Taloka Creek: N 4430
SE NE SE
Section 36-10N-20E
Haskell County
N 35° 17.747'
W 95° 7.984'
WBID#: 220300-00-0020M

The site on Taloka Creek is located just two miles north of Stigler, Oklahoma, in Haskell County. It is in the Arkansas Valley ecoregion. The creek runs from southeast to northwest and drains an area of about 25 square miles into the Canadian River. The landuse in the watershed is mostly agricultural, though Taloka Creek receives drainage from several strip mines.

The monitoring site is located where N 4430 Road crosses the creek. There is a small riparian area of natural vegetation left on the banks of the creek that provides very good shade for the water. The banks are fairly stable and are covered with vegetation in most places, though cattle have access to the stream and their trails are causing some erosion. There is moderate variety in pool depths, though the bottom of the stream has very soft sediments indicating that there is erosion upstream. A loose shifting pool bottom will not provide substrate for burrowing organisms and will not allow bottom-spawning fish to successfully spawn. There are lots of branches in the water from past ice storms. These make walking difficult but provide wonderful hiding places for fish. This portion of the stream is quite straight and the during the habitat assessment on August 3, 2007, there was low flow. The habitat at Taloka Creek received a score of 69. The average high quality stream in this ecoregion has a score of 104.

On August 3, 2007 at Taloka Creek various types of fish were collected; 263 fish of 18 different species were caught. Six species out of the total 18 species were sunfish: Green Sunfish, Orangespotted Sunfish, Bluegill Sunfish, Longear Sunfish, the Spotted Bass, and the Largemouth Bass. There were also two species of darters; they were the Bluntnose Darter and Logperch. There were only two types of intolerant species, the Spotted Sucker and the Bluntnose Darter. Intolerant species are the first to disappear when the creek is affected by pollution or habitat loss. Taloka Creek is 73% as good as high quality streams in this ecoregion. Its condition is a category C, which means that the intolerant and sensitive species are rare or absent.

Benthic macroinvertebrates (aquatic bugs) were collected from woody debris in the summer of 2007. There were 13 different taxa, but only 3 taxa were the sensitive mayflies, stoneflies or caddisflies and there were not many sensitive individuals. This collection is 60% as good as collections from high quality streams in this ecoregion. Its condition is graded B.

Water chemistry was tested monthly between September 2006 and September 2008. The median oxygen saturation during this time was 55%. This falls in a caution range. This could be from the low flow of water in the creek and the fact that it is mostly pooled without rocky runs and riffles. The rest of the chemical results are all within normal ranges. The median pH is 8. The median soluble nitrogen is 0.68 mg/L N. The orthophosphate phosphorus is usually below the detection level of the test. The median chloride is 15 mg/L Cl.

Bacteria were tested twice during the summer of 2007. Both times the E. coli values were low, which means the water is clean enough for swimming.

Taloka Creek is located in Haskell County just north of Stigler in eastern Oklahoma. It runs from east to west and drains about 25 square miles of agricultural land and strip mines. The creek is very shady with only a little band of trees along the bank. The water depth varies, but there is soft sediment on the bottom of the creek. The habitat is 66% as good as what is found in high quality streams in the Arkansas Valley ecoregion. There were 263 fish from 18 different species caught by seining on August 3, 2007. Only two intolerant species of fish were found in the creek. The fish collection gives Taloka Creek a C. Bugs were collected from woody debris in the summer of 2007. Only 3 of 13 species were sensitive and there were not many sensitive individuals. The bug collection gives Taloka Creek a B. Water chemistry is well with normal levels except for the percent dissolved oxygen which is quite low (55%). The low oxygen level could be caused by the fact that this is a low flow stream. Bacteria was tested twice and *E. coli* levels indicate the water was found to be safe for swimming. Our testing has not identified specific chemical problems with Taloka Creek aside from the oxygen saturation, but it is clear the creek is suffering from habitat loss. Both of the biological collections indicate the creek is losing the intolerant and sensitive species.

Helen Talaese