The Department of Natural Resources assessed the Upper Middle Inlet Creek, Marinette County, on July 5th and 6th, 2005, to conduct a comprehensive survey of the brook trout fishery. The survey was conducted on a 0.52 mile section of the stream between McMahon Road and Highway 41 (T.33N. -R.20E. Section11) (Figure 3). A mark-recapture survey was conducted by a stream shocking run to mark trout on July 5, 2005 and a recapture shocking run on July 6, 2005. The population estimate (number per mile) of legal size brook trout (>7 inches) was 80, no estimate could be made for brown trout. Brook trout had a catch rate of 408 per mile and brown trout had a catch rate of 12 per mile. The overall health of the brook trout population is good, numbers of fish between 3 and 7 inches are at the average for 1986-1999. Numbers of brook trout over 7 inches are down from the average for 1986-1999 but are up from the last two survey years 1998 and 1999. The 1986-1999 average numbers of larger trout may be inflated from the drought years of 1987 -1989 that led to season closures on the creek. Brown trout numbers remain low.

**Brook Trout**

A total of 235 brook trout were caught and marked using a fin clip on July 5, 2005 and a total of 187 (143 new, 44 marked) were caught on the recapture run July 6, 2005.

The population estimate (number per mile) of brook trout over 3 inches was 1223 and over 7 inches was 80. Population surveys were also carried out from 1986 to 1999 (Figure 1). When compared to the average population estimate for 3 inches and larger from 1986 -1999 (1230) and 7 inches and larger (317), the current brook trout population is slightly below average for trout 3 - 7 inches and well below average for trout over 7 inches.

Brook trout ranged in size from 2.0 to 10.6 inches with an average length of 5.4 inches from the marking run on July 5,2005. And ranged in size from 1.8 to 10.5 inches with an average of 5.4 inches on July 6, 2005 (Figure 2).

Catch per effort was calculated for both dates combined. For catch rates of 408 per mile, 0.26 per meter and 158 per hour.

The average length of all brook trout surveyed in 2005 of 5.37 inches is below the average length from 1986-1999 of 6.07 inches.

**Brown Trout**

A total of 5 brown trout were caught and marked by a fin clip on July 5, 2005 and a total of 7 (4 new, 3 marked) were caught on the recapture run July 6, 2005. A population estimate of brown trout could not be calculated due to the low number of fish caught during the survey.

Brown trout ranged in size from 5.5 to 13.5 inches with an average length of 8.4 inches from the marking run on July 5, 2005. And ranged in size from 7.4 to 13.4 inches with an average of 9.3 inches on July 6, 2005. The average length of all brown trout surveyed in 2005 was 8.92 inches.

Catch per effort was calculated for both dates combined. For catch rates of 11.6 per mile, 0.01 per meter and 4.5 per hour.
The Upper Middle Inlet Creek forms part of the Middle Inlet watershed and is a tributary to the Middle Inlet Creek. The watershed is forested and contains some agricultural land and is almost entirely in private ownership. It has a total stream length of 13.5 miles, with a surface area of 15.8 acres and an average width of 16 feet. Trout Unlimited purchased a 48 acre parcel of land between McMahon Road and Highway 141 and donated it to the State of Wisconsin in 1985. This is the only public land located on the Upper Middle Inlet Creek which leads to this section of the creek having some of the highest fishing pressure on this system.

The section of Upper Middle Inlet Creek between McMahon Road and Highway 141 has had several habitat improvement projects conducted on it over the years. The major habitat work included a sand trap that was constructed just downstream of the Highway 141 bridge crossing in 1986. A sand trap serves as a repository for sand upstream of the trap and lessens the amount of sand traveling downstream that may impair trout habitat. This sand trap is periodically dredged out. In 1993, several bank cover structures were installed as well as some boulders placed in the creek.

The drought of 1987 - 1989 led to a season closure with catch and release allowed in 1989 and a total closure to fishing in 1990 opening again in 1991 to a catch and release season with artificial lures only. The fishing season reopened in 1992 and was reclassified to a category 2 trout stream with a 7 inch minimum size limit.

Scheduled stocking of brook trout has occurred almost annually from 1943-2001. There have been no trout stocked into the Upper Middle Inlet Creek since 2001.

The upper Middle Inlet Creek has 6 access points provided at road crossings. These are located on Dean Road, Nejedlo Road (2 crossings), Highway 141, McMahon Road (State owned land), and on Creek Road.

The current (2005) fishing regulations class Upper Middle Inlet Creek as a category 2 trout stream. With a 7 inch size limit for all trout species and a daily bag limit of 5 in total.

You may obtain a copy of current fishing regulations when you purchase your fishing license, or download a copy from our web site at: http://www.dnr.state.wi.us/org/water/fhp/fish/

Figure 3. Map of the Upper Middle Inlet Creek (blue star highlights the location of the assessment site).

For answers to questions about fisheries management activities and plans for the Upper Middle Inlet Creek, Marinette County, contact:

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