

STREAM SITE: Ellicott Creek, Station 1
 LOCATION: Alden Center, New York, downstream of Sanbridge Road
 DATE: July 31 2001
 SAMPLE TYPE: Kick sample
 SUBSAMPLE: 100 individuals

PLATYHELMINTHES		Undetermined Turbellaria	1
MOLLUSCA			
GASTROPODA	Physidae	Physella sp.	1
ARTHROPODA			
CRUSTACEA			
AMPHIPODA	Gammaridae	Gammarus sp.	5
INSECTA			
EPHEMEROPTERA	Baetidae	Baetis flavistriga	1
		Baetis intercalaris	3
	Heptageniidae	Undetermined Heptageniidae	1
COLEOPTERA	Hydrophilidae	Undetermined Hydrophilidae	1
	Elmidae	Optioservus fastiditus	2
		Stenelmis crenata	6
TRICHOPTERA	Philopotamidae	Chimarra obscura	2
	Hydropsychidae	Cheumatopsyche sp.	14
		Hydropsyche betteni	10
		Hydropsyche bronta	1
	Hydroptilidae	Hydroptila nr. armata	17
DIPTERA	Chironomidae	Thienemannimyia gr. spp.	7
		Cricotopus bicinctus	3
		Nanocladius sp.	1
		Parametriocnemus lundbecki	1
		Tvetenia vitracies	1
		Polypedilum convictum	4
		Rheotanytarsus exiguus gr.	16
		Tanytarsus glabrescens gr.	2

SPECIES RICHNESS 22 (good)
 BIOTIC INDEX 5.67 (good)
 EPT RICHNESS 8 (good)
 MODEL AFFINITY 51 (good)
 ASSESSMENT slightly impacted

DESCRIPTION The sample was taken 20 meters downstream of the Sandbridge Road bridge in Alden Center. Both streambanks downstream of the bridge appeared recently reinforced with rip rap. The macroinvertebrate fauna was heavily dominated by facultative caddisflies and midges, and all metrics were within the range of slight impact.

STREAM SITE: Ellicott Creek, Station 2
 LOCATION: Wende, New York, upstream of Walden Avenue
 DATE: July 31 2001
 SAMPLE TYPE: Kick sample
 SUBSAMPLE: 100 individuals

PLATYHELMINTHES		Undetermined Turbellaria	7
ANNELIDA			
OLIGOCHAETA	Lumbriculidae	Undetermined Lumbriculidae	1
ARTHROPODA			
CRUSTACEA			
ISOPODA	Asellidae	Caecidotea sp.	1
AMPHIPODA	Gammaridae	Gammarus sp.	3
INSECTA			
EPHEMEROPTERA	Baetidae	Baetis intercalaris	2
	Heptageniidae	Leucrocuta sp.	1
		Stenacron interpunctatum	2
		Stenonema terminatum	1
COLEOPTERA	Psephenidae	Ectopria nervosa	1
		Psephenus herricki	1
	Elmidae	Optioservus fastiditus	14
		Stenelmis crenata	31
TRICHOPTERA	Philopotamidae	Chimarra obscura	1
	Hydropsychidae	Cheumatopsyche sp.	26
		Hydropsyche betteni	1
DIPTERA	Chironomidae	Thienemannimyia gr. spp.	4
		Polypedilum convictum	3

SPECIES RICHNESS 17 (poor)
 BIOTIC INDEX 5.04 (good)
 EPT RICHNESS 7 (good)
 MODEL AFFINITY 44 (poor)
 ASSESSMENT slightly impacted

DESCRIPTION The sampling site was 50 meters upstream of the Walden Avenue bridge in Wende. Although the riffle provided adequate habitat for invertebrates, both upstream and downstream were composed of long reaches of slow-moving water. The fauna was dominated by riffle beetles and caddisflies, and water quality was assessed as slightly impacted.

STREAM SITE: Ellicott Creek, Station 3
 LOCATION: Lancaster, New York, at Pavement Road
 DATE: July 31 2001
 SAMPLE TYPE: Kick sample
 SUBSAMPLE: 100 individuals

PLATYHELMINTHES		Undetermined Turbellaria	1
MOLLUSCA			
PELECYPODA	Sphaeriidae	Undetermined Sphaeriidae	1
ARTHROPODA			
CRUSTACEA			
AMPHIPODA	Gammaridae	Gammarus sp.	3
DECAPODA	Cambaridae	Undetermined Cambaridae	2
INSECTA			
EPHEMEROPTERA	Heptageniidae	Stenacron interpunctatum	1
ODONATA	Coenagrionidae	Undetermined Coenagrionidae	1
COLEOPTERA	Gyrinidae	Dineutus sp.	1
	Psephenidae	Psephenus herricki	5
	Elmidae	Optioservus sp.	7
		Stenelmis concinna	8
		Stenelmis crenata	15
TRICHOPTERA	Philopotamidae	Chimarra obscura	22
	Hydropsychidae	Cheumatopsyche sp.	16
		Hydropsyche betteni	8
DIPTERA	Simuliidae	Simulium vittatum	1
		Simulium sp.	1
	Chironomidae	Thienemannimyia gr. spp.	3
		Polypedilum convictum	4

SPECIES RICHNESS 18 (poor)
 BIOTIC INDEX 4.94 (good)
 EPT RICHNESS 4 (poor)
 MODEL AFFINITY 38 (poor)
 ASSESSMENT moderately impacted

DESCRIPTION The kick sample was taken directly under the Pavement Road bridge in Lancaster. The macroinvertebrate fauna was similar to that at Station 2. However, due to a decrease in mayfly richness, the water quality assessment worsened to moderately impacted.

STREAM SITE: Ellicott Creek, Station 4
 LOCATION: Bowmansville, New York, downstream of Main Street
 DATE: July 31 2001
 SAMPLE TYPE: Kick sample
 SUBSAMPLE: 100 individuals

PLATYHELMINTHES		Undetermined Turbellaria	9
ANNELIDA			
OLIGOCHAETA	Tubificidae	Und. Tubificidae w/o cap. setae	1
ARTHROPODA			
CRUSTACEA			
ISOPODA	Asellidae	Caecidotea sp.	1
AMPHIPODA	Gammaridae	Gammarus sp.	30
INSECTA			
EPHEMEROPTERA	Heptageniidae	Stenacron interpunctatum	1
COLEOPTERA	Psephenidae	Psephenus herricki	4
	Elmidae	Optioservus sp.	1
		Stenelmis crenata	7
TRICHOPTERA	Philopotamidae	Chimarra obscura	7
	Hydropsychidae	Cheumatopsyche sp.	2
DIPTERA	Tipulidae	Tipula sp.	1
	Chironomidae	Thienemannimyia gr. spp.	1
		Pagastia sp. A	1
		Cricotopus bicinctus	5
		Cricotopus trifascia gr.	1
		Eukiefferiella devonica gr.	2
		Parametriocnemus lundbecki	1
		Tvetenia vitracies	4
		Polypedilum convictum	20
		Rheotanytarsus exiguus gr.	1

SPECIES RICHNESS 20 (good)
 BIOTIC INDEX 5.65 (good)
 EPT RICHNESS 3 (poor)
 MODEL AFFINITY 51 (good)
 ASSESSMENT slightly impacted

DESCRIPTION The sampling site was 100 meters downstream of the Main Street bridge in Bowmansville, accessed by the Bowmansville Fire Department. The river was much wider here than at Station 3, and conductivity more than doubled. The macroinvertebrate fauna was dominated by midges and scuds. The metrics were mixed, but overall water quality was within the range of slight impact.

STREAM SITE: Ellicott Creek, Station 5
 LOCATION: Williamsville, New York, off Mill Street
 DATE: July 31 2001
 SAMPLE TYPE: Kick sample
 SUBSAMPLE: 100 individuals

ARTHROPODA

INSECTA

EPHEMEROPTERA	Baetidae	Baetis flavistriga	3
		Baetis intercalaris	1
	Heptageniidae	Stenacron interpunctatum	1
COLEOPTERA	Elmidae	Optioservus fastiditus	9
		Stenelmis sp.	2
TRICHOPTERA	Philopotamidae	Chimarra obscura	18
	Hydropsychidae	Cheumatopsyche sp.	14
		Hydropsyche betteni	4
		Hydropsyche sparna	15
DIPTERA	Simuliidae	Simulium tuberosum	1
	Empididae	Hemerodromia sp.	7
	Chironomidae	Thienemannimyia gr. spp.	1
		Pagastia sp. A	2
		Tvetenia vitracies	2
		Polypedilum convictum	19
		Rheotanytarsus exiguus gr.	1

SPECIES RICHNESS 16 (poor)
 BIOTIC INDEX 5.10 (good)
 EPT RICHNESS 7 (good)
 MODEL AFFINITY 53 (good)
 ASSESSMENT slightly impacted

DESCRIPTION This site was accessed in back of the Village Glen Tennis and Fitness Club. The habitat appeared good, with an adequate current and a pool/riffle combination. The macroinvertebrate fauna was dominated by caddisflies and midges, with most metrics improving from Station 4. Water quality was assessed as slightly impacted.

STREAM SITE: Ellicott Creek, Station 6
 LOCATION: Williamsville, New York, downstream of Sheridan Avenue
 DATE: July 31 2001
 SAMPLE TYPE: Kick sample
 SUBSAMPLE: 100 individuals

MOLLUSCA			
GASTROPODA	Pleuroceridae	Undetermined Pleuroceridae	1
PELECYPODA	Sphaeriidae	Undetermined Sphaeriidae	2
ARTHROPODA			
CRUSTACEA			
AMPHIPODA	Gammaridae	Gammarus sp.	32
INSECTA			
COLEOPTERA	Psephenidae	Psephenus herricki	4
	Elmidae	Optioservus fastiditus	30
		Stenelmis crenata	1
TRICHOPTERA	Philopotamidae	Chimarra obscura	1
	Hydropsychidae	Cheumatopsyche sp.	7
		Hydropsyche betteni	4
		Hydropsyche sparna	6
	Hydroptilidae	Hydroptila sp.	1
DIPTERA	Simuliidae	Simulium vittatum	2
	Empididae	Hemerodromia sp.	2
	Chironomidae	Thienemannimyia gr. spp.	2
		Cricotopus tremulus	1
		Polypedilum illinoense	2
		Rheotanytarsus exiguus gr.	2

SPECIES RICHNESS 17 (poor)
 BIOTIC INDEX 5.54 (good)
 EPT RICHNESS 5 (poor)
 MODEL AFFINITY 37 (poor)
 ASSESSMENT moderately impacted

DESCRIPTION The sampling site was located 50 meters downstream of the Sheridan Avenue bridge in Lancaster. The macroinvertebrate fauna was dominated by beetles and scuds. Most of the metrics values were poor, and water quality was assessed as moderately impacted.

STREAM SITE: Ellicott Creek, Station 7
 LOCATION: Williamsville, New York, downstream of St. Rita's Lane
 DATE: July 31 2001
 SAMPLE TYPE: Kick sample
 SUBSAMPLE: 100 individuals

PLATYHELMINTHES		Undetermined Turbellaria	8
MOLLUSCA			
PELECYPODA	Sphaeriidae	Pisidium sp.	2
		Sphaerium sp.	1
ARTHROPODA			
CRUSTACEA			
AMPHIPODA	Gammaridae	Gammarus sp.	17
INSECTA			
EPHEMEROPTERA	Baetidae	Baetis flavistriga	2
COLEOPTERA	Psephenidae	Ectopria nervosa	1
	Elmidae	Stenelmis crenata	19
TRICHOPTERA	Hydropsychidae	Cheumatopsyche sp.	10
DIPTERA	Chironomidae	Cricotopus bicinctus	5
		Tvetenia vitracies	2
		Polypedilum convictum	27
		Rheotanytarsus exiguus gr.	6

SPECIES RICHNESS 12 (poor)
 BIOTIC INDEX 5.69 (good)
 EPT RICHNESS 2 (poor)
 MODEL AFFINITY 52 (good)
 ASSESSMENT moderately impacted

DESCRIPTION The kick sample was taken 30 meters downstream of St. Rita's Lane in Amherst. The riffle had an adequate current, but was highly embedded. The macroinvertebrate fauna was dominated by facultative organisms, and overall water quality was assessed as moderately impacted.

FIELD DATA SUMMARY				
STREAM NAME: Ellicott Creek		DATE SAMPLED: 07/31/01		
REACH: Alden Center to Lancaster				
FIELD PERSONNEL INVOLVED: Abele, Bode, Wilkinson				
STATION	01	02	03	04
ARRIVAL TIME AT STATION	8:50	9:25	10:00	10:45
LOCATION	Alden Center	Wende	Lancaster	Bowmansville
PHYSICAL CHARACTERISTICS				
Width (meters)	8	5	8	20
Depth (meters)	0.1	0.1	0.1	0.2
Current speed (cm per sec.)	50	50	50	90
Substrate (%)				
Rock (>25.4 cm, or bedrock)	0	10	20	20
Rubble (6.35 - 25.4 cm)	30	20	20	30
Gravel (0.2 - 6.35 cm)	40	30	30	20
Sand (0.06 - 2.0 mm)	20	20	20	10
Silt (0.004 - 0.06 mm)	10	20	20	20
Embeddedness (%)	40	30	20	-
CHEMICAL MEASUREMENTS				
Temperature (° C)	19.0	20.7	21.4	21.0
Specific Conductance (µmhos)	1176	1022	1143	2430
Dissolved Oxygen (mg/l)	7.9	5.5	6.1	8.1
pH	7.8	7.9	7.7	7.8
BIOLOGICAL ATTRIBUTES				
Canopy (%)	5	50	50	25
Aquatic Vegetation				
algae - suspended				
algae - attached, filamentous	abundant			
algae - diatoms			present	
macrophytes or moss	duckweed		present	
Occurrence of Macroinvertebrates				
Ephemeroptera (mayflies)	X	X	X	X
Plecoptera (stoneflies)				
Trichoptera (caddisflies)	X	X	X	X
Coleoptera (beetles)	X	X	X	X
Megaloptera (dobsonflies, alderflies)				
Odonata (dragonflies, damselflies)		X		
Chironomidae (midges)		X	X	
Simuliidae (black flies)			X	X
Decapoda (crayfish)	X	X	X	X
Gammaridae (scuds)	X			X
Mollusca (snails, clams)	X	X	X	
Oligochaeta (worms)				
Other		X		X
FIELD ASSESSMENT	good	good	good	good

FIELD DATA SUMMARY				
STREAM NAME: Ellicott Creek		DATE SAMPLED: 07/31/01		
REACH: Alden Center to Lancaster				
FIELD PERSONNEL INVOLVED: Abele, Bode, Wilkinson				
STATION	05	06	07	
ARRIVAL TIME AT STATION	11:35	12:30	12:50	
LOCATION	Williamsville	Amherst	Amherst	
PHYSICAL CHARACTERISTICS				
Width (meters)	15	20	20	
Depth (meters)	0.1	0.2	0.1	
Current speed (cm per sec.)	90	110	100	
Substrate (%)				
Rock (>25.4 cm, or bedrock)	10	0	0	
Rubble (6.35 - 25.4 cm)	30	40	30	
Gravel (0.2 - 6.35 cm)	30	20	20	
Sand (0.06 - 2.0 mm)	20	20	20	
Silt (0.004 - 0.06 mm)	10	20	30	
Embeddedness (%)	20	20	50	
CHEMICAL MEASUREMENTS				
Temperature (° C)	22.2	21.8	23.3	
Specific Conductance (umhos)	2220	2260	2302	
Dissolved Oxygen (mg/l)	8.2	7.9	8.1	
pH	8.0	7.9	7.9	
BIOLOGICAL ATTRIBUTES				
Canopy (%)	20	10	0	
Aquatic Vegetation				
algae - suspended				
algae - attached, filamentous			present	
algae - diatoms	present		present	
macrophytes or moss		present	present	
Occurrence of Macroinvertebrates				
Ephemeroptera (mayflies)				
Plecoptera (stoneflies)				
Trichoptera (caddisflies)	X	X	X	
Coleoptera (beetles)		X	X	
Megaloptera (dobsonflies, alderflies)				
Odonata (dragonflies, damselflies)				
Chironomidae (midges)		X	X	
Simuliidae (black flies)		X	X	
Decapoda (crayfish)	X	X	X	
Gammaridae (scuds)		X	X	
Mollusca (snails, clams)		X	X	
Oligochaeta (worms)		X		
Other	X			
FIELD ASSESSMENT	poor	poor	poor	

LABORATORY DATA SUMMARY				
STREAM NAME: Ellicott Creek		DRAINAGE: 01		
DATE SAMPLED: 07/31/01		COUNTY: Erie		
SAMPLING METHOD: Traveling kick				
STATION	01	02	03	04
LOCATION	Alden Center	Wende	Lancaster	Bowmanville
DOMINANT SPECIES/%CONTRIBUTION/TOLERANCE/COMMON NAME				
1.	Hydroptila nr. armata	Stenelmis crenata	Chimarra obscura	Gammarus sp.
	17 %	31 %	22 %	30 %
	facultative	facultative	intolerant	facultative
	caddisfly	beetle	caddisfly	scud
2.	Rheotanytarsus exiguus gr.	Cheumatopsyche sp.	Cheumatopsyche sp.	Polypedilum convictum
Intolerant = not tolerant of poor water quality	16 %	26 %	16 %	20 %
	facultative	facultative	facultative	facultative
	midge	caddisfly	caddisfly	midge
3.	Cheumatopsyche sp.	Optioservus fastiditus	Stenelmis crenata	Undetermined Turbellaria
Facultative = occurring over a wide range of water quality	14 %	14 %	15 %	9 %
	facultative	intolerant	facultative	facultative
	caddisfly	beetle	beetle	flatworm
4.	Hydropsyche betteni	Undetermined Turbellaria	Stenelmis concinna	Stenelmis crenata
Tolerant = tolerant of poor water quality	10 %	7 %	8 %	7 %
	facultative	facultative	facultative	facultative
	caddisfly	flatworm	beetle	beetle
5.	Thienemannimyia gr. spp.	Thienemannimyia gr. spp.	Hydropsyche betteni	Chimarra obscura
	7 %	4 %	8 %	7 %
	facultative	facultative	facultative	intolerant
	midge	midge	caddisfly	caddisfly
% CONTRIBUTION OF MAJOR GROUPS (NUMBER OF TAXA IN PARENTHESES)				
Chironomidae (midges)	35 (8)	7 (2)	7 (2)	36 (9)
Trichoptera (caddisflies)	44 (5)	28 (3)	4 (3)	9 (2)
Ephemeroptera (mayflies)	5 (3)	6 (4)	1 (1)	1 (1)
Plecoptera (stoneflies)	0 (0)	0 (0)	0 (0)	0 (0)
Coleoptera (beetles)	9 (3)	47 (4)	36 (5)	12 (3)
Oligochaeta (worms)	0 (0)	1 (1)	0 (0)	1 (1)
Other	1 (1)	7 (1)	1 (1)	9 (1)
SPECIES RICHNESS	22	17	18	20
BIOTIC INDEX	5.67	5.04	4.94	5.65
EPT RICHNESS	8	7	4	3
PERCENT MODEL AFFINITY	51	44	38	51
FIELD ASSESSMENT	good	good	good	good
OVERALL ASSESSMENT	slightly impacted	slightly impacted	moderately impacted	slightly impacted

LABORATORY DATA SUMMARY				
STREAM NAME: Ellicott Creek		DRAINAGE: 01		
DATE SAMPLED: 07/31/01		COUNTY: Erie		
SAMPLING METHOD: Traveling kick				
STATION	05	06	07	
LOCATION	Williamsville	Amherst	Amherst	
DOMINANT SPECIES/%CONTRIBUTION/TOLERANCE/COMMON NAME				
1.	Polypedilum convictum	Gammarus sp.	Polypedilum convictum	
	19 %	32 %	27 %	
	facultative	facultative	facultative	
	midge	scud	midge	
2.	Chimarra obscura	Stenelmis crenata	Stenelmis crenata	
Intolerant = not tolerant of poor water quality	18 %	30 %	19 %	
	intolerant	facultative	facultative	
	caddisfly	beetle	beetle	
3.	Hydropsyche sparna	Cheumatopsyche sp.	Gammarus sp.	
Facultative = occurring over a wide range of water quality	15 %	7 %	17 %	
	facultative	facultative	facultative	
	caddisfly	caddisfly	scud	
4.	Cheumatopsyche sp.	Hydropsyche sparna	Cheumatopsyche sp.	
Tolerant = tolerant of poor water quality	14 %	6 %	10 %	
	facultative	facultative	facultative	
	caddisfly	caddisfly	caddisfly	
5.	Optioservus fastiditus	Optioservus fastiditus	Undetermined Turbellaria	
	9 %	4 %	8 %	
	intolerant	intolerant	facultative	
	beetle	beetle	flatworm	
% CONTRIBUTION OF MAJOR GROUPS (NUMBER OF TAXA IN PARENTHESES)				
Chironomidae (midges)	25 (5)	7 (4)	40 (4)	
Trichoptera (caddisflies)	51 (4)	19 (5)	10 (1)	
Ephemeroptera (mayflies)	5 (3)	0 (0)	2 (1)	
Plecoptera (stoneflies)	0 (0)	0 (0)	0. (0)	
Coleoptera (beetles)	11 (2)	35 (3)	20 (2)	
Oligochaeta (worms)	0 (0)	0 (0)	0 (0)	
Other	0 (0)	0 (0)	8 (1)	
SPECIES RICHNESS	16	17	12	
BIOTIC INDEX	5.1	5.54	5.69	
EPT RICHNESS	7	5	2	
PERCENT MODEL AFFINITY	53	37	52	
FIELD ASSESSMENT	poor	poor	poor	
OVERALL ASSESSMENT	slightly impacted	moderately impacted	moderately impacted	