

Big Creek Snow & Pearl Branch Upstream of Big Creek Parkway

8/14/2015

River Mile: 0.20

Collection Method: Longline Electrofishing

Drainage Area: 2.5 miles²

Collection Distance: 0.15 km

Code	Species	Number	Pollution Tolerance	DELT Anomalies	
				#	Description
40-016	<i>Catostomus commersonii</i> Common white sucker	28	Highly Tolerant	0	---
43-011	<i>Rhinichthys atratulus</i> Western blacknose dace	48	Highly Tolerant	0	---
43-013	<i>Semotilus atromaculatus</i> Creek chub	162	Highly Tolerant	0	---
43-043	<i>Pimephales notatus</i> Bluntnose minnow	2	Highly Tolerant	0	---
43-044	<i>Campostoma anomalum</i> Central stoneroller minnow	107	--	0	---
77-008	<i>Lepomis cyanellus</i> Green sunfish	16	Highly Tolerant	0	---
	Totals	<u>363</u>		<u>0</u>	

*DELT anomalies were observed on
Index of Biotic Integrity (IBI) = 0.00 % of the fish collected.
30 (Fair)

Big Creek West Branch Downstream of Memphis Avenue

8/31/2015

River Mile: 0.02

Collection Method: Longline Electrofishing

Drainage Area: 4.9 miles²

Collection Distance: 0.15 km

Code	Species	Number	Pollution Tolerance	DELT #	Anomalies Description
40-016	<i>Catostomus commersonii</i> Common white sucker	76	Highly Tolerant	0	---
43-011	<i>Rhinichthys atratulus</i> Western blacknose dace	32	Highly Tolerant	0	---
43-013	<i>Semotilus atromaculatus</i> Creek chub	149	Highly Tolerant	0	---
43-033	<i>Notropis dorsalis</i> Bigmouth Shiner	2	--	0	---
43-034	<i>Notropis stramineus</i> Sand shiner	15	Moderately Intolerant	0	---
43-043	<i>Pimephales notatus</i> Bluntnose minnow	10	Highly Tolerant	0	---
43-044	<i>Campostoma anomalum</i> Central stoneroller minnow	146	--	0	---
Totals		<u>430</u>		<u>0</u>	

*DELT anomalies were observed on 0.00 % of the fish collected.
Index of Biotic Integrity (IBI) = 28 (Fair)

Stickney Creek, South of Memphis Avenue, North of Memphis Villas Blvd

8/27/2015

River Mile: 0.15

Collection Method: Longline Electrofishing

Drainage Area: 15.8 miles²

Collection Distance: 0.15 km

Code	Species	Number	Pollution Tolerance	DELT #	Anomalies Description
40-016	<i>Catostomus commersonii</i> Common white sucker	43	Highly Tolerant	0	---
43-011	<i>Rhinichthys atratulus</i> Western blacknose dace	30	Highly Tolerant	0	---
43-013	<i>Semotilus atromaculatus</i> Creek chub	225	Highly Tolerant	0	---
43-043	<i>Pimephales notatus</i> Bluntnose minnow	12	Highly Tolerant	0	---
43-044	<i>Campostoma anomalum</i> Central stoneroller minnow	74	--	0	---
Totals		<u>384</u>		<u>0</u>	

*DELT anomalies were observed on 0.00 % of the fish collected.
Index of Biotic Integrity (IBI) = 22 (Poor)

Big Creek at Memphis Picnic Area

8/14/2015

River Mile: 4.40

Collection Method: Longline Electrofishing

Drainage Area: 19.3 miles²

Collection Distance: 0.15 km

Code	Species	Number	Pollution Tolerance	DELT Anomalies #	Description
40-016	<i>Catostomus commersonii</i> Common white sucker	18	Highly Tolerant	0	---
43-011	<i>Rhinichthys atratulus</i> Western blacknose dace	65	Highly Tolerant	0	---
43-013	<i>Semotilus atromaculatus</i> Creek chub	153	Highly Tolerant	0	---
43-034	<i>Notropis stramineus</i> Sand shiner	12	Moderately Intolerant	0	---
43-042	<i>Pimephales promelas</i> Northern fathead minnow	3	Highly Tolerant	0	---
43-043	<i>Pimephales notatus</i> Bluntnose minnow	9	Highly Tolerant	0	---
43-044	<i>Campostoma anomalum</i> Central stoneroller minnow	341	--	0	---
77-009	<i>Lepomis macrochirus</i> Northern bluegill sunfish	1	Moderately Tolerant	0	---
	Totals	<u><u>602</u></u>		<u><u>0</u></u>	

*DELT anomalies were observed on 0.00 % of the fish collected.
Index of Biotic Integrity (IBI) = 30 (Fair)

Big Creek Downstream of Jennings Road

September 10, 2015

River Mile: 0.15

Collection Method: Boat Electrofishing

Drainage Area: 37.1 miles²

Collection Distance: 0.2 km

Code	Species	Number	Weight (kg)	Pollution Tolerance	#	DELT Anomalies Description
20-003	<i>Dorosoma cepedianum</i> Eastern gizzard shad	21	0.1	--	0	---
40-015	<i>Hypentelium nigricans</i> Northern hog sucker	1	0.2	Moderately Intolerant	0	---
40-016	<i>Catostomus commersonii</i> Common white sucker	3	0.091	Highly Tolerant	0	---
43-002	<i>Carassius auratus</i> Goldfish	1	0.24	Highly Tolerant	0	---
43-025	<i>Notropis chrysocephalus</i> Striped shiner	1	0.004	--	0	---
43-044	<i>Campostoma anomalum</i> Central stoneroller minnow	1	0.001	--	0	---
47-004	<i>Ictalurus natalis</i> Yellow bullhead	7	0.86	Highly Tolerant	2	Lesions
77-001	<i>Pomoxis annularis</i> White crappie	1	0.13	--	0	---
77-004	<i>Micropterus dolomieu</i> Smallmouth bass	1	0.48	Moderately Intolerant	0	---
77-008	<i>Lepomis cyanellus</i> Green sunfish	5	0.1	Highly Tolerant	0	---
77-009	<i>Lepomis macrochirus</i> Northern bluegill sunfish	1	0.004	Moderately Tolerant	0	---
77-014	<i>HYBRID</i> Bluegill X Pumpkinseed	1	0.004	--	0	---
80-003	<i>Perca flavescens</i> Yellow perch	1	0.001	--	0	---
87-001	<i>Neogobius melanostomus</i> Round goby	6	0.07	--	0	---
	Totals	<u><u>51</u></u>	<u><u>2.285</u></u>		<u><u>2</u></u>	

Big Creek Downstream of Jennings Road

September 10, 2015

River Mile: 0.15

*DELT anomalies were observed on	3.92	% of the fish collected.
Index of Biotic Integrity (IBI) =	20	(Poor)
Modified Index of Well-Being (MIwb) =	7.1	(Fair)
Shannon Diversity Index, no.	1.978	
Shannon Diversity Index, wt.	1.858	
N	140	
B	4.6	

Big Creek Downstream of Jennings Road

October 13, 2015

River Mile: 0.15

Collection Method: Boat Electrofishing

Drainage Area: 37.1 miles²

Collection Distance: 0.2 km

Code	Species	Number	Weight (kg)	Pollution Tolerance	DELT Anomalies #	Description
20-003	<i>Dorosoma cepedianum</i> Eastern gizzard shad	2	0.03	--	0	---
25-002	<i>Oncorhynchus mykiss</i> Rainbow trout	1	2	--	0	---
40-016	<i>Catostomus commersonii</i> Common white sucker	8	0.11	Highly Tolerant	0	---
43-013	<i>Semotilus atromaculatus</i> Creek chub	1	0.02	Highly Tolerant	0	---
43-020	<i>Notropis atherinoides</i> Common Emerald shiner	323	0.511	--	0	---
43-043	<i>Pimephales notatus</i> Bluntnose minnow	1	0.02	Highly Tolerant	0	---
47-004	<i>Ictalurus natalis</i> Yellow bullhead	3	0.29	Highly Tolerant	1	Lesion
77-004	<i>Micropterus dolomieu</i> Smallmouth bass	1	0.02	Moderately Intolerant	0	---
77-006	<i>Micropterus salmoides</i> Largemouth bass	1	0.01	--	0	---
77-008	<i>Lepomis cyanellus</i> Green sunfish	3	0.04	Highly Tolerant	0	---
77-009	<i>Lepomis macrochirus</i> Northern bluegill sunfish	4	0.06	Moderately Tolerant	0	---
80-022	<i>Etheostoma caeruleum</i> Rainbow darter	1	0.003	Moderately Intolerant	0	---
87-001	<i>Neogobius melanostomus</i> Round goby	9	0.11	--	0	---
Totals		<u>358</u>	<u>3.224</u>		<u>1</u>	

*DELT anomalies were observed on 0.28 % of the fish collected.
 Index of Biotic Integrity (IBI) = 36 (Marginally Good)
 Modified Index of Well-Being (MIwb) = 6.1 (Poor)

Big Creek Downstream of Jennings Road

October 13, 2015

River Mile: 0.15

Shannon Diversity Index, no.	0.528
Shannon Diversity Index, wt.	1.326
N	1660
B	3.17