

**Big Creek Downstream of Jennings Road**  
**July 1, 2010**  
**River Mile: 0.15**  
**Collection Method: Longline Electroshocking**  
**Drainage Area: 37.1 miles<sup>2</sup>**  
**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 redbhorse	2	0.590	Moderately Intolerant	0	--
<i>Hypentelium nigricans</i> Northern hog sucker	2	0.525	Moderately Intolerant	0	--
<i>Catostomus commersonii</i> Common white sucker	45	0.880	Highly Tolerant	1	Deformed body
<i>Semotilus atromaculatus</i> Creek chub	2	0.032	Highly Tolerant	0	--
<i>Pimephales promelas</i> Northern fathead minnow	1	0.008	Highly Tolerant	0	--
<i>Campostoma anomalum</i> Central stoneroller minnow	11	0.100	--	0	--
<i>Ictalurus natalis</i> Yellow bullhead	23	2.650	Highly Tolerant	5	roded barbels & lesior
<i>Ictalurus nebulosus</i> Brown bullhead	2	0.100	Highly Tolerant	0	--
<i>Micropterus salmoides</i> Largemouth bass	2	0.060	--	0	--
<i>Lepomis cyanellus</i> Green sunfish	7	0.152	Highly Tolerant	0	--
<i>Lepomis macrochirus</i> Northern bluegill sunfish	9	0.120	Moderately Tolerant	0	--
<i>Neogobius melanostomus</i> Round goby	17	0.242	--	0	--
Totals	<u>123</u>	<u>5.459</u>		<u>6</u>	

\*DELT anomalies were observed on 4.88 % of the fish collected.  
Index of Biotic Integrity (IBI) = 26 (Poor)

**Big Creek Downstream of Jennings Road**

**July 1, 2010**

**River Mile: 0.15**

Modified Index of Well-Being (MIwb)	5.8	(Poor)
Shannon Diversity Index, wt.	1.899	
Shannon Diversity Index, no.	1.668	
N	39	
B	2.093	

**Big Creek Downstream of Jennings Road**  
**September 2, 2010**  
**River Mile: 0.15**  
**Collection Method: Longline Electroshocking**  
**Drainage Area: 37.1 miles<sup>2</sup>**  
**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	2	0.226	--	0	--
<i>Hypentelium nigricans</i> Northern hog sucker	5	0.866	Moderately Intolerant	0	--
<i>Catostomus commersonii</i> Common white sucker	38	1.750	Highly Tolerant	1	Lesion
<i>Semotilus atromaculatus</i> Creek chub	6	0.100	Highly Tolerant	0	--
<i>Cyprinella spiloptera</i> Spotfin shiner	1	0.004	--	0	--
<i>Notropis stramineus</i> Sand shiner	2	0.010	Moderately Intolerant	0	--
<i>Pimephales notatus</i> Bluntnose minnow	2	0.014	Highly Tolerant	0	--
<i>Campostoma anomalum</i> Central stoneroller minnow	6	0.070	--	0	--
<i>Ictalurus natalis</i> Yellow bullhead	13	0.850	Highly Tolerant	0	--
<i>Micropterus salmoides</i> Largemouth bass	3	0.518	--	0	--
<i>Lepomis gulosus</i> Warmouth sunfish	1	0.090	--	0	--
<i>Lepomis cyanellus</i> Green sunfish	3	0.400	Highly Tolerant	0	--
<i>Lepomis macrochirus</i> Northern bluegill sunfish	22	0.350	Moderately Tolerant	0	--
<i>Etheostoma nigrum</i> Johnny darter	1	0.006	--	0	--

**Big Creek Downstream of Jennings Road**  
**September 2, 2010**  
**River Mile: 0.15**

<i>Neogobius melanostomus</i> Round goby	69	0.480	--	0	--
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Totals	<u>174</u>	<u>5.734</u>		<u>1</u>	

\*DELT anomalies were observed on 0.57 % of the fish collected.  
Index of Biotic Integrity (IBI) = 32 (Fair)  
Modified Index of Well-Being (MIwb) 6.6 (Fair)  
Shannon Diversity Index, wt. 1.872  
Shannon Diversity Index, no. 2.067  
N 64.5  
B 3.21

**Big Creek Downstream of Jennings Road**  
**September 23, 2010**  
**River Mile: 0.15**  
**Collection Method: Longline Electroshocking**  
**Drainage Area: 37.1 miles<sup>2</sup>**  
**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	3	0.354	Moderately Intolerant	0	--
<i>Catostomus commersonii</i> Common white sucker	33	1.270	Highly Tolerant	0	--
<i>Notropis atherinoides</i> Common Emerald shiner	13	0.013	--	0	--
<i>Campostoma anomalum</i> Central stoneroller minnow	7	0.120	--	0	--
<i>Ictalurus natalis</i> Yellow bullhead	12	0.390	Highly Tolerant	0	--
<i>Micropterus salmoides</i> Largemouth bass	5	0.115	--	0	--
<i>Lepomis cyanellus</i> Green sunfish	8	0.058	Highly Tolerant	0	--
<i>Lepomis macrochirus</i> Northern bluegill sunfish	18	0.255	Moderately Tolerant	1	Lesion
<i>Lepomis gibbosus</i> Pumpkinseed sunfish	1	0.020	Moderately Tolerant	1	Eroded tail
<i>Neogobius melanostomus</i> Round goby	44	0.315	--	0	--
Totals	<u>144</u>	<u>2.910</u>		<u>2</u>	

\*DELT anomalies were observed on 1.39 % of the fish collected.

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

Modified Index of Well-Being (MIwb) 5.9 (Fair)

Shannon Diversity Index, wt. 1.923

Shannon Diversity Index, no. 1.737

N 70.5

B 1.316

**Big Creek- East Branch at Memphis Picnic Area**

**7/1/2010**

**River Mile: 4.40**

**Collection Method: Longline Electroshocking**

**Drainage Area: 19.3 miles<sup>2</sup>**

**Collection Distance: 0.15 km**

<u>Species</u>	<u>Number</u>	<u>Pollution Tolerance</u>	<u>#</u>	<u>DELT Anomalies Description</u>
<i>Catostomus commersonii</i> Common white sucker	10	Highly Tolerant	0	--
<i>Rhinichthys atratulus</i> Western blacknose dace	35	Highly Tolerant	0	--
<i>Semotilus atromaculatus</i> Creek chub	23	Highly Tolerant	0	--
<i>Notropis dorsalis</i> Bigmouth Shiner	1	--	0	
<i>Notropis stramineus</i> Sand shiner	1	Moderately Intolerant	0	--
<i>Pimephales notatus</i> Bluntnose minnow	21	Highly Tolerant	0	--
<i>Campostoma anomalum</i> Central stoneroller minnow	389	--	0	--
<b>Totals</b>	<u>480</u>		<u>0</u>	

\*DELT anomalies were observed on 0.0 of the fish collected.  
 Index of Biotic Integrity (IBI) = 34 (Fair)

**Big Creek-East Branch at Memphis Picnic Area**

**9/8/2010**

**River Mile: 4.40**

**Collection Method: Longline Electroshocking**

**Drainage Area: 19.3 miles<sup>2</sup>**

**Collection Distance: 0.15 km**

<u>Species</u>	<u>Number</u>	<u>Pollution Tolerance</u>	<u>#</u>	<u>DELT Anomalies Description</u>
<i>Catostomus commersonii</i> Common white sucker	25	Highly Tolerant	0	--
<i>Rhinichthys atratulus</i> Western blacknose dace	84	Highly Tolerant	0	--
<i>Semotilus atromaculatus</i> Creek chub	78	Highly Tolerant	0	--
<i>Notropis stramineus</i> Sand shiner	5	Moderately Intolerant	0	--
<i>Pimephales promelas</i> Northern fathead minnow	16	Highly Tolerant	0	--
<i>Pimephales notatus</i> Bluntnose minnow	79	Highly Tolerant	0	--
<i>Campostoma anomalum</i> Central stoneroller minnow	711	--	0	--
<i>Ictalurus natalis</i> Yellow bullhead	1	Highly Tolerant	0	--
<i>Lepomis cyanellus</i> Green sunfish	12	Highly Tolerant	0	--
<b>Totals</b>	<u><u>1011</u></u>		<u><u>0</u></u>	

\*DELT anomalies were observed on 0.0 of the fish collected.  
 Index of Biotic Integrity (IBI) = 36 (Marginally Good)

**Big Creek-Ford Branch Upstream of West 150th Street**

**7/1/2010**

**River Mile: 4.70**

**Collection Method: Longline Electroshocking**

**Drainage Area: 4.3 miles<sup>2</sup>**

**Collection Distance: 0.15 km**

<b>Species</b>	<b>Number</b>	<b>Pollution Tolerance</b>	<b>#</b>	<b>DELT Anomalies Description</b>
<i>Catostomus commersonii</i> Common white sucker	4	Highly Tolerant	0	--
<i>Pimephales promelas</i> Northern fathead minnow	9	Highly Tolerant	0	--
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Totals	<u>13</u>		<u>0</u>	

\*DELT anomalies were observed on 0.0 of the fish collected.  
Index of Biotic Integrity (IBI) = 16 (Very Poor)



**Big Creek-Ford Branch Upstream of West 150th Street**

**9/8/2010**

**River Mile: 4.70**

**Collection Method: Longline Electroshocking**

**Drainage Area: 4.3 miles<sup>2</sup>**

**Collection Distance: 0.15 km**

<u>Species</u>	<u>Number</u>	<u>Pollution Tolerance</u>	<u>#</u>	<u>DELT Anomalies Description</u>
<i>Catostomus commersonii</i> Common white sucker	83	Highly Tolerant	0	--
<i>Carassius auratus</i> Goldfish	8	Highly Tolerant	0	--
<i>Semotilus atromaculatus</i> Creek chub	3	Highly Tolerant	0	--
<i>Pimephales promelas</i> Northern fathead minnow	363	Highly Tolerant	0	--
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Totals	<u>457</u>		<u>0</u>	

\*DELT anomalies were observed on 0.0 of the fish collected.  
 Index of Biotic Integrity (IBI) = 16 (Very Poor)