

Volunteer Stream Monitoring Program

Expands to Include Maple and Sturgeon Rivers

GRANT REPORT

Project Name

Expanding Volunteer Monitoring to the Maple and Sturgeon Rivers

Project Code

#VSM2011-06

Grant Amount: \$9,351.66

Matching Funds: \$11,720.00

Project Amount: \$21,071.66

Project Duration

June 2011 to August 2012

Applicant

Tip of the Mitt Watershed Council
426 Bay Street
Petoskey, MI 49770
231-347-1181
Contact: Kevin Cronk ext. 109

Project Location

Emmet and Cheboygan Counties

Project Partners

Trout Unlimited
Miller Van Winkle Chapter
North Central Michigan College
University of Michigan
Biological Station



Initial monitoring of the Maple River

Project Summary

The goal of this project was to protect the water quality and aquatic ecosystem integrity of the Maple and Sturgeon Rivers through biological monitoring of aquatic macroinvertebrate populations. The Tip of the Mitt Watershed Council Volunteer Stream Monitoring program was expanded to include both of these rivers, which resulted in the collection of baseline water quality data to assess impacts from known stressors, as well as establishing a foundation for continued monitoring to detect additional problems that emerge in these river systems. Information, education, and outreach activities associated with this project brought new volunteers into the program and increased understanding and stewardship of Northern Michigan's rivers and streams.

Accomplishments

During the course of this project, over 20 newly recruited volunteers in the Tip of the Mitt Volunteer Stream Monitoring Program worked together to monitor water quality at eight sites on the Sturgeon and Maple Rivers during 2011 and 2012. Baseline data collected by these volunteers show that both rivers have sites that support diverse aquatic macroinvertebrate populations, including a number of sensitive species, and therefore, boast high water quality. Other monitoring sites on these rivers had less biological diversity, which requires additional monitoring and investigation to determine if water quality impairment is occurring and identify sources of impairment. Involvement by new volunteers, as well as information and education efforts conducted during the project, increased the public's knowledge of stream ecology and the need to monitor and protect Northern Michigan's streams.

Monitoring Activities

Volunteers monitored 37 sample sites on 14 streams within six watersheds of the northern Lower Peninsula of Michigan, including eight new sites on the Sturgeon and Maple Rivers. Events held included:

1. Comprehensive half-day trainings with both indoor and outdoor sessions were conducted on two occasions during the grant period.
2. TOMWC staff accompanied two volunteer teams per event into the field to oversee monitoring activities during the grant period.
3. Two indoor macroinvertebrate sorting sessions were held during course of the grant, where volunteer monitors sorted samples to the order level.
4. Four indoor macroinvertebrate identification sessions were held during course of the grant, where volunteer taxonomic experts identified all collected specimens to the family level.

Significant Measurable Results

The Tip of the Mitt Volunteer Stream Monitoring Program was expanded into the Maple and Sturgeon Rivers, increasing the total number of sites monitored by over 20%. Volunteer monitoring efforts during this project resulted in 16 new data points representing aquatic macroinvertebrate diversity and thereby, stream water quality, for eight sites on these river systems. Over 20 new volunteers received an in-depth training and participated in stream monitoring activities, resulting in an increased awareness, understanding, and stewardship of Northern Michigan's streams.



Indoor Identification