

**Big Creek at Memphis Park**

**6/16/2011**

**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	12	Highly Tolerant	0	--
<i>Rhinichthys atratulus</i> Western blacknose dace	91	Highly Tolerant	0	--
<i>Semotilus atromaculatus</i> Creek chub	29	Highly Tolerant	0	--
<i>Notropis stramineus</i> Sand shiner	3	Moderately Intolerant	0	--
<i>Pimephales promelas</i> Northern fathead minnow	6	Highly Tolerant	0	--
<i>Pimephales notatus</i> Bluntnose minnow	48	Highly Tolerant	0	--
<i>Campostoma anomalum</i> Central stoneroller minnow	250	--	1	Deformed nose
<i>Ictalurus natalis</i> Yellow bullhead	1	Highly Tolerant	0	--
<i>Lepomis cyanellus</i> Green sunfish	1	Highly Tolerant	0	--
Totals	<u>441</u>		<u>1</u>	

\*DELT anomalies were observed on 0.2 of the fish collected.  
Index of Biotic Integrity (IBI) = 32 (Fair)

**Big Creek at Memphis Park**

**8/5/2011**

**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>DELT Anomalies #</u>	<u>Description</u>
<i>Catostomus commersonii</i> Common white sucker	24	Highly Tolerant	0	--
<i>Rhinichthys atratulus</i> Western blacknose dace	58	Highly Tolerant	0	--
<i>Semotilus atromaculatus</i> Creek chub	53	Highly Tolerant	0	--
<i>Notropis stramineus</i> Sand shiner	2	Moderately Intolerant	0	--
<i>Pimephales notatus</i> Bluntnose minnow	21	Highly Tolerant	0	--
<i>Campostoma anomalum</i> Central stoneroller minnow	162	--	0	--
<b>Totals</b>	<u>320</u>		<u>0</u>	

\*DELT anomalies were observed on 0.0 of the fish collected.  
Index of Biotic Integrity (IBI) = 30 (Fair)

**Big Creek Downstream of Jennings Road**  
**June 16, 2011**  
**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 redhorse	15	5.950	Moderately Intolerant	0	--
<i>Hypentelium nigricans</i> Northern hog sucker	4	0.655	Moderately Intolerant	0	--
<i>Catostomus commersonii</i> Common white sucker	21	1.150	Highly Tolerant	0	--
<i>Pimephales notatus</i> Bluntnose minnow	3	0.027	Highly Tolerant	0	--
<i>Ictalurus punctatus</i> Channel catfish	8	9.100	--	4	roded barbels & lesior
<i>Ictalurus natalis</i> Yellow bullhead	4	0.506	Highly Tolerant	0	--
<i>Ictalurus nebulosus</i> Brown bullhead	1	0.022	Highly Tolerant	0	--
<i>Lepomis cyanellus</i> Green sunfish	7	0.050	Highly Tolerant	0	--
<i>Lepomis macrochirus</i> Northern bluegill sunfish	27	0.301	Moderately Tolerant	0	--
<i>Lepomis gibbosus</i> Pumpkinseed sunfish	1	0.038	Moderately Tolerant	0	--
<b>HYBRID</b> Bluegill X Pumpkinseed	1	0.005	--	1	Deformed eye
<i>Neogobius melanostomus</i> Round goby	2	0.014	--	0	--
<b>Totals</b>	<u>94</u>	<u>17.818</u>		<u>5</u>	

\*DELT anomalies were observed on 5.32 % of the fish collected.  
 Index of Biotic Integrity (IBI) = 30 (Fair)  
 Modified Index of Well-Being (MIwb) 7.0 (Fair)  
 Shannon Diversity Index, no. 1.995  
 Shannon Diversity Index, wt. 1.233

**Big Creek Downstream of Jennings Road**

**June 16, 2011**

**River Mile: 0.15**

N  
B

82.5  
24.07

**Big Creek Downstream of Jennings Road**  
**August 1, 2011**  
**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	4	0.518	Moderately Intolerant	0	--
<i>Catostomus commersonii</i> Common white sucker	11	1.000	Highly Tolerant	0	--
<i>Ictalurus natalis</i> Yellow bullhead	4	0.406	Highly Tolerant	2	Lesions
<i>Micropterus salmoides</i> Largemouth bass	2	0.050	--	0	--
<i>Lepomis cyanellus</i> Green sunfish	3	0.028	Highly Tolerant	0	--
<i>Lepomis macrochirus</i> Northern bluegill sunfish	18	0.238	Moderately Tolerant	0	--
<i>Lepomis gibbosus</i> Pumpkinseed sunfish	1	0.083	Moderately Tolerant	0	--
<i>Neogobius melanostomus</i> Round goby	3	0.038	--	0	--
Totals	<u>46</u>	<u>2.361</u>		<u>2</u>	

\*DELT anomalies were observed on 4.35 % of the fish collected.  
 Index of Biotic Integrity (IBI) = 30 (Fair)  
 Modified Index of Well-Being (MIwb) 5.2 (Poor)  
 Shannon Diversity Index, no. 1.71  
 Shannon Diversity Index, wt. 1.549  
 N 37.5  
 B 1.334