spp. | | | | 0.1386 | |
| <i>Spiochaetopterus costarum</i> | 0.0023 | | | 0.0068 | |
| <i>Streblospio benedicti</i> | 0.0023 | 0.0023 | 0.0204 | | 0.0159 |
| <i>Tubificoides</i> spp. | | 0.0023 | | | 0.0159 |
| Total Biomass w/ Epifauna | 0.4226 | 1.8846 | 0.3010 | 0.3522 | 0.8077 |
| Total Biomass w/o Epifauna | 0.3953 | 1.8846 | 0.2442 | 0.3408 | 0.8077 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24416 | 24417 | 24418 | 24419 | 24420 |
|--|----------------|----------------|----------------|----------------|----------------|
| Watershed | Eastern Tribs | Eastern Tribs | Eastern Tribs | Eastern Tribs | Eastern Tribs |
| Habitat | Low Mesohaline | Low Mesohaline | Low Mesohaline | Low Mesohaline | Low Mesohaline |
| Date | 09/06/17 | 09/06/17 | 09/06/17 | 09/06/17 | 08/31/17 |
| 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 | 1.5 | 3.5 | 1.5 | 5.2 |
| Salinity (ppt) | 11.51 | 7.05 | 10.42 | 9.84 | 10.15 |
| Temperature (C) | 23.90 | 24.14 | 23.96 | 24.52 | 23.91 |
| Dissolved Oxygen (mg/L) | 5.8 | 7.3 | 6.8 | 7.3 | 5.8 |
| Sediment Silt-Clay (%) | 5.81 | 92.68 | 53.51 | 95.13 | 37.35 |
| Total Carbon (%) | 0.20 | 3.17 | 1.03 | 0.92 | 0.64 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 2.20 | 2.20 | 2.60 | 3.40 | 4.20 |
| Condition | Degraded | Degraded | Degraded | Meets Goal | Meets Goal |
| # Attributes Scored | 5 | 5 | 5 | 5 | 5 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 2.36 3 | 1.36 1 | 2.52 5 | 1.94 3 | 2.74 5 |
| Abundance (#/m2) | 1954 5 | 3476 3 | 2772 3 | 2817 3 | 3385 3 |
| Biomass (g/m2) | 0.76 1 | 0.93 1 | 3.05 3 | 1.71 3 | 8.70 5 |
| Pollution Indicative Spp Abund (%) | 34.88 1 | 15.03 3 | 29.51 1 | 4.03 5 | 7.38 5 |
| Pollution Indicative Spp Biom (%) | 47.02 | 8.65 | 22.06 | 2.39 | 11.02 |
| Pollution Sensitive Spp Abund (%) | 9.30 | 6.54 | 4.10 | 19.35 | 10.74 |
| Pollution Sensitive Spp Biom (%) | 3.27 1 | 69.91 3 | 20.94 1 | 71.71 3 | 62.07 3 |
| Carnivore-Omnivore Abund (%) | 17.44 | 15.69 | 21.31 | 20.16 | 32.89 |
| Deep Deposit Feeder Abund (%) | 8.14 | 78.43 | 39.34 | 74.19 | 20.81 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Limnodrilus Abundance (%) | 0.00 | 2.61 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tolerance Score | 0.00 | 7.05 | 0.00 | 0.00 | 0.00 |
| Tany./Chir. Abundance Ratio | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| Site | 24416 | 24417 | 24418 | 24419 | 24420 |
| Carinoma tremaphoros | | | | 45 | 45 |
| Coelotanypus spp. | | 295 | | | |
| Cyathura polita | | 227 | | 477 | |
| Eteone heteropoda | 23 | | | | |
| Gemma gemma | 795 | | | | |
| Glycinde solitaria | 182 | | 23 | | |
| Heteromastus filiformis | 68 | | 114 | 613 | 250 |
| Leitoscoloplos robustus | | | 23 | | |
| Leitoscoloplos spp. | | | | 23 | |
| Leptocheirus plumulosus | | 23 | | | 772 |
| Leucon americanus | | | 23 | | |
| Macoma balthica | | | 91 | 68 | 318 |
| Macoma mitchelli | | 45 | 182 | | 182 |
| Marenzelleria viridis | | | | | 45 |
| Mulinia lateralis | 159 | | 182 | | 136 |
| Neanthes succinea | 136 | 23 | 568 | 45 | 1068 |
| Streblospio benedicti | 500 | 136 | 613 | 91 | 114 |
| Tubificidae imm w/o cap chaetae | | 91 | | | |
| Tubificoides spp. | 91 | 2636 | 954 | 1454 | 454 |
| Total Abundance w/ Epifauna | 1954 | 3476 | 2772 | 2817 | 3385 |
| Total Abundance w/o Epifauna | 1954 | 3476 | 2772 | 2817 | 3385 |
| Number of Taxa w/ Epifauna | 8 | 8 | 10 | 8 | 10 |
| Number of Taxa w/o Epifauna | 8 | 8 | 10 | 8 | 10 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
|---------------------------------------|--------|--------|--------|--------|--------|
| Site | 24416 | 24417 | 24418 | 24419 | 24420 |
| Carinoma tremaphoros | | | | 0.0409 | 0.0182 |
| Coelotanypus spp. | | 0.0727 | | | |
| Cyathura polita | | 0.6521 | | 0.7793 | |
| Eteone heteropoda | 0.0023 | | | | |
| Gemma gemma | 0.2840 | | | | |
| Glycinde solitaria | 0.0250 | | 0.0136 | | |
| Heteromastus filiformis | 0.0341 | | 0.1772 | 0.3363 | 0.0682 |
| Leitoscoloplos robustus | | | 0.1022 | | |
| Leitoscoloplos spp. | | | | 0.0364 | |
| Leptocheirus plumulosus | | 0.0091 | | | 0.2022 |
| Leucon americanus | | | 0.0023 | | |
| Macoma balthica | | | 0.6248 | 0.4476 | 5.2620 |
| Macoma mitchelli | | 0.1500 | 0.2249 | | 0.8384 |
| Marenzelleria viridis | | | | | 0.1363 |
| Mulinia lateralis | 0.3408 | | 0.5589 | | 0.9542 |
| Neanthes succinea | 0.0591 | 0.0091 | 1.3178 | 0.0364 | 1.2087 |
| Streblospio benedicti | 0.0159 | 0.0068 | 0.0114 | 0.0045 | 0.0045 |
| Tubificidae imm w/o cap chaetae | | 0.0011 | | | |
| Tubificoides spp. | 0.0023 | 0.0318 | 0.0159 | 0.0295 | 0.0045 |
| Total Biomass w/ Epifauna | 0.7634 | 0.9327 | 3.0490 | 1.7108 | 8.6972 |
| Total Biomass w/o Epifauna | 0.7634 | 0.9327 | 3.0490 | 1.7108 | 8.6972 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24421 | 24422 | 24423 | 24424 | 24425 |
|------------------------------------|----------------|----------------|----------------|---------------|---------------|
| Watershed | Eastern Tribs | Eastern Tribs | Eastern Tribs | Eastern Tribs | Eastern Tribs |
| Habitat | Low Mesohaline | Low Mesohaline | Low Mesohaline | Freshwater | Oligohaline |
| Date | 08/17/17 | 08/31/17 | 08/31/17 | 08/21/17 | 08/21/17 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| Depth (m) | 8.4 | 1.5 | 1.2 | 1.3 | 0.5 |
| Salinity (ppt) | 9.06 | 9.73 | 6.16 | 0.35 | 0.59 |
| Temperature (C) | 25.74 | 23.70 | 24.38 | 27.49 | 28.31 |
| Dissolved Oxygen (mg/L) | 1.3 | 7.0 | 7.2 | 10.0 | 8.8 |
| Sediment Silt-Clay (%) | 84.28 | 73.63 | 75.77 | 6.15 | 95.38 |
| Total Carbon (%) | 2.31 | 0.89 | 2.38 | 0.14 | 2.98 |
| B-IBI Score | 2.20 | 1.80 | 1.80 | 3.50 | 3.33 |
| Condition | Degraded | Severely Degr. | Severely Degr. | Meets Goal | Meets Goal |
| # Attributes Scored | 5 | 5 | 5 | 4 | 6 |
| Shannon-Wiener Index | Value Score | Value Score | Value Score | Value Score | Value Score |
| Abundance (#/m2) | 2.61 5 | 1.77 3 | 1.72 3 | 2.53 5 | 3.08 5 |
| Biomass (g/m2) | 1.74 3 | 4.23 3 | 0.35 1 | 19.35 5 | 22.80 5 |
| Pollution Indicative Spp Abund (%) | 47.37 1 | 26.89 1 | 74.19 1 | 58.11 1 | 35.82 1 |
| Pollution Indicative Spp Biom (%) | 19.90 | 4.30 | 7.10 | 0.88 | 0.66 |
| Pollution Sensitive Spp Abund (%) | 10.53 | 3.95 | 3.23 | 6.76 | 8.96 |
| Pollution Sensitive Spp Biom (%) | 38.09 1 | 27.76 1 | 11.61 1 | 0.68 | 99.23 1 |
| Carnivore-Omnivore Abund (%) | 31.58 | 3.61 | 12.90 | 36.49 | 47.76 5 |
| Deep Deposit Feeder Abund (%) | 36.84 | 66.97 | 19.35 | 54.73 5 | 35.82 1 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | 0.00 | 0.00 | 54.73 3 | 0.00 |
| Limnodrilus Abundance (%) | 0.00 | 0.00 | 0.00 | 54.73 | 2.99 |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 49.25 3 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 7.46 3 |
| Tolerance Score | 0.00 | 0.00 | 8.00 | 9.36 1 | 6.83 3 |
| Tany./Chir. Abundance Ratio | 0.00 | 0.00 | 50.00 | 0.00 | 68.75 1 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
|---------------------------------------|--------|--------|--------|---------|---------|
| Site | 24421 | 24422 | 24423 | 24424 | 24425 |
| Carinoma tremaphoros | | 23 | | | |
| Chironomus spp. | | | 45 | 114 | |
| Coelotanypus spp. | | | 45 | | 500 |
| Corbicula fluminea | | | | 159 | 23 |
| Cricotopus bicinctus | | | | | 68 |
| Cryptochironomus spp. | | | | 182 | 23 |
| Cyathura polita | | 727 | | 91 | |
| Dero digitata | | | | | 45 |
| Edotea triloba (Epi.) | | 23 | | | |
| Eteone heteropoda | | 114 | | | |
| Gammarus spp. (Epi.) | | | | | 45 |
| Heteromastus filiformis | | 2999 | | | |
| Hobsonia florida | | | | | 68 |
| Hydroptila spp. (Epi.) | | | | | 227 |
| Laeonereis culveri | | 23 | | | |
| Leitoscoloplos robustus | 23 | | | | |
| Leitoscoloplos spp. * | 136 | | | | |
| Leptocheirus plumulosus | | 409 | | | 23 |
| Limnodrilus hoffmeisteri | | | | 454 | 45 |
| Macoma balthica | 45 | | | | |
| Macoma mitchelli | 45 | 136 | 23 | | |
| Marenzelleria viridis | | 250 | 23 | 136 | 114 |
| Mediomastus ambiseta | | 91 | | | |
| Monopylephorus parvus | | | | | 136 |
| Mulinia lateralis | 23 | | | | |
| Mytilopsis leucophaeata (Epi.) | | | | | 45 |
| Nais variabilis | | | | | 318 |
| Neanthes succinea | 114 | 91 | | | |
| Orthotrichia spp. (Epi.) | | | | | 114 |
| Parachironomus directus | | | | | 23 |
| Podarkeopsis levifuscina | 23 | | | | |
| Polypedilum halterale group | | | | 659 | |
| Polypedilum illinoense group | | | | | 23 |
| Rangia cuneata | | | | | 23 |
| Rheotanytarsus exiguus group | | | | 182 | |
| Streblospio benedicti | 23 | 7157 | 432 | | |
| Thienemanniella labapodema | | | | | 91 |
| Tubificidae imm w/o cap chaetae * | | | | 1386 | |
| Tubificoides spp. | | 15018 | 136 | | |
| Total Abundance w/ Epifauna | 432 | 27060 | 704 | 3363 | 1954 |
| Total Abundance w/o Epifauna | 432 | 27037 | 704 | 3363 | 1522 |
| Number of Taxa w/ Epifauna | 7 | 13 | 6 | 8 | 19 |
| Number of Taxa w/o Epifauna | 7 | 12 | 6 | 8 | 15 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 24421 | 24422 | 24423 | 24424 | 24425 |
| Carinoma tremaphoros | | 0.0091 | | | |
| Chironomidae | | | | | |
| Chironomus spp. | | | 0.0114 | 0.0545 | 0.0011 |
| Coelotanypus spp. | | | 0.0023 | 0.0386 | |
| Corbicula fluminea | | | | 18.9962 | 0.0295 |
| Cyathura polita | | 0.6884 | | 0.0523 | 0.0114 |
| Edotea triloba (Epi.) | | 0.0023 | | | |
| Eteone heteropoda | | 0.0182 | | | |
| Gammarus spp. (Epi.) | | | | | 0.0091 |
| Heteromastus filiformis | | 0.9474 | | | |
| Hobsonia florida | | | | | 0.0114 |
| Laeonereis culveri | | 0.1295 | | | |
| Leitoscoloplos robustus | 0.1886 | | | | |
| Leitoscoloplos spp. * | 0.0341 | | | | |
| Leptocheirus plumulosus | | 0.0568 | | | 0.0023 |
| Macoma balthica | 0.6612 | | | | |
| Macoma mitchelli | 0.2704 | 1.2882 | 0.2840 | | |
| Marenzelleria viridis | | 0.4839 | 0.0409 | 0.0795 | 0.0591 |
| Mediomastus ambiseta | | 0.0011 | | | |
| Mulinia lateralis | 0.1204 | | | | |
| Mytilopsis leucophaeata (Epi.) | | | | | 0.0023 |
| Neanthes succinea | 0.4544 | 0.2136 | | | |
| Oligochaeta | | | | 0.1318 | 0.1204 |
| Podarkeopsis levifuscina | 0.0045 | | | | |
| Rangia cuneata | | | | | 22.5632 |
| Streblospio benedicti | 0.0023 | 0.1636 | 0.0114 | | |
| Tubificoides spp. | | 0.2272 | 0.0023 | | |
| Total Biomass w/ Epifauna | 1.7358 | 4.2293 | 0.3522 | 19.3529 | 22.8097 |
| Total Biomass w/o Epifauna | 1.7358 | 4.2271 | 0.3522 | 19.3529 | 22.7984 |

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24501 | 24503 | 24505 | 24506 | 24507 |
|------------------------------------|----------------|---------------|----------------|----------------|----------------|
| Watershed | Mainstem | Mainstem | Mainstem | Mainstem | Mainstem |
| Habitat | High Meso Mud | High Meso Mud | High Meso Sand | High Meso Sand | High Meso Sand |
| Date | 08/15/17 | 09/21/17 | 09/22/17 | 09/22/17 | 09/22/17 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 11.8 | 11.0 | 1.6 | 1.5 | 6.5 |
| Salinity (ppt) | 17.93 | 16.78 | 16.23 | 16.24 | 16.14 |
| Temperature (C) | 25.66 | 23.79 | 24.06 | 24.07 | 24.01 |
| Dissolved Oxygen (mg/L) | 0.7 | 6.6 | 8.2 | 8.1 | 7.2 |
| Sediment Silt-Clay (%) | 64.93 | 81.71 | 4.72 | 3.10 | 4.50 |
| Total Carbon (%) | 2.63 | 1.56 | 0.09 | 0.07 | 0.07 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 1.00 | 2.33 | 3.67 | 3.00 | 3.67 |
| Condition | Severely Degr. | Degraded | Meets Goal | Meets Goal | Meets Goal |
| # Attributes Scored | 6 | 6 | 6 | 6 | 6 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 0.00 1 | 2.54 3 | 3.58 5 | 3.19 3 | 2.73 3 |
| Abundance (#/m2) | 0 1 | 636 1 | 1227 3 | 1227 3 | 1431 3 |
| Biomass (g/m2) | 0.00 1 | 0.22 1 | 1.18 3 | 0.52 1 | 0.42 1 |
| Pollution Indicative Spp Abund (%) | 100.00 | 35.71 | 14.81 3 | 12.96 3 | 9.52 5 |
| Pollution Indicative Spp Biom (%) | 100.00 1 | 14.29 3 | 10.58 | 14.04 | 4.28 |
| Pollution Sensitive Spp Abund (%) | 0.00 | 28.57 | 20.37 3 | 25.93 3 | 52.38 5 |
| Pollution Sensitive Spp Biom (%) | 0.00 1 | 9.18 1 | 4.42 | 6.58 | 36.90 |
| Carnivore-Omnivore Abund (%) | 0.00 1 | 35.71 5 | 37.04 5 | 37.04 5 | 49.21 5 |
| Deep Deposit Feeder Abund (%) | 0.00 | 21.43 | 29.63 | 25.93 | 6.35 |
| 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 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| Site | 24501 | 24503 | 24505 | 24506 | 24507 |
| Acteocina canaliculata | | 91 | 182 | 250 | 591 |
| Ameroculodes species complex | | | 23 | 23 | |
| Arcuatula papyria (Epi.) | | | | | 23 |
| Carinomella lactea | | 23 | | | |
| Edwardsia elegans | | | 23 | 45 | 23 |
| Gemma gemma | | | 136 | | |
| Glycera dibranchiata | | | 23 | | |
| Glycera spp. | | | | | 23 |
| Glycinde solitaria | | 68 | 68 | 45 | 23 |
| Haminoea solitaria | | | 114 | 114 | |
| Heteromastus filiformis | | | 250 | 273 | |
| Leitoscoloplos robustus | | | 114 | | |
| Leitoscoloplos spp. | | | | 45 | |
| Lepidactylus dytiscus | | | 23 | 68 | |
| Leptocheirus plumulosus | | | 23 | | |
| Leptosynapta tenuis | | | | 91 | |
| Leucon americanus | | 23 | | | |
| Loimia medusa | | | | | 23 |
| Lyonsia hyalina | | | | | 68 |
| Macoma mitchelli | | | 91 | 136 | |
| Mediomastus ambiseta | | | | | 23 |
| Mulinia lateralis | | | 45 | 114 | 23 |
| Neanthes succinea | | 45 | 45 | | 23 |
| Odostomia engonia (Epi.) | | | | | 23 |
| Paraonis fulgens | | | 23 | | |
| Paraprionospio pinnata | | 227 | 23 | | 114 |
| Parvilucina crenella | | | 23 | | 318 |
| Pectinaria gouldii | | 136 | | | 68 |
| Phoronis spp. | | 23 | | 23 | 91 |
| Ptilanthura tenuis | | | | | 23 |
| Total Abundance w/ Epifauna | 0 | 636 | 1227 | 1227 | 1477 |
| Total Abundance w/o Epifauna | | 636 | 1227 | 1227 | 1431 |
| Number of Taxa w/ Epifauna | 0 | 8 | 17 | 12 | 16 |
| Number of Taxa w/o Epifauna | 0 | 8 | 17 | 12 | 14 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
|---------------------------------------|--------|--------|--------|--------|--------|
| Site | 24501 | 24503 | 24505 | 24506 | 24507 |
| Acteocina canaliculata | | 0.0114 | 0.0454 | 0.0295 | 0.0454 |
| Ameroculodes species complex | | | 0.0045 | 0.0045 | |
| Arcuatula papyria (Epi.) | | | | | 0.0011 |
| Carinomella lactea | | 0.0023 | | | |
| Edwardsia elegans | | | 0.0045 | 0.0023 | 0.0068 |
| Gemma gemma | | | 0.0068 | | |
| Glycera dibranchiata | | | 0.8066 | | |
| Glycera spp. | | | | | 0.0182 |
| Glycinde solitaria | | 0.0068 | 0.0068 | 0.0023 | 0.0023 |
| Haminoea solitaria | | | 0.0114 | 0.0477 | |
| Heteromastus filiformis | | | 0.1022 | 0.0795 | |
| Leitoscoloplos robustus | | | 0.0932 | | |
| Leitoscoloplos spp. | | | | 0.0114 | |
| Lepidactylus dytiscus | | | 0.0159 | 0.0068 | |
| Leptocheirus plumulosus | | | 0.0045 | | |
| Leptosynapta tenuis | | | | 0.2681 | |
| Leucon americanus | | 0.0023 | | | |
| Loimia medusa | | | | | 0.0477 |
| Lyonsia hyalina | | | | | 0.0227 |
| Macoma mitchelli | | | 0.0250 | 0.0023 | |
| Mediomastus ambiseta | | | | | 0.0023 |
| Mulinia lateralis | | | 0.0273 | 0.0613 | 0.0068 |
| Neanthes succinea | | 0.0136 | 0.0068 | | 0.0023 |
| Odostomia engonia (Epi.) | | | | | 0.0011 |
| Paraonis fulgens | | | 0.0045 | | |
| Paraprionospio pinnata | | 0.0318 | 0.0045 | | 0.0114 |
| Parvilucina crenella | | | 0.0114 | | 0.1886 |
| Pectinaria gouldii | | 0.1522 | | | 0.0068 |
| Phoronis spp. | | 0.0023 | | 0.0023 | 0.0591 |
| Ptilanthura tenuis | | | | | 0.0045 |
| Total Biomass w/ Epifauna | 0.0000 | 0.2227 | 1.1814 | 0.5180 | 0.4271 |
| Total Biomass w/o Epifauna | 0.0000 | 0.2227 | 1.1814 | 0.5180 | 0.4249 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24508 | 24509 | 24510 | 24511 | 24512 |
|--|----------------|---------------|----------------|----------------|----------------|
| Watershed | Mainstem | Mainstem | Mainstem | Mainstem | Mainstem |
| Habitat | High Meso Sand | High Meso Mud | High Meso Mud | High Meso Sand | High Meso Sand |
| Date | 09/22/17 | 09/22/17 | 08/15/17 | 09/22/17 | 08/16/17 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 4.0 | 9.7 | 10.8 | 2.5 | 8.8 |
| Salinity (ppt) | 15.50 | 15.99 | 14.55 | 15.55 | 12.07 |
| Temperature (C) | 24.44 | 24.21 | 25.96 | 24.05 | 26.14 |
| Dissolved Oxygen (mg/L) | 7.5 | 7.5 | 2.4 | 7.6 | 7.0 |
| Sediment Silt-Clay (%) | 2.69 | 54.68 | 52.07 | 3.42 | 5.72 |
| Total Carbon (%) | 0.16 | 0.62 | 2.67 | 0.16 | 0.41 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 4.00 | 3.67 | 1.00 | 2.67 | 4.33 |
| Condition | Meets Goal | Meets Goal | Severely Degr. | Marginal | Meets Goal |
| # Attributes Scored | 6 | 6 | 6 | 6 | 6 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 3.67 5 | 3.24 5 | 0.00 1 | 2.94 3 | 3.50 5 |
| Abundance (#/m2) | 3476 3 | 3067 3 | 23 1 | 1295 3 | 1659 5 |
| Biomass (g/m2) | 1.21 3 | 2.03 5 | 0.02 1 | 0.85 1 | 1.40 3 |
| Pollution Indicative Spp Abund (%) | 8.50 5 | 29.63 3 | 100.00 1 | 28.07 1 | 15.07 3 |
| Pollution Indicative Spp Biom (%) | 25.28 | 17.22 3 | 100.00 1 | 56.68 | 14.40 |
| Pollution Sensitive Spp Abund (%) | 14.38 3 | 34.81 3 | 0.00 | 15.79 3 | 57.53 5 |
| Pollution Sensitive Spp Biom (%) | 16.85 | 38.35 3 | 0.00 1 | 2.67 | 70.95 |
| Carnivore-Omnivore Abund (%) | 37.25 5 | 22.22 3 | 0.00 1 | 47.37 5 | 41.10 5 |
| Deep Deposit Feeder Abund (%) | 29.41 | 32.59 | 100.00 | 8.77 | 27.40 |
| 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 | 24508 | 24509 | 24510 | 24511 | 24512 |
| Acteocina canaliculata | 136 | | | 91 | 364 |
| Americamysis almyra (Epi.) | | | | 23 | |
| Ampelisca abdita | 45 | 68 | | | |
| Arcuatula papyria (Epi.) | 568 | | | | 23 |
| Balanus spp. (Epi.) | 23 | | | | |
| Clymenella torquata | 68 | 68 | | | |
| Cyathura polita | | | | | 23 |
| Diadumene leucolea (Epi.) | 409 | | | | |
| Doridella obscura (Epi.) | 273 | | | | |
| Edotea triloba (Epi.) | 23 | | | | 23 |
| Edwardsia elegans | | 45 | | | |
| Eteone heteropoda | | 23 | | 23 | 23 |
| Glycera dibranchiata | 114 | 23 | | | 23 |
| Glycinde solitaria | 159 | 204 | | 91 | 91 |
| Haminoea solitaria | | | | 386 | |
| Heteromastus filiformis | 364 | 23 | | | |
| Leitoscoloplos robustus | 45 | | | 91 | 23 |
| Leitoscoloplos spp. | | | 23 | | |
| Leptosynapta tenuis | | | | 114 | |
| Loimia medusa | | 23 | | | 23 |
| Lyonsia hyalina | 341 | | | | |
| Macoma mitchelli | | | | 45 | |
| Mediomastus ambiseta | | 750 | | 23 | 318 |
| Melita nitida (Epi.) | 273 | | | | |
| Micrura leidy | 45 | | | | |
| Molgula manhattensis (Epi.) | 1318 | | | | |
| Mulinia lateralis | 204 | 45 | | 250 | |
| Neanthes succinea | 750 | 182 | | | 91 |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) - Contd. | | | | | |
|--|--------|--------|--------|--------|--------|
| Site | 24508 | 24509 | 24510 | 24511 | 24512 |
| Odostomia spp. (Epi.) | 114 | | | | |
| Paraprionospio pinnata | | 795 | | | 182 |
| Parvilucina crenella | | | | 159 | 114 |
| Pectinaria gouldii | 45 | 136 | | | 114 |
| Phoronis spp. | 68 | 23 | | | 114 |
| Podarkeopsis levifuscina | 68 | 91 | | 23 | |
| Polydora cornuta | 68 | | | | |
| Rhithropanopeus harrisi (Epi.) | 23 | | | | |
| Rictaxis punctostriatus | 23 | | | | 45 |
| Saccoglossus kowalevskii | | 386 | | | 45 |
| Sigambra tentaculata | | 114 | | | 23 |
| Spiochaetopterus costarum | 68 | | | | |
| Spiophanes bombyx | | | | | 23 |
| Streblospio benedicti | 45 | 45 | | | 23 |
| Tellinidae | 318 | | | | |
| Tubificoides spp. | 500 | 23 | | | |
| Turbonilla spp. (Epi.) | 114 | | | | |
| Total Abundance w/ Epifauna | 6612 | 3067 | 23 | 1318 | 1704 |
| Total Abundance w/o Epifauna | 3476 | 3067 | 23 | 1295 | 1659 |
| Number of Taxa w/ Epifauna | 30 | 19 | 1 | 12 | 20 |
| Number of Taxa w/o Epifauna | 20 | 19 | 1 | 11 | 18 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 24508 | 24509 | 24510 | 24511 | 24512 |
| Acteocina canaliculata | 0.0136 | | | 0.0091 | 0.1568 |
| Americamysis almyra (Epi.) | | | | 0.0159 | |
| Ampelisca abdita | 0.0091 | 0.0091 | | | |
| Arcuatula papyria (Epi.) | 0.0273 | | | | 0.1000 |
| Balanus spp. (Epi.) | 0.0023 | | | | |
| Clymenella torquata | 0.1386 | 0.5498 | | | |
| Cyathura polita | | | | | 0.0023 |
| Diadumene leucolea (Epi.) | 0.6521 | | | | |
| Doridella obscura (Epi.) | 0.0227 | | | | |
| Edotea triloba (Epi.) | 0.0023 | | | | 0.0045 |
| Edwardsia elegans | | 0.0091 | | | |
| Eteone heteropoda | | 0.0023 | | 0.0568 | 0.0023 |
| Glycera dibranchiata | 0.1977 | 0.1590 | | | 0.0364 |
| Glycinde solitaria | 0.0068 | 0.0295 | | 0.0091 | 0.0182 |
| Haminoea solitaria | | | | 0.0454 | |
| Heteromastus filiformis | 0.0636 | 0.0227 | | | |
| Leitoscoloplos robustus | 0.0841 | | | 0.1840 | 0.1045 |
| Leitoscoloplos spp. | | | 0.0250 | | |
| Leptosynapta tenuis | | | | 0.1227 | |
| Loimia medusa | | 0.1704 | | | 0.6839 |
| Lyonsia hyalina | 0.1636 | | | | |
| Macoma mitchelli | | | | 0.0023 | |
| Mediomastus ambiseta | | 0.0273 | | 0.0045 | 0.0136 |
| Melita nitida (Epi.) | 0.0500 | | | | |
| Micrura leidyi | 0.0523 | | | | |
| Molgula manhattensis (Epi.) | 1.0747 | | | | |
| Mulinia lateralis | 0.2204 | 0.0068 | | 0.2408 | |
| Neanthes succinea | 0.1795 | 0.1022 | | | 0.0250 |
| Odostomia spp. (Epi.) | 0.0023 | | | | |
| Paraprionospio pinnata | | 0.3385 | | | 0.0932 |
| Parvilucina crenella | | | | 0.1681 | 0.0613 |
| Pectinaria gouldii | 0.0023 | 0.0704 | | | 0.0227 |
| Phoronis spp. | 0.0159 | 0.0023 | | | 0.1068 |
| Podarkeopsis levifuscina | 0.0068 | 0.0091 | | 0.0068 | |
| Polydora cornuta | 0.0023 | | | | |
| Rhithropanopeus harrisi (Epi.) | 0.0023 | | | | |
| Rictaxis punctostriatus | 0.0136 | | | | 0.0023 |
| Saccoglossus kowalevskii | | 0.4703 | | | 0.0523 |
| Sigambra tentaculata | | 0.0500 | | | 0.0045 |
| Spiochaetopterus costarum | 0.0295 | | | | |
| Spiophanes bombyx | | | | | 0.0091 |
| Streblospio benedicti | 0.0023 | 0.0023 | | | 0.0011 |
| Tellinidae | 0.0045 | | | | |
| Tubificoides spp. | 0.0068 | 0.0011 | | | |
| Turbonilla spp. (Epi.) | 0.0250 | | | | |
| Total Biomass w/ Epifauna | 3.0740 | 2.0323 | 0.0250 | 0.8656 | 1.5007 |
| Total Biomass w/o Epifauna | 1.2132 | 2.0323 | 0.0250 | 0.8497 | 1.3961 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24513 | 24514 | 24515 | 24516 | 24517 |
|--|----------------|----------------|---------------|----------------|----------------|
| Watershed | Mainstem | Mainstem | Mainstem | Mainstem | Mainstem |
| Habitat | High Meso Sand | High Meso Sand | High Meso Mud | Low Mesohaline | High Meso Mud |
| Date | 08/16/17 | 09/05/17 | 09/05/17 | 08/16/17 | 08/16/17 |
| 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) | 3.7 | 1.0 | 2.5 | 9.6 | 10.8 |
| Salinity (ppt) | 12.79 | 12.28 | 12.20 | 11.31 | 15.02 |
| Temperature (C) | 25.98 | 25.23 | 24.06 | 26.09 | 25.67 |
| Dissolved Oxygen (mg/L) | 5.2 | 8.8 | 8.6 | 3.7 | 1.5 |
| Sediment Silt-Clay (%) | 6.89 | 5.96 | 48.54 | 78.89 | 55.30 |
| Total Carbon (%) | 0.27 | 0.18 | 2.35 | 3.79 | 3.01 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 3.00 | 2.00 | 3.00 | 1.40 | 1.00 |
| Condition | Meets Goal | Severely Degr. | Meets Goal | Severely Degr. | Severely Degr. |
| # Attributes Scored | 6 | 6 | 6 | 5 | 6 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 3.31 5 | 2.39 1 | 2.92 3 | 1.74 3 | 0.00 1 |
| Abundance (#/m2) | 932 1 | 6771 1 | 1091 3 | 341 1 | 23 1 |
| Biomass (g/m2) | 0.97 1 | 1.33 3 | 1.22 3 | 0.82 1 | 0.05 1 |
| Pollution Indicative Spp Abund (%) | 9.76 5 | 6.04 5 | 27.08 | 80.00 1 | 100.00 |
| Pollution Indicative Spp Biom (%) | 48.77 | 23.91 | 6.73 3 | 97.22 | 100.00 1 |
| Pollution Sensitive Spp Abund (%) | 26.83 3 | 3.02 1 | 12.50 | 0.00 | 0.00 |
| Pollution Sensitive Spp Biom (%) | 8.89 | 3.57 | 1.87 1 | 0.00 1 | 0.00 1 |
| Carnivore-Omnivore Abund (%) | 34.15 3 | 7.38 1 | 45.83 5 | 20.00 | 0.00 1 |
| Deep Deposit Feeder Abund (%) | 31.71 | 8.05 | 20.83 | 60.00 | 100.00 |
| 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 | 7.30 | 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 | 24513 | 24514 | 24515 | 24516 | 24517 |
| Acteocina canaliculata | 91 | | 23 | | |
| Arcuatula papyria (Epi.) | | 45 | | | |
| Cryptochironomus spp. | | 23 | | | |
| Cyathura polita | | 182 | | | |
| Cyclaspis varians | | 182 | | | |
| Cymadusa compta (Epi.) | | 454 | | | |
| Edwardsia elegans | | 159 | | | |
| Erichsonella attenuata (Epi.) | | 68 | | | |
| Gemma gemma | | 3363 | | | |
| Geukensia demissa (Epi.) | | 23 | | | |
| Glycinde solitaria | 91 | 23 | 114 | | |
| Grandidierella spp. | | 45 | | | |
| Haminoea solitaria | 23 | | | | |
| Hargeria rapax | | 204 | | | |
| Heteromastus filiformis | 273 | 500 | 136 | | |
| Laeonereis culveri | | 23 | | | |
| Leitoscoloplos robustus | | | | 204 | |
| Leitoscoloplos spp. | 23 | | | | 23 |
| Leptosynapta tenuis | 91 | | | | |
| Littoridinops tenuipes (Epi.) | | 45 | | | |
| Macoma mitchelli | 23 | 1522 | 68 | | |
| Marenzelleria viridis | 23 | | | | |
| Mucrogammarus mucronatus (Epi.) | | 227 | | | |
| Mulinia lateralis | 45 | 68 | | | |
| Neanthes succinea | 91 | 45 | 295 | | |
| Parahesion luteola | | 23 | 23 | | |
| Paraprionospio pinnata | | | 68 | 45 | |
| Parvilucina crenella | 68 | | | | |
| Podarkeopsis levifuscina | | | 45 | | |
| Polypedilum scalaenum group | | 23 | | | |
| Pseudeurythoe paucibranchiata | | | | 23 | |
| Ptilanthura tenuis | 23 | | | | |
| Sayella chesapeakea (Epi.) | | 23 | | | |
| Sigambra tentaculata | | | | 45 | |
| Spiophanes bombyx | 45 | | | | |
| Streblospio benedicti | 23 | 341 | 227 | 23 | |
| Stylochus ellipticus (Epi.) | | 23 | | | |
| Tubificoides spp. | | 45 | 91 | | |
| Total Abundance w/ Epifauna | 932 | 7679 | 1091 | 341 | 23 |
| Total Abundance w/o Epifauna | 932 | 6771 | 1091 | 341 | 23 |
| Number of Taxa w/ Epifauna | 14 | 25 | 10 | 5 | 1 |
| Number of Taxa w/o Epifauna | 14 | 17 | 10 | 5 | 1 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| BENTHIC BIOMASS (Grams per sq. meter) - Contd. | | | | | |
|--|--------|--------|--------|--------|--------|
| Site | 24513 | 24514 | 24515 | 24516 | 24517 |
| Acteocina canaliculata | 0.0364 | | 0.0045 | | |
| Arcuatula papyria (Epi.) | | 0.0023 | | | |
| Chironomidae | | 0.0011 | | | |
| Cyathura polita | | 0.0227 | | | |
| Cyclaspis varians | | 0.0136 | | | |
| Cymadusa compta (Epi.) | | 0.0182 | | | |
| Edwardsia elegans | | 0.0045 | | | |
| Erichsonella attenuata (Epi.) | | 0.0682 | | | |
| Gemma gemma | | 0.1659 | | | |
| Geukensia demissa (Epi.) | | 0.0045 | | | |
| Glycinde solitaria | 0.0114 | 0.0250 | 0.0182 | | |
| Grandidierella spp. | | 0.0045 | | | |
| Haminoea solitaria | 0.0432 | | | | |
| Hargeria rapax | | 0.0136 | | | |
| Heteromastus filiformis | 0.1704 | 0.3408 | 0.0250 | | |
| Laeonereis culveri | | 0.0023 | | | |
| Leitoscoloplos robustus | | | | 0.7770 | |
| Leitoscoloplos spp. | 0.0091 | | | | 0.0523 |
| Leptosynapta tenuis | 0.1181 | | | | |
| Littoridinops tenuipes (Epi.) | | 0.0023 | | | |
| Macoma mitchelli | 0.0182 | 0.1613 | 0.0273 | | |
| Marenzelleria viridis | 0.0341 | | | | |
| Mucrogammarus mucronatus (Epi.) | | 0.0204 | | | |
| Mulinia lateralis | 0.4635 | 0.0318 | | | |
| Neanthes succinea | 0.0454 | 0.2567 | 1.0497 | | |
| Parahesionia luteola | | 0.0023 | 0.0045 | | |
| Paraprionospio pinnata | | | 0.0772 | 0.0159 | |
| Parvilucina crenella | 0.0023 | | | | |
| Podarkeopsis levifuscina | | | 0.0023 | | |
| Pseudeurythoe paucibranchiata | | | | 0.0136 | |
| Ptilanthura tenuis | 0.0136 | | | | |
| Sayella chesapeakea (Epi.) | | 0.0011 | | | |
| Sigambra tentaculata | | | | 0.0091 | |
| Spiophanes bombyx | 0.0045 | | | | |
| Streblospio benedicti | 0.0011 | 0.2863 | 0.0045 | 0.0023 | |
| Stylochus ellipticus (Epi.) | | 0.0023 | | | |
| Tubificoides spp. | | 0.0023 | 0.0023 | | |
| Total Biomass w/ Epifauna | 0.9713 | 1.4541 | 1.2155 | 0.8179 | 0.0523 |
| Total Biomass w/o Epifauna | 0.9713 | 1.3348 | 1.2155 | 0.8179 | 0.0523 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24518 | 24519 | 24520 | 24522 | 24523 |
|------------------------------------|----------------|---------------|----------------|----------------|----------------|
| Watershed | Mainstem | Mainstem | Mainstem | Mainstem | Mainstem |
| Habitat | High Meso Sand | High Meso Mud | High Meso Mud | High Meso Sand | High Meso Mud |
| Date | 08/16/17 | 09/06/17 | 08/16/17 | 09/25/17 | 09/05/17 |
| 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 | 6.5 | 10.2 | 1.6 | 5.0 |
| Salinity (ppt) | 12.04 | 12.15 | 14.64 | 14.67 | 12.55 |
| Temperature (C) | 25.88 | 23.75 | 25.63 | 25.11 | 23.52 |
| Dissolved Oxygen (mg/L) | 2.4 | 5.7 | 1.6 | 7.5 | 5.3 |
| Sediment Silt-Clay (%) | 4.11 | 60.48 | 85.07 | 22.17 | 83.98 |
| Total Carbon (%) | 0.13 | 1.08 | 3.27 | 0.13 | 1.52 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 3.67 | 3.67 | 1.00 | 1.67 | 1.33 |
| Condition | Meets Goal | Meets Goal | Severely Degr. | Severely Degr. | Severely Degr. |
| # Attributes Scored | 6 | 6 | 6 | 6 | 6 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 3.24 5 | 2.72 3 | 1.00 1 | 0.53 1 | 0.77 1 |
| Abundance (#/m2) | 750 1 | 727 1 | 45 1 | 6566 1 | 295 1 |
| Biomass (g/m2) | 1.12 3 | 2.87 5 | 0.04 1 | 0.36 1 | 0.01 1 |
| Pollution Indicative Spp Abund (%) | 3.03 5 | 6.25 5 | 100.00 1 | 0.00 5 | 7.69 1 |
| Pollution Indicative Spp Biom (%) | 70.51 3 | 0.08 5 | 100.00 1 | 0.00 1 | 12.50 3 |
| Pollution Sensitive Spp Abund (%) | 24.24 3 | 15.63 3 | 0.00 1 | 0.69 1 | 0.00 1 |
| Pollution Sensitive Spp Biom (%) | 4.04 3 | 50.93 3 | 0.00 1 | 25.87 1 | 0.00 1 |
| Carnivore-Omnivore Abund (%) | 57.58 5 | 34.38 5 | 0.00 1 | 0.35 1 | 0.00 1 |
| Deep Deposit Feeder Abund (%) | 27.27 3 | 56.25 5 | 50.00 1 | 2.08 1 | 84.62 1 |
| TF Poll. Indicative Spp Abund (%) | 0.00 0 | 0.00 0 | 0.00 0 | 0.00 0 | 0.00 0 |
| Limnodrilus Abundance (%) | 0.00 0 | 0.00 0 | 0.00 0 | 0.00 0 | 0.00 0 |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 0 | 0.00 0 | 0.00 0 | 0.00 0 | 0.00 0 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 0 | 0.00 0 | 0.00 0 | 0.00 0 | 0.00 0 |
| Tolerance Score | 0.00 0 | 0.00 0 | 0.00 0 | 0.00 0 | 0.00 0 |
| Tany./Chir. Abundance Ratio | 0.00 0 | 0.00 0 | 0.00 0 | 0.00 0 | 0.00 0 |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
|---------------------------------------|--------|--------|--------|--------|--------|
| Site | 24518 | 24519 | 24520 | 24522 | 24523 |
| Acteocina canaliculata | 91 | | | | |
| Carinoma tremaphoros | 68 | | | | |
| Cyathura polita | 23 | 45 | | 23 | |
| Cymadusa compta (Epi.) | | | | 68 | |
| Edotea triloba (Epi.) | 91 | | | | |
| Erichsonella attenuata (Epi.) | | | | 68 | |
| Gemma gemma | | | | 6112 | |
| Glycinde solitaria | 68 | 23 | | | |
| Grandidierella spp. | | | | 23 | |
| Hargeria rapax | | | | 45 | |
| Heteromastus filiformis | 182 | 91 | | 136 | |
| Leitoscoloplos robustus | | | 23 | | |
| Leptosynapta tenuis | 45 | | | | |
| Lyonsia hyalina | 23 | | | | |
| Macoma balthica | | 23 | | | |
| Macoma mitchelli | 23 | | | | 23 |
| Marenzelleria viridis | | | | 23 | |
| Mediomastus ambiseta | | 23 | | | |
| Micrura leidy | 23 | 23 | | | |
| Mucrogammarus mucronatus (Epi.) | | | | 91 | |
| Mulinia lateralis | 23 | | | | |
| Neanthes succinea | 91 | 91 | | | |
| Parahesionia luteola | | 68 | | | |
| Pectinaria gouldii | 23 | | | | |
| Podarkeopsis levifuscina | 68 | | | | |
| Polydora cornuta | | | | 45 | |
| Streblospio benedicti | | 45 | 23 | | 23 |
| Tellinidae | | | | 159 | |
| Tubificoides spp. | | 295 | | | 250 |
| Total Abundance w/ Epifauna | 841 | 727 | 45 | 6793 | 295 |
| Total Abundance w/o Epifauna | 750 | 727 | 45 | 6566 | 295 |
| Number of Taxa w/ Epifauna | 14 | 10 | 2 | 11 | 3 |
| Number of Taxa w/o Epifauna | 13 | 10 | 2 | 8 | 3 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 24518 | 24519 | 24520 | 24522 | 24523 |
| Acteocina canaliculata | 0.0295 | | | | |
| Carinoma tremaphoros | 0.0250 | | | | |
| Cyathura polita | 0.0091 | 0.0500 | | 0.0295 | |
| Cymadusa compta (Epi.) | | | | 0.0023 | |
| Edotea triloba (Epi.) | 0.0023 | | | | |
| Erichsonella attenuata (Epi.) | | | | 0.0023 | |
| Gemma gemma | | | | 0.1908 | |
| Glycinde solitaria | 0.0068 | 0.0023 | | | |
| Grandidierella spp. | | | | 0.0023 | |
| Hargeria rapax | | | | 0.0011 | |
| Heteromastus filiformis | 0.0613 | 0.1181 | | 0.0636 | |
| Leitoscoloplos robustus | | | 0.0386 | | |
| Leptosynapta tenuis | 0.1045 | | | | |
| Lyonsia hyalina | 0.0045 | | | | |
| Macoma balthica | | 1.4064 | | | |
| Macoma mitchelli | 0.0136 | | | | 0.0011 |
| Marenzelleria viridis | | | | 0.0636 | |
| Mediomastus ambiseta | | 0.0011 | | | |
| Micrura leidy | 0.0204 | 1.1519 | | | |
| Mucrogammarus mucronatus (Epi.) | | | | 0.0227 | |
| Mulinia lateralis | 0.7929 | | | | |
| Neanthes succinea | 0.0091 | 0.1136 | | | |
| Parahesionia luteola | | 0.0091 | | | |
| Pectinaria gouldii | 0.0454 | | | | |
| Podarkeopsis levifuscina | 0.0023 | | | | |
| Polydora cornuta | | | | 0.0023 | |
| Streblospio benedicti | | 0.0023 | 0.0023 | | 0.0011 |
| Tellinidae | | | | 0.0068 | |
| Tubificoides spp. | | 0.0114 | | | 0.0068 |
| Total Biomass w/ Epifauna | 1.1269 | 2.8661 | 0.0409 | 0.3874 | 0.0091 |
| Total Biomass w/o Epifauna | 1.1246 | 2.8661 | 0.0409 | 0.3601 | 0.0091 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24524 | 24525 | 24526 | 24527 | 24528 |
|------------------------------------|----------------|----------------|----------------|---------------|----------------|
| Watershed | Mainstem | Mainstem | Mainstem | Mainstem | Mainstem |
| Habitat | Low Mesohaline | Low Mesohaline | High Meso Sand | High Meso Mud | Low Mesohaline |
| Date | 08/16/17 | 08/16/17 | 08/15/17 | 09/05/17 | 08/31/17 |
| 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) | 10.8 | 4.1 | 8.9 | 2.5 | 2.5 |
| Salinity (ppt) | 10.60 | 8.15 | 16.94 | 12.16 | 10.03 |
| Temperature (C) | 25.84 | 26.50 | 25.93 | 24.77 | 24.40 |
| Dissolved Oxygen (mg/L) | 1.7 | 7.6 | 2.9 | 8.5 | 6.8 |
| Sediment Silt-Clay (%) | 6.41 | 54.76 | 1.81 | 75.97 | 17.84 |
| Total Carbon (%) | 0.38 | 1.56 | 0.09 | 0.87 | 0.49 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 2.60 | 3.40 | 3.67 | 3.33 | 3.40 |
| Condition | Degraded | Meets Goal | Meets Goal | Meets Goal | Meets Goal |
| # Attributes Scored | 5 | 5 | 6 | 6 | 5 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 3.13 5 | 2.06 3 | 2.07 1 | 2.29 3 | 3.32 5 |
| Abundance (#/m2) | 1477 3 | 2658 3 | 1045 3 | 1181 3 | 3340 3 |
| Biomass (g/m2) | 3.31 3 | 2.48 3 | 2.96 3 | 3.98 5 | 3.05 3 |
| Pollution Indicative Spp Abund (%) | 30.77 1 | 0.85 5 | 0.00 5 | 50.00 3 | 10.20 3 |
| Pollution Indicative Spp Biom (%) | 39.52 | 0.09 | 0.00 | 6.22 3 | 2.61 |
| Pollution Sensitive Spp Abund (%) | 43.08 | 5.13 | 50.00 5 | 9.62 | 18.37 |
| Pollution Sensitive Spp Biom (%) | 13.65 1 | 52.94 3 | 11.21 | 76.54 5 | 54.43 3 |
| Carnivore-Omnivore Abund (%) | 29.23 | 7.69 | 36.96 5 | 3.85 1 | 17.69 |
| Deep Deposit Feeder Abund (%) | 6.15 | 29.91 | 0.00 | 21.15 | 27.21 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Limnodrilus Abundance (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tolerance Score | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tany./Chir. Abundance Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| Site | 24524 | 24525 | 24526 | 24527 | 24528 |
| Acteocina canaliculata | 159 | | 45 | | |
| Amphiporus bioculatus | | | | | 23 |
| Arcuatula papyria (Epi.) | | | 136 | | |
| Branchiostoma caribaeum | | | 114 | | |
| Carinoma tremaphoros | | 68 | | | 45 |
| Cyathura polita | | | 341 | | 364 |
| Edotea triloba (Epi.) | | | | | 45 |
| Edwardsia elegans | | | | | 114 |
| Eteone heteropoda | | | | | 23 |
| Gemma gemma | | | | 23 | 295 |
| Glycera dibranchiata | 23 | | | | |
| Glycinde solitaria | 45 | | | | |
| Heteromastus filiformis | | 500 | | | 409 |
| Leitoscoloplos robustus | 68 | | | | |
| Leptocheirus plumulosus | | 1431 | | | 523 |
| Macoma balthica | | 136 | | 114 | 204 |
| Macoma mitchelli | | 68 | | 159 | 454 |
| Marenzelleria viridis | | | | | 45 |
| Mercenaria mercenaria | | | 23 | | |
| Micrura leidy | 91 | | | | |
| Molgula manhattensis (Epi.) | | | 136 | | |
| Mulinia lateralis | 45 | | | 45 | 23 |
| Neanthes succinea | | 136 | | 45 | 23 |
| Paraprionospio pinnata | 159 | | | 23 | |
| Parvilucina crenella | | | 409 | | |
| Phoronis spp. | 432 | | 114 | | |
| Sigambra tentaculata | 114 | | | | |
| Streblospio benedicti | 182 | 23 | | 523 | 295 |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) - Contd. | | | | | |
|--|--------|--------|--------|--------|--------|
| Site | 24524 | 24525 | 24526 | 24527 | 24528 |
| Tharyx spp. | 136 | | | | |
| Tubificoides spp. | 23 | 295 | | 250 | 500 |
| Total Abundance w/ Epifauna | 1477 | 2658 | 1318 | 1181 | 3385 |
| Total Abundance w/o Epifauna | 1477 | 2658 | 1045 | 1181 | 3340 |
| Number of Taxa w/ Epifauna | 12 | 8 | 8 | 8 | 16 |
| Number of Taxa w/o Epifauna | 12 | 8 | 6 | 8 | 15 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 24524 | 24525 | 24526 | 24527 | 24528 |
| Acteocina canaliculata | 0.0886 | | 0.0114 | | |
| Amphiporus bioculatus | | | | | 0.0114 |
| Arcuatula papyria (Epi.) | | | 0.4067 | | |
| Branchiostoma caribaeum | | | 0.5362 | | |
| Carinoma tremaphoros | | 0.0114 | | | 0.0227 |
| Cyathura polita | | | 0.1181 | | 0.5771 |
| Edotea triloba (Epi.) | | | | | 0.0011 |
| Edwardsia elegans | | | | | 0.0636 |
| Eteone heteropoda | | | | | 0.0011 |
| Gemma gemma | | | | 0.0227 | 0.3749 |
| Glycera dibranchiata | 0.3658 | | | | |
| Glycinde solitaria | 0.0091 | | | | |
| Heteromastus filiformis | | 0.1409 | | | 0.4748 |
| Leitoscoloplos robustus | 0.3749 | | | | |
| Leptocheirus plumulosus | | 0.4680 | | | 0.0772 |
| Macoma balthica | | 1.3109 | | 3.0468 | 0.8565 |
| Macoma mitchelli | | 0.4067 | | 0.5884 | 0.2567 |
| Marenzelleria viridis | | | | | 0.2272 |
| Mercenaria mercenaria | | | 0.1181 | | |
| Micrura leidyi | 1.1564 | | | | |
| Molgula manhattensis (Epi.) | | | 1.0383 | | |
| Mulinia lateralis | 0.8974 | | | 0.1318 | 0.0659 |
| Neanthes succinea | | 0.1318 | | 0.0682 | 0.0182 |
| Paraprionospio pinnata | 0.0318 | | | 0.0909 | |
| Parvilucina crenella | | | 2.0902 | | |
| Phoronis spp. | 0.3544 | | 0.0841 | | |
| Sigambra tentaculata | 0.0182 | | | | |
| Streblospio benedicti | 0.0045 | 0.0023 | | 0.0250 | 0.0114 |
| Tharyx spp. | 0.0091 | | | | |
| Tubificidae imm w/o cap chaetae | | | | | 0.0011 |
| Tubificoides spp. | 0.0011 | 0.0045 | | 0.0068 | 0.0114 |
| Total Biomass w/ Epifauna | 3.3114 | 2.4765 | 4.4031 | 3.9805 | 3.0524 |
| Total Biomass w/o Epifauna | 3.3114 | 2.4765 | 2.9581 | 3.9805 | 3.0513 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24301 | 24302 | 24303 | 24304 | 24305 |
|---------------------------------------|----------------|----------------|----------------|----------------|----------------|
| Watershed | Western Tribs | Western Tribs | Western Tribs | Western Tribs | Western Tribs |
| Habitat | Low Mesohaline | Low Mesohaline | Low Mesohaline | Low Mesohaline | Low Mesohaline |
| Date | 08/16/17 | 08/16/17 | 08/16/17 | 08/16/17 | 08/16/17 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 3.2 | 1.4 | 4.2 | 4.4 | 4.4 |
| Salinity (ppt) | 8.94 | 8.96 | 9.06 | 8.82 | 8.82 |
| Temperature (C) | 26.64 | 26.72 | 26.43 | 26.18 | 26.43 |
| Dissolved Oxygen (mg/L) | 4.9 | 6.0 | 7.1 | 4.9 | 3.4 |
| Sediment Silt-Clay (%) | 93.36 | 67.35 | 34.62 | 92.79 | 75.43 |
| Total Carbon (%) | 1.38 | 0.92 | 0.76 | 2.05 | 2.16 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 2.60 | 4.20 | 3.80 | 3.80 | 3.40 |
| Condition | Degraded | Meets Goal | Meets Goal | Meets Goal | Meets Goal |
| # Attributes Scored | 5 | 5 | 5 | 5 | 5 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 1.79 3 | 2.86 5 | 2.60 5 | 2.43 3 | 2.87 5 |
| Abundance (#/m2) | 772 3 | 1113 3 | 1272 3 | 1159 3 | 591 3 |
| Biomass (g/m2) | 0.96 1 | 2.51 3 | 4.53 3 | 3.29 3 | 2.01 3 |
| Pollution Indicative Spp Abund (%) | 2.94 5 | 4.08 5 | 0.00 5 | 1.96 5 | 11.54 3 |
| Pollution Indicative Spp Biom (%) | 0.24 | 0.09 | 0.00 | 0.14 | 0.11 |
| Pollution Sensitive Spp Abund (%) | 2.94 | 51.02 | 32.14 | 25.49 | 30.77 |
| Pollution Sensitive Spp Biom (%) | 17.30 1 | 90.91 5 | 44.83 3 | 80.22 5 | 73.90 3 |
| Carnivore-Omnivore Abund (%) | 5.88 | 38.78 | 32.14 | 9.80 | 26.92 |
| Deep Deposit Feeder Abund (%) | 76.47 | 26.53 | 44.64 | 23.53 | 11.54 |
| 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 | 24301 | 24302 | 24303 | 24304 | 24305 |
| Carinoma tremaphoros | 45 | 136 | 68 | 23 | 68 |
| Cyathura polita | | 295 | 273 | 68 | 23 |
| Gemma gemma | | | | 23 | |
| Glycinde solitaria | | | 23 | | |
| Heteromastus filiformis | 136 | 114 | 454 | 227 | 45 |
| Leptocheirus plumulosus | | 45 | | 477 | 114 |
| Macoma balthica | 23 | 91 | 91 | 227 | 159 |
| Macoma mitchelli | 91 | 23 | 182 | 23 | 23 |
| Marenzelleria viridis | | 182 | 23 | | |
| Neanthes succinea | | | 45 | 23 | 68 |
| Streblospio benedicti | 23 | 45 | | 23 | 68 |
| Tubificoides spp. | 454 | 182 | 114 | 45 | 23 |
| Total Abundance w/ Epifauna | 772 | 1113 | 1272 | 1159 | 591 |
| Total Abundance w/o Epifauna | 772 | 1113 | 1272 | 1159 | 591 |
| Number of Taxa w/ Epifauna | 6 | 9 | 9 | 10 | 9 |
| Number of Taxa w/o Epifauna | 6 | 9 | 9 | 10 | 9 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 24301 | 24302 | 24303 | 24304 | 24305 |
| Carinoma tremaphoros | 0.0454 | 0.0477 | 0.0295 | 0.0045 | 0.0159 |
| Cyathura polita | | 1.0269 | 0.5657 | 0.1772 | 0.0500 |
| Gemma gemma | | | | 0.0011 | |
| Glycinde solitaria | | | 0.0432 | | |
| Heteromastus filiformis | 0.0977 | 0.1045 | 0.3499 | 0.0750 | 0.0682 |
| Leptocheirus plumulosus | | 0.0159 | | 0.2431 | 0.0591 |
| Macoma balthica | 0.1659 | 1.0610 | 1.3677 | 2.4628 | 1.4359 |
| Macoma mitchelli | 0.6430 | 0.0568 | 2.0880 | 0.3135 | 0.2454 |
| Marenzelleria viridis | | 0.1954 | 0.0523 | | |
| Neanthes succinea | | | 0.0273 | 0.0045 | 0.1318 |
| Streblospio benedicti | 0.0023 | 0.0023 | | 0.0045 | 0.0023 |
| Tubificoides spp. | 0.0045 | 0.0011 | 0.0023 | 0.0045 | 0.0023 |
| Total Biomass w/ Epifauna | 0.9588 | 2.5117 | 4.5258 | 3.2910 | 2.0107 |
| Total Biomass w/o Epifauna | 0.9588 | 2.5117 | 4.5258 | 3.2910 | 2.0107 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24306 | 24307 | 24308 | 24309 | 24310 |
|---------------------------------------|----------------|----------------|----------------|----------------|----------------|
| Watershed | Western Tribs | Western Tribs | Western Tribs | Western Tribs | Western Tribs |
| Habitat | Low Mesohaline | Low Mesohaline | Low Mesohaline | Low Mesohaline | Low Mesohaline |
| Date | 08/16/17 | 08/24/17 | 08/24/17 | 08/08/17 | 08/08/17 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 3.9 | 6.4 | 2.4 | 5.4 | 4.4 |
| Salinity (ppt) | 8.48 | 7.94 | 7.09 | 7.58 | 6.73 |
| Temperature (C) | 26.61 | 26.42 | 26.60 | 26.07 | 26.13 |
| Dissolved Oxygen (mg/L) | 4.2 | 0.6 | 0.6 | 2.0 | 2.9 |
| Sediment Silt-Clay (%) | 67.89 | 57.28 | 66.51 | 57.00 | 70.63 |
| Total Carbon (%) | 1.98 | 5.81 | 7.01 | 2.32 | 1.68 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 3.80 | 1.00 | 1.00 | 3.40 | 4.20 |
| Condition | Meets Goal | Severely Degr. | Severely Degr. | Meets Goal | Meets Goal |
| # Attributes Scored | 5 | 5 | 5 | 5 | 5 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 2.61 5 | 0.00 1 | 0.00 1 | 1.90 3 | 2.16 3 |
| Abundance (#/m2) | 636 3 | 0 1 | 0 1 | 2386 5 | 682 3 |
| Biomass (g/m2) | 2.40 3 | 0.00 1 | 0.00 1 | 1.89 3 | 7.35 5 |
| Pollution Indicative Spp Abund (%) | 10.71 3 | 100.00 1 | 100.00 1 | 12.38 3 | 0.00 5 |
| Pollution Indicative Spp Biom (%) | 0.14 | 100.00 | 100.00 | 0.36 | 0.00 |
| Pollution Sensitive Spp Abund (%) | 39.29 | 0.00 | 0.00 | 3.81 | 30.00 |
| Pollution Sensitive Spp Biom (%) | 82.31 5 | 0.00 1 | 0.00 1 | 45.25 3 | 93.04 5 |
| Carnivore-Omnivore Abund (%) | 14.29 | 0.00 | 0.00 | 15.24 | 13.33 |
| Deep Deposit Feeder Abund (%) | 17.86 | 0.00 | 0.00 | 8.57 | 10.00 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Limnodrilus Abundance (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tolerance Score | 9.80 | 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 | 24306 | 24307 | 24308 | 24309 | 24310 |
| Carinoma tremaphoros | 23 | | | 91 | |
| Chironomus spp. | 23 | | | | |
| Cyathura polita | | | | | 23 |
| Heteromastus filiformis | 91 | | | 45 | 68 |
| Leptocheirus plumulosus | 114 | | | 1431 | 318 |
| Macoma balthica | 250 | | | 91 | 159 |
| Macoma mitchelli | 23 | | | | 23 |
| Marenzelleria viridis | | | | | 23 |
| Neanthes succinea | 45 | | | 273 | 68 |
| Streblospio benedicti | 45 | | | 295 | |
| Tubificoides spp. | 23 | | | 159 | |
| Total Abundance w/ Epifauna | 636 | 0 | 0 | 2386 | 682 |
| Total Abundance w/o Epifauna | 636 | | | 2386 | 682 |
| Number of Taxa w/ Epifauna | 9 | 0 | 0 | 7 | 7 |
| Number of Taxa w/o Epifauna | 9 | 0 | 0 | 7 | 7 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 24306 | 24307 | 24308 | 24309 | 24310 |
| Carinoma tremaphoros | 0.0204 | | | 0.0386 | |
| Chironomus spp. | 0.0023 | | | | |
| Cyathura polita | | | | | 0.0114 |
| Heteromastus filiformis | 0.1727 | | | 0.0250 | 0.0727 |
| Leptocheirus plumulosus | 0.0409 | | | 0.2976 | 0.0932 |
| Macoma balthica | 1.9766 | | | 0.8543 | 6.8069 |
| Macoma mitchelli | 0.1363 | | | | 0.2317 |
| Marenzelleria viridis | | | | | 0.0204 |
| Neanthes succinea | 0.0500 | | | 0.6634 | 0.1136 |
| Streblospio benedicti | 0.0011 | | | 0.0068 | |
| Tubificoides spp. | 0.0011 | | | 0.0023 | |
| Total Biomass w/ Epifauna | 2.4015 | 0.0000 | 0.0000 | 1.8880 | 7.3499 |
| Total Biomass w/o Epifauna | 2.4015 | 0.0000 | 0.0000 | 1.8880 | 7.3499 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24311 | 24312 | 24313 | 24314 | 24315 |
|--|----------------|----------------|----------------|----------------|---------------|
| Watershed | Western Tribs | Western Tribs | Western Tribs | Western Tribs | Western Tribs |
| Habitat | Low Mesohaline | Low Mesohaline | Low Mesohaline | Low Mesohaline | High Meso Mud |
| Date | 09/08/17 | 09/08/17 | 09/08/17 | 09/08/17 | 09/08/17 |
| 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 | 5.5 | 6.5 | 5.0 | 5.0 |
| Salinity (ppt) | 11.57 | 11.15 | 11.91 | 10.44 | 12.20 |
| Temperature (C) | 23.86 | 23.38 | 23.56 | 22.88 | 24.22 |
| Dissolved Oxygen (mg/L) | 1.2 | 3.2 | 2.8 | 3.5 | 0.5 |
| Sediment Silt-Clay (%) | 67.38 | 91.46 | 69.96 | 51.41 | 59.61 |
| Total Carbon (%) | 3.33 | 3.48 | 3.05 | 1.67 | 3.06 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 1.00 | 1.00 | 2.20 | 3.40 | 2.67 |
| Condition | Severely Degr. | Severely Degr. | Degraded | Meets Goal | Marginal |
| # Attributes Scored | 5 | 5 | 5 | 5 | 6 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 0.67 1 | 0.00 1 | 2.05 3 | 2.28 3 | 1.14 1 |
| Abundance (#/m2) | 386 1 | 0 1 | 227 1 | 3590 3 | 295 1 |
| Biomass (g/m2) | 0.02 1 | 0.00 1 | 0.77 1 | 6.59 5 | 0.19 1 |
| Pollution Indicative Spp Abund (%) | 82.35 1 | 100.00 1 | 20.00 3 | 28.48 1 | 23.08 |
| Pollution Indicative Spp Biom (%) | 40.00 | 100.00 | 0.29 | 2.59 | 1.22 5 |
| Pollution Sensitive Spp Abund (%) | 0.00 | 0.00 | 40.00 | 29.75 | 7.69 |
| Pollution Sensitive Spp Biom (%) | 0.00 1 | 0.00 1 | 51.47 3 | 83.05 5 | 79.27 3 |
| Carnivore-Omnivore Abund (%) | 17.65 | 0.00 | 40.00 | 25.95 | 69.23 5 |
| Deep Deposit Feeder Abund (%) | 0.00 | 0.00 | 0.00 | 15.82 | 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 | 6.00 | 0.00 | 0.00 |
| Tany./Chir. Abundance Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| Site | 24311 | 24312 | 24313 | 24314 | 24315 |
| Carinoma tremaphoros | 68 | | | 91 | 204 |
| Eteone heteropoda | | | | 23 | |
| Heteromastus filiformis | | | | 23 | |
| Macoma balthica | | | 23 | 1068 | 23 |
| Macoma mitchelli | | | | 23 | |
| Mulinia lateralis | | | | 45 | |
| Mytilopsis leucophaeata (Epi.) | | | 23 | 45 | |
| Neanthes succinea | | | 91 | 818 | |
| Paraprionospio pinnata | | | 23 | | |
| Rangia cuneata | | | 68 | | |
| Streblospio benedicti | 318 | | 23 | 954 | 68 |
| Tubificoides spp. | | | | 545 | |
| Total Abundance w/ Epifauna | 386 | 0 | 250 | 3635 | 295 |
| Total Abundance w/o Epifauna | 386 | | 227 | 3590 | 295 |
| Number of Taxa w/ Epifauna | 2 | 0 | 6 | 10 | 3 |
| Number of Taxa w/o Epifauna | 2 | 0 | 5 | 9 | 3 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 24311 | 24312 | 24313 | 24314 | 24315 |
| Carinoma tremaphoros | 0.0136 | | | 0.0091 | 0.0364 |
| Eteone heteropoda | | | | 0.0023 | |
| Heteromastus filiformis | | | | 0.0011 | |
| Macoma balthica | | | 0.0750 | 5.4710 | 0.1477 |
| Macoma mitchelli | | | | 0.0091 | |
| Mulinia lateralis | | | | 0.1477 | |
| Mytilopsis leucophaeata (Epi.) | | | 0.0023 | 0.0659 | |
| Neanthes succinea | | | 0.3726 | 0.9224 | |
| Paraprionospio pinnata | | | 0.0011 | | |
| Rangia cuneata | | | 0.3226 | | |
| Streblospio benedicti | 0.0091 | | 0.0011 | 0.0204 | 0.0023 |
| Tubificoides spp. | | | | 0.0045 | |
| Total Biomass w/ Epifauna | 0.0227 | 0.0000 | 0.7748 | 6.6536 | 0.1863 |
| Total Biomass w/o Epifauna | 0.0227 | 0.0000 | 0.7725 | 6.5877 | 0.1863 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24316 | 24317 | 24318 | 24319 | 24320 |
|------------------------------------|---------------|---------------|----------------|----------------|----------------|
| Watershed | Western Tribs | Western Tribs | Western Tribs | Western Tribs | Western Tribs |
| Habitat | Oligohaline | Oligohaline | Low Mesohaline | Low Mesohaline | Low Mesohaline |
| Date | 08/22/17 | 08/22/17 | 09/15/17 | 09/15/17 | 09/15/17 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 3.3 | 3.8 | 0.5 | 2.8 | 2.6 |
| Salinity (ppt) | 1.98 | 1.80 | 5.00 | 5.65 | 5.00 |
| Temperature (C) | 27.48 | 27.57 | 23.87 | 22.21 | 21.96 |
| Dissolved Oxygen (mg/L) | 6.5 | 6.4 | 11.1 | 7.8 | 7.3 |
| Sediment Silt-Clay (%) | 67.96 | 96.92 | 3.24 | 73.97 | 87.33 |
| Total Carbon (%) | 2.31 | 2.05 | 0.14 | 1.83 | 2.40 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 2.67 | 3.00 | 3.80 | 3.40 | 3.40 |
| Condition | Marginal | Meets Goal | Meets Goal | Meets Goal | Meets Goal |
| # Attributes Scored | 6 | 6 | 5 | 5 | 5 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 1.28 | 1.84 | 2.14 | 1.46 | 1.96 |
| Abundance (#/m2) | 1477 5 | 1136 5 | 2772 3 | 1999 5 | 1749 5 |
| Biomass (g/m2) | 0.36 | 15.42 | 11.60 3 | 16.09 3 | 24.81 3 |
| Pollution Indicative Spp Abund (%) | 6.15 | 12.00 | 3.28 5 | 11.36 3 | 27.27 1 |
| Pollution Indicative Spp Biom (%) | 1.92 | 0.07 | 0.01 | 0.16 | 0.23 |
| Pollution Sensitive Spp Abund (%) | 15.38 | 16.00 | 8.20 | 14.77 | 19.48 |
| Pollution Sensitive Spp Biom (%) | 40.26 | 98.81 | 96.66 5 | 98.01 5 | 98.65 5 |
| Carnivore-Omnivore Abund (%) | 13.85 1 | 22.00 3 | 16.39 | 17.05 | 37.66 |
| Deep Deposit Feeder Abund (%) | 1.54 | 6.00 | 0.82 | 2.27 | 2.60 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Limnodrilus Abundance (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Indic. Spp Abund (%) | 84.62 3 | 82.00 3 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Sens. Spp Abund (%) | 3.08 3 | 2.00 3 | 0.00 | 0.00 | 0.00 |
| Tolerance Score | 6.11 3 | 6.14 3 | 4.92 | 6.13 | 6.18 |
| Tany./Chir. Abundance Ratio | 100.00 1 | 100.00 1 | 0.00 | 100.00 | 100.00 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| Site | 24316 | 24317 | 24318 | 24319 | 24320 |
| Ameroculodes species complex | | | 91 | | |
| Apocorophium lacustre (Epi.) | | 114 | 91 | 23 | 45 |
| Carinoma tremaphoros | | 23 | | | |
| Cladotanytarsus viridiventris | | | 91 | | |
| Coelotanypus spp. | 91 | 114 | | 227 | 477 |
| Cricotopus bicinctus | | | 23 | | |
| Cricotopus spp. * | | | 45 | | |
| Cyathura polita | 114 | 114 | 182 | 114 | 182 |
| Gammarus daiberi (Epi.) | | | 45 | | |
| Hobsonia florida | | | | | 23 |
| Lepidactylus dytiscus | | | 1272 | | |
| Leptocheirus plumulosus | 1136 | 727 | 886 | 1431 | 863 |
| Littoridinops tenuipes (Epi.) | | | 91 | | |
| Marenzelleria viridis | 45 | 23 | 23 | 68 | 114 |
| Melita nitida (Epi.) | 68 | | | 23 | 68 |
| Mytilopsis leucophaeata (Epi.) | | | | | 136 |
| Rangia cuneata | 68 | 45 | 23 | 114 | 45 |
| Rhetotanytarsus exiguus group | | | 114 | | |
| Rhithropanopeus harrisi (Epi.) | | | | 23 | |
| Streblospio benedicti | | 23 | | | |
| Tubificoides spp. | 23 | 68 | 23 | 45 | 45 |
| Total Abundance w/ Epifauna | 1545 | 1250 | 2999 | 2068 | 1999 |
| Total Abundance w/o Epifauna | 1477 | 1136 | 2772 | 1999 | 1749 |
| Number of Taxa w/ Epifauna | 7 | 9 | 13 | 9 | 10 |
| Number of Taxa w/o Epifauna | 6 | 8 | 10 | 6 | 7 |

*Indicates taxa is skipped in taxon counts

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
|---------------------------------------|--------|---------|---------|---------|---------|
| Site | 24316 | 24317 | 24318 | 24319 | 24320 |
| Ameroculodes species complex | | | 0.0023 | | |
| Apocorophium lacustre (Epi.) | | 0.0159 | 0.0182 | 0.0023 | 0.0045 |
| Carinoma tremaphoros | | 0.0068 | | | |
| Chironomidae | | | 0.0011 | | |
| Coelotanypus spp. | 0.0068 | 0.0091 | | 0.0250 | 0.0568 |
| Cyathura polita | 0.0273 | 0.1999 | 0.0136 | 0.0091 | 0.3044 |
| Gammarus daiberi (Epi.) | | | 0.0136 | | |
| Hobsonia florida | | | | | 0.0023 |
| Lepidactylus dytiscus | | | 0.2522 | | |
| Leptocheirus plumulosus | 0.2045 | 0.1659 | 0.1295 | 0.2931 | 0.2726 |
| Littoridinops tenuipes (Epi.) | | | 0.0023 | | |
| Marenzelleria viridis | 0.0477 | 0.0250 | 0.0182 | 0.0636 | 0.1159 |
| Melita nitida (Epi.) | 0.0045 | | | 0.0011 | 0.0023 |
| Mytilopsis leucophaeata (Epi.) | | | | | 0.1454 |
| Rangia cuneata | 0.0682 | 15.0111 | 11.1805 | 15.6927 | 24.0605 |
| Rhithropanopeus harrisi (Epi.) | | | | 0.0295 | |
| Streblospio benedicti | | 0.0011 | | | |
| Tubificoides spp. | 0.0011 | 0.0011 | 0.0023 | 0.0023 | 0.0023 |
| Total Biomass w/ Epifauna | 0.3601 | 15.4360 | 11.6338 | 16.1187 | 24.9670 |
| Total Biomass w/o Epifauna | 0.3556 | 15.4201 | 11.5997 | 16.0858 | 24.8148 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24321 | 24322 | 24323 | 24324 | 24325 |
|---------------------------------------|---------------|---------------|---------------|---------------|---------------|
| Watershed | Western Tribs | Western Tribs | Western Tribs | Western Tribs | Western Tribs |
| Habitat | Oligohaline | Oligohaline | Freshwater | Oligohaline | Oligohaline |
| Date | 09/15/17 | 09/15/17 | 09/15/17 | 09/15/17 | 09/15/17 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 2.8 | 1.9 | 0.5 | 2.0 | 0.8 |
| Salinity (ppt) | 3.68 | 2.13 | 0.31 | 1.05 | 0.56 |
| Temperature (C) | 22.37 | 22.78 | 23.39 | 22.13 | 24.98 |
| Dissolved Oxygen (mg/L) | 8.0 | 9.0 | 12.0 | 6.2 | 10.4 |
| Sediment Silt-Clay (%) | 97.00 | 87.86 | 65.14 | 96.77 | 94.74 |
| Total Carbon (%) | 1.92 | 2.70 | 1.72 | 3.31 | 2.98 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 3.33 | 3.00 | 3.00 | 3.00 | 2.33 |
| Condition | Meets Goal | Meets Goal | Meets Goal | Meets Goal | Degraded |
| # Attributes Scored | 6 | 6 | 4 | 6 | 6 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 1.35 | 1.20 | 0.00 | 1.07 | 0.65 |
| Abundance (#/m2) | 1386 5 | 591 5 | 68 1 | 1636 5 | 136 1 |
| Biomass (g/m2) | 12.21 | 0.74 | 0.02 | 1.99 | 0.20 |
| Pollution Indicative Spp Abund (%) | 70.49 | 96.15 | 100.00 | 100.00 | 100.00 |
| Pollution Indicative Spp Biom (%) | 1.23 | 99.54 | 100.00 | 100.00 | 100.00 |
| Pollution Sensitive Spp Abund (%) | 24.59 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pollution Sensitive Spp Biom (%) | 98.55 | 0.00 | 0.00 | 0.00 | 0.00 |
| Carnivore-Omnivore Abund (%) | 77.05 5 | 96.15 5 | 100.00 | 97.22 5 | 100.00 5 |
| Deep Deposit Feeder Abund (%) | 0.00 | 3.85 | 0.00 1 | 2.78 | 0.00 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | 0.00 | 0.00 5 | 0.00 | 0.00 |
| Limnodrilus Abundance (%) | 0.00 | 0.00 | 0.00 | 2.78 | 0.00 |
| Oligo Poll. Indic. Spp Abund (%) | 75.41 3 | 100.00 1 | 0.00 | 100.00 1 | 100.00 1 |
| Oligo Poll. Sens. Spp Abund (%) | 16.39 3 | 0.00 1 | 0.00 | 0.00 1 | 0.00 1 |
| Tolerance Score | 6.20 3 | 7.93 3 | 6.20 5 | 8.75 3 | 9.20 1 |
| Tany./Chir. Abundance Ratio | 100.00 1 | 52.00 3 | 100.00 | 30.00 3 | 16.67 5 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| Site | 24321 | 24322 | 24323 | 24324 | 24325 |
| Apocorophium lacustre (Epi.) | 23 | | | | |
| Chironomus spp. | | 273 | | 1113 | 114 |
| Coelotanypus spp. | 977 | 295 | 68 | 477 | 23 |
| Cyathura polita | 91 | | | | |
| Gammarus spp. (Epi.) | | | 23 | | |
| Leptocheirus plumulosus | 68 | | | | |
| Limnodrilus hoffmeisteri | | | | 23 | |
| Marenzelleria viridis | 227 | | | | |
| Rangia cuneata | 23 | | | | |
| Tubificidae imm w/o cap chaetae * | | | | 23 | |
| Tubificoides spp. | | 23 | | | |
| Total Abundance w/ Epifauna | 1409 | 591 | 91 | 1636 | 136 |
| Total Abundance w/o Epifauna | 1386 | 591 | 68 | 1636 | 136 |
| Number of Taxa w/ Epifauna | 6 | 3 | 2 | 3 | 2 |
| Number of Taxa w/o Epifauna | 5 | 3 | 1 | 3 | 2 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 24321 | 24322 | 24323 | 24324 | 24325 |
| Apocorophium lacustre (Epi.) | 0.0023 | | | | |
| Chironomus spp. | | 0.6657 | | 1.8721 | 0.1908 |
| Coelotanypus spp. | 0.1500 | 0.0727 | 0.0182 | 0.1159 | 0.0068 |
| Cyathura polita | 0.0886 | | | | |
| Gammarus spp. (Epi.) | | | 0.0023 | | |
| Leptocheirus plumulosus | 0.0273 | | | | |
| Marenzelleria viridis | 0.2431 | | | | |
| Oligochaeta | | | | 0.0011 | |
| Probetazia spp. | | 0.0011 | | | |
| Rangia cuneata | 11.7053 | | | | |
| Tubificoides spp. | | 0.0023 | | | |
| Total Biomass w/ Epifauna | 12.2165 | 0.7418 | 0.0204 | 1.9891 | 0.1977 |
| Total Biomass w/o Epifauna | 12.2143 | 0.7418 | 0.0182 | 1.9891 | 0.1977 |

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24101 | 24102 | 24103 | 24104 | 24105 |
|--|----------------|----------------|----------------|----------------|---------------|
| Watershed | Potomac R | Potomac R | Potomac R | Potomac R | Potomac R |
| Habitat | High Meso Sand | Polyhaline Mud | High Meso Mud | High Meso Mud | High Meso Mud |
| Date | 08/15/17 | 08/15/17 | 08/15/17 | 08/15/17 | 08/15/17 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 7.0 | 12.1 | 9.0 | 9.3 | 6.0 |
| Salinity (ppt) | 14.40 | 18.37 | 14.14 | 14.52 | 13.75 |
| Temperature (C) | 26.32 | 25.53 | 26.35 | 26.33 | 26.44 |
| Dissolved Oxygen (mg/L) | 5.7 | 0.4 | 1.0 | 1.2 | 2.4 |
| Sediment Silt-Clay (%) | 1.86 | 69.25 | 77.11 | 75.81 | 94.14 |
| Total Carbon (%) | 0.16 | 3.07 | 3.55 | 2.87 | 3.45 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 3.00 | 1.00 | 1.00 | 1.00 | 2.33 |
| Condition | Meets Goal | Severely Degr. | Severely Degr. | Severely Degr. | Degraded |
| # Attributes Scored | 6 | 6 | 6 | 6 | 6 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 2.83 3 | 0.00 1 | 0.00 1 | 0.00 1 | 0.00 1 |
| Abundance (#/m2) | 682 1 | 0 1 | 114 1 | 0 1 | 23 1 |
| Biomass (g/m2) | 0.56 1 | 0.00 1 | 0.01 1 | 0.00 1 | 0.01 1 |
| Pollution Indicative Spp Abund (%) | 3.33 5 | 100.00 | 100.00 | 100.00 | 0.00 |
| Pollution Indicative Spp Biom (%) | 2.82 | 100.00 1 | 100.00 1 | 100.00 1 | 0.00 5 |
| Pollution Sensitive Spp Abund (%) | 50.00 3 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pollution Sensitive Spp Biom (%) | 12.90 | 0.00 1 | 0.00 1 | 0.00 1 | 0.00 1 |
| Carnivore-Omnivore Abund (%) | 66.67 5 | 0.00 1 | 0.00 1 | 0.00 1 | 100.00 5 |
| Deep Deposit Feeder Abund (%) | 13.33 | 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 | 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 | 24101 | 24102 | 24103 | 24104 | 24105 |
| Acteocina canaliculata | 182 | | | | |
| Clymenella torquata | 45 | | | | |
| Crangon septemspinosa (Epi.) | 23 | | | | |
| Cyathura polita | 23 | | | | |
| Edotea triloba (Epi.) | | 23 | | | |
| Glycinde solitaria | 91 | | | | |
| Leitoscoloplos spp. | 23 | | | | |
| Neanthes succinea | 91 | | | | 23 |
| Parvilucina crenella | 136 | | | | |
| Pectinaria gouldii | 23 | | | | |
| Rictaxis punctostriatus | 68 | | | | |
| Streblospio benedicti | | | 114 | | |
| Total Abundance w/ Epifauna | 704 | 23 | 114 | 0 | 23 |
| Total Abundance w/o Epifauna | 682 | | 114 | | 23 |
| Number of Taxa w/ Epifauna | 10 | 1 | 1 | 0 | 1 |
| Number of Taxa w/o Epifauna | 9 | | 1 | 0 | 1 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 24101 | 24102 | 24103 | 24104 | 24105 |
| Acteocina canaliculata | 0.0364 | | | | |
| Clymenella torquata | 0.0204 | | | | |
| Crangon septemspinosa (Epi.) | 0.0364 | | | | |
| Cyathura polita | 0.0045 | | | | |
| Edotea triloba (Epi.) | | 0.0023 | | | |
| Glycinde solitaria | 0.0114 | | | | |
| Leitoscoloplos spp. | 0.0159 | | | | |
| Neanthes succinea | 0.0136 | | | | 0.0091 |
| Parvilucina crenella | 0.4430 | | | | |
| Pectinaria gouldii | 0.0114 | | | | |
| Rictaxis punctostriatus | 0.0068 | | | | |
| Streblospio benedicti | | | 0.0136 | | |
| Total Biomass w/ Epifauna | 0.5998 | 0.0023 | 0.0136 | 0.0000 | 0.0091 |
| Total Biomass w/o Epifauna | 0.5635 | | 0.0136 | 0.0000 | 0.0091 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24106 | 24107 | 24108 | 24109 | 24110 | |
|---------------------------------------|----------------|----------------|----------------|----------------|----------------|-------|
| Watershed | Potomac R | Potomac R | Potomac R | Potomac R | Potomac R | |
| Habitat | Low Mesohaline | High Meso Mud | Low Mesohaline | High Meso Mud | Low Mesohaline | |
| Date | 08/15/17 | 08/15/17 | 08/15/17 | 08/15/17 | 08/15/17 | |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab | |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 | |
| BOTTOM ENVIRONMENT | | | | | | |
| Depth (m) | 6.9 | 8.6 | 5.8 | 6.7 | 3.6 | |
| Salinity (ppt) | 11.97 | 12.65 | 11.68 | 12.28 | 9.59 | |
| Temperature (C) | 26.43 | 26.38 | 26.20 | 26.42 | 26.84 | |
| Dissolved Oxygen (mg/L) | 1.7 | 1.2 | 0.9 | 1.3 | 5.4 | |
| Sediment Silt-Clay (%) | 94.09 | 95.42 | 94.70 | 81.77 | 1.68 | |
| Total Carbon (%) | 3.34 | 3.53 | 2.76 | 3.13 | 0.09 | |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | | |
| B-IBI Score | 1.00 | 1.67 | 1.00 | 1.00 | 3.00 | |
| Condition | Severely Degr. | Severely Degr. | Severely Degr. | Severely Degr. | Meets Goal | |
| # Attributes Scored | 5 | 6 | 5 | 6 | 5 | |
| | Value | Score | Value | Score | Value | Score |
| Shannon-Wiener Index | 0.00 | 1 | 0.00 | 1 | 0.00 | 1 |
| Abundance (#/m2) | 0 | 1 | 23 | 1 | 0 | 1 |
| Biomass (g/m2) | 0.00 | 1 | 0.00 | 1 | 0.00 | 1 |
| Pollution Indicative Spp Abund (%) | 100.00 | 1 | 0.00 | 1 | 100.00 | 1 |
| Pollution Indicative Spp Biom (%) | 100.00 | 1 | 0.00 | 5 | 100.00 | 1 |
| Pollution Sensitive Spp Abund (%) | 0.00 | 1 | 0.00 | 1 | 0.00 | 1 |
| Pollution Sensitive Spp Biom (%) | 0.00 | 1 | 0.00 | 1 | 0.00 | 1 |
| Carnivore-Omnivore Abund (%) | 0.00 | 1 | 0.00 | 1 | 0.00 | 1 |
| Deep Deposit Feeder Abund (%) | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 37.21 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Limnodrilus Abundance (%) | 0.00 | 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 | 0.00 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tolerance Score | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.00 |
| Tany./Chir. Abundance Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | | |
| Site | 24106 | 24107 | 24108 | 24109 | 24110 | |
| Carinoma tremaphoros | | | | | 23 | |
| Eteone heteropoda | | | | | 23 | |
| Heteromastus filiformis | | | | | 23 | |
| Leptocheirus plumulosus | | | | | 23 | |
| Macoma mitchelli | | | | | 159 | |
| Mediomastus ambiseta | | | | | 295 | |
| Neanthes succinea | | | | | 318 | |
| Phoronis spp. | | | | | 23 | |
| Rangia cuneata | | | | | 23 | |
| Streblospio benedicti | | | | | 23 | |
| Tubificoides spp. | | 23 | | | 45 | |
| Total Abundance w/ Epifauna | 0 | 23 | 0 | 0 | 977 | |
| Total Abundance w/o Epifauna | | 23 | | | 977 | |
| Number of Taxa w/ Epifauna | 0 | 1 | 0 | 0 | 11 | |
| Number of Taxa w/o Epifauna | 0 | 1 | 0 | 0 | 11 | |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | | |
| Site | 24106 | 24107 | 24108 | 24109 | 24110 | |
| Carinoma tremaphoros | | | | | 0.0136 | |
| Eteone heteropoda | | | | | 0.0011 | |
| Heteromastus filiformis | | | | | 0.0136 | |
| Leptocheirus plumulosus | | | | | 0.0023 | |
| Macoma mitchelli | | | | | 0.2317 | |
| Mediomastus ambiseta | | | | | 0.0068 | |
| Neanthes succinea | | | | | 0.1068 | |
| Phoronis spp. | | | | | 0.0114 | |
| Rangia cuneata | | | | | 0.0045 | |
| Streblospio benedicti | | | | | 0.0011 | |
| Tubificoides spp. | | 0.0045 | | | 0.0011 | |
| Total Biomass w/ Epifauna | 0.0000 | 0.0045 | 0.0000 | 0.0000 | 0.3942 | |
| Total Biomass w/o Epifauna | 0.0000 | 0.0045 | 0.0000 | 0.0000 | 0.3942 | |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24111 | 24112 | 24113 | 24114 | 24115 |
|---------------------------------------|----------------|----------------|----------------|----------------|----------------|
| Watershed | Potomac R | Potomac R | Potomac R | Potomac R | Potomac R |
| Habitat | Low Mesohaline | Low Mesohaline | Low Mesohaline | Low Mesohaline | Low Mesohaline |
| Date | 08/15/17 | 08/15/17 | 08/23/17 | 08/23/17 | 08/23/17 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 5.6 | 6.7 | 5.5 | 4.0 | 4.5 |
| Salinity (ppt) | 11.86 | 11.33 | 7.39 | 7.47 | 8.64 |
| Temperature (C) | 26.49 | 26.39 | 27.90 | 27.87 | 28.66 |
| Dissolved Oxygen (mg/L) | 1.7 | 1.3 | 4.6 | 4.6 | 5.0 |
| Sediment Silt-Clay (%) | 23.95 | 94.67 | 75.32 | 87.94 | 96.76 |
| Total Carbon (%) | 0.91 | 3.08 | 2.51 | 1.98 | 2.51 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 1.80 | 2.20 | 3.40 | 3.80 | 2.20 |
| Condition | Severely Degr. | Degraded | Meets Goal | Meets Goal | Degraded |
| # Attributes Scored | 5 | 5 | 5 | 5 | 5 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 0.00 1 | 0.00 1 | 0.44 1 | 1.92 3 | 0.00 1 |
| Abundance (#/m2) | 23 1 | 45 1 | 3567 3 | 2158 5 | 273 1 |
| Biomass (g/m2) | 0.01 1 | 0.01 1 | 1.04 3 | 2.49 3 | 0.02 1 |
| Pollution Indicative Spp Abund (%) | 0.00 5 | 0.00 5 | 0.00 5 | 3.16 5 | 0.00 5 |
| Pollution Indicative Spp Biom (%) | 0.00 | 0.00 | 0.00 | 0.09 | 0.00 |
| Pollution Sensitive Spp Abund (%) | 0.00 | 100.00 | 93.63 | 72.63 | 100.00 |
| Pollution Sensitive Spp Biom (%) | 0.00 1 | 100.00 3 | 90.83 5 | 72.84 3 | 100.00 3 |
| Carnivore-Omnivore Abund (%) | 0.00 | 0.00 | 1.27 | 7.37 | 0.00 |
| Deep Deposit Feeder Abund (%) | 0.00 | 100.00 | 98.09 | 76.84 | 100.00 |
| 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 | 24111 | 24112 | 24113 | 24114 | 24115 |
| Carinoma tremaphoros | | | 45 | | |
| Cyathura polita | | | | 68 | |
| Heteromastus filiformis | | | | 45 | |
| Leptocheirus plumulosus | | | | 114 | |
| Macoma balthica | | | 23 | 91 | |
| Macoma mitchelli | 23 | | | 68 | |
| Mediomastus ambiseta | | 45 | 3317 | 1409 | 273 |
| Neanthes succinea | | | | 91 | |
| Streblospio benedicti | | | | 68 | |
| Tubificoides spp. | | | 182 | 204 | |
| Total Abundance w/ Epifauna | 23 | 45 | 3567 | 2158 | 273 |
| Total Abundance w/o Epifauna | 23 | 45 | 3567 | 2158 | 273 |
| Number of Taxa w/ Epifauna | 1 | 1 | 4 | 9 | 1 |
| Number of Taxa w/o Epifauna | 1 | 1 | 4 | 9 | 1 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 24111 | 24112 | 24113 | 24114 | 24115 |
| Carinoma tremaphoros | | | 0.0909 | | |
| Cyathura polita | | | | 0.1409 | |
| Heteromastus filiformis | | | | 0.1272 | |
| Leptocheirus plumulosus | | | | 0.0341 | |
| Macoma balthica | | | 0.3953 | 1.5109 | |
| Macoma mitchelli | 0.0068 | | | 0.2976 | |
| Mediomastus ambiseta | | 0.0068 | 0.5498 | 0.1636 | 0.0204 |
| Neanthes succinea | | | | 0.2136 | |
| Streblospio benedicti | | | | 0.0023 | |
| Tubificoides spp. | | | 0.0045 | 0.0023 | |
| Total Biomass w/ Epifauna | 0.0068 | 0.0068 | 1.0406 | 2.4924 | 0.0204 |
| Total Biomass w/o Epifauna | 0.0068 | 0.0068 | 1.0406 | 2.4924 | 0.0204 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24116 | 24117 | 24118 | 24119 | 24120 |
|------------------------------------|----------------|-------------|-------------|-------------|----------------|
| Watershed | Potomac R | Potomac R | Potomac R | Potomac R | Potomac R |
| Habitat | Low Mesohaline | Oligohaline | Freshwater | Freshwater | Freshwater |
| Date | 08/23/17 | 08/28/17 | 08/28/17 | 08/28/17 | 08/28/17 |
| 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 | 5.1 | 3.6 | 4.8 | 8.4 |
| Salinity (ppt) | 6.88 | 3.39 | 0.22 | 0.19 | 0.14 |
| Temperature (C) | 27.94 | 26.40 | 25.88 | 26.15 | 26.66 |
| Dissolved Oxygen (mg/L) | 5.6 | 5.8 | 7.6 | 7.6 | 6.4 |
| Sediment Silt-Clay (%) | 72.20 | 97.05 | 96.49 | 92.46 | 91.54 |
| Total Carbon (%) | 2.21 | 2.66 | 2.66 | 2.89 | 3.42 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 2.60 | 3.00 | 3.00 | 3.00 | 1.50 |
| Condition | Degraded | Meets Goal | Meets Goal | Meets Goal | Severely Degr. |
| # Attributes Scored | 5 | 6 | 4 | 4 | 4 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 1.71 3 | 2.06 | 1.84 | 1.70 | 2.20 |
| Abundance (#/m2) | 7134 1 | 204 3 | 159 1 | 295 1 | 295 1 |
| Biomass (g/m2) | 3.14 3 | 0.13 | 0.03 | 74.61 | 0.36 |
| Pollution Indicative Spp Abund (%) | 17.83 3 | 55.56 | 42.86 | 61.54 | 53.85 |
| Pollution Indicative Spp Biom (%) | 3.61 | 26.32 | 23.08 | 0.00 | 0.00 |
| Pollution Sensitive Spp Abund (%) | 63.06 | 22.22 | 14.29 | 23.08 | 23.08 |
| Pollution Sensitive Spp Biom (%) | 71.46 3 | 64.91 | 53.85 | 99.92 | 68.13 |
| Carnivore-Omnivore Abund (%) | 2.87 | 55.56 5 | 71.43 | 76.92 | 15.38 |
| Deep Deposit Feeder Abund (%) | 76.75 | 0.00 | 0.00 1 | 0.00 1 | 61.54 1 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | 0.00 | 0.00 5 | 0.00 5 | 53.85 3 |
| Limnodrilus Abundance (%) | 0.00 | 0.00 | 0.00 | 0.00 | 53.85 |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | 66.67 3 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | 22.22 3 | 0.00 | 0.00 | 0.00 |
| Tolerance Score | 6.00 | 6.20 3 | 7.12 5 | 6.37 5 | 9.40 1 |
| Tany./Chir. Abundance Ratio | 0.00 | 100.00 1 | 100.00 | 100.00 | 0.00 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| Site | 24116 | 24117 | 24118 | 24119 | 24120 |
| Branchiura sowerbyi | | | | | 23 |
| Carinoma tremaphoros | | 23 | | 23 | |
| Chaoborus punctipennis | | | 45 | 23 | 45 |
| Coelotanypus spp. | | 91 | 68 | 182 | |
| Cyathura polita | 159 | | | | |
| Heteromastus filiformis | 45 | | | | |
| Leptocheirus plumulosus | 23 | 23 | 23 | | |
| Limnodrilus hoffmeisteri | | | | | 68 |
| Macoma balthica | 45 | | | | |
| Macoma mitchelli | 91 | | | | |
| Marenzelleria viridis | | 45 | 23 | 23 | 68 |
| Mediomastus ambiseta | 4271 | | | | |
| Neanthes succinea | 45 | | | | |
| Neomysis americana (Epi.) | 23 | | | | |
| Rangia cuneata | 23 | | | 45 | |
| Streblospio benedicti | 1272 | 23 | | | |
| Tubificidae imm w/o cap chaetae * | | | | | 91 |
| Tubificoides spp. | 1159 | | | | |
| Total Abundance w/ Epifauna | 7157 | 204 | 159 | 295 | 295 |
| Total Abundance w/o Epifauna | 7134 | 204 | 159 | 295 | 295 |
| Number of Taxa w/ Epifauna | 11 | 5 | 4 | 5 | 4 |
| Number of Taxa w/o Epifauna | 10 | 5 | 4 | 5 | 4 |

*Indicates taxa is skipped in taxon counts

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
|---------------------------------------|--------|--------|--------|---------|--------|
| Site | 24116 | 24117 | 24118 | 24119 | 24120 |
| Branchiura sowerbyi | | | | | 0.0523 |
| Carinoma tremaphoros | | 0.0045 | | 0.0045 | |
| Chaoborus punctipennis | | | 0.0023 | 0.0500 | 0.0011 |
| Coelotanypus spp. | | 0.0318 | 0.0068 | 0.0023 | |
| Cyathura polita | 0.5362 | | | | |
| Heteromastus filiformis | 0.0273 | | | | |
| Leptocheirus plumulosus | 0.0023 | 0.0068 | 0.0045 | | |
| Macoma balthica | 0.5180 | | | | |
| Macoma mitchelli | 0.7134 | | | | |
| Marenzelleria viridis | | 0.0841 | 0.0159 | 0.0409 | 0.2476 |
| Mediomastus ambiseta | 0.6089 | | | | |
| Neanthes succinea | 0.0023 | | | | |
| Neomysis americana (Epi.) | 0.0045 | | | | |
| Oligochaeta | | | | | 0.0625 |
| Rangia cuneata | 0.5839 | | | 74.5171 | |
| Streblospio benedicti | 0.1136 | 0.0023 | | | |
| Tubificoides spp. | 0.0386 | | | | |
| Total Biomass w/ Epifauna | 3.1490 | 0.1295 | 0.0295 | 74.6148 | 0.3635 |
| Total Biomass w/o Epifauna | 3.1444 | 0.1295 | 0.0295 | 74.6148 | 0.3635 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24121 | 24122 | 24123 | 24124 | 24125 |
|---------------------|------------|------------|------------|------------|------------|
| Watershed | Potomac R | Potomac R | Potomac R | Potomac R | Potomac R |
| Habitat | Freshwater | Freshwater | Freshwater | Freshwater | Freshwater |
| Date | 08/28/17 | 08/30/17 | 08/30/17 | 08/30/17 | 08/30/17 |
| 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 | 3.2 | 2.0 | 3.7 | 0.5 |
| Salinity (ppt) | 0.13 | 0.09 | 0.09 | 0.09 | 0.13 |
| Temperature (C) | 26.46 | 24.46 | 24.68 | 24.56 | 24.10 |
| Dissolved Oxygen (mg/L) | 6.9 | 6.7 | 6.6 | 7.3 | 7.4 |
| Sediment Silt-Clay (%) | 93.33 | 85.24 | 67.59 | 83.55 | 27.20 |
| Total Carbon (%) | 3.16 | 3.19 | 3.44 | 5.06 | 1.31 |

| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | | | | | | |
|------------------------------------|----------------|-------|----------|-------|------------|-------|------------|-------|------------|-------|
| B-IBI Score | 1.50 | | 2.50 | | 4.00 | | 3.50 | | 3.00 | |
| | Severely Degr. | | Degraded | | Meets Goal | | Meets Goal | | Meets Goal | |
| Condition | 4 | | 4 | | 4 | | 4 | | 4 | |
| # Attributes Scored | Value | Score | Value | Score | Value | Score | Value | Score | Value | Score |
| Shannon-Wiener Index | 1.37 | | 2.82 | | 2.54 | | 2.67 | | 2.82 | |
| Abundance (#/m2) | 114 | 1 | 6566 | 1 | 2136 | 5 | 3612 | 5 | 4112 | 3 |
| Biomass (g/m2) | 0.15 | | 121.36 | | 47.51 | | 137.10 | | 27.43 | |
| Pollution Indicative Spp Abund (%) | 80.00 | | 76.47 | | 61.70 | | 77.36 | | 54.14 | |
| Pollution Indicative Spp Biom (%) | 5.26 | | 0.00 | | 0.01 | | 0.00 | | 0.05 | |
| Pollution Sensitive Spp Abund (%) | 0.00 | | 2.77 | | 8.51 | | 5.03 | | 7.18 | |
| Pollution Sensitive Spp Biom (%) | 0.00 | | 0.16 | | 0.17 | | 0.25 | | 0.19 | |
| Carnivore-Omnivore Abund (%) | 20.00 | | 12.46 | | 10.64 | | 10.06 | | 19.34 | |
| Deep Deposit Feeder Abund (%) | 80.00 | 1 | 83.39 | 3 | 65.96 | 5 | 74.84 | 3 | 76.80 | 3 |
| TF Poll. Indicative Spp Abund (%) | 60.00 | 3 | 53.98 | 3 | 59.57 | 3 | 61.64 | 3 | 48.07 | 3 |
| Limnodrilus Abundance (%) | 60.00 | | 53.98 | | 59.57 | | 61.64 | | 48.07 | |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | | 0.00 | | 0.00 | | 0.00 | | 0.00 | |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | | 0.00 | | 0.00 | | 0.00 | | 0.00 | |
| Tolerance Score | 9.52 | 1 | 8.34 | 3 | 8.97 | 3 | 8.51 | 3 | 9.18 | 3 |
| Tany./Chir. Abundance Ratio | 0.00 | | 60.00 | | 66.67 | | 66.67 | | 50.00 | |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
|---------------------------------------|--------|----------|---------|----------|---------|
| Site | 24121 | 24122 | 24123 | 24124 | 24125 |
| Aulodrilus pigueti | | 1181 | | 318 | |
| Branchiura sowerbyi | 23 | 45 | 68 | | 500 |
| Chaoborus punctipennis | | 23 | | 23 | |
| Chironomus spp. | 23 | | | | 68 |
| Coelotanypus spp. | | 68 | 45 | 91 | 182 |
| Corbicula fluminea | | 227 | 250 | 454 | 136 |
| Cryptochironomus spp. | | 23 | | 23 | 45 |
| Cyathura polita | | 159 | 159 | 136 | 295 |
| Dero digitata | | 477 | 68 | | |
| Dicotendipes lucifer | | 45 | | 23 | |
| Elliptio complanata | | 23 | | 23 | |
| Gammarus daiberi (Epi.) | | 454 | | 273 | |
| Gammarus spp. (Epi.) | | | 45 | | |
| Gastropoda * | | 23 | | | |
| Girardia tigrina (Epi.) | | 227 | | 68 | |
| Harnischia spp. | | 23 | | | |
| Isochaetides freyi | | 227 | | 159 | |
| Laevapex fuscus | | 250 | | 45 | |
| Laevapex spp. * | | 227 | | | |
| Limnodrilus hoffmeisteri | 68 | 1181 | 409 | 954 | 545 |
| Marenzelleria viridis | | 23 | 23 | 45 | |
| Pisidium spp. | | | | | 23 |
| Polypedilum halterale group | | | 23 | | 136 |
| Procladius spp. | | | | | 68 |
| Sphaeriidae | | | 227 | | |
| Stictochironomus caffarius | | | | 23 | |
| Tubificidae imm w cap chaetae | | | | | 682 |
| Tubificidae imm w/o cap chaetae * | | 2363 | 863 | 1272 | 1431 |
| Unionidae * | | | | 23 | |
| Urnatella gracilis (Epi.) | | 45 | | | |
| Viviparus georgianus (Epi.) | | 114 | 23 | 23 | |
| Total Abundance w/ Epifauna | 114 | 7429 | 2204 | 3976 | 4112 |
| Total Abundance w/o Epifauna | 114 | 6566 | 2136 | 3612 | 4112 |
| Number of Taxa w/ Epifauna | 3 | 19 | 11 | 16 | 11 |
| Number of Taxa w/o Epifauna | 3 | 15 | 9 | 13 | 11 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 24121 | 24122 | 24123 | 24124 | 24125 |
| Branchiura sowerbyi | 0.1227 | 0.0182 | 0.0750 | | 0.5226 |
| Chaoborus punctipennis | | 0.0045 | | 0.0045 | |
| Chironomidae | | 0.0011 | | 0.0011 | 0.0011 |
| Chironomus spp. | 0.0068 | | | | |
| Coelotanypus spp. | | 0.0045 | 0.0045 | 0.0068 | 0.0136 |
| Corbicula fluminea | | 7.8611 | 47.0395 | 12.1620 | 26.5211 |
| Cyathura polita | | 0.1590 | 0.0409 | 0.1136 | 0.0523 |
| Elliptio complanata | | 112.7912 | | 113.7340 | |
| Gammarus daiberi (Epi.) | | 0.1113 | | 0.0432 | |
| Gammarus spp. (Epi.) | | | 0.0023 | | |
| Gastropoda * | | 0.0454 | | | |
| Girardia tigrina (Epi.) | | 0.0182 | | 0.0045 | |
| Laevapex fuscus | | 0.0068 | | 0.0204 | |
| Laevapex spp. * | | 0.0523 | | | |
| Limnodrilus hoffmeisteri | 0.0011 | | | | |
| Marenzelleria viridis | | 0.0364 | 0.0409 | 0.2340 | |
| Oligochaeta | 0.0204 | 0.4271 | 0.2627 | 0.5886 | 0.3226 |
| Pisidium spp. | | | | | 0.0011 |
| Polypedilum halterale group | | | 0.0011 | | |
| Sphaeriidae | | | 0.0432 | | |
| Unionidae * | | | | 10.2376 | |
| Urnatella gracilis (Epi.) | | 0.0011 | | | |
| Viviparus georgianus (Epi.) | | 62.4414 | 7.2318 | 11.8598 | |
| Total Biomass w/ Epifauna | 0.1511 | 183.9797 | 54.7419 | 149.0104 | 27.4344 |
| Total Biomass w/o Epifauna | 0.1511 | 121.3623 | 47.5078 | 137.1028 | 27.4344 |

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24201 | 24202 | 24203 | 24204 | 24206 |
|---------------------------------------|----------------|---------------|----------------|----------------|----------------|
| Watershed | Patuxent R | Patuxent R | Patuxent R | Patuxent R | Patuxent R |
| Habitat | High Meso Sand | High Meso Mud | High Meso Mud | High Meso Mud | High Meso Mud |
| Date | 08/16/17 | 08/16/17 | 08/16/17 | 08/16/17 | 09/12/17 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 6.0 | 15.5 | 15.0 | 15.6 | 19.0 |
| Salinity (ppt) | 12.25 | 12.97 | 12.45 | 12.83 | 13.75 |
| Temperature (C) | 26.80 | 26.45 | 26.33 | 26.26 | 22.83 |
| Dissolved Oxygen (mg/L) | 5.6 | 4.1 | 4.4 | 3.8 | 6.6 |
| Sediment Silt-Clay (%) | 15.45 | 79.81 | 74.19 | 66.74 | 54.31 |
| Total Carbon (%) | 1.40 | 3.60 | 3.65 | 2.97 | 2.80 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 4.33 | 2.67 | 1.00 | 1.00 | 1.00 |
| Condition | Meets Goal | Marginal | Severely Degr. | Severely Degr. | Severely Degr. |
| # Attributes Scored | 6 | 6 | 6 | 6 | 6 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 2.80 3 | 0.00 1 | 0.00 1 | 0.00 1 | 0.00 1 |
| Abundance (#/m2) | 1636 5 | 23 1 | 0 1 | 23 1 | 0 1 |
| Biomass (g/m2) | 1.11 3 | 0.00 1 | 0.00 1 | 0.00 1 | 0.00 1 |
| Pollution Indicative Spp Abund (%) | 2.78 5 | 0.00 | 100.00 | 100.00 | 100.00 |
| Pollution Indicative Spp Biom (%) | 3.49 | 0.00 5 | 100.00 1 | 100.00 1 | 100.00 1 |
| Pollution Sensitive Spp Abund (%) | 52.78 5 | 100.00 | 0.00 | 0.00 | 0.00 |
| Pollution Sensitive Spp Biom (%) | 12.13 | 100.00 3 | 0.00 1 | 0.00 1 | 0.00 1 |
| Carnivore-Omnivore Abund (%) | 61.11 5 | 100.00 5 | 0.00 1 | 0.00 1 | 0.00 1 |
| Deep Deposit Feeder Abund (%) | 26.39 | 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 | 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 | 24201 | 24202 | 24203 | 24204 | 24206 |
| Acteocina canaliculata | 318 | | | | |
| Amphiporus bioculatus | 45 | | | | |
| Edotea triloba (Epi.) | 23 | | | | |
| Glycinde solitaria | 159 | 23 | | | |
| Heteromastus filiformis | 45 | | | | |
| Mediomastus ambiseta | 364 | | | | |
| Mulinia lateralis | 23 | | | | |
| Neanthes succinea | 454 | | | | |
| Paraprionospio pinnata | 23 | | | | |
| Pectinaria gouldii | 23 | | | | |
| Podarkeopsis levifuscina | 23 | | | | |
| Saccoglossus kowalevskii | 136 | | | | |
| Spiochaetopterus costarum | 23 | | | | |
| Streblospio benedicti | | | | 23 | |
| Total Abundance w/ Epifauna | 1659 | 23 | 0 | 23 | 0 |
| Total Abundance w/o Epifauna | 1636 | 23 | | 23 | |
| Number of Taxa w/ Epifauna | 13 | 1 | 0 | 1 | 0 |
| Number of Taxa w/o Epifauna | 12 | 1 | 0 | 1 | 0 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 24201 | 24202 | 24203 | 24204 | 24206 |
| Acteocina canaliculata | 0.0454 | | | | |
| Amphiporus bioculatus | 0.0159 | | | | |
| Edotea triloba (Epi.) | 0.0023 | | | | |
| Glycinde solitaria | 0.0182 | 0.0011 | | | |
| Heteromastus filiformis | 0.0068 | | | | |
| Mediomastus ambiseta | 0.0182 | | | | |
| Mulinia lateralis | 0.0136 | | | | |
| Neanthes succinea | 0.4294 | | | | |
| Paraprionospio pinnata | 0.0250 | | | | |
| Pectinaria gouldii | 0.0011 | | | | |
| Podarkeopsis levifuscina | 0.0023 | | | | |
| Saccoglossus kowalevskii | 0.4771 | | | | |
| Spiochaetopterus costarum | 0.0523 | | | | |
| Streblospio benedicti | | | | 0.0023 | |
| Total Biomass w/ Epifauna | 1.1076 | 0.0011 | 0.0000 | 0.0023 | 0.0000 |
| Total Biomass w/o Epifauna | 1.1053 | 0.0011 | 0.0000 | 0.0023 | 0.0000 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24207 | 24208 | 24209 | 24210 | 24211 |
|------------------------------------|----------------|----------------|----------------|----------------|----------------|
| Watershed | Patuxent R | Patuxent R | Patuxent R | Patuxent R | Patuxent R |
| Habitat | High Meso Mud | High Meso Sand | Low Mesohaline | High Meso Mud | High Meso Mud |
| Date | 08/16/17 | 09/12/17 | 09/12/17 | 09/12/17 | 09/12/17 |
| 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 | 3.4 | 0.5 | 9.9 | 10.4 |
| Salinity (ppt) | 12.46 | 12.60 | 11.50 | 12.44 | 12.27 |
| Temperature (C) | 27.16 | 23.14 | 22.81 | 23.32 | 23.34 |
| Dissolved Oxygen (mg/L) | 1.4 | 6.6 | 8.0 | 2.1 | 5.1 |
| Sediment Silt-Clay (%) | 70.35 | 5.21 | 2.59 | 84.42 | 68.41 |
| Total Carbon (%) | 3.37 | 0.27 | 0.30 | 3.70 | 2.56 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 2.00 | 3.00 | 2.60 | 1.67 | 2.00 |
| Condition | Severely Degr. | Meets Goal | Degraded | Severely Degr. | Severely Degr. |
| # Attributes Scored | 6 | 6 | 5 | 6 | 6 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 1.78 1 | 3.10 3 | 2.36 3 | 0.00 1 | 2.17 3 |
| Abundance (#/m2) | 341 1 | 704 1 | 841 3 | 23 1 | 227 1 |
| Biomass (g/m2) | 1.37 3 | 0.44 1 | 0.48 1 | 0.00 1 | 0.28 1 |
| Pollution Indicative Spp Abund (%) | 60.00 | 6.45 5 | 2.70 5 | 0.00 | 30.00 |
| Pollution Indicative Spp Biom (%) | 12.11 3 | 12.53 | 28.40 | 0.00 5 | 79.84 1 |
| Pollution Sensitive Spp Abund (%) | 33.33 | 64.52 3 | 2.70 | 0.00 | 10.00 |
| Pollution Sensitive Spp Biom (%) | 77.11 3 | 19.32 | 1.43 1 | 0.00 1 | 0.41 1 |
| Carnivore-Omnivore Abund (%) | 0.00 1 | 54.84 5 | 16.22 | 0.00 1 | 60.00 5 |
| Deep Deposit Feeder Abund (%) | 46.67 | 19.35 | 21.62 | 100.00 | 40.00 |
| 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 | 6.70 | 0.00 | 0.00 |
| Tany./Chir. Abundance Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
|---------------------------------------|--------|--------|--------|--------|--------|
| Site | 24207 | 24208 | 24209 | 24210 | 24211 |
| Acteocina canaliculata | | 136 | | | |
| Americamysis bigelowi (Epi.) | | 23 | | | |
| Amphiporus bioculatus | | 23 | | | |
| Carinoma tremaphoros | | | 23 | | |
| Gemma gemma | | | 204 | | |
| Glycinde solitaria | | 204 | 23 | | 23 |
| Heteromastus filiformis | 23 | 23 | 182 | 23 | 23 |
| Leitoscoloplos robustus | 136 | 23 | | | 68 |
| Leptosynapta tenuis | | 68 | | | |
| Macoma balthica | 114 | | | | |
| Macoma mitchelli | | 23 | 295 | | |
| Mediomastus ambiseta | | 68 | | | |
| Micrura leidy | | 23 | | | |
| Molgula manhattensis (Epi.) | | 23 | | | |
| Mulinia lateralis | | 23 | 23 | | |
| Mytilidae (Epi.) | | 23 | | | |
| Parvilucina crenella | | 23 | | | |
| Pectinaria gouldii | | 23 | | | |
| Phoronis spp. | | 45 | | | |
| Podarkeopsis levifuscina | | | | | 45 |
| Polypedilum scalaenum group | | | 68 | | |
| Polypedilum spp. * | | | 23 | | |
| Sigambra tentaculata | | | | | 68 |
| Streblospio benedicti | 68 | | | | |
| Total Abundance w/ Epifauna | 341 | 772 | 841 | 23 | 227 |
| Total Abundance w/o Epifauna | 341 | 704 | 841 | 23 | 227 |
| Number of Taxa w/ Epifauna | 4 | 16 | 7 | 1 | 5 |
| Number of Taxa w/o Epifauna | 4 | 13 | 7 | 1 | 5 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 24207 | 24208 | 24209 | 24210 | 24211 |
| Acteocina canaliculata | | 0.0318 | | | |
| Americamysis bigelowi (Epi.) | | 0.0011 | | | |
| Amphiporus bioculatus | | 0.0045 | | | |
| Carinoma tremaphoros | | | 0.0182 | | |
| Chironomidae | | | 0.0011 | | |
| Gemma gemma | | | 0.1159 | | |
| Glycinde solitaria | | 0.0182 | 0.0068 | | 0.0011 |
| Heteromastus filiformis | 0.1477 | 0.0204 | 0.1636 | 0.0023 | 0.0341 |
| Leitoscoloplos robustus | 0.1613 | 0.0318 | | | 0.2204 |
| Leptosynapta tenuis | | 0.1681 | | | |
| Macoma balthica | 1.0565 | | | | |
| Macoma mitchelli | | 0.0011 | 0.0364 | | |
| Mediomastus ambiseta | | 0.0023 | | | |
| Micrura leidy | | 0.0954 | | | |
| Molgula manhattensis (Epi.) | | 0.0091 | | | |
| Mulinia lateralis | | 0.0227 | 0.1340 | | |
| Mytilidae (Epi.) | | 0.0011 | | | |
| Parvilucina crenella | | 0.0023 | | | |
| Pectinaria gouldii | | 0.0045 | | | |
| Phoronis spp. | | 0.0318 | | | |
| Podarkeopsis levifuscina | | | | | 0.0114 |
| Sigambra tentaculata | | | | | 0.0091 |
| Streblospio benedicti | 0.0045 | | | | |
| Total Biomass w/ Epifauna | 1.3700 | 0.4464 | 0.4760 | 0.0023 | 0.2760 |
| Total Biomass w/o Epifauna | 1.3700 | 0.4351 | 0.4760 | 0.0023 | 0.2760 |

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24212 | 24213 | 24214 | 24215 | 24216 |
|--|----------------|---------------|----------------|----------------|----------------|
| Watershed | Patuxent R | Patuxent R | Patuxent R | Patuxent R | Patuxent R |
| Habitat | High Meso Sand | High Meso Mud | High Meso Mud | Low Mesohaline | Low Mesohaline |
| Date | 09/12/17 | 09/12/17 | 09/12/17 | 09/12/17 | 09/12/17 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 5.1 | 10.2 | 3.9 | 2.0 | 3.8 |
| Salinity (ppt) | 12.31 | 12.33 | 12.08 | 10.76 | 10.64 |
| Temperature (C) | 23.33 | 23.39 | 23.33 | 22.64 | 22.90 |
| Dissolved Oxygen (mg/L) | 5.4 | 5.7 | 5.4 | 7.6 | 7.6 |
| Sediment Silt-Clay (%) | 34.68 | 85.61 | 47.31 | 6.21 | 13.34 |
| Total Carbon (%) | 1.40 | 3.51 | 3.01 | 0.35 | 1.10 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 2.33 | 2.33 | 1.67 | 2.20 | 2.20 |
| Condition | Degraded | Degraded | Severely Degr. | Degraded | Degraded |
| # Attributes Scored | 6 | 6 | 6 | 5 | 5 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 2.62 3 | 1.58 1 | 0.00 1 | 2.60 5 | 2.92 5 |
| Abundance (#/m2) | 295 1 | 68 1 | 45 1 | 682 3 | 818 3 |
| Biomass (g/m2) | 0.70 1 | 0.17 1 | 0.01 1 | 0.68 1 | 0.89 1 |
| Pollution Indicative Spp Abund (%) | 30.77 1 | 0.00 | 100.00 | 23.33 1 | 44.44 1 |
| Pollution Indicative Spp Biom (%) | 6.45 | 0.00 5 | 100.00 1 | 43.07 | 17.69 |
| Pollution Sensitive Spp Abund (%) | 15.38 3 | 33.33 | 0.00 | 20.00 | 16.67 |
| Pollution Sensitive Spp Biom (%) | 0.32 | 4.03 1 | 0.00 1 | 3.67 1 | 10.51 1 |
| Carnivore-Omnivore Abund (%) | 38.46 5 | 66.67 5 | 100.00 5 | 26.67 | 44.44 |
| Deep Deposit Feeder Abund (%) | 38.46 | 0.00 | 0.00 | 16.67 | 8.33 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Limnodrilus Abundance (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tolerance Score | 0.00 | 0.00 | 9.80 | 0.00 | 0.00 |
| Tany./Chir. Abundance Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| Site | 24212 | 24213 | 24214 | 24215 | 24216 |
| Chironomus spp. | | | 45 | | |
| Eteone heteropoda | | | | | 45 |
| Gemma gemma | | | | 45 | |
| Glycera dibranchiata | | | | 23 | |
| Glycinde solitaria | 45 | 23 | | 136 | 114 |
| Heteromastus filiformis | | | | 68 | 45 |
| Leitoscoloplos robustus | | | | 45 | 23 |
| Leitoscoloplos spp. | 23 | | | | |
| Macoma balthica | | | | | 23 |
| Macoma mitchelli | | 23 | | 227 | 68 |
| Micrura leidyi | | | | 23 | 23 |
| Neanthes succinea | 45 | | | | 136 |
| Paraprionospio pinnata | 45 | | | | 23 |
| Podarkeopsis levifuscina | 23 | 23 | | | 45 |
| Streblospio benedicti | 23 | | | 114 | 273 |
| Tubificoides spp. | 91 | | | | |
| Total Abundance w/ Epifauna | 295 | 68 | 45 | 682 | 818 |
| Total Abundance w/o Epifauna | 295 | 68 | 45 | 682 | 818 |
| Number of Taxa w/ Epifauna | 7 | 3 | 1 | 8 | 11 |
| Number of Taxa w/o Epifauna | 7 | 3 | 1 | 8 | 11 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 24212 | 24213 | 24214 | 24215 | 24216 |
| Chironomus spp. | | | 0.0091 | | |
| Eteone heteropoda | | | | | 0.0795 |
| Gemma gemma | | | | 0.0011 | |
| Glycera dibranchiata | | | | 0.2158 | |
| Glycinde solitaria | 0.0023 | 0.0068 | | 0.0250 | 0.0295 |
| Heteromastus filiformis | | | | 0.0341 | 0.0182 |
| Leitoscoloplos robustus | | | | 0.2885 | 0.0295 |
| Leitoscoloplos spp. | 0.0204 | | | | |
| Macoma balthica | | | | | 0.0636 |
| Macoma mitchelli | | 0.1613 | | 0.0341 | 0.0750 |
| Micrura leidyi | | | | 0.0772 | 0.4294 |
| Neanthes succinea | 0.6475 | | | | 0.1091 |
| Paraprionospio pinnata | 0.0227 | | | | 0.0364 |
| Podarkeopsis levifuscina | 0.0045 | 0.0011 | | | 0.0045 |
| Streblospio benedicti | 0.0023 | | | 0.0045 | 0.0114 |
| Tubificoides spp. | 0.0045 | | | | |
| Total Biomass w/ Epifauna | 0.7043 | 0.1693 | 0.0091 | 0.6805 | 0.8861 |
| Total Biomass w/o Epifauna | 0.7043 | 0.1693 | 0.0091 | 0.6805 | 0.8861 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24217 | 24218 | 24219 | 24220 | 24221 |
|------------------------------------|----------------|----------------|----------------|----------------|----------------|
| Watershed | Patuxent R | Patuxent R | Patuxent R | Patuxent R | Patuxent R |
| Habitat | High Meso Mud | Low Mesohaline | Low Mesohaline | Low Mesohaline | Low Mesohaline |
| Date | 09/12/17 | 09/12/17 | 09/12/17 | 09/12/17 | 09/12/17 |
| 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) | 10.5 | 1.9 | 1.3 | 0.5 | 3.3 |
| Salinity (ppt) | 12.11 | 11.23 | 10.29 | 9.93 | 10.24 |
| Temperature (C) | 23.39 | 23.19 | 23.71 | 24.34 | 22.97 |
| Dissolved Oxygen (mg/L) | 4.9 | 7.5 | 8.4 | 8.3 | 5.7 |
| Sediment Silt-Clay (%) | 91.17 | 3.64 | 10.54 | 76.44 | 87.25 |
| Total Carbon (%) | 3.44 | 0.52 | 0.33 | 4.56 | 2.87 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 1.00 | 2.60 | 2.60 | 2.60 | 1.40 |
| Condition | Severely Degr. | Degraded | Degraded | Degraded | Severely Degr. |
| # Attributes Scored | 6 | 5 | 5 | 5 | 5 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 0.00 1 | 2.92 5 | 2.74 5 | 2.15 3 | 1.66 1 |
| Abundance (#/m2) | 0 1 | 2522 3 | 3908 3 | 795 3 | 159 1 |
| Biomass (g/m2) | 0.00 1 | 0.62 1 | 1.60 3 | 0.73 1 | 0.33 1 |
| Pollution Indicative Spp Abund (%) | 100.00 | 18.02 3 | 25.00 1 | 0.00 5 | 14.29 3 |
| Pollution Indicative Spp Biom (%) | 100.00 1 | 1.82 | 12.18 | 0.00 | 4.08 |
| Pollution Sensitive Spp Abund (%) | 0.00 | 3.60 | 8.14 | 5.71 | 0.00 |
| Pollution Sensitive Spp Biom (%) | 0.00 1 | 1.45 1 | 30.03 1 | 16.85 1 | 0.00 1 |
| Carnivore-Omnivore Abund (%) | 0.00 1 | 19.82 | 26.16 | 22.86 | 71.43 |
| Deep Deposit Feeder Abund (%) | 0.00 | 22.52 | 20.35 | 54.29 | 0.00 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Limnodrilus Abundance (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tolerance Score | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tany./Chir. Abundance Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
|---------------------------------------|--------|--------|--------|--------|--------|
| Site | 24217 | 24218 | 24219 | 24220 | 24221 |
| Carinoma tremaphoros | | 45 | 23 | | |
| Edotea triloba (Epi.) | | 23 | 23 | 23 | |
| Edwardsia elegans | | | 23 | | |
| Eteone heteropoda | | 45 | | | |
| Gemma gemma | | 409 | | | |
| Geukensia demissa (Epi.) | | | 23 | | |
| Glycera dibranchiata | | 45 | 23 | | |
| Glycinde solitaria | | 91 | 136 | | |
| Heteromastus filiformis | | 432 | 500 | 341 | |
| Leitoscoloplos robustus | | | 45 | | |
| Leptocheirus plumulosus | | | | 114 | |
| Macoma balthica | | | 136 | 45 | |
| Macoma mitchelli | 636 | | 1022 | 23 | 23 |
| Mediomastus ambiseta | | | 45 | | |
| Micrura leidyi | | 23 | 23 | | |
| Mulinia lateralis | | 23 | | | |
| Neanthes succinea | 250 | | 795 | 182 | 91 |
| Paraprionospio pinnata | | | | | 23 |
| Pectinaria gouldii | | | 23 | | |
| Podarkeopsis levifuscina | | | | | 23 |
| Streblospio benedicti | | 386 | 932 | | |
| Tubificoides spp. | | 136 | 182 | 91 | |
| Total Abundance w/ Epifauna | 0 | 2545 | 3953 | 818 | 159 |
| Total Abundance w/o Epifauna | | 2522 | 3908 | 795 | 159 |
| Number of Taxa w/ Epifauna | 0 | 13 | 16 | 7 | 4 |
| Number of Taxa w/o Epifauna | 0 | 12 | 14 | 6 | 4 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 24217 | 24218 | 24219 | 24220 | 24221 |
| Carinoma tremaphoros | | 0.0114 | 0.0091 | | |
| Edotea triloba (Epi.) | | 0.0068 | 0.0023 | 0.0068 | |
| Edwardsia elegans | | | 0.0091 | | |
| Eteone heteropoda | | 0.0023 | | | |
| Gemma gemma | | 0.0136 | | | |
| Geukensia demissa (Epi.) | | | 0.0159 | | |
| Glycera dibranchiata | | 0.2613 | 0.1091 | | |
| Glycinde solitaria | | 0.0091 | 0.0704 | | |
| Heteromastus filiformis | | 0.1409 | 0.0886 | 0.0977 | |
| Leitoscoloplos robustus | | | 0.1590 | | |
| Leptocheirus plumulosus | | | | 0.0295 | |
| Macoma balthica | | | 0.4090 | 0.1227 | |
| Macoma mitchelli | 0.0841 | | 0.1522 | 0.0114 | 0.0204 |
| Mediomastus ambiseta | | | 0.0023 | | |
| Micrura leidyi | | 0.0318 | 0.0772 | | |
| Mulinia lateralis | | 0.0023 | | | |
| Neanthes succinea | | 0.0591 | 0.4771 | 0.4658 | 0.2954 |
| Paraprionospio pinnata | | | | | 0.0136 |
| Pectinaria gouldii | | | 0.0023 | | |
| Podarkeopsis levifuscina | | | | | 0.0045 |
| Streblospio benedicti | | 0.0068 | 0.0364 | | |
| Tubificoides spp. | | 0.0023 | 0.0023 | 0.0011 | |
| Total Biomass w/ Epifauna | 0.0000 | 0.6316 | 1.6222 | 0.7350 | 0.3340 |
| Total Biomass w/o Epifauna | 0.0000 | 0.6248 | 1.6040 | 0.7282 | 0.3340 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24222 | 24223 | 24224 | 24225 | 24226 |
|------------------------------------|----------------|----------------|----------------|----------------|----------------|
| Watershed | Patuxent R | Patuxent R | Patuxent R | Patuxent R | Patuxent R |
| Habitat | Low Mesohaline | Low Mesohaline | Low Mesohaline | Low Mesohaline | Low Mesohaline |
| Date | 09/12/17 | 09/13/17 | 09/13/17 | 09/13/17 | 09/13/17 |
| 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) | 0.5 | 3.1 | 1.1 | 3.4 | 0.5 |
| Salinity (ppt) | 9.40 | 9.03 | 6.62 | 6.81 | 7.51 |
| Temperature (C) | 24.14 | 22.74 | 22.73 | 22.75 | 22.59 |
| Dissolved Oxygen (mg/L) | 7.9 | 5.6 | 5.8 | 5.6 | 5.9 |
| Sediment Silt-Clay (%) | 13.84 | 49.91 | 92.34 | 89.08 | 15.93 |
| Total Carbon (%) | 0.48 | 1.64 | 2.99 | 3.65 | 0.54 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 3.40 | 3.00 | 2.20 | 2.60 | 3.40 |
| Condition | Meets Goal | Meets Goal | Degraded | Degraded | Meets Goal |
| # Attributes Scored | 5 | 5 | 5 | 5 | 5 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 2.95 5 | 1.74 3 | 2.80 5 | 1.28 1 | 1.95 3 |
| Abundance (#/m2) | 2022 5 | 295 1 | 454 1 | 273 1 | 1818 5 |
| Biomass (g/m2) | 1.48 3 | 2.20 3 | 0.09 1 | 1.36 3 | 0.86 1 |
| Pollution Indicative Spp Abund (%) | 10.11 3 | 0.00 5 | 20.00 3 | 0.00 5 | 7.50 5 |
| Pollution Indicative Spp Biom (%) | 0.38 | 0.00 | 7.59 | 0.00 | 0.53 |
| Pollution Sensitive Spp Abund (%) | 7.87 | 46.15 | 35.00 | 33.33 | 18.75 |
| Pollution Sensitive Spp Biom (%) | 24.25 1 | 91.90 3 | 12.66 1 | 86.50 3 | 42.44 3 |
| Carnivore-Omnivore Abund (%) | 37.08 | 0.00 | 55.00 | 0.00 | 15.00 |
| Deep Deposit Feeder Abund (%) | 25.84 | 38.46 | 15.00 | 58.33 | 57.50 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Limnodrilus Abundance (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tolerance Score | 0.00 | 0.00 | 6.20 | 0.00 | 6.00 |
| Tany./Chir. Abundance Ratio | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
|---------------------------------------|--------|--------|--------|--------|--------|
| Site | 24222 | 24223 | 24224 | 24225 | 24226 |
| <i>Boccardiella ligERICA</i> | | | 23 | | |
| <i>Carinoma tremaphoros</i> | | | 23 | | |
| <i>Coelotanypus</i> spp. | | | 45 | | |
| <i>Cyathura polita</i> | 45 | | 159 | | 227 |
| <i>Edotea triloba</i> (Epi.) | | | 23 | | |
| <i>Eteone heteropoda</i> | 23 | | | | |
| <i>Glycinde solitaria</i> | 23 | | | | |
| <i>Heteromastus filiformis</i> | 409 | 23 | 68 | | 1045 |
| <i>Laeonereis culveri</i> | 182 | | | | |
| <i>Leptocheirus plumulosus</i> | 68 | | | | |
| <i>Macoma balthica</i> | 68 | 136 | | 91 | |
| <i>Macoma mitchelli</i> | 409 | 45 | 23 | 23 | 250 |
| <i>Marenzelleria viridis</i> | 23 | | | | 68 |
| <i>Neanthes succinea</i> | 477 | | 23 | | 45 |
| <i>Polydora cornuta</i> | | | 45 | | |
| <i>Rangia cuneata</i> | | | | | 45 |
| <i>Streblospio benedicti</i> | 182 | | 45 | | 136 |
| <i>Tubificoides</i> spp. | 114 | 91 | | 159 | |
| Total Abundance w/ Epifauna | 2022 | 295 | 477 | 273 | 1818 |
| Total Abundance w/o Epifauna | 2022 | 295 | 454 | 273 | 1818 |
| Number of Taxa w/ Epifauna | 12 | 4 | 10 | 3 | 7 |
| Number of Taxa w/o Epifauna | 12 | 4 | 9 | 3 | 7 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 24222 | 24223 | 24224 | 24225 | 24226 |
| <i>Boccardiella ligERICA</i> | | | 0.0011 | | |
| <i>Carinoma tremaphoros</i> | | | 0.0023 | | |
| <i>Coelotanypus</i> spp. | | | 0.0023 | | |
| <i>Cyathura polita</i> | 0.0591 | | 0.0114 | | 0.2976 |
| <i>Edotea triloba</i> (Epi.) | | | 0.0045 | | |
| <i>Eteone heteropoda</i> | 0.0011 | | | | |
| <i>Glycinde solitaria</i> | 0.0114 | | | | |
| <i>Heteromastus filiformis</i> | 0.2045 | 0.0045 | 0.0023 | | 0.3908 |
| <i>Laeonereis culveri</i> | 0.0841 | | | | |
| <i>Leptocheirus plumulosus</i> | 0.0204 | | | | |
| <i>Macoma balthica</i> | 0.2454 | 2.0244 | | 1.1724 | |
| <i>Macoma mitchelli</i> | 0.4271 | 0.1727 | 0.0477 | 0.1818 | 0.0591 |
| <i>Marenzelleria viridis</i> | 0.0432 | | | | 0.0613 |
| <i>Neanthes succinea</i> | 0.3772 | | 0.0114 | | 0.0386 |
| <i>Polydora cornuta</i> | | | 0.0068 | | |
| <i>Rangia cuneata</i> | | | | | 0.0045 |
| <i>Streblospio benedicti</i> | 0.0045 | | 0.0045 | | 0.0045 |
| <i>Tubificoides</i> spp. | 0.0023 | 0.0011 | | 0.0011 | |
| Total Biomass w/ Epifauna | 1.4802 | 2.2027 | 0.0943 | 1.3552 | 0.8565 |
| Total Biomass w/o Epifauna | 1.4802 | 2.2027 | 0.0897 | 1.3552 | 0.8565 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24601 | 24602 | 24603 | 24604 | 24606 |
|--|----------------|----------------|---------------|----------------|----------------|
| Watershed | Upper Bay | Upper Bay | Upper Bay | Upper Bay | Upper Bay |
| Habitat | High Meso Mud | High Meso Mud | High Meso Mud | Low Mesohaline | Low Mesohaline |
| Date | 08/16/17 | 08/17/17 | 08/17/17 | 08/17/17 | 08/17/17 |
| 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) | 12.8 | 8.0 | 8.6 | 3.1 | 6.6 |
| Salinity (ppt) | 17.60 | 12.38 | 16.33 | 8.44 | 11.13 |
| Temperature (C) | 25.73 | 25.63 | 25.67 | 26.19 | 25.70 |
| Dissolved Oxygen (mg/L) | 2.3 | 1.6 | 0.8 | 7.0 | 1.0 |
| Sediment Silt-Clay (%) | 72.98 | 57.46 | 96.18 | 2.68 | 94.46 |
| Total Carbon (%) | 2.97 | 1.72 | 3.65 | 0.09 | 2.89 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 1.67 | 1.33 | 2.67 | 3.00 | 3.00 |
| Condition | Severely Degr. | Severely Degr. | Marginal | Meets Goal | Meets Goal |
| # Attributes Scored | 6 | 6 | 6 | 5 | 5 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 1.87 1 | 1.74 1 | 0.00 1 | 2.40 3 | 2.26 3 |
| Abundance (#/m2) | 727 1 | 295 1 | 23 1 | 795 3 | 318 1 |
| Biomass (g/m2) | 0.20 1 | 0.42 1 | 0.02 1 | 0.89 1 | 3.04 3 |
| Pollution Indicative Spp Abund (%) | 28.13 | 84.62 | 0.00 | 2.86 5 | 7.14 5 |
| Pollution Indicative Spp Biom (%) | 73.03 1 | 11.35 3 | 0.00 5 | 1.79 | 6.94 |
| Pollution Sensitive Spp Abund (%) | 3.13 | 0.00 | 100.00 | 17.14 | 21.43 |
| Pollution Sensitive Spp Biom (%) | 6.74 1 | 0.00 1 | 100.00 3 | 41.28 3 | 85.85 3 |
| Carnivore-Omnivore Abund (%) | 34.38 5 | 7.69 1 | 100.00 5 | 8.57 | 35.71 |
| Deep Deposit Feeder Abund (%) | 37.50 | 46.15 | 0.00 | 42.86 | 28.57 |
| 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 | 6.00 | 6.00 |
| Tany./Chir. Abundance Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
|---------------------------------------|--------|--------|--------|--------|--------|
| Site | 24601 | 24602 | 24603 | 24604 | 24606 |
| Carinoma tremaphoros | | | | 45 | |
| Chironomus spp. | | 23 | | | |
| Cyathura polita | | | 23 | | |
| Eteone heteropoda | | | | 23 | |
| Heteromastus filiformis | | | | 341 | |
| Leitoscoloplos spp. | 23 | 136 | | | |
| Leptocheirus plumulosus | | | | 68 | |
| Macoma balthica | | | | 45 | 45 |
| Macoma mitchelli | | 45 | | 182 | 23 |
| Marenzelleria viridis | | | | 45 | |
| Mulinia lateralis | | | | | 23 |
| Neanthes succinea | | | | | 114 |
| Paraprionospio pinnata | 182 | | | | |
| Phoronis spp. | 23 | | | | |
| Rangia cuneata | | | | 45 | 23 |
| Sigambra tentaculata | 250 | | | | |
| Streblospio benedicti | | 91 | | | |
| Tubificoides spp. | 250 | | | | 91 |
| Total Abundance w/ Epifauna | 727 | 295 | 23 | 795 | 318 |
| Total Abundance w/o Epifauna | 727 | 295 | 23 | 795 | 318 |
| Number of Taxa w/ Epifauna | 5 | 4 | 1 | 8 | 6 |
| Number of Taxa w/o Epifauna | 5 | 4 | 1 | 8 | 6 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 24601 | 24602 | 24603 | 24604 | 24606 |
| Carinoma tremaphoros | | | | 0.0045 | |
| Chironomus spp. | | 0.0068 | | | |
| Cyathura polita | | | 0.0250 | | |
| Eteone heteropoda | | | | 0.0159 | |
| Heteromastus filiformis | | | | 0.1318 | |
| Leitoscoloplos spp. | 0.0045 | 0.0273 | | | |
| Leptocheirus plumulosus | | | | 0.0273 | |
| Macoma balthica | | | | 0.3022 | 2.5492 |
| Macoma mitchelli | | 0.3726 | | 0.3408 | 0.0613 |
| Marenzelleria viridis | | | | 0.0613 | |
| Mulinia lateralis | | | | | 0.2113 |
| Neanthes succinea | | | | | 0.1568 |
| Paraprionospio pinnata | 0.1431 | | | | |
| Phoronis spp. | 0.0136 | | | | |
| Rangia cuneata | | | | 0.0023 | 0.0636 |
| Sigambra tentaculata | 0.0318 | | | | |
| Streblospio benedicti | | 0.0136 | | | |
| Tubificoides spp. | 0.0091 | | | | 0.0011 |
| Total Biomass w/ Epifauna | 0.2022 | 0.4203 | 0.0250 | 0.8861 | 3.0433 |
| Total Biomass w/o Epifauna | 0.2022 | 0.4203 | 0.0250 | 0.8861 | 3.0433 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24607 | 24608 | 24609 | 24610 | 24611 |
|---------------------------------------|----------------|----------------|---------------|----------------|----------------|
| Watershed | Upper Bay | Upper Bay | Upper Bay | Upper Bay | Upper Bay |
| Habitat | Low Mesohaline | Low Mesohaline | High Meso Mud | Low Mesohaline | Low Mesohaline |
| Date | 08/17/17 | 08/17/17 | 08/17/17 | 08/17/17 | 08/17/17 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 6.5 | 4.3 | 6.5 | 5.8 | 5.7 |
| Salinity (ppt) | 11.60 | 7.87 | 12.55 | 9.60 | 10.71 |
| Temperature (C) | 25.84 | 26.15 | 25.71 | 25.86 | 25.82 |
| Dissolved Oxygen (mg/L) | 1.7 | 3.0 | 1.1 | 2.0 | 1.1 |
| Sediment Silt-Clay (%) | 79.64 | 5.21 | 95.87 | 75.60 | 70.49 |
| Total Carbon (%) | 3.04 | 0.16 | 3.98 | 4.12 | 3.58 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 4.20 | 3.40 | 3.33 | 4.20 | 3.40 |
| Condition | Meets Goal | Meets Goal | Meets Goal | Meets Goal | Meets Goal |
| # Attributes Scored | 5 | 5 | 6 | 5 | 5 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 2.47 3 | 2.30 3 | 1.00 1 | 1.86 3 | 1.96 3 |
| Abundance (#/m2) | 613 3 | 2090 5 | 91 1 | 727 3 | 1159 3 |
| Biomass (g/m2) | 6.06 5 | 3.05 3 | 5.18 5 | 6.65 5 | 1.23 3 |
| Pollution Indicative Spp Abund (%) | 3.70 5 | 1.09 5 | 0.00 0 | 3.13 5 | 3.92 5 |
| Pollution Indicative Spp Biom (%) | 0.04 | 3.72 | 0.00 5 | 14.49 | 0.09 |
| Pollution Sensitive Spp Abund (%) | 7.41 | 20.65 | 50.00 | 50.00 | 11.76 |
| Pollution Sensitive Spp Biom (%) | 90.78 5 | 28.65 1 | 99.25 3 | 82.67 5 | 52.72 3 |
| Carnivore-Omnivore Abund (%) | 40.74 | 6.52 | 50.00 5 | 31.25 | 19.61 |
| Deep Deposit Feeder Abund (%) | 22.22 | 44.57 | 0.00 | 12.50 | 64.71 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Limnodrilus Abundance (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tolerance Score | 0.00 | 6.00 | 0.00 | 0.00 | 6.00 |
| Tany./Chir. Abundance Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
| Site | 24607 | 24608 | 24609 | 24610 | 24611 |
| Carinoma tremaphoros | 68 | 68 | | 23 | 23 |
| Cyathura polita | | 23 | | | |
| Heteromastus filiformis | | 932 | | | 68 |
| Leptocheirus plumulosus | 136 | 386 | | | |
| Macoma balthica | 45 | | 45 | 364 | 68 |
| Macoma mitchelli | 23 | 204 | | 23 | |
| Marenzelleria viridis | | 295 | | | 23 |
| Micrura leidy | | 45 | | | |
| Mulinia lateralis | | 23 | | 23 | |
| Mytilopsis leucophaeata (Epi.) | | 23 | | | |
| Neanthes succinea | 182 | | 45 | 204 | 204 |
| Rangia cuneata | | 114 | | | 45 |
| Streblospio benedicti | 23 | | | | 45 |
| Tubificoides spp. | 136 | | | 91 | 682 |
| Total Abundance w/ Epifauna | 613 | 2113 | 91 | 727 | 1159 |
| Total Abundance w/o Epifauna | 613 | 2090 | 91 | 727 | 1159 |
| Number of Taxa w/ Epifauna | 7 | 10 | 2 | 6 | 8 |
| Number of Taxa w/o Epifauna | 7 | 9 | 2 | 6 | 8 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 24607 | 24608 | 24609 | 24610 | 24611 |
| Carinoma tremaphoros | 0.0159 | 0.0591 | | 0.0045 | 0.0045 |
| Cyathura polita | | 0.0068 | | | |
| Heteromastus filiformis | | 0.2772 | | | 0.0204 |
| Leptocheirus plumulosus | 0.0386 | 0.0772 | | | |
| Macoma balthica | 5.5051 | | 5.1415 | 5.4960 | 0.4612 |
| Macoma mitchelli | 0.1318 | 1.6472 | | 0.0682 | |
| Marenzelleria viridis | | 0.0613 | | | 0.0068 |
| Micrura leidy | | 0.0045 | | | |
| Mulinia lateralis | | 0.1136 | | 0.9633 | |
| Mytilopsis leucophaeata (Epi.) | | 0.0659 | | | |
| Neanthes succinea | 0.3681 | | 0.0386 | 0.1136 | 0.5498 |
| Rangia cuneata | | 0.8066 | | | 0.1818 |
| Streblospio benedicti | 0.0023 | | | | 0.0011 |
| Tubificoides spp. | 0.0023 | | | 0.0023 | 0.0068 |
| Total Biomass w/ Epifauna | 6.0640 | 3.1195 | 5.1802 | 6.6479 | 1.2326 |
| Total Biomass w/o Epifauna | 6.0640 | 3.0536 | 5.1802 | 6.6479 | 1.2326 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24612 | 24613 | 24614 | 24615 | 24616 |
|------------------------------------|----------------|-------------|-------------|----------------|-------------|
| Watershed | Upper Bay | Upper Bay | Upper Bay | Upper Bay | Upper Bay |
| Habitat | Low Mesohaline | Oligohaline | Oligohaline | Low Mesohaline | Oligohaline |
| Date | 08/17/17 | 08/17/17 | 08/22/17 | 09/15/17 | 08/22/17 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 6.0 | 4.2 | 3.4 | 3.6 | 3.6 |
| Salinity (ppt) | 7.54 | 3.85 | 2.37 | 7.11 | 2.29 |
| Temperature (C) | 25.90 | 26.36 | 27.03 | 22.48 | 27.32 |
| Dissolved Oxygen (mg/L) | 4.0 | 5.5 | 6.2 | 6.2 | 7.3 |
| Sediment Silt-Clay (%) | 92.47 | 77.37 | 75.75 | 49.26 | 91.90 |
| Total Carbon (%) | 2.95 | 4.69 | 2.74 | 0.96 | 2.76 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 4.60 | 2.60 | 3.00 | 3.40 | 2.67 |
| Condition | Meets Goal | Degraded | Meets Goal | Meets Goal | Marginal |
| # Attributes Scored | 5 | 5 | 6 | 5 | 6 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 2.78 5 | 2.88 | 2.52 | 2.19 3 | 1.27 |
| Abundance (#/m2) | 1454 3 | 4976 1 | 1068 5 | 1159 3 | 1681 5 |
| Biomass (g/m2) | 6.56 5 | 45.69 | 22.03 | 111.02 1 | 0.63 |
| Pollution Indicative Spp Abund (%) | 0.00 5 | 20.09 | 6.38 | 3.92 5 | 2.70 |
| Pollution Indicative Spp Biom (%) | 0.00 | 0.04 | 0.03 | 0.00 | 0.72 |
| Pollution Sensitive Spp Abund (%) | 42.19 | 10.50 | 29.79 | 86.27 | 12.16 |
| Pollution Sensitive Spp Biom (%) | 84.98 5 | 97.89 | 99.43 | 99.95 5 | 36.89 |
| Carnivore-Omnivore Abund (%) | 21.88 | 10.96 1 | 25.53 3 | 23.53 | 12.16 1 |
| Deep Deposit Feeder Abund (%) | 28.13 | 33.33 | 14.89 | 9.80 | 10.81 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Limnodrilus Abundance (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | 89.04 3 | 63.83 3 | 0.00 | 87.84 3 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | 0.91 3 | 4.26 3 | 0.00 | 2.70 3 |
| Tolerance Score | 6.00 | 6.00 5 | 6.10 3 | 6.02 | 6.20 3 |
| Tany./Chir. Abundance Ratio | 0.00 | 0.00 | 100.00 1 | 100.00 | 100.00 1 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
|---------------------------------------|--------|---------|---------|----------|--------|
| Site | 24612 | 24613 | 24614 | 24615 | 24616 |
| Apocorophium lacustre (Epi.) | | | 114 | | |
| Balanus improvisus (Epi.) | | 636 | | | |
| Carinoma tremaphoros | 114 | 23 | 23 | | |
| Coelotanypus spp. | | | 45 | 45 | 45 |
| Cyathura polita | 159 | 136 | 204 | 227 | 159 |
| Edotea triloba (Epi.) | | | | 23 | |
| Geukensia demissa (Epi.) | | 45 | | 23 | |
| Heteromastus filiformis | 318 | 341 | | 91 | |
| Leptocheirus plumulosus | 136 | 818 | 454 | | 1250 |
| Macoma balthica | 432 | 227 | 23 | 23 | |
| Macoma mitchelli | 136 | | 45 | | |
| Marenzelleria viridis | | 45 | 45 | 295 | 45 |
| Melita nitida (Epi.) | | 45 | | | |
| Mytilopsis leucophaeata (Epi.) | | 45 | 23 | 250 | |
| Neanthes succinea | 45 | 386 | | | |
| Polydora cornuta | | 568 | | | |
| Rangia cuneata | 23 | 114 | 45 | 454 | |
| Rhithropanopeus harrisi (Epi.) | | 45 | | | |
| Streblospio benedicti | | 1000 | 23 | | |
| Tubificoides spp. | 91 | 1318 | 159 | 23 | 182 |
| Total Abundance w/ Epifauna | 1454 | 5794 | 1204 | 1454 | 1681 |
| Total Abundance w/o Epifauna | 1454 | 4976 | 1068 | 1159 | 1681 |
| Number of Taxa w/ Epifauna | 9 | 16 | 12 | 10 | 5 |
| Number of Taxa w/o Epifauna | 9 | 11 | 10 | 7 | 5 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 24612 | 24613 | 24614 | 24615 | 24616 |
| Apocorophium lacustre (Epi.) | | | 0.0182 | | |
| Balanus improvisus (Epi.) | | 1.9312 | | | |
| Carinoma tremaphoros | 0.0250 | 0.0011 | 0.0023 | | |
| Coelotanypus spp. | | | 0.0045 | 0.0023 | 0.0045 |
| Cyathura polita | 0.1704 | 0.1295 | 0.3226 | 0.1159 | 0.1681 |
| Edotea triloba (Epi.) | | | | 0.0023 | |
| Geukensia demissa (Epi.) | | 0.1159 | | 0.0386 | |
| Heteromastus filiformis | 0.3317 | 0.0568 | | 0.0568 | |
| Leptocheirus plumulosus | 0.0318 | 0.0750 | 0.1136 | | 0.3908 |
| Macoma balthica | 5.1802 | 5.8277 | 0.9406 | 0.6407 | |
| Macoma mitchelli | 0.4090 | | 0.0023 | | |
| Marenzelleria viridis | | 0.0636 | 0.0772 | 0.3431 | 0.0636 |
| Melita nitida (Epi.) | | 0.0091 | | | |
| Mytilopsis leucophaeata (Epi.) | | 0.2658 | 0.0023 | 1.0860 | |
| Neanthes succinea | 0.1863 | 0.7748 | | | |
| Polydora cornuta | | 0.0159 | | | |
| Rangia cuneata | 0.2272 | 38.7035 | 20.5661 | 109.8603 | |
| Rhithropanopeus harrisi (Epi.) | | 0.8066 | | | |
| Streblospio benedicti | | 0.0182 | 0.0011 | | |
| Tubificoides spp. | 0.0023 | 0.0227 | 0.0011 | 0.0011 | 0.0011 |
| Total Biomass w/ Epifauna | 6.5638 | 48.8173 | 22.0520 | 112.1471 | 0.6282 |
| Total Biomass w/o Epifauna | 6.5638 | 45.6888 | 22.0316 | 111.0201 | 0.6282 |

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24617 | 24618 | 24619 | 24620 | 24621 |
|------------------------------------|-------------|----------------|----------------|-------------|-------------|
| Watershed | Upper Bay | Upper Bay | Upper Bay | Upper Bay | Upper Bay |
| Habitat | Oligohaline | Low Mesohaline | Low Mesohaline | Oligohaline | Oligohaline |
| Date | 08/17/17 | 09/15/17 | 09/15/17 | 09/15/17 | 09/15/17 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 2.9 | 3.5 | 2.2 | 2.5 | 2.1 |
| Salinity (ppt) | 2.59 | 6.65 | 5.15 | 2.96 | 1.17 |
| Temperature (C) | 26.50 | 22.40 | 22.65 | 22.30 | 22.39 |
| Dissolved Oxygen (mg/L) | 6.5 | 6.5 | 10.2 | 7.1 | 9.0 |
| Sediment Silt-Clay (%) | 39.79 | 28.71 | 3.72 | 22.98 | 24.90 |
| Total Carbon (%) | 1.60 | 1.34 | 0.24 | 0.67 | 1.89 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 2.60 | 2.20 | 3.80 | 2.67 | 3.00 |
| Condition | Degraded | Degraded | Meets Goal | Marginal | Meets Goal |
| # Attributes Scored | 5 | 5 | 5 | 6 | 6 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 2.03 | 0.00 | 2.32 | 1.68 | 2.23 |
| Abundance (#/m2) | 13836 | 273 | 932 | 2636 | 2681 |
| Biomass (g/m2) | 24.70 | 36.25 | 25.78 | 213.11 | 0.34 |
| Pollution Indicative Spp Abund (%) | 22.82 | 0.00 | 4.88 | 2.59 | 83.90 |
| Pollution Indicative Spp Biom (%) | 0.25 | 0.00 | 0.00 | 0.00 | 37.01 |
| Pollution Sensitive Spp Abund (%) | 5.09 | 100.00 | 39.02 | 10.34 | 9.32 |
| Pollution Sensitive Spp Biom (%) | 94.02 | 100.00 | 99.55 | 12.47 | 21.44 |
| Carnivore-Omnivore Abund (%) | 5.09 | 0.00 | 19.51 | 12.07 | 21.19 |
| Deep Deposit Feeder Abund (%) | 53.04 | 0.00 | 7.32 | 4.31 | 74.58 |
| TF Poll. Indicative Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Limnodrilus Abundance (%) | 0.00 | 0.00 | 0.00 | 0.00 | 74.58 |
| Oligo Poll. Indic. Spp Abund (%) | 86.21 | 0.00 | 0.00 | 88.79 | 88.14 |
| Oligo Poll. Sens. Spp Abund (%) | 1.48 | 0.00 | 0.00 | 0.86 | 0.00 |
| Tolerance Score | 6.00 | 6.00 | 6.00 | 6.33 | 9.35 |
| Tany./Chir. Abundance Ratio | 0.00 | 0.00 | 0.00 | 100.00 | 7.14 |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
|---------------------------------------|---------|---------|---------|----------|--------|
| Site | 24617 | 24618 | 24619 | 24620 | 24621 |
| Ameroculodes species complex | | | 23 | | 23 |
| Apocorophium lacustre (Epi.) | 9247 | | 6475 | 295 | |
| Balanus improvisus (Epi.) | 114 | | | | |
| Boccardiella ligerica | 1181 | | | | |
| Carinoma tremaphoros | | | | 23 | |
| Chironomus spp. | | | | | 136 |
| Cladotanytarsus spp. A Epler | | | | | 45 |
| Cladotanytarsus viridiventris | | | | | 45 |
| Coelotanypus spp. | | | | 68 | 23 |
| Corbicula fluminea | | | | 1772 | 91 |
| Cryptochironomus spp. | | | | | 45 |
| Cyathura polita | 295 | | 182 | 204 | 250 |
| Edotea triloba (Epi.) | 23 | | 273 | | |
| Gammarus daiberi (Epi.) | | | | 45 | |
| Gammarus spp. (Epi.) | | | | | 91 |
| Heteromastus filiformis | | | 45 | | |
| Leptocheirus plumulosus | 23 | | 432 | | |
| Limnodrilus hoffmeisteri | | | | | 863 |
| Marenzelleria viridis | 204 | | 91 | 23 | |
| Melita nitida (Epi.) | 23 | | | | |
| Mytilopsis leucophaeata (Epi.) | 3931 | 45 | 659 | | |
| Neanthes succinea | 409 | | | | |
| Paracaprella tenuis (Epi.) | 23 | | | | |
| Polydora cornuta | 1000 | | | 364 | |
| Polypedilum halterale group | | | | | 23 |
| Procladius spp. | | | | 23 | |
| Rangia cuneata | 204 | 273 | 91 | 45 | |
| Rhithropanopeus harrisii (Epi.) | 386 | | | | |
| Streblospio benedicti | 3158 | | 45 | | |
| Stylochus ellipticus (Epi.) | 45 | | | | |
| Tubificidae imm w/o cap chaetae * | | | | | 1136 |
| Tubificoides spp. | 7339 | | 23 | 114 | |
| Unciola spp. | 23 | | | | |
| Total Abundance w/ Epifauna | 27628 | 318 | 8338 | 2976 | 2772 |
| Total Abundance w/o Epifauna | 13836 | 273 | 932 | 2636 | 2681 |
| Number of Taxa w/ Epifauna | 18 | 2 | 11 | 11 | 11 |
| Number of Taxa w/o Epifauna | 10 | 1 | 8 | 9 | 10 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 24617 | 24618 | 24619 | 24620 | 24621 |
| Ameroculodes species complex | | | 0.0023 | | 0.0045 |
| Apocorophium lacustre (Epi.) | 0.5748 | | 0.5884 | 0.0227 | |
| Balanus improvisus (Epi.) | 0.3044 | | | | |
| Boccardiella ligerica | 0.0477 | | | | |
| Carinoma tremaphoros | | | | 0.0091 | |
| Chironomidae | | | | | 0.0011 |
| Coelotanypus spp. | | | | 0.0091 | 0.0023 |
| Corbicula fluminea | | | | 186.4971 | 0.1363 |
| Cyathura polita | 0.1931 | | 0.0591 | 0.0636 | 0.0727 |
| Edotea triloba (Epi.) | 0.0045 | | 0.0136 | | |
| Gammarus daiberi (Epi.) | | | | 0.0091 | |
| Gammarus spp. (Epi.) | | | | | 0.0068 |
| Heteromastus filiformis | | | 0.0045 | | |
| Leptocheirus plumulosus | 0.0045 | | 0.1068 | | |
| Marenzelleria viridis | 0.1977 | | 0.0295 | 0.0136 | |
| Melita nitida (Epi.) | 0.0011 | | | | |
| Mytilopsis leucophaeata (Epi.) | 9.7900 | 0.4930 | 0.7475 | | |
| Neanthes succinea | 1.2337 | | | | |
| Oligochaeta | | | | | 0.1221 |
| Paracaprella tenuis (Epi.) | 0.0023 | | | | |
| Polydora cornuta | 0.0523 | | | 0.0136 | |
| Procladius spp. | | | | 0.0011 | |
| Rangia cuneata | 22.8359 | 36.2520 | 25.5714 | 26.4983 | |
| Rhithropanopeus harrisii (Epi.) | 1.1269 | | | | |
| Streblospio benedicti | 0.0613 | | 0.0011 | | |
| Stylochus ellipticus (Epi.) | 0.0023 | | | | |
| Tubificoides spp. | 0.0750 | | 0.0023 | 0.0011 | |
| Unciola spp. | 0.0023 | | | | |
| Total Biomass w/ Epifauna | 36.5099 | 36.7451 | 27.1265 | 213.1386 | 0.3459 |
| Total Biomass w/o Epifauna | 24.7035 | 36.2520 | 25.7770 | 213.1068 | 0.3391 |

*Indicates taxa is skipped in taxon counts

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| Site | 24622 | 24623 | 24624 | 24625 | 24626 |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|
| Watershed | Upper Bay | Upper Bay | Upper Bay | Upper Bay | Upper Bay |
| Habitat | Freshwater | Freshwater | Freshwater | Freshwater | Oligohaline |
| Date | 08/21/17 | 08/21/17 | 08/21/17 | 08/21/17 | 08/17/17 |
| Gear | Young Grab | Young Grab | Young Grab | Young Grab | Young Grab |
| Sampled Area (sq.m) | 0.044 | 0.044 | 0.044 | 0.044 | 0.044 |
| BOTTOM ENVIRONMENT | | | | | |
| Depth (m) | 2.9 | 2.3 | 3.7 | 2.8 | 3.1 |
| Salinity (ppt) | 0.12 | 0.12 | 0.12 | 0.11 | 2.61 |
| Temperature (C) | 27.42 | 27.31 | 27.20 | 27.51 | 26.01 |
| Dissolved Oxygen (mg/L) | 7.8 | 7.4 | 7.7 | 10.2 | 6.2 |
| Sediment Silt-Clay (%) | 10.65 | 11.23 | 2.06 | 9.06 | 89.13 |
| Total Carbon (%) | 1.19 | 1.25 | 0.14 | 1.04 | 2.22 |
| BENTHIC INDEX OF BIOTIC INTEGRITY | | | | | |
| B-IBI Score | 4.00 | 4.00 | 5.00 | 4.00 | 2.67 |
| Condition | Meets Goal | Meets Goal | Meets Goal | Meets Goal | Marginal |
| # Attributes Scored | 4 | 4 | 4 | 4 | 6 |
| | Value Score | Value Score | Value Score | Value Score | Value Score |
| Shannon-Wiener Index | 2.90 | 1.96 | 2.04 | 2.66 | 1.65 |
| Abundance (#/m2) | 2204 5 | 2431 5 | 2704 5 | 2567 5 | 2726 5 |
| Biomass (g/m2) | 0.57 | 98.27 | 18.81 | 15.17 | 2.16 |
| Pollution Indicative Spp Abund (%) | 52.58 | 57.01 | 25.21 | 61.95 | 5.83 |
| Pollution Indicative Spp Biom (%) | 13.01 | 0.14 | 0.00 | 0.71 | 0.37 |
| Pollution Sensitive Spp Abund (%) | 19.59 | 10.28 | 12.61 | 16.81 | 9.17 |
| Pollution Sensitive Spp Biom (%) | 43.80 | 25.92 | 0.48 | 98.49 | 77.85 |
| Carnivore-Omnivore Abund (%) | 26.80 | 9.35 | 11.76 | 15.93 | 9.17 1 |
| Deep Deposit Feeder Abund (%) | 45.36 5 | 57.01 5 | 26.89 5 | 59.29 5 | 19.17 |
| TF Poll. Indicative Spp Abund (%) | 45.36 3 | 57.01 3 | 8.40 5 | 59.29 3 | 0.00 |
| Limnodrilus Abundance (%) | 45.36 | 57.01 | 8.40 | 59.29 | 0.00 |
| Oligo Poll. Indic. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 90.00 3 |
| Oligo Poll. Sens. Spp Abund (%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.83 3 |
| Tolerance Score | 8.51 3 | 8.63 3 | 5.98 5 | 9.07 3 | 6.15 3 |
| Tany./Chir. Abundance Ratio | 50.00 | 75.00 | 0.00 | 0.00 | 100.00 1 |

Continued . . .

BOTTOM ENVIRONMENT AND BENTHOS, SUMMER 2017 (CRUISE 01:2017/2018) BAY-WIDE RANDOM SITES

| BENTHIC ABUNDANCE (per sq. meter) | | | | | |
|---------------------------------------|--------|---------|---------|---------|--------|
| Site | 24622 | 24623 | 24624 | 24625 | 24626 |
| Apocorophium lacustre (Epi.) | 23 | | | | 23 |
| Chiridotea almyra | | 23 | | | |
| Chironomus spp. | | | | 68 | |
| Coelotanypus spp. | 159 | | | | 68 |
| Corbicula fluminea | 364 | 682 | 1545 | 273 | |
| Cryptochironomus spp. | 91 | 23 | 68 | 45 | |
| Cyathura polita | 182 | 114 | 227 | 68 | 182 |
| Gammarus spp. (Epi.) | 68 | | | 23 | |
| Haber cf. speciosus | | | 454 | | |
| Harnischia spp. | 45 | | | 91 | |
| Leptocheirus plumulosus | | | | | 1772 |
| Limnodrilus hoffmeisteri | 454 | 114 | 45 | 795 | |
| Macoma balthica | | | | | 23 |
| Macoma mitchelli | | | | | 23 |
| Marenzelleria viridis | 250 | 114 | 114 | 341 | 23 |
| Melita nitida (Epi.) | | | | | 91 |
| Piguetiella michiganensis | | | 45 | | |
| Polypedilum halterale group | 68 | | 23 | 91 | |
| Procladius spp. | 45 | 68 | | | |
| Rangia cuneata | | 23 | | 23 | 23 |
| Streblospio benedicti | | | | | 91 |
| Tanytarsus spp. G Epler | | | | 45 | |
| Tubificidae imm w/o cap chaetae * | 545 | 1272 | 182 | 727 | |
| Tubificoides spp. | | | | | 523 |
| Total Abundance w/ Epifauna | 2295 | 2431 | 2704 | 2590 | 2840 |
| Total Abundance w/o Epifauna | 2204 | 2431 | 2704 | 2567 | 2726 |
| Number of Taxa w/ Epifauna | 11 | 8 | 8 | 11 | 11 |
| Number of Taxa w/o Epifauna | 9 | 8 | 8 | 10 | 9 |
| BENTHIC BIOMASS (Grams per sq. meter) | | | | | |
| Site | 24622 | 24623 | 24624 | 24625 | 24626 |
| Apocorophium lacustre (Epi.) | 0.0045 | | | | 0.0023 |
| Chiridotea almyra | | 0.0068 | | | |
| Chironomidae | 0.0011 | 0.0011 | 0.0011 | 0.0182 | |
| Chironomus spp. | | | | 0.0068 | |
| Coelotanypus spp. | 0.0114 | | | | 0.0068 |
| Corbicula fluminea | 0.2454 | 72.6540 | 18.6577 | 0.1022 | |
| Cyathura polita | 0.0727 | 0.0295 | 0.0432 | 0.0159 | 0.2113 |
| Gammarus spp. (Epi.) | 0.0045 | | | 0.0068 | |
| Leptocheirus plumulosus | | | | | 0.2704 |
| Macoma balthica | | | | | 0.7452 |
| Macoma mitchelli | | | | | 0.1954 |
| Marenzelleria viridis | 0.1772 | 0.0568 | 0.0477 | 0.1749 | 0.0750 |
| Melita nitida (Epi.) | | | | | 0.0045 |
| Oligochaeta | 0.0629 | 0.1367 | 0.0613 | 0.1015 | |
| Rangia cuneata | | 25.3805 | | 14.7521 | 0.6498 |
| Streblospio benedicti | | | | | 0.0011 |
| Tubificoides spp. | | | | | 0.0045 |
| Total Biomass w/ Epifauna | 0.5797 | 98.2655 | 18.8110 | 15.1785 | 2.1664 |
| Total Biomass w/o Epifauna | 0.5707 | 98.2655 | 18.8110 | 15.1717 | 2.1595 |

*Indicates taxa is skipped in taxon counts