

Rocky River Upstream of Mastick Road
July 1, 2011
River Mile: 8.30
Collection Method: Longline Electroshocking
Drainage Area: 282.0 miles²
Collection Distance: 0.2 km

<u>Species</u>	<u>Number</u>	<u>Weight (kg)</u>	<u>Pollution Tolerance</u>	<u>#</u>	<u>DELT Anomalies Description</u>
<i>Hypentelium nigricans</i> Northern hog sucker	17	1.650	Moderately Intolerant	1	Eroded fin
<i>Carassius auratus</i> Goldfish	1	0.002	Highly Tolerant	0	--
<i>Notropis rubellus</i> Rosyface Shiner	1	0.006	Intolerant	0	--
<i>Notropis chrysocephalus</i> Striped shiner	15	0.246	--	0	--
<i>Cyprinella spiloptera</i> Spotfin shiner	91	0.434	--	0	--
<i>Notropis stramineus</i> Sand shiner	68	0.177	Moderately Intolerant	0	--
<i>Pimephales notatus</i> Bluntnose minnow	11	0.045	Highly Tolerant	0	--
<i>Campostoma anomalum</i> Central stoneroller minnow	39	0.460	--	0	--
<i>Noturus flavus</i> Stonecat Madtom	3	0.120	Intolerant	0	--
<i>Ambloplites rupestris</i> Northern rockbass	3	0.238	--	0	--
<i>Micropterus dolomieu</i> Smallmouth bass	2	0.131	Moderately Intolerant	0	--
<i>Micropterus salmoides</i> Largemouth bass	1	0.004	--	0	--
<i>Lepomis macrochirus</i> Northern bluegill sunfish	9	0.050	Moderately Tolerant	0	--
<i>Etheostoma blenniodes</i> Greenside darter	34	0.148	Moderately Intolerant	0	--
<i>Etheostoma nigrum</i> Johnny darter	1	0.002	--	0	--

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<i>Neogobius melanostomus</i> Round goby	2	0.040	--	0	--
Totals	<u>298</u>	<u>3.753</u>		<u>1</u>	

*DELT anomalies were observed on 0.34 % of the fish collected.
Index of Biotic Integrity (IBI) = 38 (Good)
Modified Index of Well-Being (MIwb) 7.8 (Marginally Good)
Shannon Diversity Index, no. 1.991
Shannon Diversity Index, wt. 1.905
N 426
B 5.499

Rocky River Upstream of Mastick Road
September 2, 2011
River Mile: 8.30
Collection Method: Longline Electroshocking
Drainage Area: 282.0 miles²
Collection Distance: 0.2 km

<u>Species</u>	<u>Number</u>	<u>Weight (kg)</u>	<u>Pollution Tolerance</u>	<u>#</u>	<u>DELT Anomalies Description</u>
<i>Hypentelium nigricans</i> Northern hog sucker	4	0.870	Moderately Intolerant	0	--
<i>Catostomus commersonii</i> Common white sucker	1	0.110	Highly Tolerant	0	--
<i>Notropis rubellus</i> Rosyface Shiner	2	0.004	Intolerant	0	--
<i>Notropis chrysocephalus</i> Striped shiner	39	0.213	--	0	--
<i>Cyprinella spiloptera</i> Spotfin shiner	31	0.160	--	0	--
<i>Notropis stramineus</i> Sand shiner	24	0.050	Moderately Intolerant	0	--
<i>Pimephales notatus</i> Bluntnose minnow	3	0.006	Highly Tolerant	0	--
<i>Campostoma anomalum</i> Central stoneroller minnow	23	0.258	--	0	--
<i>Ictalurus natalis</i> Yellow bullhead	2	0.030	Highly Tolerant	0	--
<i>Noturus flavus</i> Stonecat Madtom	11	0.180	Intolerant	0	--
<i>Ambloplites rupestris</i> Northern rockbass	5	0.192	--	0	--
<i>Micropterus dolomieu</i> Smallmouth bass	87	1.102	Moderately Intolerant	0	--
<i>Lepomis cyanellus</i> Green sunfish	3	0.018	Highly Tolerant	0	--
<i>Lepomis macrochirus</i> Northern bluegill sunfish	10	0.019	Moderately Tolerant	0	--
<i>Etheostoma blenniodes</i> Greenside darter	56	0.224	Moderately Intolerant	0	--

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<i>Etheostoma maculata</i> Blackside darter	1	0.009	--	0	--
<i>Neogobius melanostomus</i> Round goby	2	0.012	--	0	--
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Totals	<u>304</u>	<u>3.457</u>		<u>0</u>	

*DELT anomalies were observed on 0.00 % of the fish collected.
Index of Biotic Integrity (IBI) = 40 (Good)
Modified Index of Well-Being (MIwb) 8.0 (Good)
Shannon Diversity Index, no. 2.147
Shannon Diversity Index, wt. 2.033
N 439.5
B 4.922

Rocky River Near Tyler Road
July 1, 2011
River Mile: 4.80
Collection Method: Longline Electroshocking
Drainage Area: 290.0 miles²
Collection Distance: 0.2 km

<u>Species</u>	<u>Number</u>	<u>Weight (kg)</u>	<u>Pollution Tolerance</u>	<u>#</u>	<u>DELT Anomalies Description</u>
<i>Moxostoma macrolepidotum</i> Shorthead redhorse	1	0.256	Moderately Intolerant	0	--
<i>Hypentelium nigricans</i> Northern hog sucker	37	6.950	Moderately Intolerant	0	--
<i>Catostomus commersonii</i> Common white sucker	5	0.073	Highly Tolerant	0	--
<i>Semotilus atromaculatus</i> Creek chub	10	0.032	Highly Tolerant	0	--
<i>Notropis rubellus</i> Rosyface Shiner	2	0.008	Intolerant	0	
<i>Notropis chrysocephalus</i> Striped shiner	9	0.138	--	0	--
<i>Cyprinella spiloptera</i> Spotfin shiner	212	0.630	--	0	--
<i>Notropis stramineus</i> Sand shiner	77	0.141	Moderately Intolerant	0	--
<i>Pimephales notatus</i> Bluntnose minnow	34	0.117	Highly Tolerant	0	--
<i>Campostoma anomalum</i> Central stoneroller minnow	29	0.290	--	0	--
<i>Noturus flavus</i> Stonecat Madtom	12	0.177	Intolerant	0	
<i>Micropterus dolomieu</i> Smallmouth bass	2	0.120	Moderately Intolerant	0	--
<i>Micropterus salmoides</i> Largemouth bass	1	0.001	--	0	--
<i>Lepomis macrochirus</i> Northern bluegill sunfish	18	0.330	Moderately Tolerant	0	--
<i>Lepomis gibbosus</i> Pumpkinseed sunfish	1	0.012	Moderately Tolerant	0	--

Rocky River Near Tyler Road

July 1, 2011

River Mile: 4.80

<i>Etheostoma blenniodes</i> Greenside darter	19	0.094	Moderately Intolerant	0	--
<i>Neogobius melanostomus</i> Round goby	7	0.049	--	1	Lesions
<i>Umbra limi</i> Central Mudminnow	1	0.001	Tolerant	0	
Totals	<u>477</u>	<u>9.419</u>		<u>1</u>	

*DELT anomalies were observed on 0.21 % of the fish collected.
 Index of Biotic Integrity (IBI) = 36 (Marginally Good)
 Modified Index of Well-Being (MIwb) 7.6 (Marginally Good)
 Shannon Diversity Index, no. 1.92
 Shannon Diversity Index, wt. 1.184
 N 630
 B 13.72

Rocky River Near Tyler Road
September 2, 2011
River Mile: 4.80
Collection Method: Longline Electroshocking
Drainage Area: 290.0 miles²
Collection Distance: 0.2 km

<u>Species</u>	<u>Number</u>	<u>Weight (kg)</u>	<u>Pollution Tolerance</u>	<u>#</u>	<u>DELT Anomalies Description</u>
<i>Moxostoma erythrurum</i> Golden redhorse	1	0.234	Moderately Intolerant	0	--
<i>Hypentelium nigricans</i> Northern hog sucker	88	13.405	Moderately Intolerant	1	Eroded tail
<i>Semotilus atromaculatus</i> Creek chub	1	0.003	Highly Tolerant	0	--
<i>Notropis rubellus</i> Rosyface Shiner	4	0.010	Intolerant	0	
<i>Notropis chrysocephalus</i> Striped shiner	79	0.420	--	0	--
<i>Cyprinella spiloptera</i> Spotfin shiner	120	0.432	--	0	--
<i>Notropis stramineus</i> Sand shiner	128	0.269	Moderately Intolerant	0	--
<i>Ericymba buccata</i> Silverjaw minnow	13	0.039	--	0	--
<i>Pimephales notatus</i> Bluntnose minnow	41	0.144	Highly Tolerant	0	--
<i>Campostoma anomalum</i> Central stoneroller minnow	84	0.550	--	0	--
<i>Ictalurus punctatus</i> Channel catfish	1	0.012	--	0	--
<i>Noturus flavus</i> Stonecat Madtom	9	0.182	Intolerant	0	
<i>Micropterus dolomieu</i> Smallmouth bass	78	1.035	Moderately Intolerant	0	--
<i>Lepomis cyanellus</i> Green sunfish	2	0.011	Highly Tolerant	0	--
<i>Lepomis macrochirus</i> Northern bluegill sunfish	15	0.192	Moderately Tolerant	0	--

Rocky River Near Tyler Road

September 2, 2011

River Mile: 4.80

<i>Percina caprodes</i> Northern logperch darter	1	0.012	Moderately Intolerant	0	--
<i>Etheostoma blenniodes</i> Greenside darter	26	0.190	Moderately Intolerant	0	--
<i>Etheostoma caeruleum</i> Rainbow darter	1	0.005	Moderately Intolerant	0	--
<i>Aplodinotus grunniens</i> Freshwater drum	1	0.770	Moderately Tolerant	0	--
<i>Neogobius melanostomus</i> Round goby	13	0.062	--	0	--
Totals	<u><u>706</u></u>	<u><u>17.977</u></u>		<u><u>1</u></u>	

*DELT anomalies were observed on 0.14 % of the fish collected.
 Index of Biotic Integrity (IBI) = 44 (Good)
 Modified Index of Well-Being (MIwb) 8.5 (Good)
 Shannon Diversity Index, no. 2.285
 Shannon Diversity Index, wt. 1.158
 N 973.5
 B 26.64

Rocky River Upstream of Hilliard Boulevard
July 1, 2011
River Mile: 2.50
Collection Method: Longline Electroshocking
Drainage Area: 292.0 miles²
Collection Distance: 0.2 km

<u>Species</u>	<u>Number</u>	<u>Weight (kg)</u>	<u>Pollution Tolerance</u>	<u>#</u>	<u>DELT Anomalies Description</u>
<i>Lepisosteus osseus</i> Longnose Gar	3	0.027	--	0	
<i>Moxostoma macrolepidotum</i> Shorthead redhorse	1	0.160	Moderately Intolerant	0	--
<i>Hypentelium nigricans</i> Northern hog sucker	84	11.340	Moderately Intolerant	0	--
<i>Catostomus commersonii</i> Common white sucker	26	0.712	Highly Tolerant	0	--
<i>Carassius auratus</i> Goldfish	1	0.002	Highly Tolerant	0	--
<i>Semotilus atromaculatus</i> Creek chub	2	0.003	Highly Tolerant	0	--
<i>Notropis atherinoides</i> Common Emerald shiner	37	0.063	--	0	--
<i>Notropis chrysocephalus</i> Striped shiner	60	1.300	--	0	--
<i>Cyprinella spiloptera</i> Spotfin shiner	158	0.558	--	0	--
<i>Notropis stramineus</i> Sand shiner	24	0.072	Moderately Intolerant	0	--
<i>Pimephales notatus</i> Bluntnose minnow	52	0.180	Highly Tolerant	0	--
<i>Campostoma anomalum</i> Central stoneroller minnow	16	0.026	--	0	--
<i>Ictalurus punctatus</i> Channel catfish	1	0.360	--	0	--
<i>Ictalurus natalis</i> Yellow bullhead	1	0.059	Highly Tolerant	0	--
<i>Noturus flavus</i> Stonecat Madtom	3	0.147	Intolerant	0	

Rocky River Upstream of Hilliard Boulevard

July 1, 2011

River Mile: 2.50

<i>Ambloplites rupestris</i> Northern rockbass	9	0.750	--	0	--
<i>Micropterus dolomieu</i> Smallmouth bass	5	0.787	Moderately Intolerant	0	--
<i>Micropterus salmoides</i> Largemouth bass	2	0.008	--	0	--
<i>Lepomis cyanellus</i> Green sunfish	1	0.018	Highly Tolerant	0	--
<i>Lepomis macrochirus</i> Northern bluegill sunfish	79	0.560	Moderately Tolerant	0	--
<i>Lepomis gibbosus</i> Pumpkinseed sunfish	2	0.065	Moderately Tolerant	0	--
<i>Percina caprodes</i> Northern logperch darter	2	0.050	Moderately Intolerant	0	--
<i>Etheostoma blenniodes</i> Greenside darter	11	0.055	Moderately Intolerant	0	--
<i>Neogobius melanostomus</i> Round goby	6	0.068	--	0	--
Totals	<u>583</u>	<u>17.343</u>		<u>0</u>	

*DELT anomalies were observed on 0.00 % of the fish collected.

Index of Biotic Integrity (IBI) = 44 (Good)

Modified Index of Well-Being (MIwb) 8.7 (Good)

Shannon Diversity Index, no. 2.284

Shannon Diversity Index, wt. 1.475

N 741

B 24.45

Rocky River Upstream of Hilliard Boulevard
September 1, 2011
River Mile: 2.50
Collection Method: Longline Electroshocking
Drainage Area: 292.0 miles²
Collection Distance: 0.2 km

<u>Species</u>	<u>Number</u>	<u>Weight (kg)</u>	<u>Pollution Tolerance</u>	<u>#</u>	<u>DELT Anomalies Description</u>
<i>Dorosoma cepedianum</i> Eastern gizzard shad	1	0.128	--	0	--
<i>Carpiodes cyprinus</i> Central quillback carpsucker	1	0.010	--	0	--
<i>Hypentelium nigricans</i> Northern hog sucker	21	3.318	Moderately Intolerant	0	--
<i>Catostomus commersonii</i> Common white sucker	11	0.891	Highly Tolerant	0	--
<i>Semotilus atromaculatus</i> Creek chub	1	0.004	Highly Tolerant	0	--
<i>Notropis chrysocephalus</i> Striped shiner	26	0.242	--	0	--
<i>Cyprinella spiloptera</i> Spotfin shiner	52	0.220	--	0	--
<i>Notropis stramineus</i> Sand shiner	12	0.034	Moderately Intolerant	0	--
<i>Notropis volucellus</i> Mimic Shiner	10	0.047	Common Intolerant	0	--
<i>Ericymba buccata</i> Silverjaw minnow	2	0.006	--	0	--
<i>Pimephales notatus</i> Bluntnose minnow	9	0.070	Highly Tolerant	0	--
<i>Campostoma anomalum</i> Central stoneroller minnow	34	0.360	--	0	--
<i>Ictalurus natalis</i> Yellow bullhead	6	0.042	Highly Tolerant	0	--
<i>Noturus flavus</i> Stonecat Madtom	12	0.100	Intolerant	0	--
<i>Ambloplites rupestris</i> Northern rockbass	6	0.802	--	1	Eroded mouth

Rocky River Upstream of Hilliard Boulevard
September 1, 2011
River Mile: 2.50

<i>Micropterus dolomieu</i> Smallmouth bass	49	0.979	Moderately Intolerant	0	--
<i>Lepomis cyanellus</i> Green sunfish	2	0.030	Highly Tolerant	0	--
<i>Lepomis macrochirus</i> Northern bluegill sunfish	20	0.202	Moderately Tolerant	0	--
<i>Etheostoma blenniodes</i> Greenside darter	8	0.033	Moderately Intolerant	0	--
<i>Etheostoma caeruleum</i> Rainbow darter	1	0.002	Moderately Intolerant	0	--
<i>Neogobius melanostomus</i> Round goby	9	0.074	--	0	--
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Totals	<u>293</u>	<u>7.594</u>		<u>1</u>	

*DELT anomalies were observed on 0.34 % of the fish collected.
 Index of Biotic Integrity (IBI) = 42 (Good)
 Modified Index of Well-Being (MIwb) 8.6 (Good)
 Shannon Diversity Index, no. 2.56
 Shannon Diversity Index, wt. 1.933
 N 382.5
 B 9.725