



Cuyahoga River Upstream of Rockside Road
7/3/2024
River Mile: 13.15
Collection Method: Boat Electrofishing
Drainage Area: 703 square miles
0.50 km
IBI Type: Boat

Code	Species	No.	Weight (kg)	Pollution Tolerance	#	DELT Anomalies Description
20-003	<i>Dorosoma cepedianum</i> Eastern gizzard shad	10	0.3710	--	0	--
37-003	<i>Esox lucius</i> Northern pike	1	1.50	--	0	--
40-008	<i>Moxostoma anisurum</i> Silver redhorse	1	0.29	Moderately Intolerant	0	--
40-010	<i>Moxostoma erythrurum</i> Golden redhorse	9	0.40	Moderately Intolerant	0	--
40-011	<i>Moxostoma macrolepidotum</i> Shorthead redhorse	2	0.71	Moderately Intolerant	0	--
40-015	<i>Hypentelium nigricans</i> Northern hog sucker	14	0.68	Moderately Intolerant	0	--
40-016	<i>Catostomus commersonii</i> Common white sucker	86	0.6550	Tolerant	0	--
43-013	<i>Semotilus atromaculatus</i> Creek chub	1	0.0030	Tolerant	0	--
43-022	<i>Notropis rubellus</i> Rosyface shiner	1	0.0040	Intolerant	0	--
43-026	<i>Notropis cornutus</i> Common shiner	32	0.26	--	0	--
43-032	<i>Cyprinella spiloptera</i> Spotfin shiner	96	0.4480	--	0	--
43-034	<i>Notropis stramineus</i> Sand shiner	144	0.35	Moderately Intolerant	0	--
43-039	<i>Ericymba buccata</i> Silverjaw minnow	1	0.0020	--	0	--
43-043	<i>Pimephales notatus</i> Bluntnose minnow	2	0.0080	Tolerant	0	--
43-044	<i>Campostoma anomalum</i> Central stoneroller minnow	35	0.0850	--	0	--
47-002	<i>Ictalurus punctatus</i> Channel catfish	5	6.6020	--	2	Lesions
47-007	<i>Pylodictis olivaris</i> Flathead catfish	6	12.3270	--	0	--



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74-001	<i>Morone chrysops</i> White bass	3	0.14	--	0	--
77-003	<i>Ambloplites rupestris</i> Northern rockbass	1	0.0040	--	0	--
77-004	<i>Micropterus dolomieu</i> Smallmouth bass	29	2.95	Moderately Intolerant	0	--
77-008	<i>Lepomis cyanellus</i> Green sunfish	5	0.10	Tolerant	0	--
77-009	<i>Lepomis macrochirus</i> Bluegill sunfish	8	0.36	Moderately Tolerant	0	--
77-013	<i>Lepomis gibbosus</i> Pumpkinseed sunfish	1	0.06	Moderately Tolerant	0	--
77-999	<i>HYBRID</i> HYBRID X Sunfish	1	0.0480	--	0	--
80-011	<i>Percina caprodes</i> Northern logperch darter	6	0.0530	Moderately Intolerant	0	--
80-015	<i>Etheostoma blenniodes</i> Greenside darter	10	0.0320	Moderately Intolerant	0	--
85-001	<i>Aplodinotus grunniens</i> Freshwater drum	2	1.52	Moderately Tolerant	0	--
87-001	<i>Neogobius melanostomus</i> Round goby	3	0.0220	--	0	--
Totals		515	29.9840		2	

*DELT anomalies were observed on = 0.3 % of the fish collected
 Index of Biotic Integrity (IBI) = 42 (Good)
 Modified Index of Well-Being (MIwb) = 9.6 (Exceptional)
 Shannon Diversity Index, no. 2.29
 Shannon Diversity Index, wt. 1.97
 N = 834
 B = 58.30



Cuyahoga River Upstream of Rockside Road
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River Mile: 13.15
Collection Method: Boat Electrofishing
Drainage Area: 703 square miles
0.50 km
IBI Type: Boat

Code	Species	No.	Weight (kg)	Pollution Tolerance	#	DELT Anomalies Description
20-003	<i>Dorosoma cepedianum</i> Eastern gizzard shad	1	0.1220	--	0	--
40-010	<i>Moxostoma erythrurum</i> Golden redhorse	7	0.2450	Moderately Intolerant	0	--
40-011	<i>Moxostoma macrolepidotum</i> Shorthead redhorse	2	0.2250	Moderately Intolerant	0	--
40-015	<i>Hypentelium nigricans</i> Northern hog sucker	12	2	Moderately Intolerant	0	--
40-016	<i>Catostomus commersonii</i> Common white sucker	7	0.3450	Tolerant	0	--
43-011	<i>Rhinichthys atratulus</i> Blacknose dace	1	0.0020	Tolerant	0	--
43-013	<i>Semotilus atromaculatus</i> Creek chub	1	0.01	Tolerant	0	--
43-022	<i>Notropis rubellus</i> Rosyface shiner	14	0.0220	Intolerant	0	--
43-026	<i>Notropis cornutus</i> Common shiner	86	0.57	--	0	--
43-032	<i>Cyprinella spiloptera</i> Spotfin shiner	79	0.2430	--	0	--
43-034	<i>Notropis stramineus</i> Sand shiner	177	0.3250	Moderately Intolerant	0	--
43-039	<i>Ericymba buccata</i> Silverjaw minnow	12	0.02	--	0	--
43-042	<i>Pimephales promelas</i> Northern fathead minnow	1	0.0030	Tolerant	0	--
43-043	<i>Pimephales notatus</i> Bluntnose minnow	4	0.0120	Tolerant	0	--
43-044	<i>Campostoma anomalum</i> Central stoneroller minnow	62	0.4350	--	0	--
47-002	<i>Ictalurus punctatus</i> Channel catfish	2	2.5380	--	0	--
47-007	<i>Pylodictis olivaris</i> Flathead catfish	1	0.4190	--	0	--



Cuyahoga River Upstream of Rockside Road
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0.50 km
IBI Type: Boat

77-003	<i>Ambloplites rupestris</i> Northern rockbass	1	0.08	--	0	--
77-004	<i>Micropterus dolomieu</i> Smallmouth bass	18	2.14	Moderately Intolerant	0	--
77-008	<i>Lepomis cyanellus</i> Green sunfish	1	0.02	Tolerant	0	--
77-009	<i>Lepomis macrochirus</i> Bluegill sunfish	3	0.2020	Moderately Tolerant	0	--
77-012	<i>Lepomis microlophus</i> Redear sunfish	1	0.06	--	0	--
80-011	<i>Percina caprodes</i> Northern logperch darter	14	0.25	Moderately Intolerant	0	--
80-014	<i>Etheostoma nigrum</i> Johnny darter	2	0.0030	--	0	--
80-015	<i>Etheostoma blenniodes</i> Greenside darter	21	0.5230	Moderately Intolerant	0	--
80-022	<i>Etheostoma caeruleum</i> Rainbow darter	2	0.0020	Moderately Intolerant	0	--
85-001	<i>Aplodinotus grunniens</i> Freshwater drum	1	2.7220	Moderately Tolerant	0	--
87-001	<i>Neogobius melanostomus</i> Round goby	25	0.0710	--	0	--
Totals		558	13.6090		0	

*DELT anomalies were observed on = 0 % of the fish collected

Index of Biotic Integrity (IBI) = 42 (Good)

Modified Index of Well-Being (MIwb) = 9.7 (Exceptional)

Shannon Diversity Index, no. 2.25

Shannon Diversity Index, wt. 2.38

N = 1034

B = 26.17



Cuyahoga River Downstream of Mill Creek
7/3/2024
River Mile: 11.30
Collection Method: Boat Electrofishing
Drainage Area: 730 square miles
0.50 km
IBI Type: Boat

Code	Species	No.	Weight (kg)	Pollution Tolerance	#	DELT Anomalies Description
40-010	<i>Moxostoma erythrurum</i> Golden redhorse	1	0.0020	Moderately Intolerant	0	--
40-011	<i>Moxostoma macrolepidotum</i> Shorthead redhorse	5	1.57	Moderately Intolerant	0	--
40-015	<i>Hypentelium nigricans</i> Northern hog sucker	23	3.85	Moderately Intolerant	0	--
40-016	<i>Catostomus commersonii</i> Common white sucker	19	0.87	Tolerant	0	--
43-026	<i>Notropis cornutus</i> Common shiner	7	0.0210	--	0	--
43-032	<i>Cyprinella spiloptera</i> Spotfin shiner	29	0.23	--	0	--
43-034	<i>Notropis stramineus</i> Sand shiner	3	0.0120	Moderately Intolerant	0	--
43-035	<i>Notropis volucellus</i> Mimic shiner	1	0.0030	Intolerant	0	--
43-044	<i>Campostoma anomalum</i> Central stoneroller minnow	20	0.0390	--	0	--
47-002	<i>Ictalurus punctatus</i> Channel catfish	8	10.9860	--	1	Lesions
47-007	<i>Pylodictis olivaris</i> Flathead catfish	2	5.8970	--	0	--
77-004	<i>Micropterus dolomieu</i> Smallmouth bass	34	3.52	Moderately Intolerant	0	--
77-009	<i>Lepomis macrochirus</i> Bluegill sunfish	1	0.09	Moderately Tolerant	0	--
80-011	<i>Percina caprodes</i> Northern logperch darter	42	0.43	Moderately Intolerant	0	--
80-014	<i>Etheostoma nigrum</i> Johnny darter	3	0.0050	--	0	--
80-015	<i>Etheostoma blenniodes</i> Greenside darter	2	0.01	Moderately Intolerant	0	--
80-022	<i>Etheostoma caeruleum</i> Rainbow darter	2	0.0040	Moderately Intolerant	0	--



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IBI Type: Boat

85-001	<i>Aplodinotus grunniens</i> Freshwater drum	1	0.84	Moderately Tolerant	0	--
87-001	<i>Neogobius melanostomus</i> Round goby	11	0.1350	--	0	--
Totals		214	28.5140		1	

*DELT anomalies were observed on = 0.4 % of the fish collected

 Index of Biotic Integrity (IBI) = 40 (Good)
 Modified Index of Well-Being (MIwb) = 9.1 (Very Good)
 Shannon Diversity Index, no. 2.38
 Shannon Diversity Index, wt. 1.76
 N = 368
 B = 55.02



Cuyahoga River Downstream of Mill Creek
8/30/2024
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Collection Method: Boat Electrofishing
Drainage Area: 730 square miles
0.50 km
IBI Type: Boat

Code	Species	No.	Weight (kg)	Pollution Tolerance	#	DELT Anomalies Description
20-003	<i>Dorosoma cepedianum</i> Eastern gizzard shad	15	1.50	--	0	--
40-005	<i>Carpionodes cyprinus</i> Central quillback carpsucker	1	0.0250	--	0	--
40-010	<i>Moxostoma erythrurum</i> Golden redhorse	3	0.0120	Moderately Intolerant	0	--
40-011	<i>Moxostoma macrolepidotum</i> Shorthead redhorse	48	1.5340	Moderately Intolerant	0	--
40-015	<i>Hypentelium nigricans</i> Northern hog sucker	18	3.5060	Moderately Intolerant	0	--
40-016	<i>Catostomus commersonii</i> Common white sucker	21	0.8740	Tolerant	0	--
43-013	<i>Semotilus atromaculatus</i> Creek chub	4	0.0240	Tolerant	0	--
43-022	<i>Notropis rubellus</i> Rosyface shiner	12	0.0290	Intolerant	0	--
43-026	<i>Notropis cornutus</i> Common shiner	201	0.62	--	0	--
43-032	<i>Cyprinella spiloptera</i> Spotfin shiner	17	0.08	--	0	--
43-034	<i>Notropis stramineus</i> Sand shiner	136	0.2040	Moderately Intolerant	0	--
43-039	<i>Ericymba buccata</i> Silverjaw minnow	2	0.0120	--	0	--
43-042	<i>Pimephales promelas</i> Northern fathead minnow	1	0.0060	Tolerant	0	--
43-043	<i>Pimephales notatus</i> Bluntnose minnow	75	0.10	Tolerant	0	--
43-044	<i>Campostoma anomalum</i> Central stoneroller minnow	76	0.26	--	0	--
47-002	<i>Ictalurus punctatus</i> Channel catfish	2	2.7220	--	0	--
47-007	<i>Pylodictis olivaris</i> Flathead catfish	1	0.24	--	0	--



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Drainage Area: 730 square miles
0.50 km
IBI Type: Boat

77-004	<i>Micropterus dolomieu</i> Smallmouth bass	33	7.1050	Moderately Intolerant	0	--
80-011	<i>Percina caprodes</i> Northern logperch darter	7	0.1050	Moderately Intolerant	0	--
80-014	<i>Etheostoma nigrum</i> Johnny darter	4	0.0040	--	0	--
80-015	<i>Etheostoma blenniodes</i> Greenside darter	3	0.0080	Moderately Intolerant	0	--
80-022	<i>Etheostoma caeruleum</i> Rainbow darter	4	0.0080	Moderately Intolerant	0	--
87-001	<i>Neogobius melanostomus</i> Round goby	10	0.0650	--	0	--
Totals		694	19.0430		0	

*DELT anomalies were observed on = 0 % of the fish collected

Index of Biotic Integrity (IBI) = 38 (Marginally Good)

Modified Index of Well-Being (MIwb) = 9.5 (Very Good)

Shannon Diversity Index, no. 2.24

Shannon Diversity Index, wt. 1.92

N = 1166

B = 35.95



Cuyahoga River Upstream of Southerly WWTC

8/23/2024

River Mile: 10.75

Collection Method: Boat Electrofishing

Drainage Area: 743 square miles

0.50 km

IBI Type: Boat

Code	Species	No.	Weight (kg)	Pollution Tolerance	#	DELT Anomalies Description
20-003	<i>Dorosoma cepedianum</i> Eastern gizzard shad	34	1.6190	--	0	--
37-003	<i>Esox lucius</i> Northern pike	1	1.5880	--	0	--
40-005	<i>Carpoides cyprinus</i> Central quillback carpsucker	1	0.01	--	0	--
40-008	<i>Moxostoma anisurum</i> Silver redhorse	5	4.8640	Moderately Intolerant	0	--
40-010	<i>Moxostoma erythrurum</i> Golden redhorse	4	0.72	Moderately Intolerant	0	--
40-011	<i>Moxostoma macrolepidotum</i> Shorthead redhorse	50	1.72	Moderately Intolerant	0	--
40-015	<i>Hypentelium nigricans</i> Northern hog sucker	49	6.8430	Moderately Intolerant	0	--
40-016	<i>Catostomus commersonii</i> Common white sucker	108	1.5540	Tolerant	0	--
43-001	<i>Cyprinus carpio</i> Common carp	6	19.9580	Tolerant	0	--
43-013	<i>Semotilus atromaculatus</i> Creek chub	3	0.02	Tolerant	0	--
43-026	<i>Notropis cornutus</i> Common shiner	142	0.6050	--	0	--
43-032	<i>Cyprinella spiloptera</i> Spotfin shiner	29	0.16	--	0	--
43-034	<i>Notropis stramineus</i> Sand shiner	43	0.15	Moderately Intolerant	0	--
43-039	<i>Ericymba buccata</i> Silverjaw minnow	1	0.0040	--	0	--
43-042	<i>Pimephales promelas</i> Northern fathead minnow	16	0.0530	Tolerant	0	--
43-043	<i>Pimephales notatus</i> Bluntnose minnow	48	0.0710	Tolerant	0	--
43-044	<i>Campostoma anomalum</i> Central stoneroller minnow	150	0.4650	--	0	--



Cuyahoga River Upstream of Southerly WWTC
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River Mile: 10.75
Collection Method: Boat Electrofishing
Drainage Area: 743 square miles
0.50 km
IBI Type: Boat

43-047	<i>Ctenopharyngodon idella</i> Grass carp	1	7.1110	--	0	--
47-002	<i>Ictalurus punctatus</i> Channel catfish	3	1.95	--	0	--
47-007	<i>Pylodictis olivaris</i> Flathead catfish	3	10.4790	--	0	--
77-004	<i>Micropterus dolomieu</i> Smallmouth bass	24	3.5050	Moderately Intolerant	0	--
77-008	<i>Lepomis cyanellus</i> Green sunfish	1	0.0250	Tolerant	0	--
77-009	<i>Lepomis macrochirus</i> Bluegill sunfish	1	0.0340	Moderately Tolerant	0	--
80-011	<i>Percina caprodes</i> Northern logperch darter	4	0.0650	Moderately Intolerant	0	--
80-014	<i>Etheostoma nigrum</i> Johnny darter	5	0.0060	--	0	--
80-022	<i>Etheostoma caeruleum</i> Rainbow darter	2	0.0030	Moderately Intolerant	0	--
87-001	<i>Neogobius melanostomus</i> Round goby	5	0.0590	--	0	--
Totals		739	63.6410		0	

*DELT anomalies were observed on = 0 % of the fish collected

Index of Biotic Integrity (IBI) = 38 (Marginally Good)

Modified Index of Well-Being (MIwb) = 10.2 (Exceptional)

Shannon Diversity Index, no. 2.42

Shannon Diversity Index, wt. 2.18

N = 1102

B = 69.58



Cuyahoga River Upstream of Southerly WWTC

10/8/2024

River Mile: 10.75

Collection Method: Boat Electrofishing

Drainage Area: 743 square miles

0.50 km

IBI Type: Boat

Code	Species	No.	Weight (kg)	Pollution Tolerance	#	DELT Anomalies Description
20-003	<i>Dorosoma cepedianum</i> Eastern gizzard shad	3	0.63	--	0	--
40-010	<i>Moxostoma erythrurum</i> Golden redhorse	1	0.01	Moderately Intolerant	0	--
40-011	<i>Moxostoma macrolepidotum</i> Shorthead redhorse	2	0.02	Moderately Intolerant	0	--
40-015	<i>Hypentelium nigricans</i> Northern hog sucker	9	2.20	Moderately Intolerant	0	--
40-016	<i>Catostomus commersonii</i> Common white sucker	14	4.0280	Tolerant	0	--
43-026	<i>Notropis cornutus</i> Common shiner	2	0.0050	--	0	--
43-032	<i>Cyprinella spiloptera</i> Spotfin shiner	11	0.0360	--	0	--
43-033	<i>Notropis dorsalis</i> Bigmouth shiner	1	0.0030	--	0	--
43-034	<i>Notropis stramineus</i> Sand shiner	25	0.0350	Moderately Intolerant	0	--
43-035	<i>Notropis volucellus</i> Mimic shiner	2	0.0050	Intolerant	0	--
43-039	<i>Ericymba buccata</i> Silverjaw minnow	1	0.01	--	0	--
43-042	<i>Pimephales promelas</i> Northern fathead minnow	11	0.0250	Tolerant	0	--
43-043	<i>Pimephales notatus</i> Bluntnose minnow	5	0.0070	Tolerant	0	--
43-044	<i>Campostoma anomalum</i> Central stoneroller minnow	4	0.04	--	0	--
47-004	<i>Ictalurus natalis</i> Yellow bullhead	1	0.07	Tolerant	0	--
47-007	<i>Pylodictis olivaris</i> Flathead catfish	1	0.15	--	0	--
47-008	<i>Noturus flavus</i> Stonecat madtom	1	0.0210	Intolerant	0	--



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70-001	<i>Labidesthes sicculus</i> Brook silverside	1	0.0030	Moderately Intolerant	0	--
77-004	<i>Micropterus dolomieu</i> Smallmouth bass	24	3.35	Moderately Intolerant	0	--
77-007	<i>Lepomis gulosus</i> Warmouth sunfish	1	0.0550	--	0	--
77-009	<i>Lepomis macrochirus</i> Bluegill sunfish	1	0.0390	Moderately Tolerant	0	--
77-999	<i>HYBRID</i> HYBRID X Sunfish	1	0.0540	--	0	--
80-002	<i>Sander vitreus</i> Walleye	1	0.64	--	0	--
80-011	<i>Percina caprodes</i> Northern logperch darter	2	0.04	Moderately Intolerant	0	--
80-014	<i>Etheostoma nigrum</i> Johnny darter	3	0.0060	--	0	--
80-015	<i>Etheostoma blenniodes</i> Greenside darter	1	0.0030	Moderately Intolerant	0	--
80-022	<i>Etheostoma caeruleum</i> Rainbow darter	1	0.0030	Moderately Intolerant	0	--
87-001	<i>Neogobius melanostomus</i> Round goby	12	0.0280	--	0	--
Totals		142	11.5160		0	

*DELT anomalies were observed on = 0 % of the fish collected

Index of Biotic Integrity (IBI) = 38 (Marginally Good)

Modified Index of Well-Being (MIwb) = 8.4 (Marginally Good)

Shannon Diversity Index, no. 2.69

Shannon Diversity Index, wt. 1.68

N = 196

B = 14.61



Cuyahoga River Downstream of Southerly WWTC

8/23/2024

River Mile: 10.10

Collection Method: Boat Electrofishing

Drainage Area: 744 square miles

0.50 km

IBI Type: Boat

Code	Species	No.	Weight (kg)	Pollution Tolerance	#	DELT Anomalies Description
20-003	<i>Dorosoma cepedianum</i> Eastern gizzard shad	6	0.50	--	0	--
40-008	<i>Moxostoma anisurum</i> Silver redhorse	1	0.68	Moderately Intolerant	0	--
40-010	<i>Moxostoma erythrurum</i> Golden redhorse	2	1.41	Moderately Intolerant	0	--
40-011	<i>Moxostoma macrolepidotum</i> Shorthead redhorse	21	1.0050	Moderately Intolerant	0	--
40-015	<i>Hypentelium nigricans</i> Northern hog sucker	9	2.41	Moderately Intolerant	0	--
40-016	<i>Catostomus commersonii</i> Common white sucker	34	1.6150	Tolerant	0	--
43-001	<i>Cyprinus carpio</i> Common carp	3	11.7930	Tolerant	0	--
43-013	<i>Semotilus atromaculatus</i> Creek chub	1	0.02	Tolerant	0	--
43-020	<i>Notropis atherinoides</i> Common emerald shiner	5	0.04	--	0	--
43-022	<i>Notropis rubellus</i> Rosyface shiner	1	0.0040	Intolerant	0	--
43-026	<i>Notropis cornutus</i> Common shiner	61	0.1190	--	0	--
43-032	<i>Cyprinella spiloptera</i> Spotfin shiner	13	0.08	--	0	--
43-034	<i>Notropis stramineus</i> Sand shiner	38	0.10	Moderately Intolerant	0	--
43-042	<i>Pimephales promelas</i> Northern fathead minnow	7	0.03	Tolerant	0	--
43-043	<i>Pimephales notatus</i> Bluntnose minnow	93	0.1450	Tolerant	0	--
43-044	<i>Campostoma anomalum</i> Central stoneroller minnow	22	0.0750	--	0	--
43-047	<i>Ctenopharyngodon idella</i> Grass carp	2	15.4220	--	0	--



Cuyahoga River Downstream of Southerly WWTC

8/23/2024

River Mile: 10.10

Collection Method: Boat Electrofishing

Drainage Area: 744 square miles

0.50 km

IBI Type: Boat

47-004	<i>Ictalurus natalis</i> Yellow bullhead	1	0.10	Tolerant	0	--
70-001	<i>Labidesthes sicculus</i> Brook silverside	1	0.0020	Moderately Intolerant	0	Voucher
77-004	<i>Micropterus dolomieu</i> Smallmouth bass	22	5.28	Moderately Intolerant	0	--
77-006	<i>Micropterus salmoides</i> Largemouth bass	3	0.09	--	0	--
77-008	<i>Lepomis cyanellus</i> Green sunfish	3	0.06	Tolerant	0	--
77-009	<i>Lepomis macrochirus</i> Bluegill sunfish	1	0.15	Moderately Tolerant	0	--
77-998	<i>HYBRID</i> Green sunfish X Hybrid	1	0.05	--	0	Voucher
80-011	<i>Percina caprodes</i> Northern logperch darter	12	0.14	Moderately Intolerant	0	--
85-001	<i>Aplodinotus grunniens</i> Freshwater drum	1	1.8140	Moderately Tolerant	0	--
87-001	<i>Neogobius melanostomus</i> Round goby	4	0.04	--	0	--
Totals		368	43.1740		0	

*DELT anomalies were observed on = 0 % of the fish collected

Index of Biotic Integrity (IBI) = 34 (Fair)

Modified Index of Well-Being (MIwb) = 9.1 (Good)

Shannon Diversity Index, no. 2.47

Shannon Diversity Index, wt. 1.89

N = 438

B = 27.80



Cuyahoga River Downstream of Southerly WWTC

10/8/2024

River Mile: 10.10

Collection Method: Boat Electrofishing

Drainage Area: 744 square miles

0.50 km

IBI Type: Boat

Code	Species	No.	Weight (kg)	Pollution Tolerance	#	DELT Anomalies Description
20-003	<i>Dorosoma cepedianum</i> Eastern gizzard shad	45	10.10	--	0	--
40-008	<i>Moxostoma anisurum</i> Silver redhorse	3	7.2570	Moderately Intolerant	0	--
40-011	<i>Moxostoma macrolepidotum</i> Shorthead redhorse	8	0.90	Moderately Intolerant	0	--
40-015	<i>Hypentelium nigricans</i> Northern hog sucker	14	2	Moderately Intolerant	0	--
40-016	<i>Catostomus commersonii</i> Common white sucker	4	0.11	Tolerant	0	--
40-018	<i>Minytrema melanops</i> Spotted sucker	1	0.0120	--	0	--
43-013	<i>Semotilus atromaculatus</i> Creek chub	2	0.0090	Tolerant	0	--
43-026	<i>Notropis cornutus</i> Common shiner	2	0.0050	--	0	--
43-032	<i>Cyprinella spiloptera</i> Spotfin shiner	49	0.0660	--	0	--
43-034	<i>Notropis stramineus</i> Sand shiner	11	0.0280	Moderately Intolerant	0	--
43-039	<i>Ericymba buccata</i> Silverjaw minnow	3	0.0140	--	0	--
43-042	<i>Pimephales promelas</i> Northern fathead minnow	4	0.0120	Tolerant	0	--
43-043	<i>Pimephales notatus</i> Bluntnose minnow	15	0.0350	Tolerant	0	--
47-002	<i>Ictalurus punctatus</i> Channel catfish	1	0.98	--	0	--
47-004	<i>Ictalurus natalis</i> Yellow bullhead	1	0.0210	Tolerant	0	--
57-001	<i>Gambusia affinis</i> Western mosquitofish	1	0.0030	--	0	--
77-004	<i>Micropterus dolomieu</i> Smallmouth bass	15	2.32	Moderately Intolerant	0	--



Cuyahoga River Downstream of Southerly WWTC

10/8/2024

River Mile: 10.10

Collection Method: Boat Electrofishing

Drainage Area: 744 square miles

0.50 km

IBI Type: Boat

77-008	<i>Lepomis cyanellus</i> Green sunfish	2	0.04	Tolerant	0	--
77-009	<i>Lepomis macrochirus</i> Bluegill sunfish	2	0.05	Moderately Tolerant	0	--
77-013	<i>Lepomis gibbosus</i> Pumpkinseed sunfish	1	0.0150	Moderately Tolerant	0	--
77-999	<i>HYBRID</i> HYBRID X Sunfish	1	0.05	--	0	--
80-011	<i>Percina caprodes</i> Northern logperch darter	1	0.0110	Moderately Intolerant	0	--
80-015	<i>Etheostoma blenniodes</i> Greenside darter	3	0.0050	Moderately Intolerant	0	--
80-022	<i>Etheostoma caeruleum</i> Rainbow darter	2	0.0050	Moderately Intolerant	0	--
87-001	<i>Neogobius melanostomus</i> Round goby	28	0.10	--	0	--
Totals		219	24.1480		0	

*DELT anomalies were observed on = 0 % of the fish collected

Index of Biotic Integrity (IBI) = 34 (Fair)

Modified Index of Well-Being (MIwb) = 8.8 (Good)

Shannon Diversity Index, no. 2.45

Shannon Diversity Index, wt. 1.56

N = 322

B = 47.54



Cuyahoga River Upstream of Big Creek
7/9/2024
River Mile: 8.60
Collection Method: Boat Electrofishing
Drainage Area: 745 square miles
0.50 km
IBI Type: Boat

Code	Species	No.	Weight (kg)	Pollution Tolerance	#	DELT Anomalies Description
20-003	<i>Dorosoma cepedianum</i> Eastern gizzard shad	6	1.0250	--	0	--
40-005	<i>Carpionodes cyprinus</i> Central quillback carpsucker	9	0.0110	--	0	--
40-010	<i>Moxostoma erythrurum</i> Golden redhorse	28	0.17	Moderately Intolerant	0	--
40-011	<i>Moxostoma macrolepidotum</i> Shorthead redhorse	23	2.91	Moderately Intolerant	0	--
40-015	<i>Hypentelium nigricans</i> Northern hog sucker	58	3.98	Moderately Intolerant	0	--
40-016	<i>Catostomus commersonii</i> Common white sucker	101	0.6150	Tolerant	0	--
43-011	<i>Rhinichthys atratulus</i> Blacknose dace	17	0.02	Tolerant	0	--
43-013	<i>Semotilus atromaculatus</i> Creek chub	14	0.0280	Tolerant	0	--
43-020	<i>Notropis atherinoides</i> Common emerald shiner	23	0.0620	--	0	--
43-022	<i>Notropis rubellus</i> Rosyface shiner	1	0.0020	Intolerant	0	--
43-026	<i>Notropis cornutus</i> Common shiner	45	0.2130	--	0	--
43-032	<i>Cyprinella spiloptera</i> Spotfin shiner	53	0.41	--	0	--
43-034	<i>Notropis stramineus</i> Sand shiner	106	0.22	Moderately Intolerant	0	--
43-039	<i>Ericymba buccata</i> Silverjaw minnow	20	0.02	--	0	--
43-042	<i>Pimephales promelas</i> Northern fathead minnow	1	0.0040	Tolerant	0	--
43-043	<i>Pimephales notatus</i> Bluntnose minnow	3	0.0090	Tolerant	0	--
43-044	<i>Campostoma anomalum</i> Central stoneroller minnow	140	0.23	--	0	--



Cuyahoga River Upstream of Big Creek
7/9/2024
River Mile: 8.60
Collection Method: Boat Electrofishing
Drainage Area: 745 square miles
0.50 km
IBI Type: Boat

47-002	<i>Ictalurus punctatus</i> Channel catfish	1	0.70	--	0	--
74-003	<i>Morone americana</i> White perch	1	0.01	--	0	--
77-004	<i>Micropterus dolomieu</i> Smallmouth bass	13	3.28	Moderately Intolerant	0	--
77-006	<i>Micropterus salmoides</i> Largemouth bass	2	0.01	--	0	--
77-008	<i>Lepomis cyanellus</i> Green sunfish	2	0.0220	Tolerant	0	--
80-011	<i>Percina caprodes</i> Northern logperch darter	51	0.5280	Moderately Intolerant	0	--
80-015	<i>Etheostoma blenniodes</i> Greenside darter	16	0.02	Moderately Intolerant	0	--
80-022	<i>Etheostoma caeruleum</i> Rainbow darter	16	0.0120	Moderately Intolerant	0	--
85-001	<i>Aplodinotus grunniens</i> Freshwater drum	2	2.1310	Moderately Tolerant	1	Tumors
87-001	<i>Neogobius melanostomus</i> Round goby	39	0.13	--	0	--
Totals		791	16.7720		1	

*DELT anomalies were observed on = 0.1 % of the fish collected

Index of Biotic Integrity (IBI) = 38 (Marginally Good)

Modified Index of Well-Being (MIwb) = 10.2 (Exceptional)

Shannon Diversity Index, no. 2.68

Shannon Diversity Index, wt. 2.20

N = 1226

B = 31.87



Cuyahoga River Upstream of Big Creek
10/9/2024
River Mile: 8.60
Collection Method: Boat Electrofishing
Drainage Area: 745 square miles
0.50 km
IBI Type: Boat

Code	Species	No.	Weight (kg)	Pollution Tolerance	#	DELT Anomalies Description
20-003	<i>Dorosoma cepedianum</i> Eastern gizzard shad	5	2	--	0	--
25-002	<i>Oncorhynchus mykiss</i> Rainbow trout	1	1.8140	--	0	--
40-008	<i>Moxostoma anisurum</i> Silver redhorse	1	0.19	Moderately Intolerant	0	--
40-010	<i>Moxostoma erythrurum</i> Golden redhorse	4	0.65	Moderately Intolerant	0	--
40-015	<i>Hypentelium nigricans</i> Northern hog sucker	14	2.91	Moderately Intolerant	0	--
40-016	<i>Catostomus commersonii</i> Common white sucker	6	0.65	Tolerant	0	--
43-022	<i>Notropis rubellus</i> Rosyface shiner	1	0.0030	Intolerant	0	--
43-026	<i>Notropis cornutus</i> Common shiner	1	0.0030	--	0	--
43-032	<i>Cyprinella spiloptera</i> Spotfin shiner	17	0.0370	--	0	--
43-034	<i>Notropis stramineus</i> Sand shiner	44	0.06	Moderately Intolerant	0	--
43-035	<i>Notropis volucellus</i> Mimic shiner	3	0.0060	Intolerant	0	--
43-042	<i>Pimephales promelas</i> Northern fathead minnow	2	0.0070	Tolerant	0	--
43-043	<i>Pimephales notatus</i> Bluntnose minnow	7	0.12	Tolerant	0	--
43-044	<i>Campostoma anomalum</i> Central stoneroller minnow	3	0.0380	--	0	--
77-004	<i>Micropterus dolomieu</i> Smallmouth bass	2	1.95	Moderately Intolerant	0	--
80-011	<i>Percina caprodes</i> Northern logperch darter	4	0.0420	Moderately Intolerant	0	--
80-015	<i>Etheostoma blenniodes</i> Greenside darter	1	0.0040	Moderately Intolerant	0	--



Cuyahoga River Upstream of Big Creek
10/9/2024
River Mile: 8.60
Collection Method: Boat Electrofishing
Drainage Area: 745 square miles
0.50 km
IBI Type: Boat

80-022	<i>Etheostoma caeruleum</i> Rainbow darter	1	0.0020	Moderately Intolerant	0	--
87-001	<i>Neogobius melanostomus</i> Round goby	9	0.0340	--	0	--
Totals		126	10.5200		0	

*DELT anomalies were observed on = 0 % of the fish collected

Index of Biotic Integrity (IBI) = 38 (Marginally Good)

Modified Index of Well-Being (MIwb) = 8.2 (Fair)

Shannon Diversity Index, no. 2.26

Shannon Diversity Index, wt. 1.88

N = 202

B = 15.79



Cuyahoga River Head of Navigation Channel
7/9/2024
River Mile: 5.90
Collection Method: Boat Electrofishing
Drainage Area: 787 square miles
0.50 km
IBI Type: Boat

Code	Species	No.	Weight (kg)	Pollution Tolerance	#	DELT Anomalies Description
20-003	<i>Dorosoma cepedianum</i> Eastern gizzard shad	65	3.47	--	0	--
40-002	<i>Ictiobus cyprinellus</i> Bigmouth buffalo	5	28.5760	--	0	--
40-005	<i>Carpionodes cyprinus</i> Central quillback carpsucker	1	0.9070	--	0	--
40-010	<i>Moxostoma erythrurum</i> Golden redbhorse	8	0.1750	Moderately Intolerant	0	--
40-016	<i>Catostomus commersonii</i> Common white sucker	31	0.0950	Tolerant	0	--
40-018	<i>Minytrema melanops</i> Spotted sucker	2	0.0320	--	0	--
43-001	<i>Cyprinus carpio</i> Common carp	16	35.8340	Tolerant	0	--
43-011	<i>Rhinichthys atratulus</i> Blacknose dace	1	0.0010	Tolerant	0	--
43-020	<i>Notropis atherinoides</i> Common emerald shiner	54	0.1130	--	0	--
43-026	<i>Notropis cornutus</i> Common shiner	1	0.0020	--	0	--
43-043	<i>Pimephales notatus</i> Bluntnose minnow	7	0.0120	Tolerant	0	--
43-044	<i>Campostoma anomalum</i> Central stoneroller minnow	10	0.0280	--	0	--
47-007	<i>Pylodictis olivaris</i> Flathead catfish	2	7.21	--	0	--
74-001	<i>Morone chrysops</i> White bass	8	2.95	--	0	--
77-004	<i>Micropterus dolomieu</i> Smallmouth bass	9	2.10	Moderately Intolerant	0	--
77-006	<i>Micropterus salmoides</i> Largemouth bass	1	0.0480	--	0	--
77-008	<i>Lepomis cyanellus</i> Green sunfish	1	0.01	Tolerant	0	--



Cuyahoga River Head of Navigation Channel

7/9/2024

River Mile: 5.90

Collection Method: Boat Electrofishing

Drainage Area: 787 square miles

0.50 km

IBI Type: Boat

87-001	<i>Neogobius melanostomus</i> Round goby	1	0.0010	--	0	--
Totals		223	81.5640		0	

*DELT anomalies were observed on = 0 % of the fish collected

Index of Biotic Integrity (IBI) = 28 (Fair)

Modified Index of Well-Being (MIwb) = 8.6 (Marginally Good)

Shannon Diversity Index, no. 2.10

Shannon Diversity Index, wt. 1.39

N = 332

B = 91.22



Cuyahoga River Head of Navigation Channel
8/15/2024
River Mile: 5.90
Collection Method: Boat Electrofishing
Drainage Area: 787 square miles
0.50 km
IBI Type: Boat

Code	Species	No.	Weight (kg)	Pollution Tolerance	#	DELT Anomalies Description
20-003	<i>Dorosoma cepedianum</i> Eastern gizzard shad	22	0.7150	--	1	Deformities
40-002	<i>Ictiobus cyprinellus</i> Bigmouth buffalo	1	6.5770	--	0	--
40-010	<i>Moxostoma erythrurum</i> Golden redhorse	4	0.0120	Moderately Intolerant	0	--
40-016	<i>Catostomus commersonii</i> Common white sucker	2	0.0150	Tolerant	0	--
43-001	<i>Cyprinus carpio</i> Common carp	12	26.5350	Tolerant	0	--
43-013	<i>Semotilus atromaculatus</i> Creek chub	2	0.0050	Tolerant	0	--
43-020	<i>Notropis atherinoides</i> Common emerald shiner	10	0.0610	--	0	--
43-026	<i>Notropis cornutus</i> Common shiner	4	0.01	--	0	--
43-032	<i>Cyprinella spiloptera</i> Spotfin shiner	10	0.0120	--	0	--
43-043	<i>Pimephales notatus</i> Bluntnose minnow	4	0.0070	Tolerant	0	--
43-044	<i>Campostoma anomalum</i> Central stoneroller minnow	3	0.0070	--	0	--
47-002	<i>Ictalurus punctatus</i> Channel catfish	2	4.99	--	0	--
74-001	<i>Morone chrysops</i> White bass	6	0.47	--	0	--
74-003	<i>Morone americana</i> White perch	1	0.0220	--	0	--
77-004	<i>Micropterus dolomieu</i> Smallmouth bass	3	0.8150	Moderately Intolerant	0	--
77-006	<i>Micropterus salmoides</i> Largemouth bass	2	0.0750	--	0	--
87-001	<i>Neogobius melanostomus</i> Round goby	4	0.0050	--	0	--



Cuyahoga River Head of Navigation Channel
8/15/2024
River Mile: 5.90
Collection Method: Boat Electrofishing
Drainage Area: 787 square miles
0.50 km
IBI Type: Boat

Totals	92	40.3330	1
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*DELT anomalies were observed on = 1.0 % of the fish collected

Index of Biotic Integrity (IBI) = 28 (Fair)

Modified Index of Well-Being (MIwb) = 7.6 (Fair)

Shannon Diversity Index, no. 2.47

Shannon Diversity Index, wt. 1.07

N = 134

B = 27.49



Cuyahoga River Scranton Road Peninsula
7/8/2024
River Mile: 2.75
Collection Method: Boat Electrofishing
Drainage Area: 806 square miles
0.50 km
IBI Type: Boat

Code	Species	No.	Weight (kg)	Pollution Tolerance	#	DELT Anomalies Description
20-003	<i>Dorosoma cepedianum</i> Eastern gizzard shad	98	2.95	--	0	--
40-010	<i>Moxostoma erythrurum</i> Golden redhorse	13	0.37	Moderately Intolerant	0	--
40-016	<i>Catostomus commersonii</i> Common white sucker	2	0.0070	Tolerant	0	--
40-018	<i>Minytrema melanops</i> Spotted sucker	5	1.61	--	0	--
43-001	<i>Cyprinus carpio</i> Common carp	16	39.1870	Tolerant	0	--
43-002	<i>Carassius auratus</i> Goldfish	7	1.84	Tolerant	0	--
43-003	<i>Notemigonus crysoleucas</i> Golden shiner	26	0.4060	Tolerant	0	--
43-020	<i>Notropis atherinoides</i> Common emerald shiner	3	0.0050	--	0	--
43-026	<i>Notropis cornutus</i> Common shiner	14	0.0070	--	0	--
43-043	<i>Pimephales notatus</i> Bluntnose minnow	1	0.01	Tolerant	0	--
43-044	<i>Campostoma anomalum</i> Central stoneroller minnow	1	0.01	--	0	--
47-007	<i>Pylodictis olivaris</i> Flathead catfish	2	0.50	--	0	--
77-003	<i>Ambloplites rupestris</i> Northern rockbass	4	0.49	--	0	--
77-004	<i>Micropterus dolomieu</i> Smallmouth bass	8	1.16	Moderately Intolerant	0	--
77-006	<i>Micropterus salmoides</i> Largemouth bass	12	1.80	--	0	--
77-007	<i>Lepomis gulosus</i> Warmouth sunfish	1	0.05	--	0	--
77-008	<i>Lepomis cyanellus</i> Green sunfish	3	0.06	Tolerant	0	--



Cuyahoga River Scranton Road Peninsula
7/8/2024
River Mile: 2.75
Collection Method: Boat Electrofishing
Drainage Area: 806 square miles
0.50 km
IBI Type: Boat

77-009	<i>Lepomis macrochirus</i> Bluegill sunfish	52	4.90	Moderately Tolerant	0	--
77-013	<i>Lepomis gibbosus</i> Pumpkinseed sunfish	17	0.37	Moderately Tolerant	0	--
80-011	<i>Percina caprodes</i> Northern logperch darter	1	0.0030	Moderately Intolerant	0	--
85-001	<i>Aplodinotus grunniens</i> Freshwater drum	2	1.8140	Moderately Tolerant	0	--
87-001	<i>Neogobius melanostomus</i> Round goby	1	0.0080	--	0	--
Totals		289	57.5570		0	

*DELT anomalies were observed on = 0 % of the fish collected

Index of Biotic Integrity (IBI) = 34 (Fair)

Modified Index of Well-Being (MIwb) = 8.4 (Marginally Good)

Shannon Diversity Index, no. 2.25

Shannon Diversity Index, wt. 1.33

N = 466

B = 32.08



Cuyahoga River Scranton Road Peninsula
10/9/2024
River Mile: 2.75
Collection Method: Boat Electrofishing
Drainage Area: 806 square miles
0.50 km
IBI Type: Boat

Code	Species	No.	Weight (kg)	Pollution Tolerance	#	DELT Anomalies Description
15-001	<i>Amia calva</i> Bowfin	1	1.23	--	0	--
20-003	<i>Dorosoma cepedianum</i> Eastern gizzard shad	63	1.66	--	0	--
40-010	<i>Moxostoma erythrurum</i> Golden redhorse	3	0.0480	Moderately Intolerant	0	--
40-016	<i>Catostomus commersonii</i> Common white sucker	8	0.1620	Tolerant	0	--
40-018	<i>Minytrema melanops</i> Spotted sucker	7	0.0610	--	0	--
43-001	<i>Cyprinus carpio</i> Common carp	1	0.4610	Tolerant	0	--
43-002	<i>Carassius auratus</i> Goldfish	6	2.60	Tolerant	0	--
43-003	<i>Notemigonus crysoleucas</i> Golden shiner	10	0.06	Tolerant	0	--
43-013	<i>Semotilus atromaculatus</i> Creek chub	1	0.0050	Tolerant	0	--
43-020	<i>Notropis atherinoides</i> Common emerald shiner	24	0.0640	--	0	--
43-026	<i>Notropis cornutus</i> Common shiner	5	0.0520	--	0	--
43-032	<i>Cyprinella spiloptera</i> Spotfin shiner	4	0.0080	--	0	--
43-034	<i>Notropis stramineus</i> Sand shiner	1	0.0020	Moderately Intolerant	0	--
43-043	<i>Pimephales notatus</i> Bluntnose minnow	15	0.05	Tolerant	0	--
47-007	<i>Pylodictis olivaris</i> Flathead catfish	2	8.1650	--	0	--
74-003	<i>Morone americana</i> White perch	1	0.02	--	0	--
77-004	<i>Micropterus dolomieu</i> Smallmouth bass	3	0.3910	Moderately Intolerant	0	--



Cuyahoga River Scranton Road Peninsula
10/9/2024
River Mile: 2.75
Collection Method: Boat Electrofishing
Drainage Area: 806 square miles
0.50 km
IBI Type: Boat

77-006	<i>Micropterus salmoides</i> Largemouth bass	12	0.0940	--	0	--
77-009	<i>Lepomis macrochirus</i> Bluegill sunfish	14	0.0330	Moderately Tolerant	0	--
77-013	<i>Lepomis gibbosus</i> Pumpkinseed sunfish	2	0.0980	Moderately Tolerant	0	--
80-011	<i>Percina caprodes</i> Northern logperch darter	2	0.0250	Moderately Intolerant	0	--
80-022	<i>Etheostoma caeruleum</i> Rainbow darter	1	0.0030	Moderately Intolerant	0	--
85-001	<i>Aplodinotus grunniens</i> Freshwater drum	1	0.78	Moderately Tolerant	0	--
87-001	<i>Neogobius melanostomus</i> Round goby	5	0.0230	--	0	--
Totals		192	16.0950		0	

*DELT anomalies were observed on = 0 % of the fish collected

Index of Biotic Integrity (IBI) = 30 (Fair)

Modified Index of Well-Being (MIwb) = 8.6 (Marginally Good)

Shannon Diversity Index, no. 2.44

Shannon Diversity Index, wt. 1.68

N = 290

B = 25.43



Cuyahoga River Upstream of Detroit-Superior Bridge

7/8/2024

River Mile: 1.20

Collection Method: Boat Electrofishing

Drainage Area: 807 square miles

0.50 km

IBI Type: Lacustrary

Code	Species	No.	Weight (kg)	Pollution Tolerance	#	DELT Anomalies Description
20-003	<i>Dorosoma cepedianum</i> Eastern gizzard shad	83	3.5080	--	0	--
43-001	<i>Cyprinus carpio</i> Common carp	1	0.69	Tolerant	0	--
43-002	<i>Carassius auratus</i> Goldfish	1	0.69	Tolerant	0	--
43-003	<i>Notemigonus crysoleucas</i> Golden shiner	2	0.1240	Tolerant	0	--
43-020	<i>Notropis atherinoides</i> Common emerald shiner	4	0.02	--	0	--
43-026	<i>Notropis cornutus</i> Common shiner	1	0.0030	--	0	--
47-007	<i>Pylodictis olivaris</i> Flathead catfish	1	3.1750	--	0	--
77-003	<i>Ambloplites rupestris</i> Northern rockbass	1	0.29	--	0	--
77-004	<i>Micropterus dolomieu</i> Smallmouth bass	6	0.64	Moderately Intolerant	1	Lesions
77-006	<i>Micropterus salmoides</i> Largemouth bass	9	2.15	--	0	--
77-008	<i>Lepomis cyanellus</i> Green sunfish	3	0.07	Tolerant	0	--
77-009	<i>Lepomis macrochirus</i> Bluegill sunfish	30	3.18	Moderately Tolerant	0	--
77-999	<i>HYBRID</i> HYBRID X Sunfish	1	0.13	--	0	--
85-001	<i>Aplodinotus grunniens</i> Freshwater drum	2	1.46	Moderately Tolerant	0	--
87-001	<i>Neogobius melanostomus</i> Round goby	1	0.0080	--	0	--
Totals		146	16.1380		1	

*DELT anomalies were observed on = 0.6 % of the fish collected

Index of Biotic Integrity (IBI) = 36 (Fair)



Cuyahoga River Upstream of Detroit-Superior Bridge
7/8/2024
River Mile: 1.20
Collection Method: Boat Electrofishing
Drainage Area: 807 square miles
0.50 km
IBI Type: Lacustrary

Modified Index of Well-Being (MIwb) = 8.0 (Fair)

Shannon Diversity Index, no. 1.48

Shannon Diversity Index, wt. 2.04

N = 274

B = 28.85



Cuyahoga River Upstream of Confluence with Lake Erie
7/23/2024
River Mile: 0.20
Collection Method: Boat Electrofishing
Drainage Area: 813 square miles
0.50 km
IBI Type: Boat

Code	Species	No.	Weight (kg)	Pollution Tolerance	#	DELT Anomalies Description
20-003	<i>Dorosoma cepedianum</i> Eastern gizzard shad	50	4.92	--	0	--
40-010	<i>Moxostoma erythrurum</i> Golden redhorse	1	0.06	Moderately Intolerant	0	--
40-011	<i>Moxostoma macrolepidotum</i> Shorthead redhorse	1	0.04	Moderately Intolerant	0	--
43-001	<i>Cyprinus carpio</i> Common carp	1	2.2680	Tolerant	0	--
43-003	<i>Notemigonus crysoleucas</i> Golden shiner	5	0.17	Tolerant	0	--
43-020	<i>Notropis atherinoides</i> Common emerald shiner	11	0.0460	--	0	--
43-035	<i>Notropis volucellus</i> Mimic shiner	34	0.05	Intolerant	0	--
74-001	<i>Morone chrysops</i> White bass	10	0.66	--	0	--
74-003	<i>Morone americana</i> White perch	4	0.12	--	0	--
77-003	<i>Ambloplites rupestris</i> Northern rockbass	11	1.40	--	2	Lesions Tumors
77-004	<i>Micropterus dolomieu</i> Smallmouth bass	9	1	Moderately Intolerant	0	--
77-006	<i>Micropterus salmoides</i> Largemouth bass	9	2.32	--	0	--
77-008	<i>Lepomis cyanellus</i> Green sunfish	1	0.0250	Tolerant	0	--
77-009	<i>Lepomis macrochirus</i> Bluegill sunfish	1	0.03	Moderately Tolerant	0	--
80-002	<i>Sander vitreus</i> Walleye	1	0.0750	--	0	--
80-003	<i>Perca flavescens</i> Yellow perch	3	0.30	--	0	--
80-011	<i>Percina caprodes</i> Northern logperch darter	2	0.0040	Moderately Intolerant	0	--



Cuyahoga River Upstream of Confluence with Lake Erie
7/23/2024
River Mile: 0.20
Collection Method: Boat Electrofishing
Drainage Area: 813 square miles
0.50 km
IBI Type: Boat

85-001	<i>Aplodinotus grunniens</i> Freshwater drum	3	9.0720	Moderately Tolerant	0	--
87-001	<i>Neogobius melanostomus</i> Round goby	1	0.0020	--	0	--
Totals		158	22.5620		2	

*DELT anomalies were observed on = $\frac{1.2}{---}$ % of the fish collected
 Index of Biotic Integrity (IBI) = 30 (Fair)
 Modified Index of Well-Being (MIwb) = 8.7 (Marginally Good)
 Shannon Diversity Index, no. 2.20
 Shannon Diversity Index, wt. 1.79
 N = 292
 B = 39.95