

PINE CREEK

Allegan County (1N, 13W, Sections 31, 32, 29, 28)
Van Buren County (1S, 13W, Sections 1, 12, 13, 25)
Kalamazoo County (1S, 12W, Sections 21, 29, 22, 26, 27, 30)
Surveyed October 30-31, and November 1, 1989

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Environment

Pine Creek (also known as Sand Creek in Kalamazoo County and Mentha Drain in Van Buren County) is a marginal trout stream classified as second quality coldwater. Originating in the glacial till area of western Kalamazoo County, this third order stream flows west until it crosses the county line. Here it turns and heads north into Allegan County, where it empties into the impoundment Pine Creek Pond. A small dam separates the pond from the Kalamazoo River. The town of Alamo is located about 5 miles from the middle reaches of Pine Creek.

Significant stretches of Pine Creek have been dredged in the past. A major portion of the watershed lies in muck soils historically cultivated for mint, and now for carrots and onions. The terrain is mostly flat. Soils that characterize the drainage include very poorly drained Gilford and Glendora sandy loams, and very poorly drained Adrian mucks. The majority of the watershed is farmland with some woodlots throughout the area.

Pine Creek is estimated to be 6-8 miles long. Stream widths average 17 feet, with an average depth of 1.5 feet. Habitat varies considerably from section to section. The headwater areas offer undercut banks, some overhanging brush, logs, pools, and watercress. The middle reaches contain some pools, some undercut banks, overhanging brush, and logs. The lower stretches have deep water and logs. Bottom substrates vary from 40% gravel and rock and 60% sand and silt in the headwaters, to 100% sand and silt in the lower reaches. Pine Creek falls approximately 130 feet from its source to its confluence. No chemical characteristics of the creek have been studied to date.

Development is limited to farms and active fields along the watercourse. No state ownership exists along the banks. A small portion of the creek west of 6th Street in Kalamazoo County is township park land that is currently undeveloped. We know of no present access problems for anglers.

Fishery Resource

Pine Creek has been managed for trout since at least 1933. Various combinations of brown and rainbow trout were planted yearly through 1964, when rainbow stockings ceased. Most trout plantings in the 1940s, 1950s, and 1960s occurred only in the Van Buren County sections. Since the mid-1960s, only brown trout have been stocked. Pine Creek has historically been popular with anglers. Many of the district's largest brown trout are caught here each year, primarily with bait. Riparians report heavy pressure for the first 2 weeks of the trout season generally, with much less activity for the remainder of the season.

The fish community of today (Table 1) in Pine Creek is no different from that of 50 years ago.

Trout are the main gamefish available to anglers. Some northern pike are also caught each year by anglers, primarily in the lower reaches, where pike move upstream from Pine Creek Pond.

Based on 1989 survey results, natural reproduction of brown trout is limited because few 3-4 inch juveniles were found. Only the upper reaches in Kalamazoo County yielded wild fish. All sections sampled contained brown trout, with many nice 2-year-old fish still present in late October. Using a 220-Volt D.C. shocker with two probes, our catch per effort of brown trout for all seven sections combined was 22.0 per hour. This compares to 24.1 per hour in 1982 (three sections only). All trout collected were in very good shape, with many of the 2-year-old trout in spawning condition. Fifty percent of all trout collected were legal size (8").

As one of District 12's wider trout streams, angler opportunities are very good for all methods of angling. Excellent caddis hatches, along with some mayflies, provide a challenge for the fly angler. Lure and bait anglers have very good holes to fish, especially in the lower end.

Management Direction

Pine Creek should continue to be managed as a second quality coldwater trout stream. It appears that the limited natural reproduction in the upper stretches is not enough to sustain the type of fishery that exists today. Present stocking levels of about 275 trout per acre should be maintained. Survival of trout through the off season is very good, as evidenced by the number of larger trout captured during our survey.

Species other than trout are not so abundant in Pine Creek that trout are impacted. No habitat restoration is possible at this time because the sections that could use it most (Van Buren County) are designated as a county drain. No problems can be foreseen with water quality at this time. The major obstacles to improving the trout fishery are the sand sediments and straight channels found in the designated county drain area. There is no possibility of changing this situation at the present time.

Report completed: May, 1990.

Table 1.-Species, relative abundance, and length of fish collected by electrofishing at seven stations on Pine Creek, October 30-31, 1989.

<u>Species</u>	<u>Number</u>	<u>Percent</u>	<u>Length range</u> <u>(inches)¹</u>
Sculpin	697	82.6	1-4
Brown trout	64	7.6	3-15
Green sunfish	22	2.6	2-5
White sucker	21	2.5	3-19
Creek chub	15	1.8	4-8
Johnny darter	11	1.3	2
Central mudminnow	6	0.7	2-4
Bullhead	5	0.6	3-8
Pumpkinseed	1	0.1	2
Largemouth bass	1	0.1	2
Bluegill	1	0.1	3

Total

844

100.0

¹Fish were measured to inch group: eg., "1" = 1.0 to 1.9 inches; "2" = 2.0 to 2.9 inches; etc.

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Questions, comments and suggestions are always welcome! Send them to
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