

STREAM SITE: Oil Creek - Station 01  
 LOCATION: Cuba, NY, 10 meters below oute 305  
 DATE: 06 August 2002  
 SAMPLE TYPE: Kick sample  
 SUBSAMPLE: 100 individuals

PLATYHELMINTHES

TURBELLARIA	Planariidae	Undetermined Turbellaria	11
HIRUDINEA	Glossiphoniidae	Undetermined Hirudinea	1
MOLLUSCA			
GASTROPODA	Physidae	Physella sp.	1
PELECYPODA	Sphaeriidae	Sphaerium sp.	10
ARTHROPODA			
CRUSTACEA			
ISOPODA	Asellidae	Caecidotea racovitzai	26
INSECTA			
COLEOPTERA	Elmidae	Dubiraphia sp.	3
		Stenelmis sp.	3
TRICHOPTERA	Hydropsychidae	Cheumatopsyche sp.	2
		Hydropsyche betteni	2
	Hydroptilidae	Hydroptila consimilis	1
	Uenoidae	Undetermined Limnephilidae	1
	Leptoceridae	Undetermined Leptoceridae	1
DIPTERA	Simuliidae	Simulium vittatum	22
	Empididae	Hemerodromia sp.	1
	Chironomidae	Thienemannimyia gr. spp.	3
		Cricotopus vierriensis	3
		Orthocladius obumbratus	1
		Cryptochironomus fulvus gr.	1
		Polypedilum flavum	3
		Micropsectra sp.	1
		Rheotanytarsus exiguus gr.	2
		Tanytarsus guerlus gr.	1

SPECIES RICHNESS: 22 (very good)  
 BIOTIC INDEX: 6.77 (good)  
 EPT RICHNESS: 5 (good)  
 NCO RICHNESS: 14 (very good)  
 ASSESSMENT: slightly impacted

DESCRIPTION: The habitat at this site, just upstream of Cuba, was different from all downstream sites, with a slower current speed and a gravel-sand substrate. Using sandy stream criteria to evaluate the macroinvertebrate data, water quality was assessed as slightly impacted. The fauna was dominated by sowbugs and black fly larvae, with no mayflies or stoneflies. Due to the strong habitat influence at this site, it is difficult to make definitive water quality conclusions.

STREAM SITE: Oil Creek - Station 02  
 LOCATION: Below Cuba, NY, opposite Cuba Lake Road  
 DATE: 06 August 2002  
 SAMPLE TYPE: Kick sample  
 SUBSAMPLE: 100 individuals

PLATYHELMINTHES

TURBELLARIA Planariidae Undetermined Turbellaria 4

ANNELIDA

OLIGOCHAETA

LUMBRICIDA Undetermined Lumbricina 1

MOLLUSCA

PELECYPODA Sphaeriidae Undetermined Sphaeriidae 1

ARTHROPODA

INSECTA

EPHEMEROPTERA Baetidae Acentrella sp. 4

Baetis flavistriga 11

Baetis intercalaris 1

Leptohyphidae Tricorythodes sp. 1

COLEOPTERA Elmidae Optioservus sp. 5

Stenelmis crenata 10

TRICHOPTERA Philopotamidae Chimarra obscura 2

Hydropsychidae Cheumatopsyche sp. 14

Hydropsyche betteni 1

Hydropsyche bronta 1

Hydropsyche morosa 1

DIPTERA Tipulidae Antocha sp. 1

Simuliidae Simulium vittatum 14

Athericidae Atherix sp. 1

Empididae Hemerodromia sp. 3

Chironomidae Thienemannimyia gr. spp. 1

Cardiocladius obscurus 2

Cricotopus bicinctus 6

Cricotopus vierriensis 2

Nanocladius sp. 1

Parametriocnemus lundbecki 1

SPECIES RICHNESS: 27 (very good) Cryptochironomus fulvus gr. 1

BIOTIC INDEX: 5.45 (good) Polypedilum aviceps 1

EPT RICHNESS: 9 (good) Polypedilum flavum 9

MODEL AFFINITY: 68 (very good)

ASSESSMENT: slightly impacted

DESCRIPTION: This site had a greater current speed than Station 1, but the substrate was more gravel than rubble, possibly limiting the fauna somewhat. Nevertheless, the community included clean-water mayflies, stoneflies, caddisflies, hellgrammites, and riffle beetles. Based on the metrics, water quality was assessed as slightly impacted. Riffle criteria were used to evaluate the metric values from this site.

STREAM SITE: Oil Creek - Station 03  
 LOCATION: Below Cuba, NY, off Route 446, access through field  
 DATE: 06 August 2002  
 SAMPLE TYPE: Kick sample  
 SUBSAMPLE: 100 individuals

PLATYHELMINTHES			
TURBELLARIA	Planariidae	Undetermined Turbellaria	1
MOLLUSCA			
PELECYPODA	Sphaeriidae	Undetermined Sphaeriidae	5
ARTHROPODA			
INSECTA			
EPHEMEROPTERA	Baetidae	Baetis flavistriga	8
		Baetis intercalaris	6
ODONATA	Gomphidae	Undetermined Gomphidae	1
COLEOPTERA	Psephenidae	Psephenus herricki	1
	Elmidae	Optioservus trivittatus	39
Stenelmis crenata		4	
Chimarra obscura		3	
TRICHOPTERA	Hydropsychidae	Cheumatopsyche sp.	12
		Hydropsyche betteni	2
		Hydropsyche bronta	2
DIPTERA	Simuliidae Chironomidae	Simulium vittatum	1
		Thienemannimyia gr. spp.	1
		Diamesa sp.	1
		Cardiocladius obscurus	2
		Parametriocnemus lundbecki	1
		Tvetenia vitracies	2
		Polypedilum flavum	7
		Rheotanytarsus exiguus gr.	1

SPECIES RICHNESS: 20 (good)  
 BIOTIC INDEX: 4.71 (good)  
 EPT RICHNESS: 6 (good)  
 MODEL AFFINITY: 57 (good)  
 ASSESSMENT: slightly impacted

DESCRIPTION: This site was accessed through a farm field off Route 446. The substrate contained equal portions of rubble and gravel, the streambanks were clay, and the water was turbid with silt. The macroinvertebrate fauna was dominated by algal-scraping riffle beetles and filter-feeding caddisflies, indicators of nutrient enrichment. All metrics were within the range of slight impact.

STREAM SITE: Oil Creek - Station 04  
 LOCATION: Hinsdale, NY, 30 meters upstream of Route 16 bridge  
 DATE: 06 August 2002  
 SAMPLE TYPE: Kick sample  
 SUBSAMPLE: 100 individuals

PLATYHELMINTHES

TURBELLARIA	Planariidae	Undetermined Turbellaria	3
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ARTHROPODA

INSECTA

EPHEMEROPTERA	Isonychiidae	Isonychia bicolor	2
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Baetidae	Baetis flavistriga	11
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	Baetis intercalaris	7
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Heptageniidae	Stenonema sp.	3
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Ephemerellidae	Serratella deficiens	1
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COLEOPTERA	Elmidae	Promoresia elegans	1
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	Optioservus trivittatus	6
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	Stenelmis crenata	8
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TRICHOPTERA	Philopotamidae	Chimarra obscura	16
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Hydropsychidae	Cheumatopsyche sp.	19
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	Hydropsyche betteni	1
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	Hydropsyche morosa	1
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DIPTERA	Simuliidae	Simulium vittatum	3
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Chironomidae	Thienemannimyia gr. spp.	3
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	Cardiocladius obscurus	1
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	Tvetenia vitracies	2
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	Polypedilum flavum	11
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	Polypedilum scalaenum gr.	1
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SPECIES RICHNESS: 19 (good)

BIOTIC INDEX: 4.76 (good)

EPT RICHNESS: 9 (good)

MODEL AFFINITY: 68 (very good)

ASSESSMENT: slightly impacted

DESCRIPTION: The kick sample was taken in a riffle that was somewhat gravelly, but judged to be adequate. The macroinvertebrate community was dominated by caddisflies and mayflies, indicative of nonpoint source nutrient enrichment. Based on the metrics, water quality was assessed as slightly impacted.

## FIELD DATA SUMMARY

<b>STREAM NAME: Oil Creek</b>		<b>DATE SAMPLED: 8/6/2002</b>		
<b>REACH: Cuba to Hinsdale</b>				
<b>FIELD PERSONNEL INVOLVED: Abele, Bode</b>				
<b>STATION</b>	01	02	03	04
<b>ARRIVAL TIME AT STATION</b>	9:20	10:10	11:00	11:25
<b>LOCATION</b>	Cuba	Cuba Lake Rd	Off Rte 446, Cuba	Hinsdale
<b>PHYSICAL CHARACTERISTICS</b>				
Width (meters)	4	5	10	15
Depth (meters)	0.2	0.2	0.2	0.1
Current speed (cm per sec.)	50	80	100	100
Substrate (%)				
Rock (>25.4 cm, or bedrock)	0	0	0	0
Rubble (6.35 - 25.4 cm)	30	20	30	30
Gravel (0.2 – 6.35 cm)	20	40	30	30
Sand (0.06 – 2.0 mm)	20	20	20	20
Silt (0.004 – 0.06 mm)	30	20	20	20
Embeddedness (%)	20	20	30	20
<b>CHEMICAL MEASUREMENTS</b>				
Temperature (° C)	17.5	20.4	20.6	21.6
Specific Conductance (umhos)	421	377	442	575
Dissolved Oxygen (mg/l)	5.5	7.3	7.5	7.8
pH	7.4	7.6	7.7	7.8
<b>BIOLOGICAL ATTRIBUTES</b>				
Canopy (%)	10	20	50	40
Aquatic Vegetation				
algae – suspended				
algae – attached, filamentous				
algae - diatoms				
macrophytes or moss	X	X		
Occurrence of Macroinvertebrates				
Ephemeroptera (mayflies)		X	X	X
Plecoptera (stoneflies)		X		
Trichoptera (caddisflies)	X	X	X	X
Coleoptera (beetles)	X	X	X	X
Megaloptera(dobsonflies,alderflies)		X	X	
Odonata (dragonflies, damselflies)		X		
Chironomidae (midges)				
Simuliidae (black flies)	X	X	X	
Decapoda (crayfish)	X		X	
Gammaridae (scuds)	X			
Mollusca (snails, clams)	X			
Oligochaeta (worms)				
Other	X			
<b>FAUNAL CONDITION</b>	poor	very good	good	good