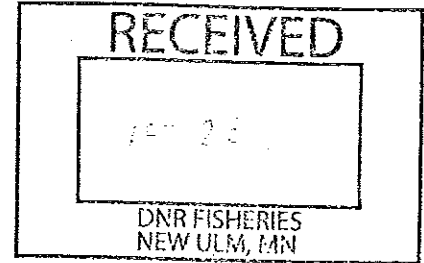




# FISHERIES WARMWATER STREAM RECONNAISSANCE REPORT



REGION 5	AREA Lake City	STREAM NAME So. Branch Mi. Fork Zumbro	TRIBUTARY NO. M-34-56-4	LENGTH 43.0 mi.
COUNTY Dodge, Olmsted	WATERSHED NAME, NO. Zumbro River - 41		SOURCE (T.R.S) T107N R18W S7	MOUTH (T.R.S) 108N 14W S18

**DATE(S) OF ASSESSMENT:** Angling: 8/25-8/27/03

**ASSESSMENT PURPOSE:** Reconnaissance to assess smallmouth bass size structure through angling. Seining was not completed.

**LOCATIONS/STREAM MILES:**

Similar reaches and specific sampling locations are labeled in the Summaries of this report.

**DISCUSSION OF THE FISHERY (ANGLER/S)**

From upstream working downstream:

**Mile 28.2-27.0, from the first bridge crossing upstream of the County 9 bridge, downstream to mile 27.0 (Sogla):** Stream corridor is very wooded and occasionally bounded by steep limestone out-croppings. Stream substrate is mostly fractured, flat limestone and crayfish were common. Forty-four smallmouth bass were caught, average length was 7.7 inches.

**Mile 22.8-21.2, from the Mantorville WWTP outlet to the mouth of Masten Creek (Binder):** Reach was less rocky than upstream, but still had several flat limestone riffles above pools. Twenty-six smallmouth bass caught, average length 8.3 inches.

**Mile 21.2-19.8, from Masten Creek downstream to the tree farm on the left descending bank (Schmidt):** Good riffle/pool sequencing throughout this stretch. Some pools relatively large with depths up to 3-4 feet. Areas of large boulder mixed with expansive sandy runs were common.

**Mile 18.3-15.9, from the bridge near the Bryon Sportsman's Club, downstream to County Road 5 (Binder, Schmidt):** The stream corridor opens up along this reach and the stream channel becomes wider. Pools are larger also, and side-channel log-jams are not uncommon. Habitat for larger smallmouth bass is present in this reach. Mean length of smallmouth bass was similar to other reaches, about 8 inches.

**Mile 13.2-12.0, from the County 105 bridge, downstream to the County 103 bridge (Sogla):** Stream habitat continues to change to more gravel/sand. Limestone rock riffles still present however but overall smallmouth bass habitat is of lesser quality than upstream. Thirty-nine smallmouth bass caught, average length about 6 inches.

**Mile 4.9-3.4, from the dead-end road upstream from the County 3 bridge, downstream to the County 3 bridge (Sogla):** No habitat information was recorded for this reach of the stream. A total of 20 smallmouth bass were collected however, average length was 8.3 inches.

**SMALLMOUTH BASS SAMPLING SUMMARY**

Station*	1	2	3	4	5	6
Gear	Angling	Angling	Angling	Angling	Angling	Angling
Date	8/27/03	8/26/03	8/26/03	8/25/03	8/25/03	8/25/03
Location (Mile)	4.9-3.4	13.2-12.0	18.3-15.9	21.2-19.8	22.8-21.2	28.2-27.0
Location (Description)	From the dead-end road upstream from the County 3 bridge, downstream to the same bridge.	From the County 105 bridge downstream to the County 103 bridge	From the bridge at the Byron Sportsman's Club, downstream to County Road 5.	From Masten Creek downstream to the tree farm at mile 19.8.	From the Mantorville Dam downstream to Masten Creek.	From Wasioja, downstream to mile 27.0.
Effort (Angler-hrs)	4.0	4.25	4.25	4.0	3.5	4.0
Smallmouth bass (>4.5")	20	39	57	14	26	44
CPE (Fish/AnHr)	5.0	9.2	13.4	3.5	7.4	11.0

\* Station numbers used for this Recon only.

**SMALLMOUTH BASS LENGTH FREQUENCIES:**

Station	1	2	3	4	5	6	Total
Length (inches)							
4		2					2
5	1	9	4	3		8	25
6	2	12	13	1	3	6	37
7	8	10	10	3	5	8	44
8		4	12	2	14	7	39
9	5	2	7	3	1	12	30
10	3		5	1	1		10
11	1					2	3
12						1	1
13			1				1
14			2				2
15				1			1
16			1		1		2
17			1		1		2
18			1				1
Total	20	39	57	14	26	44	200
Median	7.5	6.0	8.0	7.5	8.0	7.8	--
Mean	8.3	6.3	8.3	7.9	8.3	7.7	7.7

Stream: SBMF Zumbro  
Date: August, 2003

**SUMMARY:**

A total of 9.3 miles of river was sampled from 25 August through 27 August with a total of 24.0 angler-hours (AnHr). Two-hundred smallmouth bass were sampled ranging in size from 4 to 18 inches. The average median length was 7.5 inches. Catch rates ranged from 3.5 to 13.4/AnHr. Smallmouth bass habitat represented by rocky substrate, riffle areas and pools containing adequate depth and/or cover was best in stations 3 - 6. Only 4% of the sample were fish 14 inches or greater. Ninety-four percent of the sample were fish less than quality size (11 inches). Pool habitat for larger smallmouth bass was available, but not abundant. Many high quality pools noted from previous assessments were smaller and shallower in 2003. Water levels were low during this assessment however, and spatial habitat was consequently small. Higher water conditions would likely increase the quality of smallmouth bass habitat (increased depths) but with higher water would come higher turbidity. The potential of this stream to support larger smallmouth bass is questionable. At the heart of the problem is the availability and quality of pool habitat. A deep-water seine was used in November 2003 in known pools near the lower end of the stream and in Lake Shady. Results were inconclusive – many fish were caught, but the seine was difficult to operate and no smallmouth bass were found. Heavy filamentous algae, silt and muck seriously impeded efforts to count and identify fish. Radio-telemetry may be a useful tool in answering the question of smallmouth bass winter habitat availability in the SBMF Zumbro River.

**Credits and Signatures:**

Field Crew: Al Schmidt, Randy Binder, Dale Sogla.

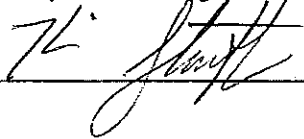
Report Completed by: Al Schmidt

**APPROVED BY:**

Area Supervisor's Signature

Regional Fisheries Manager's Signature

Date

 4-21-04

