

**Euclid Creek Upstream of Highland Road
August 21, 2008**

**Collection Distance: 0.2 km
Collection Method: Longline Electroshocking
Drainage Area: 21.4 miles²
River Mile: 2.70**

| <u>Species</u> | <u>Number</u> | <u>Weight (kg)</u> | <u>Pollution Tolerance</u> | <u>#</u> | <u>DELT Anomalies Description</u> |
|--|---------------|--------------------|--------------------------------|----------|---|
| <i>Catostomus commersonii</i> Common white sucker | 105 | 1.100 | Highly Tolerant | 0 | -- |
| <i>Rhinichthys atratulus</i> Western blacknose dace | 295 | 1.018 | Highly Tolerant | 0 | -- |
| <i>Semotilus atromaculatus</i> Creek chub | 211 | 0.921 | Highly Tolerant | 0 | -- |
| <i>Pimephales promelas</i> Northern fathead minnow | 11 | 0.022 | Highly Tolerant | 0 | -- |
| <i>Pimephales notatus</i> Bluntnose minnow | 32 | 0.110 | Highly Tolerant | 0 | -- |
| <i>Campostoma anomalum</i> Central stoneroller minnow | 720 | 4.740 | -- | 0 | -- |
| <i>Lepomis gibbosus</i> Pumpkinseed sunfish | 1 | 0.006 | Moderately Tolerant | 0 | -- |
| Totals | <u>1375</u> | <u>7.917</u> | | <u>0</u> | |

*DELT anomalies were observed on 0.00 % of the fish collected.
 Index of Biotic Integrity (IBI) = 28 (Fair)
 Modified Index of Well-Being (MIwb) 6.9 (Fair)
 Shannon Diversity Index, wt. 1.284
 Shannon Diversity Index, no. 1.177
 N 1082
 B 7.119

**Euclid Creek Upstream of Highland Road
October 10, 2008**

**Collection Distance: 0.2 km
Collection Method: Longline Electroshocking
Drainage Area: 21 miles²
River Mile: 2.70**

| <u>Species</u> | <u>Number</u> | <u>Weight (kg)</u> | <u>Pollution Tolerance</u> | <u>#</u> | <u>DELT Anomalies Description</u> |
|--|---------------|--------------------|--------------------------------|----------|---|
| <i>Catostomus commersonii</i> Common white sucker | 22 | 0.154 | Highly Tolerant | 0 | -- |
| <i>Rhinichthys atratulus</i> Western blacknose dace | 241 | 0.780 | Highly Tolerant | 0 | -- |
| <i>Semotilus atromaculatus</i> Creek chub | 355 | 1.106 | Highly Tolerant | 0 | -- |
| <i>Pimephales promelas</i> Northern fathead minnow | 19 | 0.055 | Highly Tolerant | 0 | -- |
| <i>Pimephales notatus</i> Bluntnose minnow | 26 | 0.110 | Highly Tolerant | 1 | Deformed body |
| <i>Campostoma anomalum</i> Central stoneroller minnow | 341 | 2.120 | -- | 0 | -- |
| <i>Lepomis cyanellus</i> Green sunfish | 1 | 0.004 | Highly Tolerant | 0 | -- |
| Totals | <u>1005</u> | <u>4.329</u> | | <u>1</u> | |

*DELT anomalies were observed on 0.10 % of the fish collected.
 Index of Biotic Integrity (IBI) = 24 (Poor)
 Modified Index of Well-Being (MIwb) 6.3 (Fair)
 Shannon Diversity Index, wt. 1.337
 Shannon Diversity Index, no. 1.281
 N 511.5
 B 3.18

**Euclid Creek Upstream of St. Clair Avenue
August 13, 2008**

**Collection Distance: 0.2 km
Collection Method: Longline Electroshocking
Drainage Area: 21 miles²
River Mile: 1.65**

| <u>Species</u> | <u>Number</u> | <u>Weight (kg)</u> | <u>Pollution Tolerance</u> | <u>#</u> | <u>DELT Anomalies Description</u> |
|--|---------------|--------------------|--------------------------------|----------|---|
| <i>Catostomus commersonii</i> Common white sucker | 178 | 5.122 | Highly Tolerant | 0 | -- |
| <i>Rhinichthys atratulus</i> Western blacknose dace | 224 | 0.841 | Highly Tolerant | 0 | -- |
| <i>Semotilus atromaculatus</i> Creek chub | 255 | 2.706 | Highly Tolerant | 2 | Lesions |
| <i>Pimephales promelas</i> Northern fathead minnow | 5 | 0.010 | Highly Tolerant | 0 | -- |
| <i>Pimephales notatus</i> Bluntnose minnow | 7 | 0.035 | Highly Tolerant | 0 | -- |
| <i>Campostoma anomalum</i> Central stoneroller minnow | 304 | 3.150 | -- | 0 | -- |
| <i>HYBRID</i> Bluegill X Pumpkinseed | 1 | 0.020 | -- | 0 | |
| Totals | <u>974</u> | <u>11.884</u> | | <u>2</u> | |

*DELT anomalies were observed on 0.21 % of the fish collected.
 Index of Biotic Integrity (IBI) = 22 (Poor)
 Modified Index of Well-Being (MIwb) 6.5 (Fair)
 Shannon Diversity Index, wt. 1.433
 Shannon Diversity Index, no. 1.273
 N 456
 B 4.725

**Euclid Creek Upstream of St. Clair Avenue
September 19, 2008**

**Collection Distance: 0.2 km
Collection Method: Longline Electroshocking
Drainage Area: 21.4 miles²
River Mile: 1.65**

| <u>Species</u> | <u>Number</u> | <u>Weight (kg)</u> | <u>Pollution Tolerance</u> | <u>#</u> | <u>DELT Anomalies Description</u> |
|--|-------------------|---------------------|----------------------------|-----------------|-----------------------------------|
| <i>Catostomus commersonii</i> Common white sucker | 83 | 2.009 | Highly Tolerant | 0 | -- |
| <i>Rhinichthys atratulus</i> Western blacknose dace | 288 | 1.099 | Highly Tolerant | 1 | Deformed mouth |
| <i>Semotilus atromaculatus</i> Creek chub | 220 | 1.520 | Highly Tolerant | 0 | -- |
| <i>Pimephales promelas</i> Northern fathead minnow | 6 | 0.016 | Highly Tolerant | 0 | -- |
| <i>Pimephales notatus</i> Bluntnose minnow | 1 | 0.004 | Highly Tolerant | 0 | -- |
| <i>Campostoma anomalum</i> Central stoneroller minnow | 176 | 1.311 | -- | 1 | Lesion |
| Totals | <u><u>774</u></u> | <u><u>5.959</u></u> | | <u><u>2</u></u> | |

*DELT anomalies were observed on 0.26 % of the fish collected.
 Index of Biotic Integrity (IBI) = 24 (Poor)
 Modified Index of Well-Being (MIwb) 5.9 (Poor)
 Shannon Diversity Index, wt. 1.348
 Shannon Diversity Index, no. 1.381
 N 264
 B 1.967

**Euclid Creek Downstream of Lake Shore Boulevard
July 18, 2008**

**Collection Distance: 0.2 km
Collection Method: Longline Electroshocking
Drainage Area: 23 miles²
River Mile: 0.55**

| <u>Species</u> | <u>Number</u> | <u>Weight (kg)</u> | <u>Pollution Tolerance</u> | <u>#</u> | <u>DELT Anomalies Description</u> |
|---|---------------|--------------------|----------------------------|----------|-----------------------------------|
| <i>Oncorhynchus mykiss</i> Rainbow trout | 2 | 1.936 | -- | 0 | -- |
| <i>Carpoides cyprinus</i> Central quillback carpsucker | 1 | 0.002 | -- | 0 | -- |
| <i>Catostomus commersonii</i> Common white sucker | 188 | 4.258 | Highly Tolerant | 1 | Lesion |
| <i>Rhinichthys atratulus</i> Western blacknose dace | 7 | 0.020 | Highly Tolerant | 0 | -- |
| <i>Semotilus atromaculatus</i> Creek chub | 276 | 2.662 | Highly Tolerant | 3 | Lesions |
| <i>Notropis atherinoides</i> Common Emerald shiner | 2 | 0.004 | -- | 0 | -- |
| <i>Notropis stramineus</i> Sand shiner | 5 | 0.007 | Moderately Intolerant | 0 | -- |
| <i>Notropis volucellus</i> Mimic Shiner | 42 | 0.063 | Common Intolerant | 0 | |
| <i>Pimephales promelas</i> Northern fathead minnow | 31 | 0.072 | Highly Tolerant | 0 | -- |
| <i>Pimephales notatus</i> Bluntnose minnow | 40 | 0.162 | Highly Tolerant | 0 | -- |
| <i>Campostoma anomalum</i> Central stoneroller minnow | 103 | 0.902 | -- | 0 | -- |
| <i>Ictalurus natalis</i> Yellow bullhead | 2 | 0.026 | Highly Tolerant | 0 | -- |
| <i>Ictalurus nebulosus</i> Brown bullhead | 3 | 0.140 | Highly Tolerant | 0 | -- |
| <i>Ambloplites rupestris</i> Northern rockbass | 7 | 0.168 | -- | 0 | -- |
| <i>Micropterus salmoides</i> Largemouth bass | 6 | 0.032 | -- | 0 | -- |

**Euclid Creek Downstream of Lake Shore Boulevard
July 18, 2008**

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|---|------------|---------------|------------------------|----------|----|
| <i>Lepomis cyanellus</i> Green sunfish | 5 | 0.086 | Highly Tolerant | 0 | -- |
| <i>Lepomis macrochirus</i> Northern bluegill sunfish | 4 | 0.074 | Moderately Tolerant | 0 | -- |
| <i>Lepomis gibbosus</i> Pumpkinseed sunfish | 85 | 1.150 | Moderately Tolerant | 0 | -- |
| <i>HYBRID</i> Bluegill X Pumpkinseed | 19 | 0.250 | -- | 0 | |
| <i>HYBRID</i> Green SF X Pumpkinseed | 1 | 0.015 | -- | 0 | |
| <i>Neogobius melanostomus</i> Round goby | 39 | 0.090 | -- | 0 | -- |
| Totals | <u>868</u> | <u>12.119</u> | | <u>4</u> | |

*DELT anomalies were observed on 0.46 % of the fish collected.
 Index of Biotic Integrity (IBI) = 30 (Fair)
 Modified Index of Well-Being (MIwb) 7.6 (Marginally Good)
 Shannon Diversity Index, wt. 2.08
 Shannon Diversity Index, no. 1.875
 N 382.5
 B 3.603

**Euclid Creek Downstream of Lake Shore Boulevard
October 9, 2008**

**Collection Distance: 0.2 km
Collection Method: Longline Electroshocking
Drainage Area: 23 miles²
River Mile: 0.55**

| <u>Species</u> | <u>Number</u> | <u>Weight (kg)</u> | <u>Pollution Tolerance</u> | <u>#</u> | <u>DELT Anomalies Description</u> |
|--|---------------|--------------------|----------------------------|----------|-----------------------------------|
| <i>Oncorhynchus mykiss</i> Rainbow trout | 8 | 16.175 | -- | 0 | -- |
| <i>Moxostoma erythrurum</i> Golden rehorse | 1 | 0.080 | Moderately Intolerant | 0 | -- |
| <i>Catostomus commersonii</i> Common white sucker | 154 | 4.300 | Highly Tolerant | 1 | Deformity |
| <i>Cyprinus carpio</i> Common carp | 1 | 0.025 | Highly Tolerant | 0 | -- |
| <i>Notemigonus crysoleucas</i> Golden shiner | 9 | 0.038 | Highly Tolerant | 0 | -- |
| <i>Semotilus atromaculatus</i> Creek chub | 205 | 2.690 | Highly Tolerant | 2 | Deformity & tumor |
| <i>Notropis atherinoides</i> Common Emerald shiner | 22 | 0.052 | -- | 0 | -- |
| <i>Notropis stramineus</i> Sand shiner | 30 | 0.054 | Moderately Intolerant | 0 | -- |
| <i>Notropis volucellus</i> Mimic Shiner | 6 | 0.018 | Common Intolerant | 0 | |
| <i>Pimephales promelas</i> Northern fathead minnow | 17 | 0.060 | Highly Tolerant | 0 | -- |
| <i>Pimephales notatus</i> Bluntnose minnow | 103 | 0.416 | Highly Tolerant | 0 | -- |
| <i>Campostoma anomalum</i> Central stoneroller minnow | 106 | 0.915 | -- | 0 | -- |
| <i>Ictalurus natalis</i> Yellow bullhead | 4 | 0.048 | Highly Tolerant | 0 | -- |
| <i>Ictalurus nebulosus</i> Brown bullhead | 4 | 0.190 | Highly Tolerant | 0 | -- |
| <i>Labidesthes sicculus</i> Brook silverside | 2 | 0.005 | Moderately Intolerant | 0 | -- |

**Euclid Creek Downstream of Lake Shore Boulevard
October 9, 2008**

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|---|------------|---------------|------------------------|----------|----|
| <i>Micropterus salmoides</i> Largemouth bass | 9 | 0.134 | -- | 0 | -- |
| <i>Lepomis cyanellus</i> Green sunfish | 2 | 0.010 | Highly Tolerant | 0 | -- |
| <i>Lepomis macrochirus</i> Northern bluegill sunfish | 8 | 0.038 | Moderately Tolerant | 0 | -- |
| <i>Lepomis gibbosus</i> Pumpkinseed sunfish | 76 | 0.950 | Moderately Tolerant | 0 | -- |
| <i>HYBRID</i> Green SF X Pumpkinseed | 2 | 0.052 | -- | 0 | -- |
| <i>Neogobius melanostomus</i> Round goby | 19 | 0.090 | -- | 0 | -- |
| Totals | <u>788</u> | <u>26.340</u> | | <u>3</u> | |

*DELT anomalies were observed on 0.38 % of the fish collected.
 Index of Biotic Integrity (IBI) = 26 (Poor)
 Modified Index of Well-Being (MIwb) 7.1 (Fair)
 Shannon Diversity Index, wt. 2.176
 Shannon Diversity Index, no. 1.328
 N 390
 B 3.369