

Little Mountain Tributary of Mountain Creek  
NE SE NE Section 2-6N-24E  
LeFlore County  
N 35° 01.485  
W 94° 44.141  
WBID#: OK220100-01-0190M

Little Mountain Creek is located in southeastern Oklahoma in LeFlore County. The site is on N 4660 Road in Wister. It is within the Arkansas River Valley ecoregion. The creek drains land from the top Cavanal Hill by the radio towers west of Poteau and flows into Mountain Creek in Kennedy. From there the creek flows into Caston Creek west of Wister. The drainage area is approximately 15 square miles. The testing site is located directly below one of the town dumps. Pastures with cattle and horses also surround the creek. There is a lot of housing in the headwaters of the watershed near Cavanal.

The habitat was assessed on August 2, 2007. Little Mountain Creek is fairly straight and doesn't wind or curve much. This creek does not have a lot of water because it is so small. The bottom of the creek is a combination of sediment such as sand and various sizes of rocks. The creek has stretches of riffles where the water passes over the rocks. Within the creek there are many places for organisms to hide such as logs, plants, clumps of roots, and rocks. Channel alteration is taking place within the creek, which means that somewhere along the banks erosion is taking place. While the banks of the creek are not covered with a lot of vegetation, they are very stable and there are trees and shrubs beside the creek that provide good shade. This helps to keep the water cool. The habitat at Little Mountain Creek is comparable to high quality reference streams in this ecoregion.

A fish collection was done at Little Mountain Creek on August 2, 2007. A total of 602 fish were collected from 14 different species. There were five kinds of sunfish: Green, Bluegill, Longear, and Redear sunfish, and Largemouth bass. There were four darter/benthic species, which included Orangethroat and Redfin darter, Logperch, and Slender madtom. There were three intolerant species found, which included Slender madtom, Blackstripe topminnow, and Redfin darter. The fish collection from Little Mountain Creek was 82% as good as the average of high quality streams for the ecoregion. This means that the creek is missing some of the more sensitive species of fish.

The first bug collection was done February 23, 2007. A total of 126 organisms were collected. There were 15 different species of bugs found. Six of the fifteen species found were the more sensitive species. The winter bug collection was 64% as good as the average for the ecoregion. The second bug collection was done August 2, 2007. A total of 125 organisms were collected. Four species of more sensitive bugs were found. The summer bug collection was 57% as good as the average for the ecoregion. Both collections were missing some of the sensitive bug species and there were not many individuals of the sensitive bugs that were there. The diversity of species was limited.

The water chemistry in Little Mountain Creek has been tested monthly since November 25, 2006 for water temperature, dissolved oxygen, oxygen saturation, pH,

nitrate, nitrite, ammonia, orthophosphate, and chloride. The nitrate, nitrite, ammonia, orthophosphate, and chloride were all below detection levels for the tests which is excellent. The median pH value is 7.5. The oxygen saturation was at normal levels, but can vary.

The creek was tested for bacteria seven times in the summers of 2007 and 2008. *E. coli* levels were exceeded for safe swimming on August 23, 2007 and July 14, 2008.

Little Mountain Creek is located in Wister, Oklahoma. This is a small creek with a low flow. It has some erosion along the banks. Within the creek are plenty of logs and rocks for the organisms to hide behind. The fish collection taken from the creek was 82% as good as the average for the ecoregion, revealing that the creek is missing some species of intolerant fish. Bug collections were taken from the creek in both winter and summer. The average in the winter was slightly better than the summer, but the creek was lacking some of the sensitive bugs at both times. The creek's water chemistry has been tested and everything was found within normal levels. The water was tested for bacteria. *E. coli* exceeded safe swimming levels twice. Little Mountain Creek, on the whole, is a fairly healthy creek.

Written By: Claire Mitchell