



**CHEMUNG RIVER AQUATIC STUDY
AT THE CHEMUNG COUNTY RIVER FEST
June 9, 2007**

FINAL REPORT

Submitted to:

**Mr. William Abraham / Regional Fisheries Manager
For New York State Dept. of Environmental Conservation**

Region 8

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SIERRA CLUB ATLANTIC CHAPTER

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**Ms. Linda Couchon/Cornell Cooperative Extension
Chemung County, New York**

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**Ms. Lee Hanle Younge
Chemung County EMC**

Submitted by:

Mr. R. Hurley

&

River Fest Volunteers

ACKNOWLEDGMENTS

The individuals and organizations that were involved in the project: New York State Department of Environmental Conservation, Division of Fish, Wildlife and Marine Resources-Special Licenses Unit ; Ms. Linda Couchon/ Cornell Cooperative Extension of Chemung County; Ms. Beth Farr/ Near Westside Neighborhood Assoc.; Sierra Club Water Sentinels; Volunteers who help collect specimens and performed field tests.



This project was endorsed by *Sierra Club Finger Lakes Group.*



PREFACE

Habitat protection is important in the Finger Lakes of New York. Education will influence how people impact their environment. I feel that the Chemung River Fest program can be an excellent way to encourage this education, so as chair person for Sierra Club of the Finger Lakes group, I felt doing an aquatic program would be a help in this regard.

At around 8:30 AM on June 3, 2007 I handed out specimen collecting bottles to canoe and kayak folks assembling for the trip from Botcher's Landing to the Grove Street Launch Site (approximately 8 collecting kits). Their spirits were high and folks were excited about the trip down the river to the Grove street boat launch. I then traveled to the Grove Street Launch Site to set up our testing station. There I was joined by students from Bradford Central School who helped setup the tent. Some students bought a stream table display showing how an erosional system works. They also had topographic maps of the area and pictures of the 1972 Flood. Students were on hand to do a field lab and answer questions. The weather started cloudy but then cleared with a temperature of about 72⁰ F.

We collected over one hundred and thirty five invertebrates and recorded their biotic index. The organisms collected were then released at the point of capture. I was impressed at the biodiversity of organisms collected.

The chemical and biological tests are included in this report. All participants were given a one day collecting license after receiving instructions regarding my license (#353) for collecting specimens as issued by New York State Division of Fish, Wildlife and Marine Resources-Special Licenses Unit. Chemical test protocols are available on request.

At approximately 3:00PM we concluded our survey. We had approximately 22 people sign in who worked with the project (This number does not include several paddlers who collected samples.

**Rich Hurley
Educator/environmentalist**

Name: Chemung collecting team

Date: 6/09/07

LOCATION: Chemung River/Elmira/ Grove St. Launch site

BIOTIC INDEX SCORE

***Do no forget to keep specimen sheets with this report!!!!!!**

ORGANISM	# FOUND	BIOTIC VALUE	TOTAL (10X)
Water Penny	1	10	10
Diving beetle	3	8	24
Water boatman	29	10	290
scud	13	6	78
mayfly	2	10	20
Water strider	2	8	16
Dragon fly nymph	2	6	12
Damsel fly	11	6	66
Stonefly	7	10	70
Riffle beetle	4	10	40
Cadisfly	5	10	50
Fishfly larva	2	6	12
Snail	8	4	32
Aquatic worm	2	0	0
Whirligig beetle	5	8	40
Isopod	1	2	2
Leech	1	2	2
backswimmer	2	8	16
TOTAL	100	-	780

***estimate based on other insects**

Write your biotic value index here:

780 DIVIDED BY 100 = 78

78.0 BIOTIC INDEX

**Chemung River Abiotic Report
June 9, 2007**

Weather conditions: **Early clouds/clearing with sun**

Water temperature: **72⁰ F**

Water Transparency: **54 cm**

Water Surface Tension: *** 15 drops average**

Chemical tests:

1. Dissolved Oxygen **8.1 ppm**

2. Carbon Dioxide **.5 ppm**

3. Nitrate-Nitrogen **0,1 ppm**

4. pH **8.5**

5. Hardness **120 ppm**

*this shows average surface tension

SUMMARY

The Chemung River Aquatic Program was successful in bringing some education to folks about our freshwater ecosystem, The *Chemung River*. Several students and parents participated in the actual biological and chemical testing at the site. The program could have had more students involved from area schools.

Our biotic index as outlined in the New York State Department of Environmental Conservation publication *Biological Stream Testing* by Robert Bode indicates a value of 78 . The CHEMUNG RIVER tested at the Good level. The abiotic tests also showed the water quality favorable.

What the biotic index value means about water quality:

Excellent	>80
Good	60-79
Fair	40-59
Poor	<40

It should be noted that this is one test and the conditions of the river change throughout the year, therefore ongoing water tests would be more reliable data. The biodiversity of macroinvertebrates in the Chemung River seemed good.

River Fest
Participants Collecting Samples for Aquatic Program

Thomas Peer
Samantha Horton
Sarah Giehl
Derek LaFever
Rachel Berg
Carole Bexg
Robert Hewlett
Ronald Hewlett
Elizabeth Smith
Michael Smith
Luke Cain
Martin Cain
Elisha Mashanic
Raheim Wallace
Maureen Prapester
Elliot McDonald
Wilder Whitman
Daniel Berg
Kevin Wood
Missy wood
Paige Van Dinther
Nanessa Covert
Gene Nowlan
Katen Thurnhaer