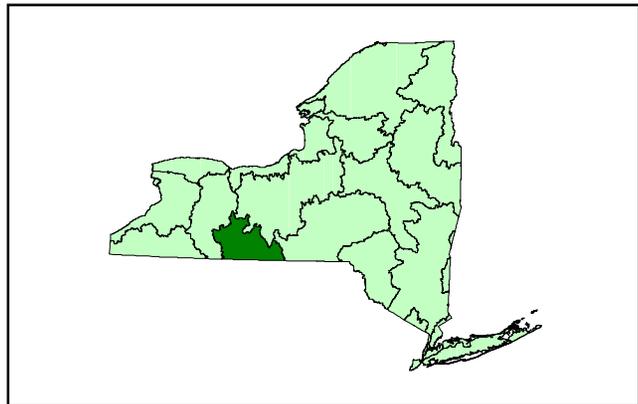
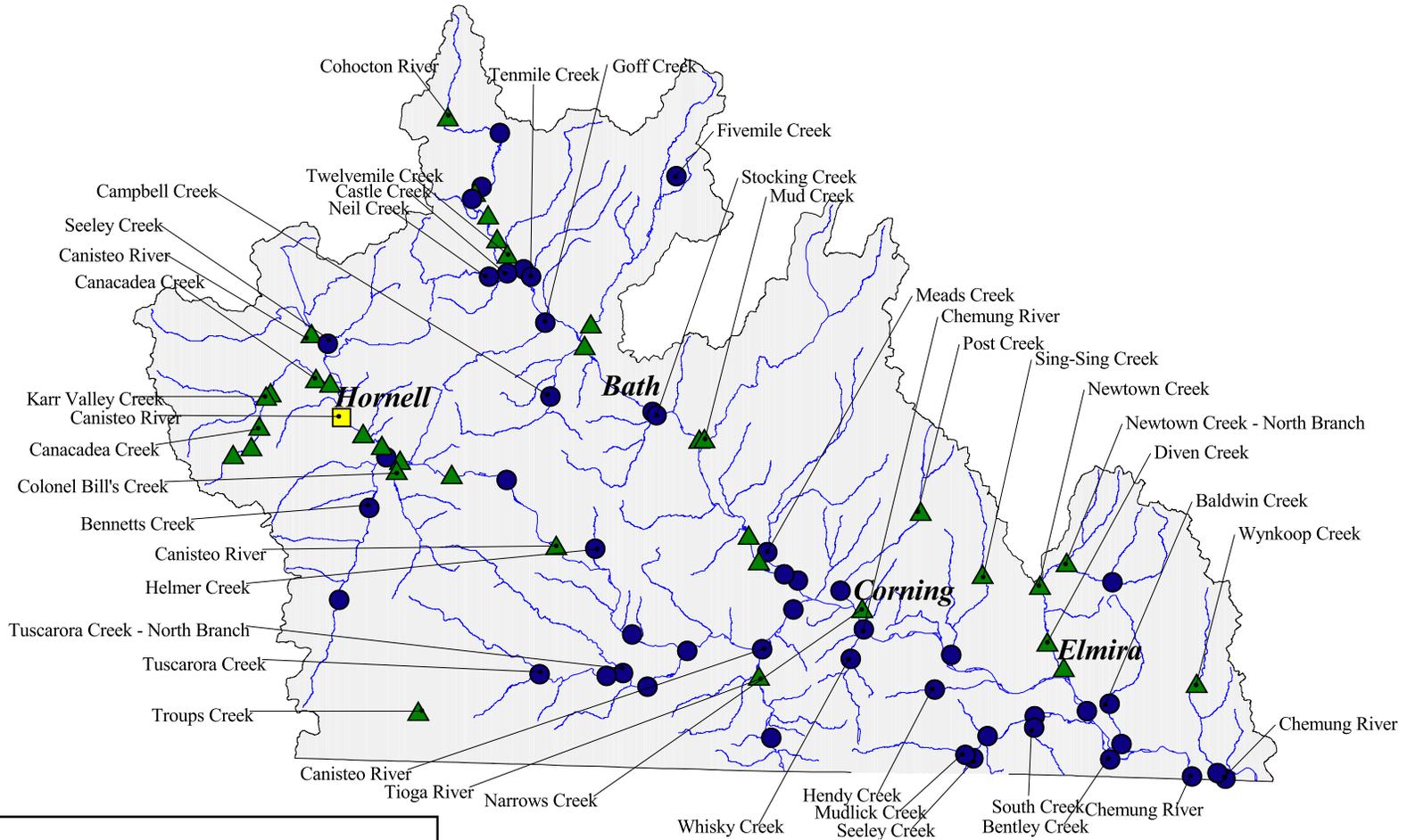


Chemung River Drainage Basin



Water Quality Assessment based on Resident Macroinvertebrates

- non-impacted
- ▲ slightly impacted
- moderately impacted
- ◆ severely impacted

CHEMUNG RIVER DRAINAGE BASIN SAMPLING SITES, 1972-2002

<u>STATION</u>	<u>LOCATION</u>	<u>YEAR SAMPLED</u>
BALDWIN CREEK (BWIN)		
01	East Elmira, above Lowman Rd (Co Rt 2) bridge	02
02	Lowman, above Co Rt 60 bridge	02
BENNETTS CREEK (BENN)		
00	Greenwood, above Rt 248 bridge	02
01	Bennetts, Rt. 248	97
02	Canisteo, above Rte 36 bridge	02
BENTLEY CREEK (BENT)		
01	Wellsburg, above Rt 427 bridge	02
CAMP CREEK (CAMP)		
01	Osceola, PA, off NY Co Rt 127, above dirt rd bridge	02
CAMPBELL CREEK (CAMB)		
01	Knight Settlement, above Turnpike Rd bridge	02
02	Knight Settlement, below Turnpike Rd bridge, near airport	02
CANACADEA CREEK (CDEA)		
A	Alfred, above STP discharge	98
01	Alfred station, above Rte 21 bridge	98
02	Below Alfred, below Satterlee Hill Rd bridge	98
03	Almond, above Depot St. bridge	98
04	Hornell, above Rt. 21 bridge	91 92 97 98
05	Hornell, above Main St bridge	89 98
CANISTEO RIVER (STEO)		
01	Above Hornell, below Co Rte 65 bridge	88
02	Hornell, Ashbaugh Hill Rd	88
03	Canisteo, Magee Rd, Rte 415	88
03A	Canisteo, @Depot St bridge	02
04	Below Canisteo, below Carson bridge	88 98
05	Adrian, above Catatunk Rd bridge	88
06	Brown's Crossing, at bridge	88
07	Cameron, @Co Rt 22 bridge	02
08	Derby Switch, Newcomb Rd bridge	91 92 97 98
09	Erwins, @Co Rt 73 (Hills Rd) bridge	02
CHEMUNG RIVER (CHEM)		
03	Corning, below jct of Cohocton & Tioga R.	73 79
04	South Corning, off Rte 17	73 79 84 92 97 98
05	Big Flats, South Corning Rd	73
06	Golden Glow Heights, above Fitch Bridge	73 79 84

CHEMUNG RIVER DRAINAGE BASIN SAMPLING SITES, 1972-2002

<u>STATION</u>	<u>LOCATION</u>	<u>YEAR SAMPLED</u>			
CHEMUNG RIVER (CHEM), cont'd.					
07	Below Elmira, above Big Island	73 79	84	92	02
08	Wellsburg, Rte 367 bridge	73 79			
09	Above Chemung, below Rt. 17W bridge	73	84	91	98 02
10A	Below Chemung, above Rt.17 bridge				97
10	Waverly, above Penn. border	73 79			
COHOCTON RIVER (COHO)					
00	Bowles Corners, below Rt 21 bridge				02
01	Atlanta, Church St	80	88		
01A	Cohocton, Rte 371		88		
02	Cohocton, Rte 415	80	88		02
03	Cohocton, Larowe Mills Rd	80	88	92	98
03A	Cohocton, Jones Rd		88		
04	Wallace, Wentworth Rd	80	88		
05	Wallace, Rte 15		88		
06	Kanona, below Rt 415 bridge				02
07	Above Bath, Rte 415 DEC site	79			
07A	Below Bath, Co Rte 11			92	98
08A	Savona, above Co Rt 12 bridge				02
08	Above Campbell, Campbell bridge	79			
09	Curtis, County Rte 4 bridge			91 92	97 98
10A	Coopers Plains, above Smith Hill Rd bridge				02
10	Painted Post, Canada Rd., Kinsella Pk	73 79	84	92	98
COLONEL BILL'S CREEK (BILL)					
01	below Canisteo, @ Rte 36 bridge				02
DIVEN CREEK (DIVN)					
01	Elmira				97
FIVEMILE CREEK (FIVM)					
00	Prattsburg, below Co Rt 75 bridge				02
01	Kanona, below Hemlock Rd. bridge				97 02
GOFF CREEK (GOFF)					
01	Avoca, above Co. Rt. 70A bridge				98 02
HELMER CREEK (HELM)					
01	Cameron Mills, @ Co. Rt 24 bridge				02
HENDY CREEK (HEND)					
01	Dutch Hill, above Clark Hollow Rd bridge				02

CHEMUNG RIVER DRAINAGE BASIN SAMPLING SITES, 1972-2002

<u>STATION</u>	<u>LOCATION</u>	<u>YEAR SAMPLED</u>
KARR VALLEY CREEK (KARR)		
01	Almond, below Rte 21 bridge	02
MEADS CREEK (MEAD)		
01	East Campbell, above Meads Creek Rd. bridge	97 98
02	Coopers Plains, @Rte 416 bridge	02
MUD CREEK (MDCR)		
01	Savona, @Rte 415 bridge	02
MUDLICK CREEK (SEEL)		
02	Seeley Creek, below Kinner Hill Rd. bridge	98 02
NARROWS CREEK (NARO)		
01	Gibson, @Narrows Creek Rd bridge	02
NEILS CREEK (NEIL)		
01	Above Bloomerville, above Co. Rte 6 bridge	02
02	Bloomerville, below Rte 415 bridge	02
NEWTOWN CREEK (NEWT)		
01	Breesport, below Church Rd bridge	02
03	Horseheads, above East Franklin St bridge	02
04	Elmira, above Rt. 352 bridge	91 97 98 02
NEWTOWN CREEK, NORTH BRANCH (NEWT)		
02	Below Sullivanville, Path at Park 'n Ride off Rt 13	02
POST CREEK (POSC)		
01	Post Creek, above Rt 414 bridge	02
02	Corning, above RR bridge and Rt.414 bridge	98 02
SEELEY CREEK (SEEL)		
01	Seeley Creek, below Rt. 328 bridge	98 02
03	Webb Mills, below Pennsylvania Ave. bridge	98
04	Southport, below Rt 14 bridge	97 98 02
SEELEY CREEK (SELY)		
01	North Hornell, below Seneca St bridge	02
SING SING CREEK (SING)		
01	Near Fisherville, below Singsing Rd bridge	02
02	Near Harris Hill Manor, above Rt 352 bridge	02
SOUTH CREEK (SOUT)		
01	Above Southport, above Co Rt 26 bridge	02
STOCKING CREEK (STOK)		
01	Bath, @Eagle Valley Rd bridge	02

CHEMUNG RIVER DRAINAGE BASIN SAMPLING SITES, 1972-2002

<u>STATION</u>	<u>LOCATION</u>	<u>YEAR SAMPLED</u>
TENMILE CREEK (TNCR)		
01	Near Avoca, just below Rt 7 bridge	02
TIOGA RIVER (TOGA)		
01	Lindley, below Morgan Creek Rd. bridge	84
01A	Presho, below Presho-Lindley Rd bridge	91 92 97 98
02	Gang Mills, below RR bridge at Lumber St.	73 79 84 92
TROUPS CREEK (TRPS)		
01	Troupsburg, above Hopper Hill Rd bridge	02
TUSCARORA CREEK (TUSC)		
01	Woodhull, below Main St bridge	02
02	East Woodhull, above Rt 417 bridge	02
04	South Addison, above Co.Rt. 85 bridge	97
05	Addison, @South St bridge	02
TUSCARORA CREEK, NORTH BRANCH (TUSC)		
03	Above S. Addison, above closed bridge on Holden Rd	02
TWELVEMILE CREEK (TMLV)		
01	Wallace, above Rt 415 bridge	02
WHISKY CREEK (WHIS)		
01	French Mill, just below Whisky Creek Rd	02
WYNKOOP CREEK (KOOP)		
01	Below Beantown, above Wynkoop Ck Rd bridge	02
02	Chemung, below old Rt 17 bridge	02

ASSESSMENTS OF WATER QUALITY OF STREAMS IN THE CHEMUNG RIVER DRAINAGE BASIN, BASED ON MACROINVERTEBRATE COMMUNITIES

<u>Site/Reach</u>	<u>Water Quality Assessment</u>	<u>Change from 1992</u>
Baldwin Creek, East Elmira	non-impacted	no prior data
Baldwin Creek, Lowman	non-impacted	no prior data
Bennetts Creek, Greenwood	non-impacted	no prior data
Bennetts Creek, Bennetts	non-impacted	no prior data
Bennetts Creek, Canisteo	non-impacted	no prior data
Bentley Creek, Wellsburg	non-impacted	no prior data
Camp Creek, Osceola, PA	non-impacted	no prior data
Campbell Creek, Knight Settlement, above Turnpike Rd bridge	non-impacted	no prior data
Campbell Creek, Knight Settlement, below Turnpike Rd bridge	slightly impacted	no prior data
Canacadea Creek, Alfred, above STP	slightly impacted	no prior data
Canacadea Creek, Alfred Station	slightly impacted	no prior data
Canacadea Creek, below Alfred	slightly impacted	no prior data
Canacadea Creek, Almond	slightly impacted	no prior data
Canacadea Creek, Hornell, above Rt. 21	slightly impacted	IMPROVED
Canacadea Creek, Hornell, above Main St.	slightly impacted	no change
Canisteo River, above Hornell	slightly impacted	no change
Canisteo River, Canisteo	moderately impacted	no change
Canisteo River, below Canisteo	slightly impacted	no change
Canisteo River, Cameron	slightly impacted	no prior data
Canisteo River, Derby Switch	non-impacted	no change
Canisteo River, Erwins	non-impacted	no prior data
Chemung River, South Corning	non-impacted	no change
Chemung River, below Elmira	non-impacted	no change
Chemung River, Chemung, below Rt. 17 W	non-impacted	IMPROVED
Chemung River, Chemung, above Rt. 17	non-impacted	no prior data
Cohocton River, Bowles Corners	slightly impacted	no prior data
Cohocton River, Cohocton, above Rte 415	slightly impacted	DECLINED
Cohocton River, Cohocton, above Larrowe Mills Rd	non-impacted	no change
Cohocton River, Kanona	slightly impacted	no prior data
Cohocton River, below Bath	non-impacted	no change
Cohocton River, Savona	slightly impacted	no prior data

ASSESSMENTS OF WATER QUALITY OF STREAMS IN THE CHEMUNG RIVER DRAINAGE BASIN,
BASED ON MACROINVERTEBRATE COMMUNITIES

<u>Site/Reach</u>	<u>Water Quality Assessment</u>	<u>Change from 1992</u>
Cohocton River, Curtis	slightly impacted	no change
Cohocton River, Cooper Plains	slightly impacted	no prior data
Cohocton River, Painted Post	non-impacted	no change
Colonel Bill's Creek, below Canisteo	slightly impacted	no prior data
Diven Creek, Elmira	slightly impacted	no prior data
Fivemile Creek, Prattsburg	non-impacted	no prior data
Fivemile Creek, Kanona	slightly impacted	no prior data
Goff Creek, Avoca	non-impacted	no prior data
Helmer Creek, Cameron Mills	non-impacted	no prior data
Hendy Creek, Dutch Hill	non-impacted	no prior data
Karr Valley Creek, Almond	slightly impacted	no prior data
Meads Creek, East Campbell	non-impacted	no prior data
Meads Creek, Cooper Plains	non-impacted	no prior data
Mud Creek, Savona	slightly impacted	no prior data
Mudlick Creek, Seeley Creek	non-impacted	no prior data
Narrows Creek, Gibson	slightly impacted	no prior data
Neils Creek, above Bloomerville	non-impacted	no prior data
Neils Creek, Bloomerville	non-impacted	no prior data
Newtown Creek, Breesport	non-impacted	no prior data
Newtown Creek, Horseheads	slightly impacted	no prior data
Newtown Creek, Elmira	slightly impacted	no change
Newtown Creek, North Branch, below Sullivanville	slightly impacted	no prior data
Post Creek, Post Creek	slightly impacted	no prior data
Post Creek, Corning	non-impacted	no prior data
Seeley Creek, Seeley Creek	non-impacted	no prior data
Seeley Creek, Webb Mills	non-impacted	no prior data
Seeley Creek, Southport	non-impacted	no prior data
Seeley Creek, North Hornell	non-impacted	no prior data
Sing-Sing Creek, near Fisherville	slightly impacted	no prior data
Sing-Sing Creek, near Harris Hill Manor	non-impacted	no prior data
South Creek, above Southport	non-impacted	no prior data
Stocking Creek, Bath	non-impacted	no prior data
Tenmile Creek, near Avoca	non-impacted	no prior data

ASSESSMENTS OF WATER QUALITY OF STREAMS IN THE CHEMUNG RIVER DRAINAGE BASIN,
 BASED ON MACROINVERTEBRATE COMMUNITIES

<u>Site/Reach</u>	<u>Water Quality Assessment</u>	<u>Change from 1992</u>
Tioga River, Presho	slightly impacted	DECLINED
Tioga River, Gang Mills	non-impacted	no change
Troups Creek, Troupsburg	non-impacted	no prior data
Tuscarora Creek, Woodhull	non-impacted	no prior data
Tuscarora Creek, East Woodhull	non-impacted	no prior data
Tuscarora Creek, above South Addison	non-impacted	no prior data
Tuscarora Creek, Addison	non-impacted	no prior data
Tuscarora Creek, North Branch, above South Addison	non-impacted	no prior data
Twelvemile Creek, Wallace	slightly impacted	no prior data
Whisky Creek, French Mill	non-impacted	no prior data
Wynkoop Creek, below Beantown	slightly impacted	no prior data
Wynkoop Creek, Chemung	non-impacted	no prior data

REPORTS OF MACROINVERTEBRATE SURVEYS WITHIN THE CHEMUNG RIVER
WATERSHED

STREAM	YEAR OF SURVEY	REPORT
Canacadea Creek	1998	SBU,1999
Canisteo River	1973	AVON
Canisteo River	1988	SBU,1988
Chemung River	1984	DOH,1985
Cohocton River	1973	AVON
Cohocton River	1988	SBU,1988
Cohocton River	1994	DFW
Cold Brook	1996	DFW
Seeley Creek	1998	SBU,1999
Watershed Streams	1991-1992	RIBS,1994

AVON	Avon Pollution Investigations Unit, Div. of Fish & Wildlife, NYS DEC
DFW	Division of Fish & Wildlife, NYS DEC
DOH	New York State Department of Health
RIBS	Rotating Intensive Basin System, Statewide Waters Assessment Section, NYS DEC
SBU	Stream Biomonitoring Unit, Division of Water, NYS DEC

Baldwin Creek

Non-impacted water quality is assessed for this Chemung River tributary, based on macroinvertebrate sampling at two sites in 2002. The sample taken near Lowman was field-assessed and was not processed; the sample from East Elmira was laboratory-processed. Both showed diverse communities dominated by mayflies and caddisflies.

Bennetts Creek

Based on macroinvertebrate sampling in 1997 at Bennetts, water quality is assessed as non-impacted. The field screening criteria were met, and the sample was not retained. Some agricultural effects were noted, including diatoms, filamentous algae, and supersaturated dissolved oxygen levels. Sites at Greenwood and Canisteo were also field-assessed as non-impacted in 2002 sampling, and the samples have not yet been processed.

Bentley Creek

This small tributary of the Chemung River is assessed as non-impacted, based on sampling of macroinvertebrates in Wellsburg in 2002. The fauna reflected influences of nutrient enrichment and siltation, but most metrics were within the range of non-impacted water quality. No prior data were available for the stream.

Camp Creek

A site near Osceola, Pennsylvania, was sampled for macroinvertebrates in 2002, and was field-assessed as non-impacted, but the sample has not yet been processed. No prior data were available for the stream.

Campbell Creek

This tributary of the Cohocton River was assessed as non-impacted at a site upstream of Kanona in 2002 sampling. A diverse fauna dominated by mayflies was present. A second site downstream of bridge construction documented slight impact from siltation, but this impact is judged to be temporary.

Canacadea Creek

Improved water quality is indicated for Canacadea Creek at Hornell. Water quality was assessed as moderately impacted in 1991 and 1992. Species richness was low (Figure 5-1) and the impact on the fauna was thought to be toxic in nature. Crayfish collected in 1991 contained elevated levels of mercury and

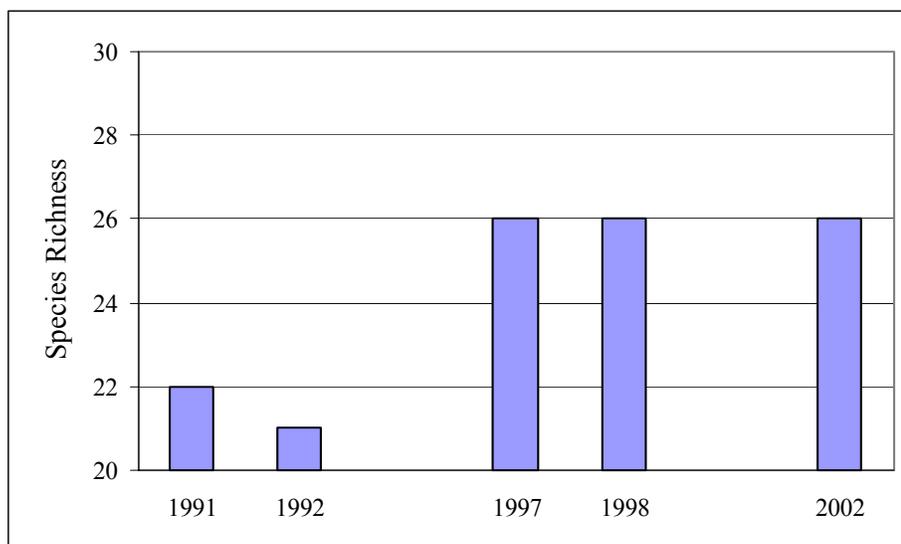


Figure 5-1. Species richness trends in Canacadea Creek at Hornell, 1991-2002.

aluminum. Sampling in 1997, 1998, and 2002 at this site documented slightly impacted conditions, with increased species richness. The previous impact source and the cause of improvement remain unknown. In a multiple-site survey conducted in 1998, water quality at 6 locations from Alfred to Hornell was assessed as slightly impacted. Siltation was the major factor influencing the fauna. A 5-mile reach downstream of the Alfred Wastewater Treatment Facility displayed some toxic effects. The site in Hornell was also sampled in 1997, and was similarly assessed as slightly impacted. Crayfish collected during this sampling were analyzed for metals; nickel was found at a concentration exceeding the level of concern. Two PAHs, chrysene and benzo (a) anthracene, were found in amounts exceeding levels of concern.

Canisteo River

Water quality in the Canisteo River currently ranges from non-impacted to moderately impacted. A small segment of moderate impact still exists downstream of the Hornell (C) Water Pollution Control Facility discharge, similar to the results of 1988 survey. Water quality from downstream of Canisteo to Cameron is assessed as slightly impacted, primarily by nutrient enrichment and siltation.

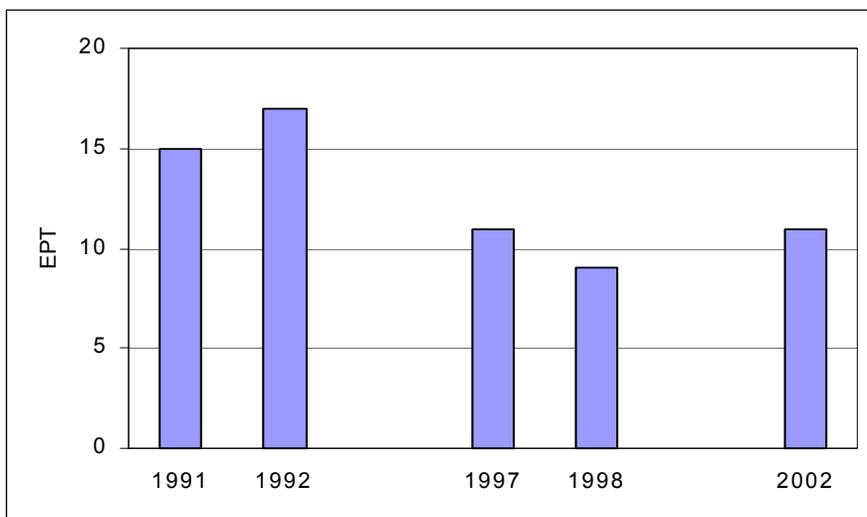


Figure 5-2. EPT trends (species of sensitive mayflies, stoneflies, and caddisflies) in Canisteo River at Derby Switch, 1991-2002.

Most long-term

sampling in the Canisteo River has been conducted at Derby Switch (Figure 5-2). This site was assessed as non-impacted in 1991 and 1992, slightly impacted in 1997 and 1998, and non-impacted in 2002. Non-impacted water quality was also field-assessed for Erwins in 2002. Two PAHs, chrysene and benzo (a) anthracene, were found at levels exceeding current levels of concern in hellgrammites collected at this site in 1997. PCB Aroclor 1254 was found at low levels. Continued monitoring is recommended for the Derby Switch site.

Chemung River

Water quality at all Chemung River sites is currently assessed as non-impacted. At South Corning, water quality had been assessed as slightly impacted in 1997 and 1998, but was previously assessed as non-impacted in 1979, 1984, and 1992. This site was sampled in 2002 and water quality was determined to be non-impacted.

The site below Elmira was also assessed as non-impacted in 2002, similar to the assessment of 1992. Water quality at Chemung, assessed as slightly impacted in 1984, 1991, and 1998, was assessed as non-impacted in 2002 sampling. The fauna showed some indications of being enriched by nonpoint agricultural sources, but contained many mayflies, stoneflies, and caddisflies. Further monitoring of this site is recommended to confirm this apparent improvement. The site below

Chemung was sampled for macroinvertebrates in 1997, and was assessed as non-impacted. The fauna was diverse and well-balanced, and dominated by mayflies and caddisflies, with stoneflies also present.

Cohocton River

Water quality in nearly all of the Cohocton River is currently assessed as slightly impacted by nonpoint source nutrient enrichment, based on 2002 macroinvertebrate sampling. Most of the river was considered non-impacted in 1992, although nutrient enrichment has always been an issue. In 1998 sampling, three of four sites were assessed as non-impacted, but in 2002 sampling, slightly impacts to water quality were found at all five sites sampled. Since most of the 2002 locations did not coincide with the 1998 sites, the three assessments of non-impact remain. It seems likely that varying flow levels are responsible for some of the fluctuation in assessments, and continued monitoring at established sites should be maintained to gain an accurate picture of long term water quality in the river. Diatom monitoring would also be useful as a measure of nutrient enrichment.

Macroinvertebrate communities at most sites are dominated by filter-feeding caddisflies and algal-scraping riffle beetles. Clean-water mayflies and stoneflies are present throughout the length of the river, but in reduced numbers. At Cohocton, water quality was clearly assessed as slightly impacted in 2002, with all metrics within the range of slight impact. The fauna was heavily dominated by riffle beetles and caddisflies. This site was previously assessed as non-impacted in 1988, when the fauna was dominated by mayflies. All metrics declined at this site from 1988 to 2002, representing an apparent decline in water quality but needing further sampling for verification.

Water quality at Curtis continues to be assessed as slightly impacted, likely by nonpoint source nutrient enrichment. Water quality metrics were within the range of non-impacted water quality in 1997, but returned to slight impact in 1998, similar to conditions found in 1991 and 1992. Filamentous algae and macrophytes continue to be abundant at this site. In 1997 tissue sampling, three PAHs, chrysene, pyrene, and benzo (a) anthracene, were found at levels exceeding current levels of concern for hellgrammites.

Near the mouth, water quality at Painted Post was assessed as non-impacted in 1998, similar to the 1992 assessment for this site. More recently, water quality was assessed as slightly impacted in 2002, three miles upstream at Coopers Plains. Further sampling will be continued at Painted Post to monitor this possible decline.

Colonel Bill's Creek

Slightly impacted water quality is assessed for this tributary of the Canisteo River. A site near the mouth was sampled for macroinvertebrates in 2002. The fauna was dominated by facultative midges that indicated nonpoint source nutrient enrichment and possible toxicity. No prior data were available.

Diven Creek

This small tributary of Newtown Creek in Elmira Heights was assessed as slightly impacted in 1997, although the assessment was near the range of moderate impact. Impact Source Determination showed toxicity to be the primary factor affecting water quality. Crayfish were collected at this site in 1997 and analyzed for metals. Lead was found at 5 mcg/g, which is the current level of concern. Four PAHs were found at levels exceeding current levels of concern: fluoranthene, chrysene, pyrene, and benzo (a) anthracene. No previous data were available.

Five Mile Creek

Macroinvertebrates were sampled at the Kanona site in 1997 and 2002, and water quality was assessed as slightly impacted. The stream was in an agricultural area. The stream bottom had diatoms, macrophytes, and filamentous algae, and the midday dissolved oxygen level was highly supersaturated. Impact Source Determination indicated nonpoint source nutrient and/or pesticide runoff as a likely source of impact. Sewage effluent or animal wastes were also possible sources of impact. An upstream site near Prattsburg was field-assessed as non-impacted in 2002, although this sample has not yet been laboratory-processed. Clean-water mayflies, stoneflies, and caddisflies were present.

Goff Creek

Non-impacted water quality was assessed for a site at Avoca, based on macroinvertebrate sampling in 1998 and 2002. A diverse and well-balanced fauna was found, with the fauna dominated by mayflies and midges.

Helmer Creek

Non-impacted water quality is assessed for this small tributary of the Canisteo River, based on macroinvertebrate sampling in 2002. The sample was field-assessed as non-impacted, and has not yet been processed.

Hendy Creek

This small tributary of the Chemung River was assessed as non-impacted, based on macroinvertebrate sampling in 2002. The sample was field-assessed as non-impacted, and has not yet been processed.

Karr Valley Creek

This small tributary of Canacadea Creek is assessed as slightly impacted by nonpoint source nutrient enrichment, based on macroinvertebrate sampling near Almond in 2002. The stream had abundant algae, and the fauna was dominated by facultative mayflies and midges.

Meads Creek

Based on macroinvertebrate sampling at East Campbell, water quality was assessed as slightly impacted in 1997 and non-impacted in 1998. Indices were very similar for these 2 years, and mayflies, stoneflies, and caddisflies were present in both years. Impact Source Determination indicated highest similarities to natural communities for both years, and actual water quality for this site is considered to be non-impacted. A site near Coopers Plains was field-assessed as non-impacted in 2002, and the sample has not yet been processed.

Mud Creek

Slightly impacted water quality was assessed for this Cohocton River tributary. A site in Savona was sampled for macroinvertebrates in 2002. The fauna was dominated by filter-feeding midges and caddisflies, indicating nonpoint source nutrient enrichment. No prior data were available for the stream.

Mudlick Creek

Non-impacted water quality was assessed for this tributary of Seeley Creek. The site in the hamlet of Seeley Creek was previously sampled for macroinvertebrates in 1998, and was assessed

as slightly impacted.

Narrows Creek

This small tributary of the Chemung River is assessed as slightly impacted, based on macroinvertebrate sampling at Gibson, across the river from Corning. The fauna was dominated by facultative midges, and ISD denoted nonpoint source nutrient enrichment as the primary stressor.

Neils Creek

Non-impacted water quality is assessed for this tributary of the Cohocton River, based on macroinvertebrate sampling in 1998 and 2002. The 2002 samples were field-assessed as non-impacted, and have not yet been processed.

Newtown Creek

Current water quality ranges from non-impacted to slightly impacted. The upstream site in Breesport was assessed as non-impacted in 2002 sampling, and all sites downstream of this were assessed as slightly impacted. The most downstream site in Elmira was sampled for macroinvertebrates in 1991, 1997, 1998, and 2002. Water quality was assessed as slightly impacted for all years. Impact Source Determination showed toxicity to be the primary factor affecting water quality, and siltation is also a stressor. Caddisflies collected at this site in 1997 were analyzed for PAHs, and one- benzo (a) anthracene - was found at a level exceeding the current level of concern. Slight impact was also assessed for the North Branch of Newtown Creek.

Post Creek

Non-impacted water quality was assessed for the site in Corning, based on macroinvertebrate sampling in 1998 and 2002. A diverse and well-balanced fauna was found, including clean-water mayflies, stoneflies, caddisflies, riffle beetles, and hellgrammites. An upstream site sampled in the village of Post Creek in 2002 assessed water quality as slightly impacted by siltation and nutrient enrichment.

Seeley Creek (Chemung County)

Non-impacted water quality is currently assessed for this stream, based on sampling at 3 locations.. The most downstream site, in Southport, was sampled in 1997, 1998, and 2002, and found to have non-impacted water quality all three years. In 1998, two additional sites at Webb Mills and upstream at Seeley Creek were sampled; Webb Mills was assessed as non-impacted and Seeley Creek was assessed as slightly impacted. Causes of the upstream impact are not known. The stream originates in Pennsylvania and most of the watershed lies in that state. Based on 2002 sampling and a field-assessment, water quality in the stream at the village of Seeley Creek is currently considered to be non-impacted.

Seeley Creek (Steuben County)

This small tributary of the Canisteo River was assessed as non-impacted, based on macroinvertebrate sampling in 2002. The sample was field-assessed as non-impacted, and has not yet been processed.

Sing Sing Creek

Water quality ranges from non-impacted to slightly impacted in this creek, based on 2002

macroinvertebrate sampling. The upstream site near Fisherville was assessed as slightly impacted by nonpoint source nutrient enrichment, with a fauna dominated by filter-feeding caddisflies. The downstream site near Harris Hill Manor was field-assessed as non-impacted. Clean-water stoneflies were present at this site, and filter-feeding caddisflies appeared less abundant.

South Creek

Non-impacted water quality is assessed for this tributary of Seeley Creek, based on macroinvertebrate sampling in 2002. The sample was field-assessed as non-impacted, and has not yet been processed.

Stocking Creek

Water quality is assessed as non-impacted for this small Cohocton River tributary, based on 2002 macroinvertebrate sampling near Bath. The sample was field-assessed, and has not yet been processed. No prior data were available for the stream.

Tenmile Creek

This small tributary of the Cohocton River was assessed as non-impacted, based on macroinvertebrate sampling in 2002. The sample was field-assessed as non-impacted, and has not yet been processed.

Tioga River

The site at the Presho-Lindley bridge has shown an apparent decline in water quality from 1991 to 2002. The site was sampled in 1991, 1992, 1997, 1998, and 2002, and the number of species of EPT has steadily declined over those years (Figure 5-3). Water quality was assessed as non-impacted in 1991 and 1992, and slightly impacted in 1997, 1998, and 2002. Hellgrammites continue to be numerous at this site. Hellgrammites collected in 1992 had high body burdens of cobalt, manganese, and nickel. ISD denotes siltation as the primary stressor, although this needs verification. The river originates in Pennsylvania.

Water quality downstream at Gang Mills was mostly assessed as non-impacted from 1973 to 1992, and was also assessed as non-impacted in 2002 sampling, indicating no net long-term changes in water quality.

The macroinvertebrate fauna was dominated by mayflies, and also included many clean-water stoneflies, caddisflies, and hellgrammites. All metrics were within the range of non-impacted water quality.

Troups Creek

Non-impacted water quality is assessed for stream, based on macroinvertebrate sampling in 2002. The sample was

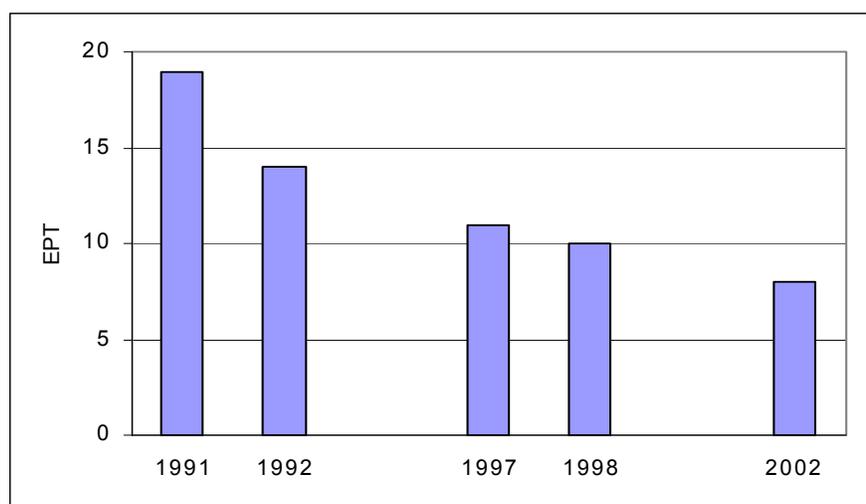


Figure 5-3. EPT trends (species of sensitive mayflies, stoneflies, and caddisflies) in Tioga River at Presho, 1991-2002.

field-assessed as non-impacted, and has not yet been processed.

Tuscarora Creek

Water quality in Tuscarora Creek from Woodhull to Addison has been assessed as non-impacted, based on sampling in 1997 and 2002. While this is in an agricultural area, and the stream had much filamentous algae and supersaturated dissolved oxygen levels in daytime measurements, the fauna was diverse, and was dominated by sensitive mayflies. The 2002 samples were field-assessed as non-impacted, and have not yet been processed.

Twelvemile Creek

Slightly impacted water quality is assessed for this tributary of the Cohocton River, based on macroinvertebrate sampling near Wallace in 2002. The fauna was dominated by filter-feeding caddisflies and algal-feeding riffle beetles, and ISD denoted nonpoint source nutrient enrichment as the primary stressor. No prior data were available for the stream.

Whisky Creek

This small tributary of the Chemung River was assessed as non-impacted, based on macroinvertebrate sampling in 2002 near South Corning. The sample was field-assessed as non-impacted, and has not yet been processed.

Wynkoop Creek

Water quality of this Chemung River tributary ranges from non-impacted to slightly impacted, based on macroinvertebrate sampling in 2002. The upstream site near Beantown indicated slight impact from nonpoint source nutrient enrichment. The headwater nature of the stream likely contributed to some low metric values. Diatoms were abundant on the stream substrate at this site. The downstream site near the mouth showed signs of siltation, but all metric values were within the range of non-impacted water quality. No prior data were available for the stream.