



FISHERIES & HABITAT MANAGEMENT REPORT Irving Creek, Dunn Co., 2004

Stream Description and Management:

Irving Creek (T27N, R13W, Section 10) is a high gradient, cold to cool water coulee stream, approximately eight miles long, located south of Menomonie, Wisconsin. The watershed is predominately farm and woodland. Irving Creek from CTH D upstream to the west line of Section 6, T27N, R13 W is currently listed as a Class III trout water (3.5 miles). The headwaters to the west are currently not classified. Trout regulations are Category 4 (the bag limit is three, the minimum length limit for brook trout is eight inches and brown trout is 12 inches). The Department of Natural Resources recently surveyed Irving Creek in order to obtain baseline fisheries data to determine the status and health of the fishery.

The Fish and Habitat Conditions:

Eleven species of fish were collected from four sampling sites (**Figure 1 & Table 1**). Irving Creek is best characterized as a cool to coldwater stream. Wild brook trout were found throughout the stream.

The Coldwater and Warmwater Index of Biotic Integrity is a ranking system used to evaluate the health or quality of the native coldwater or warmwater fish community. Irving Creek ranked "Fair" to "Excellent."

The Habitat Rating System provides a measure of habitat quality and/or quantity available for fish to utilize within a stream. Irving Creek habitat ranked mostly "Fair". Excessive amounts of fine sediment, bank erosion and lack of fish habitat were the primary limiting factors throughout most of the stream.

Optimal water temperature for growth and survival of brook trout ranges from 51.8 to 60.8 °F. The upper limiting (near lethal) water temperature is 74.8 °F. Mean, maximum and minimum summer water temperatures in Irving Creek at CTH D are 58.0 F, 67.7 F and 48.3 F respectively. Water temperature for brook trout survival and natural reproduction is believed to be suitable through most of the stream. Poor water temperatures maybe a limiting factor in the vicinity of Site 3.

The Sport Fishery:

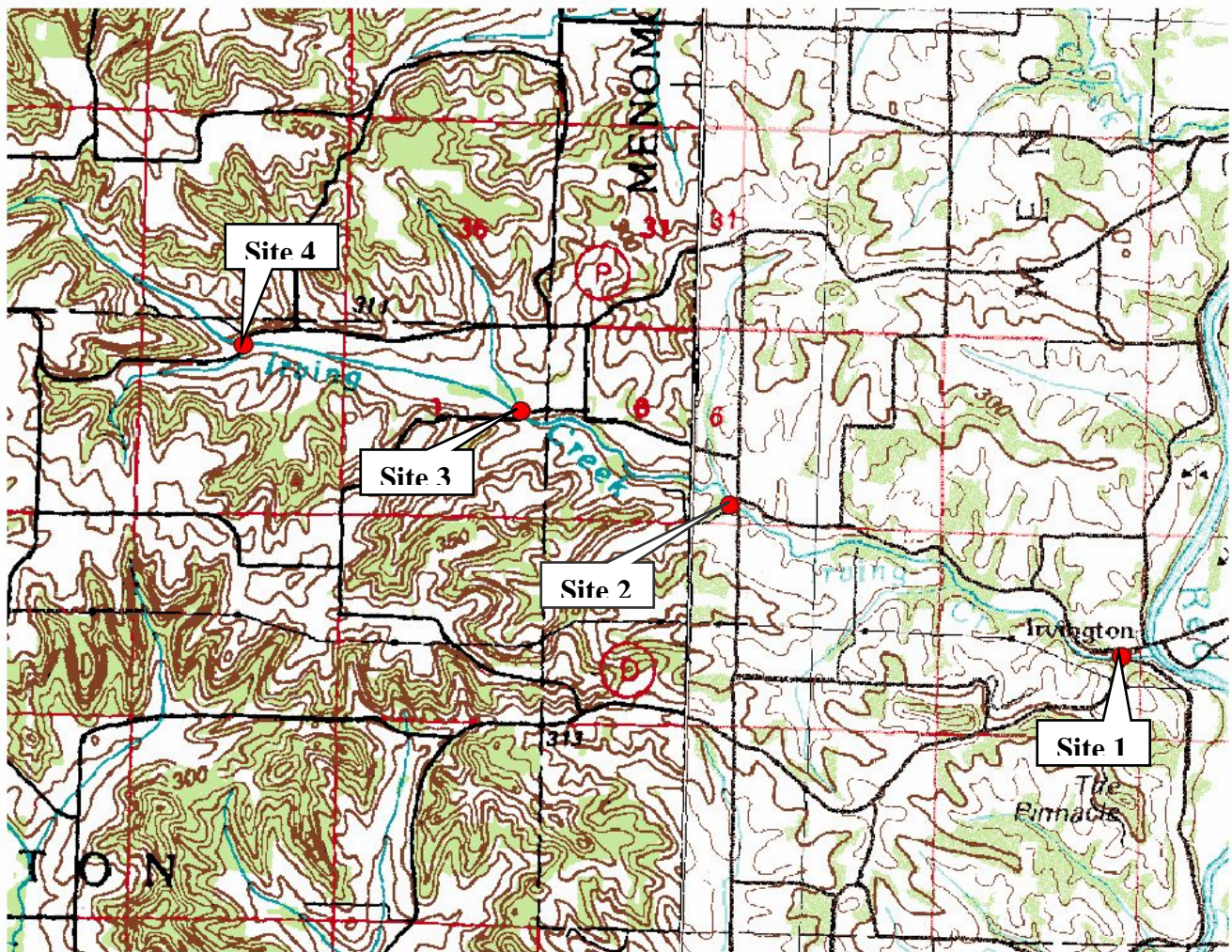
Trout abundance (Catch per Unit Effort or C.P.U.E.), expressed, as number of trout per mile of stream is a simple quantitative measurement of trout density. Trout densities of 250 - 1500 per mile are considered "Moderate" in western Wisconsin. Irving Creek contains "Low" to "Moderate" densities (26 to 348 trout/mi.) of native brook trout (**Table 2**). The size structure of Irving Creek's trout population is composed of at least three year classes, however young-of-year trout are distinctly absent from Site 3. Fishable populations of legal sized brook trout are best in the vicinity of Sites 1 & 2.

Fishing pressure is believed to be "Light" throughout most of the year.

Future Management:

Irving Creek contains a low to moderately dense, native brook trout fishery that has shown major improvements in recent years. Historically, it was stocked with legal sized trout to provide a fishery. Stocking was discontinued many years ago and is no longer needed. Natural reproduction of trout is impaired by poor substrate and lack of groundwater. This is most apparent at Site 3. Adult densities are low. Improvements in reproductive success would result in greater recruitment to adults. Trout habitat is severely impaired by sedimentation from bank erosion. Narrow buffers have done little to eliminate this problem. Agricultural best management practices are needed in the area to reduce flooding, streambank erosion and sedimentation of the stream channel. The department should continue managing Irving Creek for a native brook trout fishery and change the current trout stream classification in Dunn County from Class III (3.5 miles) to all Class II trout water (6.8 miles).

Figure 1. Fish and Habitat Survey Sites on Irving Creek, Dunn County.



For more information on Irving Creek you can contact the following person:

Marty Engel, Senior Fisheries Biologist
Wisconsin Department of Natural Resources
890 Spruce Street
Baldwin, WI 54002
(715) 684-2914 ext. 110
E-mail: Marty.Engel@dnr.state.wi.us

Table 1. Relative Abundance of Fish Species Found in Irving Creek, Dunn Co., 2004.

Species	Site 1	Site 2	Site 3	Site 4
	173 m	138 m	125 m	100 m
Blacknose Dace	1		5	
Brook Stickleback	6			
Brook Trout	15	31	2	21
Brown Trout	1			
Creek Chub	1	2	31	
Emerald Shiner	2			
Johnny Darter			8	
Longnose Dace	119	4		
Mottled Sculpin	31			
Northern Pike	2			
White Sucker	67	13		

Table 2. Length Distribution of Brook Trout Found in Irving Creek, Dunn Co., 2004.

Length (in.) Brook Trout	Site 1	Site 2	Site 3	Site 4
	173 m	138 m	125 m	100 m
1				
2		5		
3	2	9		8
4	1	2		1
5				2
6			1	5
7	1	2		4
8	2	5	1	
9	3	4		1
10	2			
11	2			
12	2	2		
13				
14		1		