

2004 Baseline Survey of **Gravel Run**

Middle Pecatonica River Watershed (SP08), Sugar/Pecatonica Basin

Lafayette County

WBIC 923400

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Jim Amrhein, Watershed Specialist
South Central Region

Gravel Run Creek is a 6 mile long stream that serves as a tributary to Otter Creek. The lower 3 miles are managed as a Class II trout fishery. The status of the upper 3 miles is unknown but believed to be a forage fishery. The stream suffers impacts to habitat and dissolved oxygen due to heavy agriculture in the watershed.

A section of stream above Gravel Run Road was surveyed on September 22, 2004. A 177 meter stretch was shocked using a 240 volt stream shocker with 2 probes. An attempt was made to collect all fish species in order to determine an Index of Biotic Integrity (IBI). A habitat and macroinvertebrate evaluation was also conducted at this site, but those results are not yet available.

Gravel Run Creek at this site averaged 3.7 meters wide and 0.2 meters deep. Flow was measured at 4.34 ft³/second (0.123 m³/second). Most of the stream flows through a pastured landscape, however this section flows through an area that had not been pastured in some time. Row crops were within 5 to 10 meters of the stream, but the old pasture buffers provides a pretty good buffer. Bank height varied from 0 to 5 feet with the outside bends being steep and raw. The inside bends were grassed and more gradual, allowing the stream to reach its' floodplain. The stream alternated between riffles and runs. The stream bottom was mostly gravel, with some rubble/cobble. There was some silt in pools and on inside bends. sago pondweed and curlyleaf pondweed were found in silty areas.

The following non-game species were collected:

Species	Number
Central Stoneroller	80
Common Shiner	166
Hornyhead Chub	44
Creek Chub	22
Southern Redbelly Dace	20
Fantail Darter	59
Bluntnose Minnow	68
White Sucker	35
Johnny Darter	31
Brook Stickleback	17
Sand Shiner	18
Fathead Minnow	2

Additionally, 16 brown trout were collected ranging in size from 4.0 to 5.1 inches. These were likely a portion of the 800 small fingerlings that were stocked in May, 2004 about a mile downstream from Gravel Run Road. As there were no other cold/coolwater indicators for this sites except for brook stickleback, the coldwater IBI for this site is 10 (poor). The warmwater IBI for the site is 34 (fair).

Summary

Gravel Run is a Class II trout stream for the lower half of the stream. Despite heavy agriculture in the area, the gradient of the stream allows for some scouring of the creek bed to allow for a generally hard gravel

bottom. While this survey did not find larger trout which would indicate carryover, larger fish have been found in other surveys, though not in large numbers. It should be noted that this survey was conducted at the end of a cool, wet summer.

Management Recommendations

Employ agricultural best management practices in the watershed to mitigate nonpoint source pollution

Slope and stabilize stream banks along the length of the stream.

Future stocking of brown trout should include a fin clip to track migration and carryover.

Deploy temperature loggers to determine the thermal regime of the stream.