

Results of Macroinvertebrate Sampling Conducted at 33 SRS Stream Locations, July-August 1993 (U)

by

W. L. Specht

Westinghouse Savannah River Company
Savannah River Site
Aiken, South Carolina 29808

DOE Contract No. DE-AC09-89SR18035

This paper was prepared in connection with work done under the above contract number with the U. S. Department of Energy. By acceptance of this paper, the publisher and/or recipient acknowledges the U. S. Government's right to retain a nonexclusive, royalty-free license in and to any copyright covering this paper, along with the right to reproduce and to authorize others to reproduce all or part of the copyrighted paper.

DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED

DISCLAIMER

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

This report has been reproduced directly from the best available copy.

Available to DOE and DOE contractors from the Office of Scientific and Technical Information, P.O. Box 62, Oak Ridge, TN 37831; prices available from (615) 576-8401.

Available to the public from the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161.

DISCLAIMER

Portions of this document may be illegible in electronic image products. Images are produced from the best available original document.

**RESULTS OF MACROINVERTEBRATE SAMPLING CONDUCTED
AT 33 SRS STREAM LOCATIONS, JULY-AUGUST 1993**

WINONA L. SPECHT

Approved by:

D.B. Moore-Shedrow
D.B. Moore-Shedrow, Section Manager
Environmental Sciences Section
Savannah River Technology Center

Publication Date: December 1994

WESTINGHOUSE SAVANNAH RIVER COMPANY
SAVANNAH RIVER SITE
AIKEN, SC 29808

UNCLASSIFIED

DOES NOT CONTAIN
UNCLASSIFIED CONTROLLED
NUCLEAR INFORMATION

ADC &
Reviewing
Official:

D.B. Moore-Shedrow *kg.*
(Name and Title)

Date:

2/7/95

Prepared for the U.S. Department of Energy under Contract No. DE-AC09-88SR18035

DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED
RWR

MASTER

TABLE OF CONTENTS

	PAGE
List of Tables	iii
List of Figures	iii
INTRODUCTION	1
METHODS	1
RESULTS	2
Physical and Chemical Parameters	2
Upper Three Runs Macroinvertebrates	8
Macroinvertebrates in Tributaries of Upper Three Runs	8
Fourmile Branch Macroinvertebrates	12
Pen Branch/Indian Grave Branch Macroinvertebrates	14
Steel Creek Macroinvertebrates	15
Lower Three Runs Macroinvertebrates	18
CONCLUSIONS	19
REFERENCES	20
APPENDIX A	

LIST OF TABLES

	PAGE
Table 1. Locations for Macroinvertebrate Sampling, July-August 1993	3
Table 2. Physicochemical Measurements Taken in Conjunction with Hester-Dendy Macroinvertebrate Samplers, July-August 1993.	6-7
Table 3. Upper Three Runs Macroinvertebrates, July-August 1993	9
Table 4. Relative Abundance (%) of Common Macroinvertebrate Taxa in SRS Streams, July-August 1993.	10
Table 5. Macroinvertebrates in Tributaries of Upper Three Runs, July-August 1993	11
Table 6. Fourmile Branch Macroinvertebrates, July-August 1993	13
Table 7. Pen Branch and Indian Grave Branch Macroinvertebrates, July-August 1993	16
Table 8. Steel Creek and Lower Three Runs Macroinvertebrates	17

LIST OF FIGURES

	PAGE
Figure 1. Map of Sampling Locations for Macroinvertebrates, July-August 1993	4
Figure 2. Hester-Dendy Multiplate Sampler	5

RESULTS OF MACROINVERTEBRATE SAMPLING CONDUCTED AT 33 SRS STREAM LOCATIONS, JULY-AUGUST 1993

INTRODUCTION

In order to assess the health of the macroinvertebrate communities of SRS streams, the macroinvertebrate communities at 30 stream locations on SRS were sampled during the summer of 1993, using Hester-Dendy multiplate samplers. In addition, three off-site locations in the Upper Three Runs drainage were sampled in order to assess the potential for impact from off-site activities. In interpreting the data, it is important to recognize that these data were from a single set of collections. Macroinvertebrate communities often undergo considerable temporal variation, and are also greatly influenced by such factors as water depth, water velocity, and available habitat. These stations were selected with the intent of developing an on-going sampling program at a smaller number of stations, with the selection of the stations to be based largely upon the results of this preliminary sampling program. When stations within a given stream showed similar results, fewer stations would be sampled in the future. Similarly, if a stream appeared to be perturbed, additional stations or chemical analyses might be added so that the source of the perturbation could be identified.

In general, unperturbed streams will contain more taxa than perturbed streams, and the distribution of taxa among orders or families will differ. Some groups of macroinvertebrates, such as Ephemeroptera (mayflies), Plecoptera (stoneflies) and Trichoptera (caddisflies), which are collectively called EPT taxa, are considered to be relatively sensitive to most kinds of stream perturbation; therefore a reduced number of EPT taxa generally indicates that the stream has been subject to chemical or physical stressors. In coastal plain streams, EPT taxa are generally less dominant than in streams with rocky substrates, while Chironomidae (midges) are more abundant. Within the Chironomidae, some groups, such as the Orthocladiinae are sensitive to environmental perturbation, while groups such as Chironomini and Tanypodinae have been shown to be much more resistant to perturbations (Heliovaara and Vaisanen, 1993).

The density of organisms (number per square meter) and biomass (mass per square meter) also provide useful information about the ecological integrity of a stream. Very low density or biomass, or very high density or biomass, when associated with a large reduction in the number of taxa, are all indications of perturbation. Similarly, shifts in the relative abundance of functional feeding groups generally indicates that there have been changes in the availability of food types, and can also be indications of stress (Merritt and Cummins, 1978). By examining all of these measurements, the overall health of the macroinvertebrate community and the stream as a whole can be assessed.

METHODS

Sampling was conducted in Upper Three Runs (six locations), eight tributaries of Upper Three Runs [Cedar Creek, Boggy Gut, Tinker Creek (two locations), Reedy Branch, Mill Creek, McQueen's Branch, Crouch Branch, and Tims Branch (two locations)], Four Mile

Creek (six locations), Indian Grave Branch, Pen Branch (five locations), Steel Creek (two locations), a tributary of Steel Creek, and Lower Three Runs (two locations). In all, 33 locations were sampled (Table 1; Figure 1).

At each sampling location, five replicate Hester-Dendy multiplate samplers (Figure 2), each having a surface area of 0.179 m^2 were deployed and allowed to colonize for 28 days. The samplers were retrieved and returned to the laboratory for processing. In the laboratory, the samplers were disassembled and organisms were gently removed from the plates using a soft brush or a stream of water from a wash bottle. Organisms were preserved in 70% ethanol until identified. Organisms were identified to the lowest practical taxon (usually genus). Parameters reported included total number of taxa collected at each station, mean number of taxa per sampler, density of organisms (number per m^2), EPT (number of Ephemeroptera, Plecoptera, and Trichoptera taxa collected at a station), biotic index, ratio of scrapers to collector-filterers, biomass (g ash free dry weight/ m^2), relative abundance of functional feeding groups, relative abundance of functional feeding group biomass, relative abundance of major taxonomic groups (usually order), and a listing of all taxa which comprised greater than 5% of the macroinvertebrates collected at each station. The raw data for each station are presented in Appendix A.

At the time of sampler retrieval, physical and chemical measurements were taken at each station. Parameters included water hardness, pH, conductivity, dissolved oxygen, temperature, water velocity, stream width, and stream depth at one meter intervals across the stream (see Appendix A for stream profiles).

RESULTS

Physical and Chemical Parameters

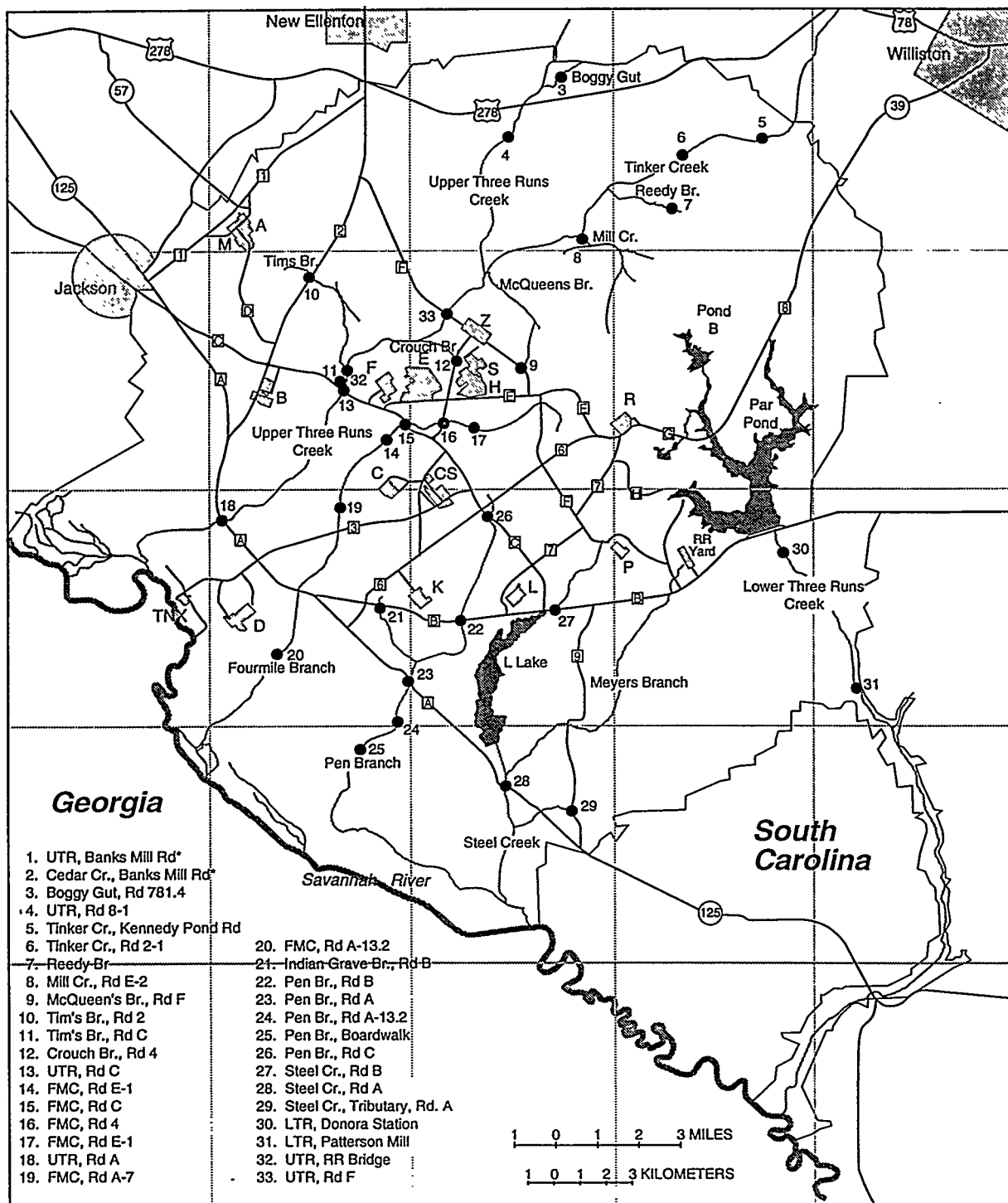
Water hardness ranged from 8 mg/l at Stations 1, 2, and 18 to 66 mg/l at Station 15 (Table 2). Conductivity ranged from 15 $\mu\text{mhos/cm}$ at Station 1 to 105 $\mu\text{mhos/cm}$ at Station 12 (Table 2). pH ranged from 4.89 at Station 2 to 7.2 at Station 24 (Table 2). The acceptable range for pH in South Carolina streams is 6.0 to 8.5 (SCDHEC 1993). Eleven of the 33 locations that were sampled had pH values of less than 6. However, these are blackwater streams with naturally low pH. pH is not considered to be a limiting factor for most macroinvertebrates in SRS streams.

Dissolved oxygen concentrations ranged from 0.2 mg/l at Station 25 to 8.7 mg/l at Station 24 (Table 2). Dissolved oxygen concentrations of less than 5 mg/l are considered undesirable in South Carolina streams (SCDHEC 1993). Six of the sampling locations had dissolved oxygen levels of less than 5 mg/l. Based on the biological data, it appears that low dissolved oxygen levels were responsible for most of the perturbation observed in the streams. Although additional studies will be needed to determine the cause of the low dissolved oxygen levels, at present, it is believed to be due primarily to the presence of beaver dams or other blockage of the stream channel upstream from the sampling locations. Pooling of stream water can often result in anoxic conditions, particularly during the summer months, when water temperatures are warm and bacterial action in the water and sediments is high.

TABLE 1. LOCATIONS FOR MACROINVERTEBRATE SAMPLING
JULY-AUGUST 1993

STATION	STREAM	LOCATION
1	Upper Three Runs	Banks Mill Road
2	Cedar Creek	Banks Mill Road
3	Boggy Gut	Road 781.4
4	Upper Three Runs	Road 8-1
5	Tinker Creek	Kennedy Pond Road
6	Tinker Creek	Road 2-1
7	Reedy Branch	Road 8-1
8	Mill Creek	Road E-2
9	McQueen's Branch	Road F
10	Tim's Branch	Road 2
11	Tim's Branch	Road C
12	Crouch Branch	Road 4
13	Upper Three Runs	Road C
14	Fourmile Branch	Road C-4
15	Fourmile Branch	Road C
16	Fourmile Branch	Road 4
17	Fourmile Branch	Road E-1
18	Upper Three Runs	Road A
19	Fourmile Branch	Road A-7
20	Fourmile Branch	Road A-13.2
21	Indian Grave Branch	Road B
22	Pen Branch	Road B
23	Pen Branch	Road A
24	Pen Branch	Road A-13.2
25	Pen Branch	Boardwalk
26	Pen Branch	Road C
27	Steel Creek	Road B
28	Steel Creek	Road A
29	Steel Creek Tributary	Road A
30	Lower Three Runs	Donora Station
31	Lower Three Runs	Patterson's Mill
32	Upper Three Runs	Railroad Bridge
33	Upper Three Runs	Road F

FIGURE 1. MAP OF SAMPLING LOCATIONS FOR MACROINVERTEBRATES,
JULY-AUGUST 1993



95X00155.01.AIL

*Located north of SRS; not shown on map

FIGURE 2. HESTER-DENDY MULTIPLATE SAMPLER

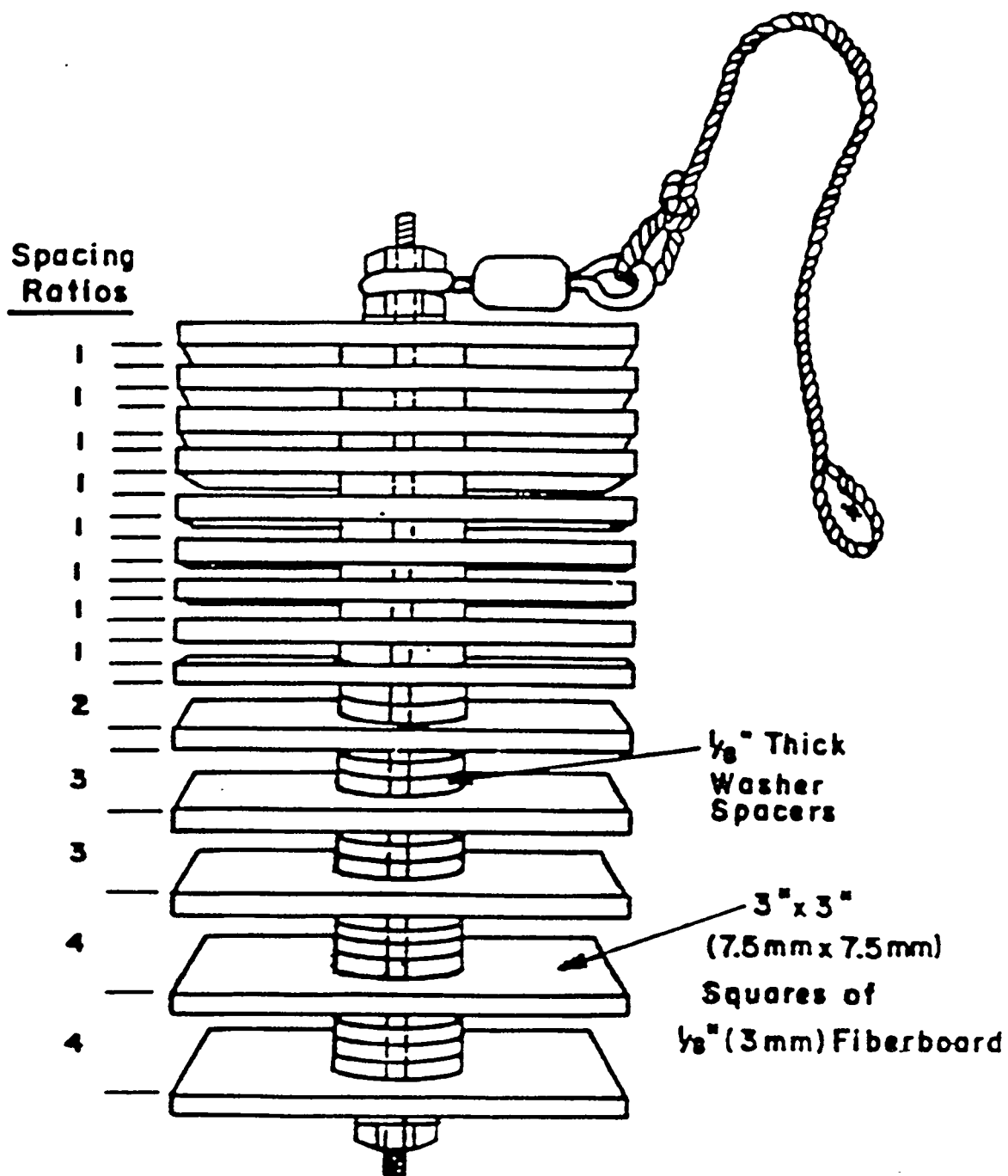


TABLE 2. PHYSICOCHEMICAL MEASUREMENTS TAKEN IN CONJUNCTION WITH HESTER-DENDY MACROINVERTEBRATE SAMPLES, JULY-AUGUST 1993. MEASUREMENTS WERE TAKEN ON SAMPLER RETRIEVAL DATE

Station #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Placement Date	7/22/93	7/22/93	7/22/93	7/22/93	7/22/93	7/22/93	7/22/93	7/22/93	7/23/93	7/24/93	7/24/93	7/22/93	7/24/93	7/23/93	7/23/93	7/22/93	7/22/93
Retrieval Date	8/19/93	8/19/93	8/19/93	8/19/93	8/19/93	8/19/93	8/19/93	8/19/93	8/20/93	8/19/93	8/19/93	8/20/93	8/20/93	8/20/93	8/20/93	8/20/93	8/20/93
Time	8:55 AM	8:05 AM	8:20 AM	10:20 AM	11:20 AM	11:55 AM	12:30 PM	12:50 PM	2:20 PM	7:05 PM	6:50 PM	8:15 AM	1:50 PM	10:20 AM	1:30 PM	8:30 AM	9:55 AM
Hardness (mg/l)	8.0	8.0	10	10	30	20	40	32	30	17	20	13	21	20	68	14	38
pH (SU)	4.97	4.89	5.19	5.47	6.13	6.33	6.21	6.34	6.18	6.69	6.71	5.48	6.59	6.02	6.13	5.79	5.69
Conductivity (umhos/cm)	15.0	20.0	20.0	20.0	35.0	25.0	40.0	55.0	45.0	65.0	80.0	105.0	20.0	75.0	100.0	80.0	35.0
DO (mg/l)	7.6	7.4	6.7	7.6	5.7	7.4	7.2	7.8	7.6	5.2	7.0	4.4	8.0	7.2	0.8	7.5	4.0
Temperature (C)	22.5	22.7	24.1	23.8	27.4	25.7	26.4	28.4	25.7	25.7	25.4	23.4	25.3	25.5	27.2	24.0	25.3
Flow (m/s)	0.43	0.25	0.46	0.37	0.21	0.32	0.04	0.01	0.02	0.50	0.40	0.00	0.47	0.37	0.30	0.35	0.00
Stream Width (m)	7.50	4.42	2.80	12.19	8.99	8.50	1.95	6.16	2.59	2.07	2.87	0.91	15.64	3.17	7.25	2.93	2.50
(meters from left bank) Depth																	
Depth 1	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0
Depth 2	(0.7) 0.3	(0.6) 0.12	(0.5) 0.12	(1.1) 1.01	(0.8) 0.27	(0.8) 0.58	(0.3) 0.52	(0.6) 0.46	(0.4) 0.15	(0.3) 0.48	(0.5) 0.30	(0.3) 0.12	(1.4) 0.82	(0.4) 0.09	(0.7) 0.67	(0.5) 0.12	(0.4) 0.34
Depth 3	(1.4) 0.55	(1.1) 0.49	(0.9) 0.30	(2.2) 1.74	(1.6) 0.46	(1.6) 0.55	(0.5) 0.58	(1.0) 0.73	(0.9) 0.18	(0.5) 0.46	(1.0) 0.30	(0.5) 0.27	(2.8) 0.76	(0.8) 0.40	(1.3) 0.73	(1.0) 0.09	(0.8) 0.58
Depth 4	(2.0) 0.67	(1.7) 0.55	(1.4) 0.30	(3.3) 1.40	(2.5) 0.52	(2.3) 0.52	(0.8) 0.52	(1.7) 0.91	(1.3) 0.15	(1.0) 0.43	(1.5) 0.24	(0.8) 0.06	(4.3) 0.70	(1.2) 0.37	(2.0) 0.91	(1.4) 0.09	(1.3) 0.52
Depth 5	(2.7) 0.70	(2.2) 0.58	(1.9) 0.37	(4.4) 0.91	(3.3) 0.64	(3.1) 0.46	(1.0) 0.52	(2.3) 1.01	(1.7) 0.12	(1.3) 0.34	(1.9) 0.18	(0.9) 0	(5.7) 0.76	(1.6) 0.49	(2.6) 1.16	(1.9) 0.15	(1.7) 0.49
Depth 6	(3.4) 0.64	(2.8) 0.43	(2.4) 0.40	(5.6) 0.79	(4.1) 0.61	(3.9) 0.30	(1.3) 0.49	(2.8) 0.82	(2.2) 0.06	(1.5) 0.15	(2.4) 0.12		(7.1) 0.91	(2.0) 0.46	(3.3) 1.16	(2.4) 0.24	(2.1) 0.40
Depth 7	(4.1) 0.46	(3.3) 0.30	(2.8) 0	(6.7) 0.73	(4.9) 0.61	(4.6) 0.24	(1.5) 0.30	(3.4) 0.78	(2.6) 0	(2.0) 0	(2.9) 0		(8.5) 0.79	(2.4) 0.37	(4.0) 1.16	(2.9) 0	(2.5) 0
Depth 8	(4.8) 0.46	(3.9) 0.15		(7.8) 0.76	(5.7) 0.70	(5.4) 0.30	(1.8) 0.12	(3.9) 0.67					(9.8) 0.70	(2.8) 0.34	(4.6) 1.13		
Depth 9	(5.4) 0.40	(4.4) 0		(8.9) 0.34	(6.6) 0.73	(6.2) 0.37	(2.0) 0	(4.5) 0.67					(11.3) 0.67	(3.2) 0	(5.3) 1.10		
Depth 10	(6.1) 0.40			(10) 0.24	(7.4) 0.67	(7.0) 0.27		(5.1) 0.70					(12.8) 0.61		(5.9) 1.01		
Depth 11	(6.8) 0.40			(11.1) 0.05	(8.2) 0.40	(7.7) 0.18		(5.6) 0.18					(14.2) 0.30		(6.6) 0.98		
Depth 12	(7.5) 0			(12.2) 0	(9.0) 0	(8.5) 0		(6.2) 0					(15.6) 0		(7.3) 0		

TABLE 2 (continued). PHYSICOCHEMICAL MEASUREMENTS TAKEN IN CONJUNCTION WITH HESTER-DENDY MACROINVERTEBRATE SAMPLES, JULY-AUGUST 1993. MEASUREMENTS WERE TAKEN ON SAMPLER RETRIEVAL DATE.

Station #	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
Placement Date	7/23/93	7/23/93	7/22/93	7/22/93	7/22/93	7/23/93	7/23/93	7/23/93	7/23/93	7/22/93	7/23/93	7/24/93	7/24/93	7/24/93	7/24/93	7/23/93
Retrieval Date	8/19/93	8/20/93	8/20/93	8/19/93	8/19/93	8/19/93	8/20/93	8/20/93	8/20/93	8/19/93	8/19/93	8/19/93	8/19/93	8/19/93	8/20/93	8/20/93
Time	8:00 PM	10:50 AM	11:35 AM	4:10 PM	3:50 PM	5:35 PM	12:05 PM	12:25 PM	1:10 PM	3:07 PM	5:10 PM	4:45 PM	1:30 PM	2:20 PM	8:00 AM	7:35 AM
Hardness (mg/l)	8.0	16	25	16	24	20	31	31	44	12	27	13	18	23	11	26
pH (SU)	6.4	6.2	7.0	6.3	6.3	6.4	7.2	6.2	5.3	6.6	6.0	5.3	6.5	6.4	5.8	5.4
Conductivity (umhos/cm)	20.0	75.0	70.0	80.0	45.0	70.0	75.0	90.0	25.0	60.0	65.0	30.0	50.0	65.0	25.0	60.0
DO (mg/l)	7.5	7.4	7.9	8.3	7.2	8.2	8.7	0.2	2.1	7.8	6.5	3.7	5.8	7.4	7.7	7.5
Temperature (C)	24.60	26.30	27.20	29.00	27.90	28.90	27.50	29.60	24.00	32.70	30.20	29.00	31.30	28.60	23.20	22.60
Flow (m/s)	0.49	0.55	0.12	0.18	0.17	0.22	0.35	0.00	0.00	0.00	0.38	0.00	0.44	0.18	0.42	0.25
Stream width (m)	14.63	3.66	13.11	12.13	3.38	10.61	0.42	NA	1.16	33.53	11.28	3.60	7.50	13.35	13.05	9.75
(meters from Left bank) Depth																
Depth 1	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	0.21	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0
Depth 2	(1.3) 0.82	(0.6) 0.06	(1.2) 0.37	(1.1) 0.30	(0.6) 0.6	(1.0) 0.52	(0.8) 0.15	0.37	(0.9) 0.61	(3.1) 1.86	(1.0) 0.73	(0.5) 0.15	(0.7) 0.24	(1.2) 0.58	(1.2) 0.49	(0.9) 0.06
Depth 3	(2.7) 1.10	(1.1) 0.09	(2.4) 0.58	(2.2) 0.65	(1.1) 0.09	(1.8) 0.40	(1.8) 0.18		(1.8) 0.58	(6.1) 2.44	(2.1) 1.01	(0.8) 0.21	(1.4) 0.61	(1.4) 1.01	(2.4) 1.16	(1.8) 0.55
Depth 4	(4.0) 1.31	(1.7) 0.15	(3.6) 0.49	(3.3) 0.67	(1.7) 0.15	(2.9) 0.34	(2.8) 0.18		(2.9) 0.34	(9.1) 2.28	(3.1) 1.25	(1.4) 0.55	(2.1) 0.73	(3.6) 1.07	(3.6) 1.25	(2.7) 0.70
Depth 5	(5.3) 1.37	(2.3) 0.12	(4.8) 0.52	(4.4) 0.70	(2.3) 0.12	(3.9) 0.46	(3.8) 0.21		(3.8) 0	(12.2) 2.2	(4.1) 1.18	(1.8) 0.63	(2.7) 0.67	(4.8) 1.07	(4.8) 1.28	(3.5) 0.84
Depth 6	(6.6) 1.34	(2.8) 0.15	(5.9) 0.43	(6.8) 0.73	(2.8) 0.15	(4.8) 0.52	(4.7) 0.21			(15.2) 2.23	(5.1) 1.13	(2.3) 0.65	(3.4) 0.58	(6.1) 1.10	(5.9) 1.22	(4.4) 0.88
Depth 7	(8.0) 1.22	(3.4) 0	(7.1) 0.37	(9.9) 0.46	(3.4) 0	(6.8) 0.61	(6.7) 0.27			(18.3) 2.23	(6.2) 0.88	(2.7) 0.52	(4.1) 0.52	(7.3) 1.16	(7.1) 1.19	(5.3) 1.18
Depth 8	(9.3) 1.07		(8.3) 0.43	(11.0) 0.27		(6.7) 0.61	(6.6) 0.34			(21.3) 2.16	(7.2) 0.79	(3.1) 0.15	(4.8) 0.52	(6.5) 0.98	(8.3) 1.22	(6.2) 1.13
Depth 9	(10.6) 0.91		(9.5) 0.52	(12.1) 0		(7.7) 0.70	(7.6) 0.37			(24.6) 2.74	(8.2) 0.70	(3.6) 0	(5.5) 0.46	(9.7) 0.98	(9.5) 1.07	(7.1) 1.37
Depth 10	(12.0) 0.91		(10.7) 0.61			(8.7) 0.73	(8.5) 0.48			(27.4) 2.29	(9.3) 0.84		(6.1) 0.43	(10.9) 0.61	(10.7) 0.61	(7.8) 1.37
Depth 11	(13.3) 0.64		(11.9) 0.52			(9.6) 0.61	(9.5) 0.67			(30.5) 1.58	(10.3) 0.64		(6.8) 0.30	(12.1) 0.15	(11.8) 0.49	(8.8) 1.56
Depth 12	(14.6) 0		(13.1) 0			(10.6) 0	(10.4) 0			(33.5) 0	(11.3) 0		(7.5) 0	(13.3) 0	(13.1) 0	(9.7) 0

Water velocity ranged from 0.0 m/sec at several sampling stations to 0.55 m/sec at Station 19 (Table 2). Stream width ranged from 0.42 m at Station 24 to 33.53 m at Station 27 (Table 2). Maximum stream depth ranged from 0.15 m at Stations 19 and 22 to 2.44 m at Station 27 (Table 2).

Upper Three Runs Macroinvertebrates

Upper Three Runs has long been considered to be the most unperturbed of the five major SRS streams. However, Upper Three Runs and three of its tributaries (Tim's Branch, McQueen's Branch and Crouch Branch) collectively receive effluents from 23 NPDES outfalls in A, B, F, H, M, and S Areas and the Flowing Streams Facility near Road C.

The macroinvertebrate data from Upper Three Runs indicate that the stream supports a reasonably rich macroinvertebrate community at each of the six locations that were sampled. The total number of taxa collected per station ranged from 42 at Road F to 52 at Road C, while the mean number of taxa collected per sampler ranged from 20.0 at Banks Mill Road to 26.8 at Road C (Table 3). Density of organisms ranged from 444.7 organisms/m² at Road F to 1378.8 organisms/m² at the Railroad Bridge upstream from Road C (Table 3). EPT ranged from 12 to 27 (Table 3). Biomass ranged from 0.0296 g/m² at Road A to 0.8470 g/m² at Road 8-1 (Table 3). Usually, high biomasses, such as that reported at Road 8-1 are due to the presence of a few large organisms. The most abundant group of macroinvertebrates collected at all of the Upper Three Runs stations were the orthoclad chironomids (33.67% to 56.97%; Table 3). The most common orthoclad taxa were *Rheocricotopus*, *Cricotopus/Ortho*, and *Thienemaniella*; Table 4). Other abundant groups of taxa included Tanytarsini chironomids (6.89 to 25.98%; dominant taxa were *Rheotanytarsus* and *Tanytarsus*), Chironomini chironomids (3.40 to 18.38%; dominant taxa was *Polypedilum*), Trichoptera (4.07 to 8.66%), and Coleoptera (1.7 to 15.58%; dominant taxa were *Stenelmis crenatus* and *Macronychus glabratus*; Tables 3 and 4). No longitudinal (upstream to downstream) trends were observed for any of the parameters that were measured.

Macroinvertebrates in Tributaries of Upper Three Runs

Tributaries of Upper Three Runs that were sampled include Cedar Creek (off-site), Boggy Gut (off-site), Tinker Creek, Reedy Branch, Mill Creek, McQueen's Branch, Tim's Branch, and Crouch Branch. Of these tributaries, McQueen's Branch, Crouch Branch, and Tim's Branch receive effluents from SRS facilities, while the remaining tributaries are largely unperturbed. The macroinvertebrate data indicate that McQueen's Branch, Crouch Branch, and Tim's Branch all appear to be perturbed to some extent, as evidenced by fewer total taxa and mean taxa per sampler, lower densities of organisms, and/or lower EPT and/or higher Biotic Index (Table 5). Crouch Branch was by far the most perturbed of the three streams, with only 19 taxa collected, none of which were the generally more sensitive EPT taxa. The macroinvertebrate community of Crouch Branch was overwhelmingly dominated by Chironomini chironomids [primarily *Kiefferulus dux* (64.64%) and *Chironomus* spp. (14.92%; Tables 4 and 5). Domination by Chironomini is generally considered to be an indication of perturbed conditions. Crouch Branch had a relatively low oxygen concentration at the time of sample retrieval, with a reading of 4.4 mg/l (Table 2). It is possible that reduced oxygen levels

TABLE 3. UPPER THREE RUNS MACROINVERTEBRATES JULY-AUGUST 1993

	BANKS MILL RD.	ROAD 8-1	ROAD F	RR BRIDGE	ROAD C	ROAD A
	STATION 1	STATION 4	STATION 33	STATION 32	STATION 13	STATION 18
TOTAL # TAXA	43	45	42	44	52	43
MEAN TAXA/SAMPLER	20.0	23.8	22.2	24.0	26.8	22.4
TOTAL NO. ORGANISMS	589	727	398	1234	1039	516
DENSITY (NO./M2)	658.1	812.3	444.7	1378.8	1160.9	576.5
EPT	17	15	12	15	16	14
BIOTIC INDEX	6.22	6.10	5.93	6.66	6.50	6.11
SC/CF	0.14	0.11	0.71	0.18	0.10	0.22
BIOMASS (G/M2)	0.1321	0.8470	0.1022	0.1789	0.2867	0.0296
TAXA % COMPOSITION						
Ephemeroptera	4.41	1.65	8.29	4.3	1.73	3.88
Plecoptera	2.89	9.22	4.27	2.43	3.46	4.65
Trichoptera	8.66	6.74	7.54	6.81	4.62	4.07
Coleoptera	1.7	1.93	15.58	2.27	2.31	8.53
Odonata	0.00	0.28	0.00	0.00	0.00	0.00
Megaloptera	0.34	0.14	0.50	0.08	0.48	0.58
Hemiptera	0.00	0.00	0.00	0.00	0.00	0.00
Lepidoptera	0.00	0.00	0.00	0.16	0.10	0.19
Other Diptera	9.85	4.68	6.78	8.02	4.52	5.43
Tanypodinae	1.53	6.05	3.77	1.70	4.81	3.10
Tanytarsini	25.98	19.53	8.79	6.89	12.03	9.11
Orthocladinae	40.75	37.00	33.67	56.97	47.55	50.19
Chironomini	3.40	12.79	10.80	10.29	18.38	9.88
Pseudochironomini	0.00	0.00	0.00	0.00	0.00	0.00
Diamesinae	0.00	0.00	0.00	0.00	0.00	0.00
Oligochaeta	0.00	0.00	0.00	0.00	0.00	0.00
Hirudinea	0.00	0.00	0.00	0.00	0.00	0.00
Gastropoda	0.00	0.00	0.00	0.00	0.00	0.19
Pelecypoda	0.00	0.00	0.00	0.00	0.00	0.00
Isopoda	0.00	0.00	0.00	0.00	0.00	0.00
Amphipoda	0.00	0.00	0.00	0.00	0.00	0.00
Hydracarina	0.51	0.00	0.00	0.08	0.00	0.19
Decapoda	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	100.02	100.01	99.99	100	99.99	99.99
FUNC. % COMPOSITION						
Collector-Gatherers	71.31	67.95	68.84	76.09	77.09	73.64
Collector-Filterers	19.69	10.45	11.31	15.48	11.36	13.18
Predators	4.93	16.37	10.05	4.54	8.85	8.14
Scrapers	2.72	1.10	8.04	2.76	1.15	2.91
Shredders	1.36	4.13	1.76	0.81	1.35	1.74
Piercer-Herbivores	0.00	0.00	0.00	0.32	0.19	0.39
TOTAL	100.01	100.00	100.00	100.00	99.99	100.00
BIOMASS % COMPOSITION						
Collector-Gatherers	5.75	1.57	33.99	9.57	10.29	11.32
Collector Filterers	3.38	0.84	4.81	11.37	3.23	3.02
Predators	87.65	95.90	31.37	41.39	74.59	48.68
Scrapers	3.21	0.61	21.53	11.37	1.91	12.45
Shredders	0.00	1.08	8.31	25.48	9.59	24.53
Piercer-Herbivores	0.00	0.00	0.00	0.81	0.39	0.00
TOTAL	99.99	100.00	100.01	99.99	100.00	100.00

TABLE 5. MACROINVERTEBRATES IN TRIBUTARIES OF UPPER THREE RUNS, JULY-AUGUST 1993

	CEDAR CREEK	BOGGY GUT	TINKER AT KP RD	TINKER RD 2-1	REEDEY BRANCH	MILL CR. RD E-2	MCQUEEN RD F	TIMS BR RD 2	TIMS BR RD C	CROUCH BR RD 4
	ST 2	3	5	6	7	8	9	10	11	12
TOTAL # TAXA	47	57	53	46	52	63	35	38	48	19
MEAN TAXA/SAMPLER	25.2	26.8	24.0	27.2	28.4	33.2	17.0	20.2	27.0	5.6
TOTAL NO. ORGANISMS	963	653	924	1030	938	1578	292	1081	722	181
DENSITY (NO./M2)	1076	729.6	1032.4	1150.8	1048	1763.1	326.3	1207.8	806.7	202.2
EPT	15	19	16	12	11	15	4	4	8	0
BIOTIC INDEX	6.73	6.04	6.07	6.00	6.07	6.48	6.60	6.23	6.25	9.47
SC/CF	0.06	0.26	0.70	0.20	0.82	0.21	7.00	0.00	0.27	0.00
BIOMASS (G/M2)	0.0293	0.1751	0.5209	0.2716	0.0713	0.0904	0.0374	0.1360	0.1578	0.0207
TAXA % COMPOSITION										
Ephemeroptera	3.22	2.76	13.42	2.91	4.9	6.46	0.68	0	4.57	0
Plecoptera	0.31	3.37	0	3.4	0.75	0	7.19	0	3.05	0
Trichoptera	9.03	2.14	6.28	0.97	4.26	3.99	1.71	8.05	2.49	
Coleoptera	1.35	12.25	2.71	18.84	6.08	1.08	1.02	17.30	11.91	1.10
Odonata	0.21	0.31	0.11	0.00	0.21	0.38	3.08	0.18	0.28	1.10
Megaloptera	0.10	1.07	1.19	0.10	0.21	0.00	0.68	0.00	0.69	0.00
Hemiptera	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.55
Lepidoptera	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Diptera	5.19	3.68	0.76	4.66	1.71	2.22	4.11	2.78	1.25	1.66
Tanypodinae	1.35	5.36	1.52	4.76	9.49	12.29	18.84	6.57	9.28	2.21
Tanytarsini	20.67	24.96	24.89	10.10	42.96	33.02	24.66	31.36	17.31	5.52
Orthocladinae	48.29	23.58	19.81	46.21	6.50	17.87	8.56	26.83	38.23	0.55
Chironomini	7.68	20.37	28.03	6.99	21.54	22.56	29.10	4.81	10.66	86.19
Pseudochironomini	0.00	0.00	0.00	0.10	0.11	0.00	0.00	0.00	0.00	0.55
Diamesinae	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oligochaeta	2.60	0.15	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hirudinea	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gastropoda	0.00	0.00	0.22	0.00	1.07	0.06	0.34	0.00	0.00	0.00
Pelecypoda	0.00	0.00	0.22	0.00	0.11	0.00	0.00	0.00	0.00	0.00
Isopoda	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Amphipoda	0.00	0.00	0.00	0.00	0.11	0.06	0.00	2.04	0.00	0.00
Hydracarina	0.00	0.00	0.54	0.97	0.00	0.00	0.00	0.09	0.14	0.55
Decapoda	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	100.00	100.00	100.03	100.01	100.01	99.99	99.97	100.01	100.00	99.98
FUNC. % COMPOSITION										
Collector-Gatherers	65.94	75.19	70.88	82.62	76.33	72.43	54.45	79.93	72.58	93.37
Collector-Filterers	24.09	7.04	14.07	4.95	4.26	9.19	0.34	11.19	8.17	1.10
Predators	2.28	10.26	4.33	9.13	12.05	15.15	25.34	8.33	12.60	5.52
Scrapers	1.45	1.84	9.85	0.97	3.52	1.96	2.40	0.00	2.22	0.00
Shredders	4.57	5.67	0.87	2.33	3.73	1.08	17.47	0.56	4.43	0.00
Piercer-Herbivores	1.66	0.00	0.00	0.00	0.11	0.19	0.00	0.00	0.00	0.00
TOTAL	99.99	100.00	100.00	100.00	100.00	100.00	100.00	100.01	100.00	99.99
BIOMASS % COMPOSITION										
Collector-Gatherers	40.84	25.69	4.80	46.85	57.37	38.81	27.25	86.03	36.83	88.65
Collector-Filterers	26.34	3.37	6.95	0.62	9.72	15.45	0.00	7.15	3.61	1.08
Predators	23.28	55.50	79.02	41.22	10.66	27.07	33.23	5.67	36.19	10.27
Scrapers	0.38	5.66	8.77	0.70	12.07	14.46	5.99	0.00	7.08	0.00
Shredders	8.78	9.78	0.45	10.61	9.87	3.71	33.53	1.15	16.29	0.00
Piercer-Herbivores	0.38	0.00	0.00	0.00	0.31	0.49	0.00	0.00	0.00	0.00
TOTAL	100.00	100.00	99.99	100.00	100.00	99.99	100.00	100.00	100.00	100.00

were responsible, at least in part, for the observed perturbation. In addition to receiving SRS effluents, both Crouch Branch and McQueen's Branch were subject to high levels of total suspended solids and scouring during construction of the DWPF. Therefore, the observed perturbation may be due, at least in part, to DWPF construction activities, rather than to present operational activities. The macroinvertebrate community of Tim's Branch improved in a downstream direction, with the total number of taxa collected increasing from 38 near Road 2 to 48 near its confluence with Upper Three Runs (Table 5). The mean number of taxa and number of EPT taxa also increased substantially, although density of organisms declined (Table 5). Tim's Branch receives discharges from A and M Areas, and has been the site of a long-term macroinvertebrate sampling program supported by M-Area to examine the effects of M Area discharges on the stream (Specht et al., 1987; Enwright Environmental, 1991). These studies found that a pond upstream from the M-Area discharge usually discharges anoxic water, which precludes the presence of most species of macroinvertebrates. As the water flows downstream, water quality gradually increases, as the oxygen concentrations in the water increase. Therefore, although portions of Tim's Branch appear to be perturbed, the perturbation may be due to naturally occurring low levels of oxygen, rather than to discharges from A and M Areas.

The remainder of the tributaries of Upper Three Runs that were sampled showed no evidence of perturbation. The largest number of taxa in these tributaries was collected in Mill Creek (63), while the fewest were collected in Tinker Creek (46; Table 5). EPT was relatively high, ranging from 11 to 16 (Table 5). Dominant taxa in most of the tributaries included the orthoclad chironomids, *Rheocricotopus* spp. and *Thiemanellia* spp., the tanytarsine chironomids *Rheotanytarsus* spp. and *Tanytarsus* spp., the Tanypodinae chironomid, *Ablabesmyia* spp., and the Chironomini chironomid, *Polypedilum* spp (Table 4). Most of these taxa were also among the most common taxa collected in Upper Three Runs.

Fourmile Branch Macroinvertebrates

Fourmile Branch receives effluents from 16 NPDES outfalls in F, H, and C Areas and Central Shops, and groundwater inputs from the old F and H Area seepage basins and portions of the Burial Ground. Until 1985, the portion of Fourmile Branch downstream of Road 3 received cooling water from C Reactor and was subject to extremely high temperatures and flows. Six locations were sampled in Fourmile Branch; five were located upstream from the reactor outfall and one (Road A-13.2) was located in the portion of the stream that had been thermally impacted.

Three of the six stations (Road C-4, Road A-7 and Road A-13.2 all had relatively high numbers of taxa present (46 to 52) and mean number of taxa per sampler (20.2 to 32.2; Table 6). Two of the three stations had relatively high EPT (Road A-7, 15; Road A-13.2, 17; Table 6). Two of the remaining three stations (Road E-1 and Road C-4) had somewhat lower values for these parameters (Table 6), possibly indicating some degree of perturbation.

At most stations in Fourmile Branch, the macroinvertebrate community was dominated by chironomids (Table 6). At Road E-1, Tanypodinae (primarily *Ablabesmyia* spp.) was the most dominant group, followed by Chironomini (mostly *Tribelos* spp.; Table 4). At

TABLE 6. FOURMILE BRANCH MACROINVERTEBRATES, JULY-AUGUST 1993

	FOURMILE BR RD E-1	FOURMILE BR RD 4	FOURMILE BR RD C	FOURMILE BR RD C-4	FOURMILE BR RD A-7	FOURMILE BR RD A 13.2
	STATION 17	STATION 16	STATION 15	STATION 14	STATION 19	STATION 20
TOTAL # TAXA	30	46	5	36	49	52
MEAN TAXA/SAMPLER	16.2	20.2	1.6	17.6	32.2	27.8
TOTAL NO. ORGANISMS	451	527	20	390	1709	1139
DENSITY (NO./M2)	503.9	588.8	22.3	435.8	1909.5	1272.6
EPT	5	7	0	8	15	17
BIOTIC INDEX	6.58	6.85	7.37	6.78	6.04	5.10
SC/CF	0.33	1.04	*	0.58	0.25	3.58
BIOMASS (G/M2)	0.0145	0.0253	0.0013	0.1955	0.0278	0.6950
TAXA % COMPOSITION						
Ephemeroptera	9.76	3.23	0.00	1.54	13.17	55.75
Plecoptera	0.00	0.00	0.00	0.00	0.12	0.00
Trichoptera	0.89	2.85	0.00	4.87	11.88	7.55
Coleoptera	1.33	7.78	0.00	26.15	8.31	7.99
Odonata	3.33	4.17	5.00	0.77	0.23	0.44
Megaloptera	0.44	0.76	0.00	1.03	0.47	0.18
Hemiptera	0.00	0.00	0.00	0.00	0.00	0.00
Lepidoptera	0.00	0.00	0.00	0.00	0.00	0.00
Other Diptera	2.22	3.80	0.00	4.36	3.04	4.04
Tanypodinae	31.04	5.69	0.00	8.21	2.11	3.69
Tanytarsini	23.95	10.25	0.00	1.79	31.30	2.63
Orthocladinae	1.11	33.78	0.00	34.62	25.57	4.83
Chironomini	25.94	25.05	15.00	15.64	0.94	12.73
Pseudochironomini	0.00	0.00	0.00	0.00	0.00	0.00
Diamesinae	0.00	0.00	0.00	0.00	0.06	0.00
Oligochaeta	0.00	0.38	0.00	0.00	0.23	0.00
Hirudinea	0.00	0.19	5.00	0.00	0.00	0.00
Gastropoda	0.00	1.90	75.00	0.26	0.35	0.00
Pelecypoda	0.00	0.00	0.00	0.51	0.00	0.18
Isopoda	0.00	0.00	0.00	0.00	0.00	0.00
Amphipoda	0.00	0.19	0.00	0.00	0.00	0.00
Hydracarina	0.00	0.00	0.00	0.26	2.22	0.00
Decapoda	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	100.01	100.02	100.00	100.01	100.00	100.01
FUNC. % COMPOSITION						
Collector-Gatherers	61.42	77.23	15.00	74.87	41.14	42.05
Collector-Filterers	0.67	4.74	0.00	3.08	35.69	10.01
Predators	37.03	12.71	10.00	16.41	8.25	10.18
Scrapers	0.22	4.93	75.00	1.79	8.78	35.82
Shredders	0.67	0.38	0.00	3.85	0.23	0.79
Piercer-Herbivores	0.00	0.00	0.00	0.00	5.91	1.14
TOTAL	100.01	99.99	100.00	100.00	100.00	99.99
BIOMASS % COMPOSITION						
Collector-Gatherers	51.54	33.63	0.00	29.20	32.94	21.38
Collector Filterers	0.00	3.10	0.00	1.77	32.14	27.33
Predators	33.08	42.48	0.00	3.09	10.32	17.04
Scrapers	10.77	15.93	100.00	64.69	20.63	29.58
Shredders	4.62	4.87	0.00	1.25	1.59	2.41
Piercer-Herbivores	0.00	0.00	0.00	0.00	2.38	2.25
TOTAL	100.01	100.01	100.00	100.00	100.00	99.99

* SC/CF ratio cannot be calculated when CF is 0.

Road A-7, Tanytarsini (primarily *Rheotanytarsus* spp.) were the most abundant group of macroinvertebrates collected (Tables 4 and 6). Orthoclad chironomids were conspicuously rare at Road E-1, accounting for only 1.11% of the organisms collected (Table 6). The dissolved oxygen concentration at Road E-1 at the time of sample collection was 4.0 mg/l (Table 2). It is likely that low dissolved oxygen levels were responsible for the observed perturbation at Road E-1. At Road 4 and Road C-4, orthoclads were the most common group of chironomids collected, comprising 33.78 and 34.62% of the macroinvertebrates collected at these two stations, respectively (Table 6). The most common orthoclads were *Rheocricotopus* spp., *Cricotopus* spp., and *Thienemanniella* spp (Table 4). At Road A-7, these genera of orthoclads were also abundant, but the Tanytarsini midges (mostly *Rheotanytarsus* spp.) were slightly more abundant. At Road A-13.2, Ephemeroptera were by far the most abundant group, accounting for 55.75% of the macroinvertebrates collected (Table 6). Common species of mayflies at this station included *Stenonema* spp. (35.73%), *Tricorythodes* spp. (10.62%), and *Isonychia* spp. (5.71%; Table 4). Of the 33 stations that were sampled, Road A-13.2 was the only station where *Isonychia* was collected. *Isonychia* is a collector-filterer, feeding primarily on suspended organic matter. Filter-feeders are often abundant downstream of reservoirs, where they feed on suspended algae. At both Road A-13.2 and Road A-7, filter-feeders were very common, accounting for 29.7 and 35.69% of the organisms collected (Table 6). Beaver ponds upstream from these locations, where water can pool, are very likely are the source of the abundant suspended organic matter at these locations. Similar abundances of collector-filterers were also observed downstream from Par Pond and just upstream from the Pen Branch delta.

Collections from Road C indicate that the macroinvertebrate community at that location was extremely depauperate, with only five taxa collected (Table 6). The density of macroinvertebrates at Road C was also extremely low (22.3 organisms/m²; Table 6). The dissolved oxygen in Fourmile Branch at Road C was only 0.8 mg/l at the time of sample retrieval (Table 2). Therefore, it appears that low dissolved oxygen levels were responsible for the depauperate macroinvertebrate community at this station.

The macroinvertebrate data collected from six locations in Fourmile Branch show longitudinal trends with respect to most of the parameters that were measured. In general, the quality of the stream appears to improve in a downstream direction. The uppermost two stations that were sampled (Road C and Road E-1) both had low levels of dissolved oxygen (Table 2). While the low dissolved oxygen is obviously responsible for some of the perturbation in Fourmile Branch, it is also possible that the portions of the creek in the vicinity of F and H Areas are being impacted by effluent discharges from F and H Areas and/or by contaminated groundwater that outcrops near the stream.

Pen Branch/Indian Grave Branch Macroinvertebrates

Pen Branch and its tributary, Indian Grave Branch receive effluents from 7 NPDES outfalls in K Area and Central Shops. Until 1989, Indian Grave Branch received cooling water from K Reactor and both Indian Grave Branch and the portion of Pen Branch downstream from its confluence with Indian Grave Branch were subject to extremely

high temperatures and flows. Macroinvertebrates were sampled at Indian Grave Branch at Road B and at five locations in Pen Branch.

The station in Indian Grave Branch and three of the five stations in Pen Branch (Road B, Road A and Road A-13.2 all had relatively high numbers of taxa present (40 to 62), high mean number of taxa per sampler (22.0 to 34.2), high EPT (12 to 20) and high densities (1106.1 to 2765.4 organisms/m²; Table 7). Biomass at these four stations was also relatively high, ranging from 0.1339 to 0.4648 g/m² (Table 7). The macroinvertebrate community at these four stations was dominated by Ephemeroptera (23.57 to 38.74%) and Trichoptera (2.77 to 39.70%; Table 7). Orthoclad chironomids (15.14 to 36.58%) and Coleoptera (7.11 to 11.24%) were also abundant in Pen Branch, but not in Indian Grave Branch, where Gastropoda was much more abundant than in Pen Branch, accounting for 24.65% of the organisms collected, as compared to less than 2% of the organisms collected at the Pen Branch stations. Dominant taxa included the mayflies, *Stenonema* spp. and *Tricorythodes* spp.; the caddisflies, *Cheumatopsyche* spp. and *Chimarra* spp.; the beetle *Macronychus glabratus*; the orthoclad, *Thienemanniella* spp., and in Indian Grave Branch, snails in the families of Hydrobiidae (13.74%) and Planorbidae (9.19%; Table 4).

The macroinvertebrate communities of the remaining two stations in Pen Branch (Road C and Pen Branch Boardwalk) were very different, with fewer total taxa (12 and 4 taxa for Road C and the Boardwalk, respectively), mean taxa per sampler (5.2 and 1.0, respectively), greatly reduced densities of organisms (158.7 and 5.59 organisms/m², respectively), and very low biomass (0.0118 g/m² at Road C and 0.0008 g/m² at the Pen Branch Boardwalk; Table 7). No EPT were collected at Road C and just one EPT species was collected at the Boardwalk (Table 7). The macroinvertebrate community at Road C was overwhelmingly dominated by Chironomini chironomids (95.07%; primarily *Tribelos jucundum*); while at the Boardwalk, the five organisms that were collected consisted of two beetles (*Celina* sp.), one caddisfly (*Hydroptila* sp.), one Tanypodinae chironomid (*Nilotanypus* sp.) and one isopod (*Asellus* sp.; Table 4). The macroinvertebrate data from these two stations clearly indicate that these stations were perturbed at the time of sample collection. An examination of the water chemistry data indicate that both of these stations had very low concentrations of dissolved oxygen, with values of 2.1 and 0.2 mg/l measured at Road C and the Boardwalk, respectively (Table 2). The low levels of dissolved oxygen were undoubtedly responsible for the observed perturbation at these two stations.

Steel Creek Macroinvertebrates

Steel Creek and its tributary, Meyer's Branch receive effluent from 9 NPDES outfalls in L and P Areas and the Railroad Yard (CY Area). Macroinvertebrates were sampled in Steel Creek at Road B, which is just upstream from L Lake, and at Road A, which is approximately 1.5 km downstream from the L-Lake dam. The macroinvertebrate community at Road B appeared to be somewhat perturbed, as evidenced by the fewer total taxa (29 vs. 49) and mean number of taxa (17.4 vs. 25.8), lower density of organisms (717.3 vs. 1124 organisms/m²), lower EPT (7 vs. 18) and lower biomass (0.0570 vs 0.1153 g/m²) than at Road A (Table 8). However, an examination of the physico-chemical data for the location sampled at Road B indicates that the width at the

TABLE 7. PEN BRANCH AND INDIAN GRAVE BRANCH MACROINVERTEBRATES, JULY-AUGUST 1993

	INDIAN GRAVE BR. RD B	PEN BR. RD C	PEN BR. RD B	PEN BR. RD A	PEN BR RD A13.2	PEN BR BOARDWALK
	STATION 21	STATION 26	STATION 22	STATION 23	STATION 24	STATION 25
TOTAL # TAXA	40	12	53	62	47	4
MEAN TAXA/SAMPLER	22.0	5.2	26.8	31.6	34.2	1.0
TOTAL NO. ORGANISMS	990	142	1192	1301	2475	5
DENSITY (NO./M2)	1106.1	158.7	1331.8	1453.6	2765.4	5.59
EPT	15	0	12	20	15	1
BIOTIC INDEX	5.44	7.49	5.76	5.17	5.58	7.32
SC/CF	1.52	*	2.41	2.67	0.24	*
BIOMASS (G/M2)	0.1826	0.0118	0.1339	0.1962	0.4648	0.0008
TAXA % COMPOSITION						
Ephemeroptera	24.65	0.00	23.57	38.74	16.77	0.00
Plecoptera	0.00	0.00	0.08	0.08	0.08	0.00
Trichoptera	39.70	0.00	2.27	18.06	28.00	20.00
Coleoptera	0.51	0.00	11.24	10.38	7.11	40.00
Odonata	0.61	0.00	1.43	1.46	0.04	0.00
Megaloptera	0.10	0.00	0.76	0.61	4.61	0.00
Hemiptera	0.00	0.00	0.00	0.00	0.00	0.00
Lepidoptera	0.30	0.00	0.00	0.00	0.00	0.00
Other Diptera	1.92	1.41	1.01	0.38	0.93	0.00
Tanypodinae	5.15	1.41	7.55	3.69	4.65	20.00
Tanytarsini	0.71	1.41	10.74	5.61	8.93	0.00
Orthocladiinae	1.31	0.70	36.58	15.14	23.03	0.00
Chironomini	0.40	95.07	3.44	3.54	5.17	0.00
Pseudochironomini	0.00	0.00	0.00	0.08	0.00	0.00
Diamesinae	0.00	0.00	0.00	0.00	0.04	0.00
Oligochaeta	0.00	0.00	0.00	0.00	0.00	0.00
Hirudinea	0.00	0.00	0.00	0.00	0.00	0.00
Gastropoda	24.65	0.00	0.76	1.69	0.20	0.00
Pelecypoda	0.00	0.00	0.25	0.46	0.00	0.00
Isopoda	0.00	0.00	0.00	0.00	0.00	20.00
Amphipoda	0.00	0.00	0.00	0.00	0.00	0.00
Hydracarina	0.00	0.00	0.34	0.08	0.44	0.00
Decapoda	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	100.01	100.00	100.02	100.00	100.00	100.00
FUNC. % COMPOSITION						
Collector-Gatherers	6.57	96.48	73.91	44.73	51.80	20.00
Collector-Filterers	29.70	0.00	4.28	10.61	26.91	0.00
Predators	11.92	2.82	11.24	10.99	11.31	60.00
Scrapers	45.05	0.00	10.32	28.36	6.59	0.00
Shredders	0.00	0.70	0.16	1.31	0.36	0.00
Piercer-Herbivores	6.77	0.00	0.08	4.00	3.03	20.00
TOTAL	100.01	100.00	99.99	100.00	100.00	100.00
BIOMASS % COMPOSITION						
Collector-Gatherers	5.50	91.51	52.92	17.94	15.05	37.50
Collector-Filterers	34.78	0.00	10.35	15.32	18.66	0.00
Predators	11.12	6.60	13.77	32.46	53.34	50.00
Scrapers	46.82	0.00	22.20	29.44	11.30	0.00
Shredders	0.00	1.89	0.67	3.99	0.58	0.00
Piercer-Herbivores	1.77	0.00	0.08	0.85	1.07	12.50
TOTAL	99.99	100.00	99.99	100.00	100.00	100.00

* SC/CF ratio cannot be calculated when CF is 0.

TABLE 8. STEEL CREEK AND LOWER THREE RUNS MACROINVERTEBRATES, JULY-AUGUST 1993

	STEEL CR RD B	STEEL CR. RD A	ST. CR. TRIB RD A	LTR DONORA ST	LTR PATT. MILL
	STATION 27	STATION 28	STATION 29	STATION 30	STATION 31
TOTAL # TAXA	29	49	39	32	58
MEAN TAXA/SAMPLER	17.4	25.8	15.6	21.4	32.2
TOTAL NO. ORGANISMS	642	1006	210	2248	1368
DENSITY (NO./M2)	717.3	1124	234.6	2511.7	1528.5
EPT	7	18	7	12	18
BIOTIC INDEX	6.33	5.16	6.83	5.34	5.63
SC/CF	0.00	4.46	0.57	0.12	0.90
BIOMASS (G/M2)	0.0570	0.1153	0.0178	0.3183	0.1427
TAXA % COMPOSITION					
Ephemeroptera	10.44	37.97	10.95	8.59	12.94
Plecoptera	0.00	0.00	0.00	0.00	0.66
Trichoptera	4.36	10.93	3.81	52.27	7.97
Coleoptera	0.00	11.83	0.00	0.98	5.77
Odonata	1.40	0.10	1.90	0.00	0.15
Megaloptera	0.00	0.40	0.00	1.29	0.44
Hemiptera	0.00	0.00	0.00	0.00	0.00
Lepidoptera	0.00	0.30	0.00	0.00	0.00
Other Diptera	8.72	1.49	29.05	0.89	3.66
Tanypodinae	22.59	7.06	21.43	0.18	5.56
Tanytarsini	3.74	2.78	7.14	7.56	22.73
Orthocladinae	2.49	20.38	1.43	23.49	17.84
Chironomini	31.00	3.58	17.14	4.45	21.71
Pseudochironomini	15.26	0.00	0.00	0.00	0.00
Diamesinae	0.00	0.00	0.00	0.00	0.00
Oligochaeta	0.00	0.00	0.00	0.00	0.00
Hirudinea	0.00	0.00	0.95	0.00	0.00
Gastropoda	0.00	1.69	1.43	0.00	0.22
Pelecypoda	0.00	0.00	0.00	0.00	0.00
Isopoda	0.00	0.00	0.00	0.00	0.00
Amphipoda	0.00	0.00	2.38	0.00	0.00
Hydracarina	0.00	1.49	2.38	0.31	0.29
Decapoda	0.00	0.00	0.00	0.00	0.07
TOTAL	100	100	99.99	100.01	100.01
FUNC. % COMPOSITION					
Collector-Gatherers	62.93	39.86	36.67	30.56	71.20
Collector-Filterers	3.27	8.15	3.33	58.67	8.41
Predators	32.71	14.61	56.19	2.76	11.84
Scrapers	0.00	36.38	1.90	7.21	7.53
Shredders	0.00	0.50	0.48	0.67	0.95
Piercer-Herbivores	1.09	0.50	1.43	0.13	0.07
TOTAL	100.00	100.00	100.00	100.00	100.00
BIOMASS % COMPOSITION					
Collector-Gatherers	78.82	16.38	44.65	5.58	23.57
Collector-Filterers	5.49	10.85	11.32	51.53	17.54
Predators	15.29	10.95	35.85	33.13	25.14
Scrapers	0.00	57.95	4.40	9.37	19.26
Shredders	0.00	1.45	0.63	0.32	5.25
Piercer-Herbivores	0.39	2.42	3.14	0.07	9.24
TOTAL	99.99	100.00	99.99	100.00	100.00

sampling location was 33.53 meters and the discharge velocity was 0, which indicates that the area that was sampled was probably the very upper end of L-Lake, where water was pooling, rather than in the free-flowing portion of Steel Creek. The macroinvertebrate community at Road B was dominated by the chironomids, Chironomini (31%), Tanypodinae (22.59%), and Pseudochironomini (15.26%), and Ephemeroptera (10.44%; Table 8). Dominant taxa included the chironomids *Tribelos*, *Pseudochironomus*, *Ablabesmyia*, *Larsia*, and *Palpomyia*, and the mayfly *Caenis* (Table 4). At Road A, the community was dominated by Ephemeroptera (37.97%; primarily *Stenonema* spp.); Orthocladiinae (20.38%; primarily *Cricotopus*/Ortho spp. and *Thienemanniella* spp.), Coleoptera (11.83%, mostly *Macronychus glabratus*) and Trichoptera (10.93%; dominated by *Oecetis* spp.; Tables 4 and 8).

Although it was intended that Meyer's Branch would be sampled at Road 9 as part of this study, the subcontractor that was performing the sampling inadvertently sampled the tributary of Steel Creek that is downstream of Meyer's Branch instead. A total of 39 taxa were collected from this tributary (Table 8). The mean number of taxa per sampler was 15.6 (Table 8). The density of organisms was quite low, averaging 234.6 organisms/m²; Table 8). The EPT was also relatively low, at 7 (Table 8). Dominant groups of taxa included "Other" Diptera (29.05%; primarily *Palpomyia* spp. and Ceratopogonidae), Tanypodinae (21.43%; mostly *Ablabesmyia* spp and *Larsia*), Chironomini (17.14%), and Ephemeroptera (10.95; mostly *Caenis* sp.; Tables 4 and 8). Of these taxa, *Caenis*, *Ablabesmyia* and *Palpomyia* have all been reported in the literature to have been collected from waters having dissolved oxygen concentrations of less 4 mg/l (Roback, 1974).

The macroinvertebrate data indicate that this tributary is moderately perturbed, probably due to relatively low levels of dissolved oxygen in the stream. At the time of sampler retrieval, the concentration of dissolved oxygen was 3.7 mg/l (Table 2) which is lower than many macroinvertebrates can tolerate. Although there is no positive explanation for the low dissolved oxygen, it may be due to beaver activity upstream from the sampling site. Further field investigations are needed to determine the cause of the low dissolved oxygen.

Lower Three Runs Macroinvertebrates

The portion of Lower Three Runs that is downstream from the Par Pond Dam receives no NPDES discharges directly, but does receive overflow from the Par Pond reservoir. One NPDES outfall discharges to Par Pond via an effluent canal. Reservoirs often impact downstream water quality by altering seston concentrations, and in the case of hypolimnetic discharging reservoirs, altering the temperature regime, oxygen concentrations, and other chemical parameters (iron, manganese, hydrogen sulfide, ammonia, etc.). Two locations were sampled on Lower Three Runs: Donora Station, which is located 1.5 km downstream from the Par Pond dam, and Patterson Mill, which is located about 8 km downstream from the dam.

The macroinvertebrate community at Donora Station appears to be strongly influenced by Par Pond, as evidenced by large numbers of collector-filterers (58.67%), and relatively high densities of organisms (2511.7 organisms/m²; Table 8). In addition, the total number of taxa (32), mean number of taxa per sampler (21.4) and EPT were all

somewhat lower at Donora Station than at Patterson Mill (Table 8). At Donora Station, the macroinvertebrate community was numerically dominated by filter-feeding caddisflies (52.27%; primarily *Hydropsyche* spp. and *Cheumatopsyche* spp.) and orthoclad chironomids (23.49%; primarily *Thienemanniella* spp.; Tables 4 and 8). Mayflies (mostly *Stenonema* spp.) were also relatively common, comprising 8.59% of the organisms collected (Tables 4 and 8).

At Patterson Mill, almost twice as many taxa (58) were collected, and the mean number of taxa per sampler (32.2) and EPT (18) were also much higher (Table 8). The community structure also shifted in a downstream direction, with increases in the relative abundance of mayflies, Tanytarsini and Chironomini chironomids, and a large decrease in the relative abundance of caddisflies (from 52.27 to 7.97%; Table 8). Dominant genera at Patterson Mill included *Stenonema* (6.36%), *Thienemanniella* (13.45%), *Tanytarsus* (12.94%), *Microtendipes* (11.99%), *Polypedilum* (7.53%), and *Stempellina* (5.26%; Table 4).

Although the macroinvertebrate community of Lower Three Runs is greatly influenced by Par Pond, the stream maintains a productive and reasonably diverse community. Filter-feeding caddisflies provide an excellent source of food for macroinvertebrate and fish predators. Therefore, even though the macroinvertebrate community is probably very different than it would be without Par Pond had not been built, it still is a viable and diverse community.

CONCLUSIONS

With a few exceptions, the macroinvertebrate communities of SRS streams are reasonably diverse. The streams which exhibit the greatest taxonomic diversity and appear to be the most unperturbed are the Upper Three Runs tributaries of Mill Creek, Tinker Creek and Boggy Gut. Slightly fewer taxa were collected in Upper Three Runs than in these tributaries, but Upper Three Runs still appears to be largely unperturbed. The tributaries of Upper Three Runs that receive SRS runoff and effluents (Tim's Branch, Crouch Branch, and McQueen's Branch) are all stressed to some extent, as evidenced by the reduced number of taxa and low numbers of EPT taxa.

The streams that received reactor cooling water and were subjected to extreme thermal regimes through the late 1980's have exhibited remarkable recoveries. In both Pen Branch and Fourmile Branch, the taxonomic richness and EPT richness in the portions of the streams that received thermal discharges are as high or higher than the portions of the stream that did not receive thermal discharges, except for those locations where dissolved oxygen concentrations were low.

Of the 33 locations that were sampled, 6 stations had dissolved oxygen levels that were less than 5 mg/l. Stations with low dissolved oxygen included Crouch Branch at Road 4, Fourmile Branch at Road C, Fourmile Branch at Road E-1, Pen Branch at Road C, Pen Branch at the Boardwalk, and the Steel Creek tributary downstream from Meyer's Branch. Although further field investigations are needed to determine the cause of the reduced oxygen levels at these locations, beaver activity upstream from several of these locations is probably responsible for the low dissolved oxygen concentrations.

In Fourmile Branch, the macroinvertebrate community appears to improve in a downstream direction. This improvement may be due in part to increases in dissolved oxygen, since two of the three upstream-most locations had dissolved oxygen concentrations of less than 5 mg/l, but it is also possible that the upper stations may be impacted by effluent discharges from F and/or H Areas or from contaminated groundwater from F and H areas that outcrops near the stream. Additional sampling is needed to determine if the portions of Fourmile Branch in the vicinity of F and H areas is truly perturbed, and if so, to identify the stressors.

The macroinvertebrate community of Lower Three Runs near the Par Pond dam is greatly influenced by Par Pond, as evidenced by the high relative abundance of filter-feeders. However, the station near Patterson's Mill, which is approximately 8 km downstream from the dam appears to be much less altered by discharges from the reservoir.

REFERENCES

- Enwright Environmental, Inc. 1991. Tim's Branch Biological Studies.
- Heliovarra, K. and R. Vaisanen. 1993. Insects and Pollution. CRC Press. 393 p.
- Merritt, R.W. and K.W. Cummins. 1978. An Introduction to the Aquatic Insects of North America. Kendall/Hunt Publishing Co. 441 p.
- Roback, S.S. 1974. Insects (Arthropoda: Insecta); List 7, Species found at dissolved oxygen less than 4 ppm. In: C.W. Hart, Jr. and S.L.H. Fuller, Pollution Ecology of Freshwater Invertebrates. Academic Press, Inc, New York.
- South Carolina Department of Health and Environmental Control (SCDHEC). 1993. Water Classifications and Standards, Regulation 61-68.
- Specht, W.L., J.B. Pickett, C.F. Muska, W.M. Starkel, M. Giffin, and K.E. Trapp. 1987. Biological and Chemical Assessment of M-Area Process Discharge to Tim's Branch, June 1985-December 1986. DPSP-87-1115.

APPENDIX A

**RESULTS OF
MACROINVERTEBRATE SAMPLING
AT SELECTED
SAVANNAH RIVER SITE LOCATIONS.
AUGUST 1993
SUBCONTRACT NO. AA86028N**

Submitted To:

**WESTINGHOUSE SAVANNAH RIVER COMPANY
Aiken, South Carolina**

**March 1994
(Revised from January 1994)**

Submitted By:

**SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive
Cayce, South Carolina 29033
(803) 791-9700**

SCDHEC Laboratory Certification No. 26103

TABLE OF CONTENTS

List of Figures	Page iii
List of Tables	iv
Introduction	1
Section I	
Methods and Materials	2
Section II	
Physicochemical Data	4
Section III	
Macroinvertebrate Data and Summary Statistics	18
Station:	
1) Upper Three Runs Creek @ Banks Mill Road	21
2) Cedar Creek @ Banks Mill Rd.	25
3) Boggy Gut @ Rd. 781.4	29
4) Upper Three Runs Creek @ Rd. 8-1	34
5) Tinker Creek @ Kennedy's Pond Rd.	38
6) Tinker Creek @ Rd. 2-1	43
7) Reedy Branch @ Rd. 8-1 nr. ATTA Site	47
8) Mill Creek @ Rd. E-2	52
9) McQueen's Branch @ Rd. F	57
10) Tims Branch @ Rd. 2	61
11) Tims Branch @ Rd. C	65
12) Crouch Branch @ Rd. 4	69
13) Upper Three Runs Creek @ Rd. C	73
14) Four Mile Creek @ Rd. C-4	78
15) Four Mile Creek @ Rd. C	82
16) Four Mile Creek @ Rd 4	86
17) Four Mile Creek @ Rd E-1	90
18) Upper Three Runs Creek @ Rd. A	94
19) Four Mile Creek @ Rd. A-7	98
20) Four Mile Creek @ Rd. A13.2	103
21) Indian Grave Branch @ Rd. B	108
22) Pen Branch @ Rd. B	112
23) Pen Branch @ Rd. A	117
24) Pen Branch @ Rd. A 13.2	122
25) Pen Branch @ Boardwalk	126
26) Pen Branch @ Rd. C	130

TABLE OF CONTENTS *Continued*

	Page
27) Steel Creek @ Rd. B	134
28) Steel Creek @ Rd. A	138
29) Unnamed Tributary of Steel Creek @ Rd. 125	143
30) Lower Three Runs Creek @ Donora	147
31) Lower Three Runs Creek @ Patterson Mill Rd.	151
32) Upper Three Runs @ RR Bridge	156
33) Upper Three Runs @ Rd. F	160
 Section IV	
Ash Free Dry Weight Data	164

LIST OF FIGURES

Figure		Page(s)
1	Diagram of Hester-Dendy Multiplate Sampler used in this study.	3
2	Stream profiles of the sampling stations 1 - 33.	7 - 17

LIST OF TABLES

Table		Page(s)
1	Physicochemical measurements taken in conjunction with the Hester-Dendy macroinvertebratae study at the Savannah River Site, July - August 1993. Measurements were made on sampler retrieval date.	5 - 6
2	Abbreviations and explanation of terms used in the macroinvertebrate data and summary statistics	19 - 20

INTRODUCTION

This report contains the results of the identification, enumeration and summary statistics of the 165 Section 5.2.1 Macroinvertebrate samples collected during August, 1993.

Section I presents the materials and methods used during this study. Section II presents the physicochemical data collected in conjunction with sample retrieval and the stream profiles. Section III contains the data, summary statistics and species lists for the samples arranged by location. The values for the biotic (NCBI) index were obtained from Lenat, 1993 (A biotic index for the southeastern United States. J.N. Am. Benthol. Soc. 12:279-290). Taxa were assigned to functional feeding groups in accordance with Merritt and Cumming, 1984 (An introduction to the aquatic insects). Section IV contains the ash-free biomass data for each functional feeding group present in each sample.

SECTION I METHODS AND MATERIALS

The sampling methods used in this study were identical to those used in the 1984-1985 Comprehensive Cooling Water Study (CCWS) and are described in the following text.

Hester-Dendy multiplate samplers consisting of 14 square plates measuring 7.6 cm X 7.6 cm and separated by 0.3 cm thick spacers were utilized in this study and are illustrated in Figure 1. Five replicate samplers were suspended 0.5 m below the water surface at each sampling location and allowed to colorize for 28 days. Where water depth was less than 0.75 m, the samplers were positioned mid-way between the surface and the stream bottom. The samplers were removed from the stream in a 0.5 mm net in order to prevent the loss of any dislodged organisms, sealed in a labelled plastic bag and kept on ice until processed in the laboratory. In the laboratory, each sampler was disassembled, the plates scraped with a soft brush, and the removed material rinsed through a U.S. Standard No. 30 sieve (0.6 mm mesh). The material retained in the sieve was preserved in 70% ethanol.

The macroinvertebrates were sorted from the debris using a stereomicroscope, identified to the lowest positive taxon and enumerated. Quality control checks were performed on 10% of the samples in order to determine the sorting efficiency. After the organisms were enumerated, the macroinvertebrates were separated into functional feeding groups following Merritt and Cummins, 1984. The ash-free dry weight of each functional group was determined by drying the organisms at 105°C, determining the dry weight to the nearest mg, then ashing at 500°C and reweighing to the nearest mg. Ash-free dry weight is the difference between the dry weight and the ash weight.

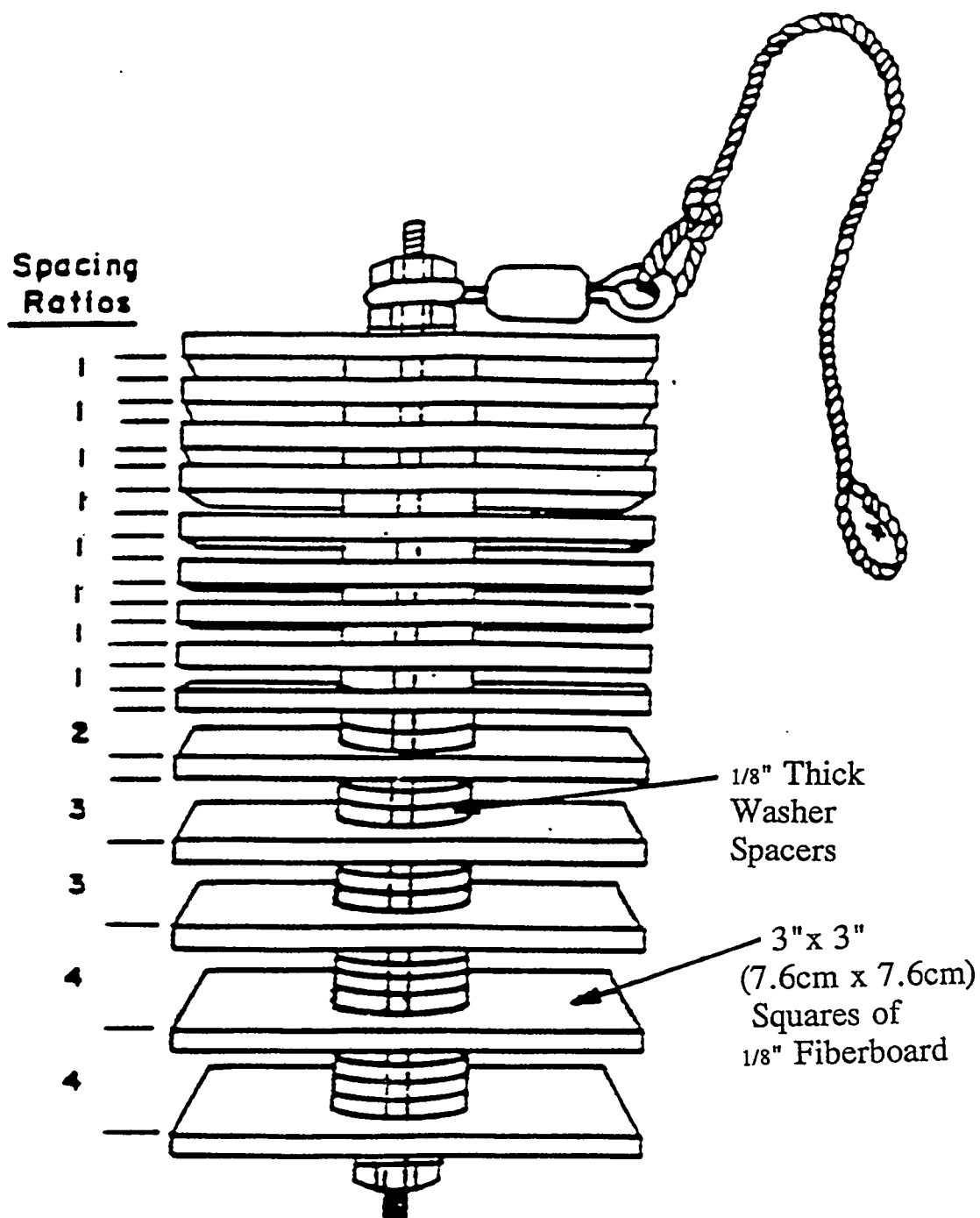


Figure 1. Diagram of Hester-Dendy Multiplate Sampler used in this study.

SECTION II PHYSICOCHEMICAL MEASUREMENTS

For each of the sampling locations the following parameters were measured at mid-stream and mid-depth at the time of sample retrieval: conductivity (Yellow Springs Instruments Model 33), pH (Orion Model SA210), dissolved oxygen and temperature (Yellow Springs Instruments Model 57). A separate water sample was collected and returned to the laboratory for determination of total water hardness (Table 1).

Stream width and depth measurements were taken at each sampling location in order to construct stream cross-sectional profiles. Stream depth was measured at 10 equidistant points for streams greater than 5 m wide and at 50 cm intervals for streams less than 5m wide, beginning at the stream mid-point and working toward each bank. Water velocity was measured at mid-channel using a Swiffer Model 2100 flow meter.

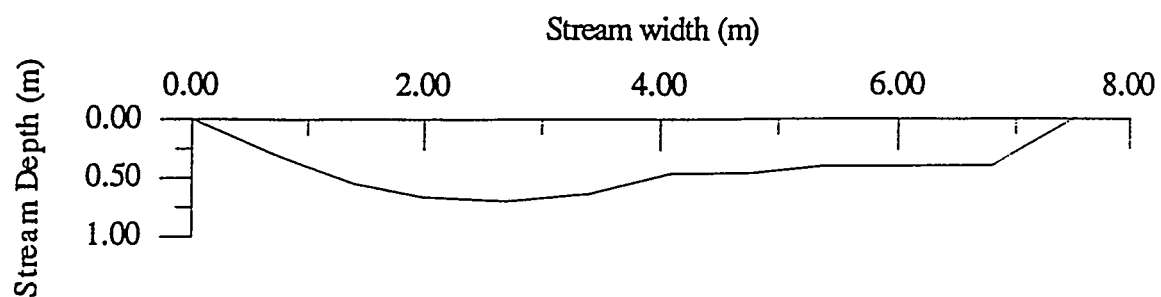
Physicochemical measurements taken in conjunction with the Hester-Danty Macroinvertebrate study at the Savannah River Site, July - August, 1993. Measurements made on sampler retrieval date.

Station #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Placement Date	7/22/93	7/22/93	7/22/93	7/22/93	7/22/93	7/22/93	7/22/93	7/22/93	7/23/93	7/24/93	7/24/93	7/22/93	7/24/93	7/23/93	7/23/93	7/22/93	7/22/93
Retrieval Date	8/19/93	8/19/93	8/19/93	8/19/93	8/19/93	8/19/93	8/19/93	8/19/93	8/20/93	8/19/93	8/19/93	8/20/93	8/20/93	8/20/93	8/20/93	8/20/93	8/20/93
Time	8:55 AM	8:05 AM	8:20 AM	10:20 AM	11:20 AM	11:55 AM	12:30 PM	12:50 PM	2:20 PM	7:05 PM	6:50 PM	8:15 AM	1:50 PM	10:20 AM	1:30 PM	8:30 AM	8:55 AM
Hardness (mg/l)	8.0	8.0	10	10	30	20	40	32	30	17	20	13	21	20	66	14	38
pH (SU)	4.97	4.89	5.19	5.47	6.13	6.33	6.21	6.34	6.18	6.69	6.71	5.46	6.59	6.02	6.13	5.79	5.69
Conductivity (umhos/cm)	15.0	20.0	20.0	20.0	35.0	25.0	40.0	55.0	45.0	65.0	80.0	105.0	20.0	75.0	100.0	80.0	35.0
DO (mg/l)	7.6	7.4	6.7	7.6	5.7	7.4	7.2	7.8	7.6	5.2	7.0	4.4	8.0	7.2	0.8	7.5	4.0
Temperature (C)	22.5	22.7	24.1	23.8	27.4	25.7	26.4	28.4	25.7	25.7	25.4	23.4	25.3	25.5	27.2	24.0	25.3
Flow (m/s)	0.43	0.25	0.46	0.37	0.21	0.32	0.04	0.01	0.02	0.50	0.40	0.00	0.47	0.37	0.30	0.35	0.00
Stream Width (m)	7.50	4.42	2.80	12.19	8.99	8.50	1.95	6.16	2.59	2.07	2.87	0.91	15.64	3.17	7.25	2.93	2.50
(meters from left bank) Depth																	
Depth 1	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0
Depth 2	(0.7) 0.3	(0.6) 0.12	(0.5) 0.12	(1.1) 1.01	(0.8) 0.27	(0.8) 0.58	(0.3) 0.52	(0.6) 0.46	(0.4) 0.15	(0.3) 0.49	(0.5) 0.30	(0.3) 0.12	(1.4) 0.82	(0.4) 0.09	(0.7) 0.67	(0.5) 0.12	(0.4) 0.34
Depth 3	(1.4) 0.55	(1.1) 0.49	(0.9) 0.30	(2.2) 1.74	(1.6) 0.46	(1.6) 0.55	(0.5) 0.58	(1.0) 0.73	(0.9) 0.18	(0.5) 0.46	(1.0) 0.30	(0.5) 0.27	(2.8) 0.78	(0.8) 0.40	(1.3) 0.73	(1.0) 0.09	(0.8) 0.58
Depth 4	(2.0) 0.67	(1.7) 0.55	(1.4) 0.30	(3.3) 1.40	(2.5) 0.52	(2.3) 0.52	(0.8) 0.52	(1.7) 0.91	(1.3) 0.15	(1.0) 0.43	(1.5) 0.24	(0.8) 0.06	(4.3) 0.70	(1.2) 0.37	(2.0) 0.91	(1.4) 0.09	(1.3) 0.52
Depth 5	(2.7) 0.70	(2.2) 0.58	(1.9) 0.37	(4.4) 0.91	(3.3) 0.64	(3.1) 0.46	(1.0) 0.52	(2.3) 1.01	(1.7) 0.12	(1.3) 0.34	(1.9) 0.18	(0.9) 0	(5.7) 0.76	(1.6) 0.49	(2.6) 1.16	(1.9) 0.15	(1.7) 0.49
Depth 6	(3.4) 0.64	(2.8) 0.43	(2.4) 0.40	(5.6) 0.79	(4.1) 0.61	(3.9) 0.30	(1.3) 0.49	(2.8) 0.82	(2.2) 0.06	(1.5) 0.15	(2.4) 0.12		(7.1) 0.91	(2.0) 0.46	(3.3) 1.16	(2.4) 0.24	(2.1) 0.40
Depth 7	(4.1) 0.46	(3.3) 0.30	(2.8) 0	(6.7) 0.73	(4.9) 0.61	(4.6) 0.24	(1.5) 0.30	(3.4) 0.79	(2.6) 0	(2.0) 0	(2.9) 0		(8.5) 0.79	(2.4) 0.37	(4.0) 1.16	(2.9) 0	(2.5) 0
Depth 8	(4.8) 0.46	(3.9) 0.15		(7.8) 0.76	(5.7) 0.70	(5.4) 0.30	(1.8) 0.12	(3.9) 0.67					(9.9) 0.70	(2.8) 0.34	(4.6) 1.13		
Depth 9	(5.4) 0.40	(4.4) 0		(8.9) 0.34	(6.6) 0.73	(6.2) 0.37	(2.0) 0	(4.5) 0.67					(11.3) 0.67	(3.2) 0	(5.3) 1.10		
Depth 10	(6.1) 0.40			(10) 0.24	(7.4) 0.67	(7.0) 0.27		(5.1) 0.70					(12.8) 0.61		(5.9) 1.01		
Depth 11	(6.8) 0.40			(11.1) 0.06	(8.2) 0.40	(7.7) 0.18		(5.6) 0.18					(14.2) 0.30		(6.6) 0.98		
Depth 12	(7.5) 0			(12.2) 0	(9.0) 0	(8.5) 0		(6.2) 0					(15.6) 0		(7.3) 0		

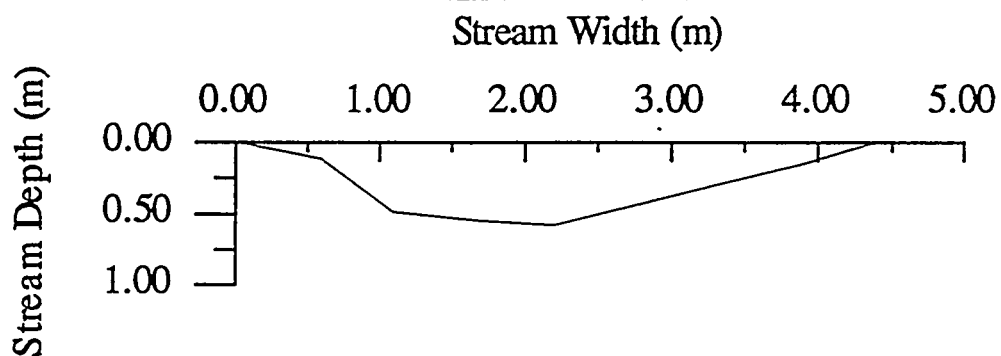
Physicochemical measurements taken in conjunction with the Hester-Denty Macroinvertebrate study at the Savannah River Site, July - August, 1993.
Measurements made on sampler retrieval date.

Station #	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
Placement Date	7/23/93	7/23/93	7/22/93	7/22/93	7/22/93	7/23/93	7/23/93	7/23/93	7/23/93	7/22/93	7/23/93	7/24/93	7/24/93	7/24/93	7/24/93	7/23/93
Retrieval Date	8/19/93	8/20/93	8/20/93	8/19/93	8/19/93	8/19/93	8/20/93	8/20/93	8/20/93	8/19/93	8/19/93	8/19/93	8/19/93	8/19/93	8/20/93	8/20/93
Time	6:00 PM	10:50 AM	11:35 AM	4:10 PM	3:50 PM	5:35 PM	12:05 PM	12:25 PM	1:10 PM	3:07 PM	5:10 PM	4:45 PM	1:30 PM	2:20 PM	9:00 AM	7:35 AM
Hardness (mg/l)	8.0	16	25	16	24	20	31	31	44	12	27	13	18	23	11	26
pH (SU)	6.4	6.2	7.0	6.3	6.3	6.4	7.2	6.2	5.3	6.6	6.0	5.3	6.5	6.4	5.8	5.4
Conductivity (umhos/cm)	20.0	75.0	70.0	80.0	45.0	70.0	75.0	90.0	25.0	60.0	65.0	30.0	50.0	65.0	25.0	60.0
DO (mg/l)	7.5	7.4	7.9	8.3	7.2	8.2	8.7	0.2	2.1	7.8	6.5	3.7	5.8	7.4	7.7	7.5
Temperature (C)	24.60	26.30	27.20	29.00	27.90	28.90	27.50	29.60	24.00	32.70	30.20	29.00	31.30	28.60	23.20	22.60
Flow (m/s)	0.49	0.55	0.12	0.18	0.17	0.22	0.35	0.00	0.00	0.00	0.38	0.00	0.44	0.18	0.42	0.25
Stream width (m)	14.63	3.66	13.11	12.13	3.38	10.61	0.42	NA	1.16	33.53	11.28	3.60	7.50	13.35	13.05	9.75
(meters from Left bank) Depth																
Depth 1	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	0.21	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0
Depth 2	(1.3) 0.82	(0.6) 0.21	(1.2) 0.37	(1.1) 0.30	(0.8) 0.6	(1.0) 0.52	(0.9) 0.15	0.37	(0.8) 0.81	(3.1) 1.86	(1.0) 0.73	(0.5) 0.15	(0.7) 0.24	(1.2) 0.58	(1.2) 0.49	(0.8) 0.08
Depth 3	(2.7) 1.10	(1.2) 0.15	(2.4) 0.58	(2.2) 0.55	(1.1) 0.09	(1.9) 0.40	(1.9) 0.18		(1.9) 0.58	(6.1) 2.44	(2.1) 1.01	(0.9) 0.21	(1.4) 0.61	(2.4) 1.01	(2.4) 1.16	(1.8) 0.55
Depth 4	(4.0) 1.31	(1.9) 0.30	(3.6) 0.49	(3.3) 0.67	(1.7) 0.15	(2.9) 0.34	(2.8) 0.18		(2.9) 0.34	(9.1) 2.29	(3.1) 1.25	(1.4) 0.55	(2.1) 0.73	(3.6) 1.07	(3.6) 1.25	(2.7) 0.70
Depth 5	(5.3) 1.37	(2.5) 0.37	(4.8) 0.52	(4.4) 0.70	(2.3) 0.12	(3.9) 0.46	(3.8) 0.21		(3.8) 0	(12.2) 2.29	(4.1) 1.16	(1.8) 0.63	(2.7) 0.67	(4.8) 1.07	(4.8) 1.28	(3.5) 0.94
Depth 6	(6.6) 1.34	(3.1) 0.30	(5.9) 0.43	(5.5) 0.70	(2.8) 0.15	(4.8) 0.52	(4.7) 0.21			(15.2) 2.23	(5.1) 1.13	(2.3) 0.64	(3.4) 0.58	(6.1) 1.10	(5.9) 1.22	(4.4) 0.88
Depth 7	(8.0) 1.22	(3.7) 0	(7.1) 0.37	(6.8) 0.73	(3.4) 0	(5.8) 0.61	(5.7) 0.27			(18.3) 2.23	(6.2) 0.98	(2.7) 0.52	(4.1) 0.52	(7.3) 1.16	(7.1) 1.19	(5.3) 1.19
Depth 8	(9.3) 1.07		(8.3) 0.43	(7.7) 0.79		(6.7) 0.61	(6.6) 0.34			(21.3) 2.16	(7.2) 0.79	(3.1) 0.15	(4.8) 0.52	(8.5) 0.98	(8.3) 1.22	(6.2) 1.13
Depth 9	(10.6) 0.91		(9.5) 0.52	(8.8) 0.73		(7.7) 0.70	(7.6) 0.37			(24.6) 2.74	(8.2) 0.70	(3.8) 0	(5.5) 0.46	(9.7) 0.98	(9.5) 1.07	(7.1) 1.37
Depth 10	(12.0) 0.91		(10.7) 0.6	(9.9) 0.46		(8.7) 0.73	(8.5) 0.43			(27.4) 2.29	(9.3) 0.64		(6.1) 0.43	(10.9) 0.61	(10.7) 0.61	(7.9) 1.37
Depth 11	(13.3) 0.64		(11.9) 0.5	(11.0) 0.27		(9.6) 0.61	(9.5) 0.67			(30.5) 1.58	(10.3) 0.64		(6.8) 0.30	(12.1) 0.15	(11.9) 0.49	(8.8) 1.55
Depth 12	(14.6) 0		(13.1) 0	(12.1) 0		(10.6) 0	(10.4) 0			(33.5) 0	(11.3) 0		(7.5) 0	(13.3) 0	(13.1) 0	(9.7) 0

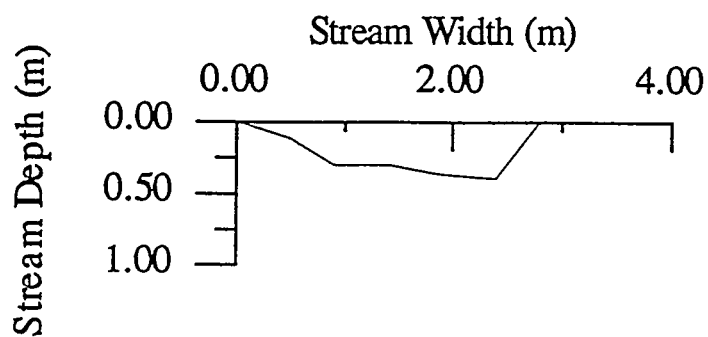
Station 1. Upper Three Runs Cr.@ Banks Mill Rd.



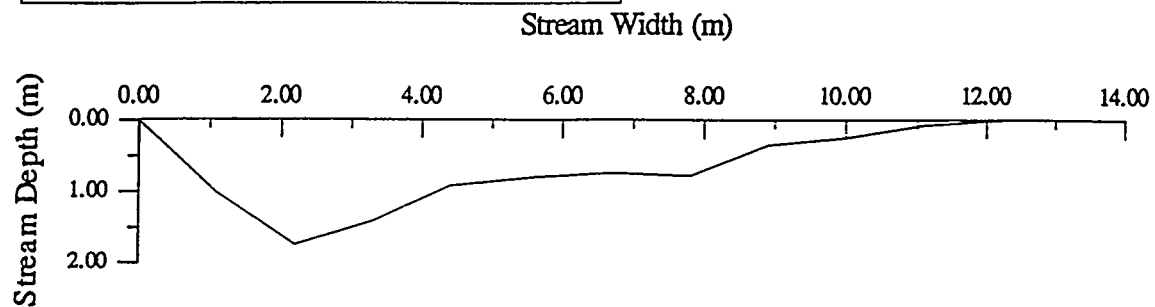
Station 2. Cedar Creek @ Banks Mill Rd.



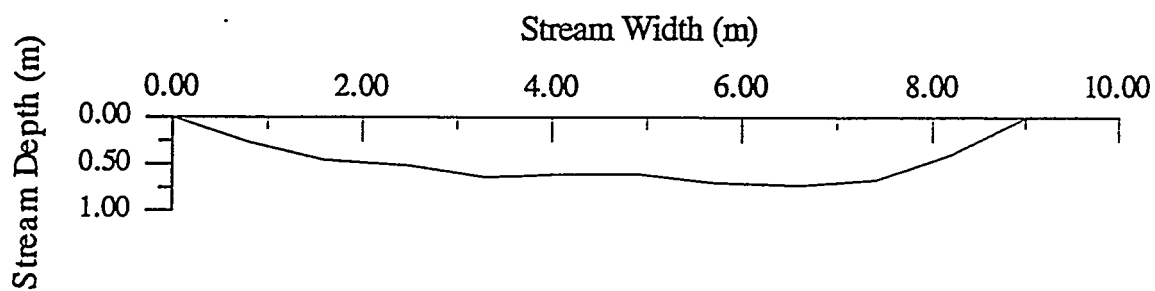
Station 3. Boggy Gut at Rd. 781.4.



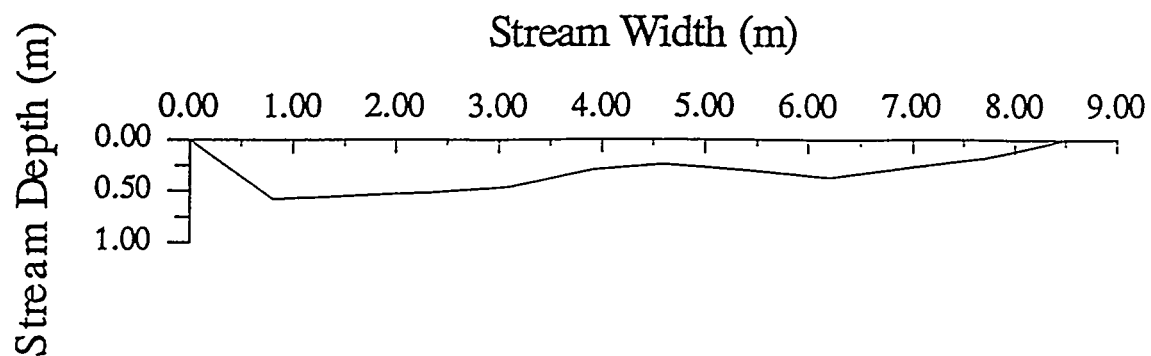
Station 4. Upper Three Runs Cr. @ RD. 8-1.



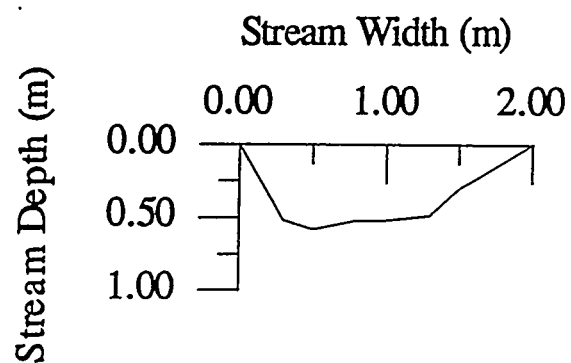
Station 5. Tinker Cr. @ Kennedy's Pond Rd.



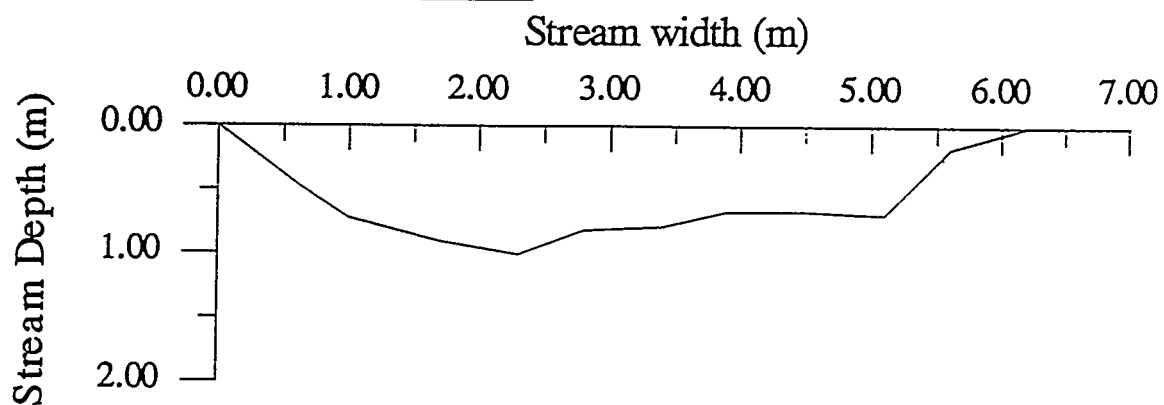
Station 6. Tinker Cr. @ Rd. 2-1.



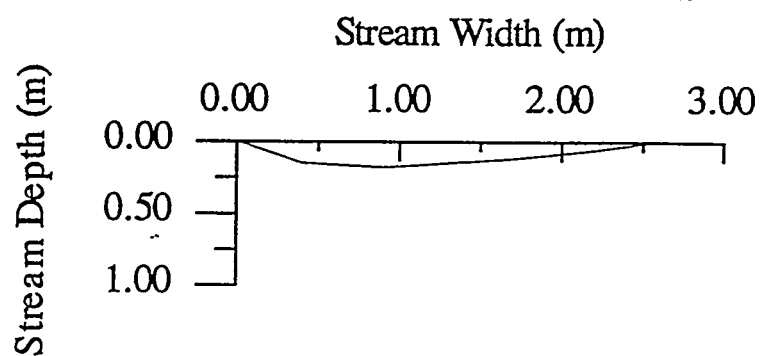
Station 7. Reedy Branch nr. ATTA Site



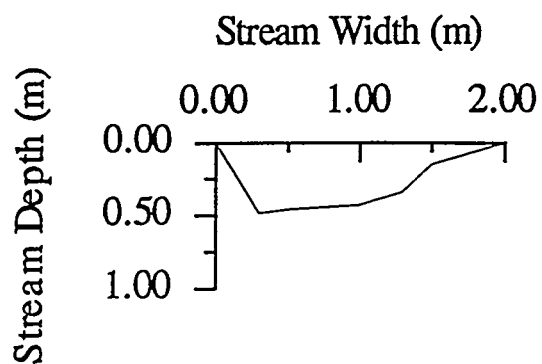
Station 8. Mill Creek @ Rd. E-2.



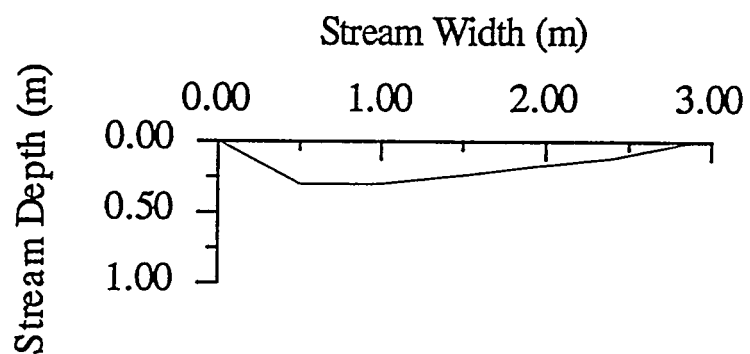
Station 9. McQueen's Branch @ Rd. F.



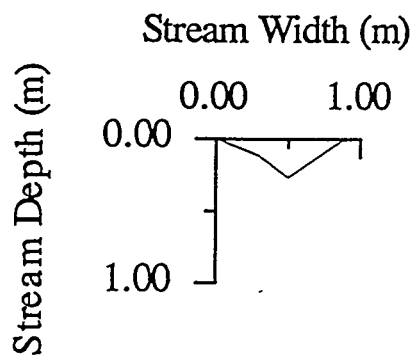
Station 10. Tims Branch @ Rd. 2.



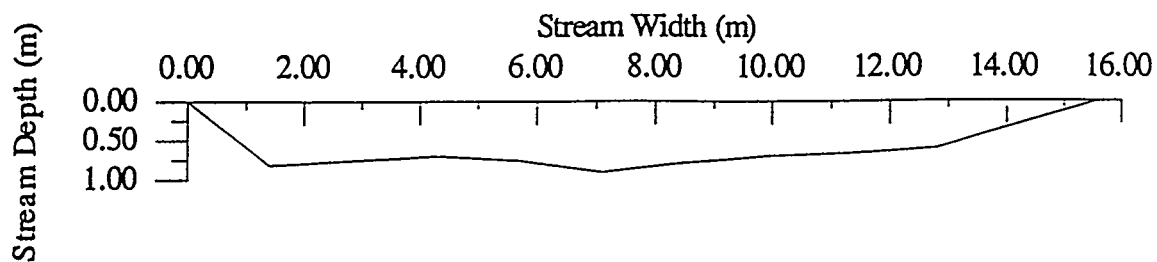
Station 11. Tims Branch @ Rd. C.



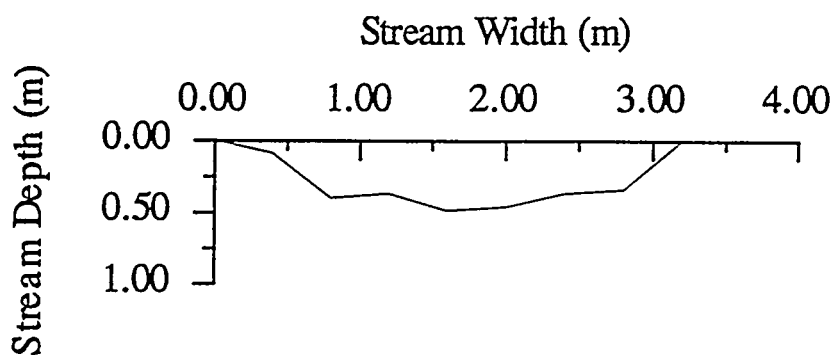
Station 12. Crouch Branch @ Rd. 4.



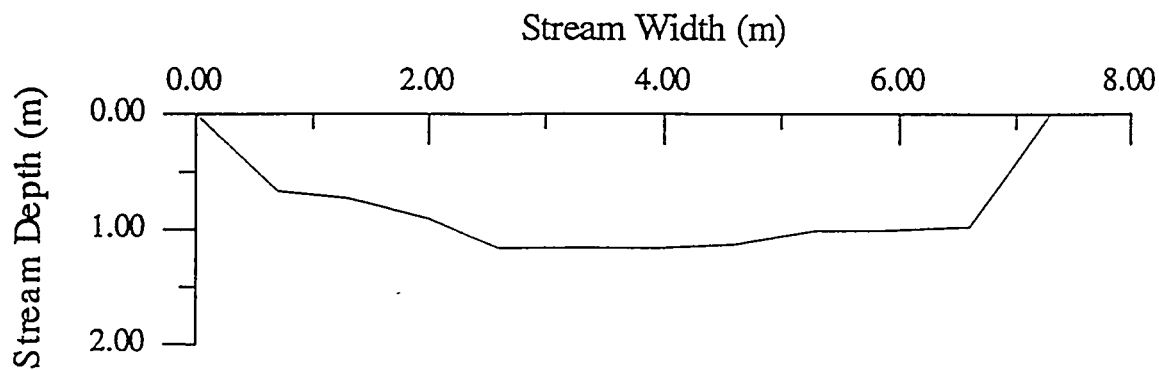
Station 13. Upper Three Runs Cr. @ Rd. C.



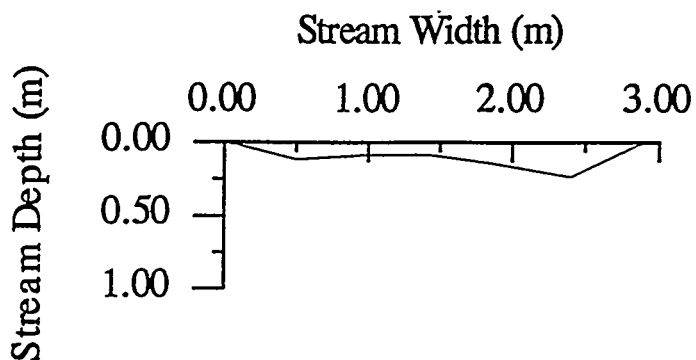
Station 14. Four Mile Creek @ Rd. C-4.



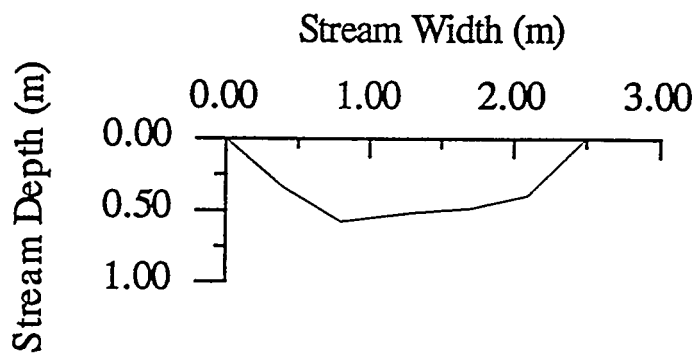
Station 15. Four Mile Creek @ Rd. C.



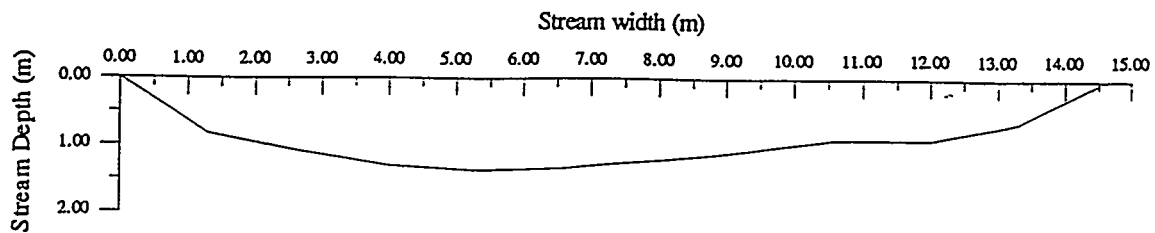
Station 16. Four Mile Creek @ Rd. 4.



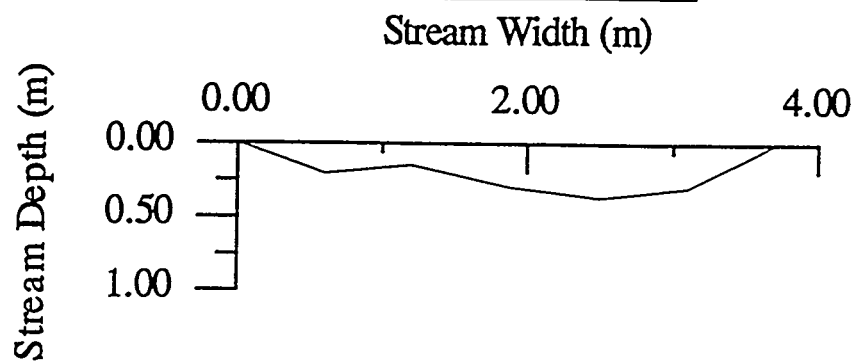
Station 17. Four Mile Creek @ Rd. E-1.



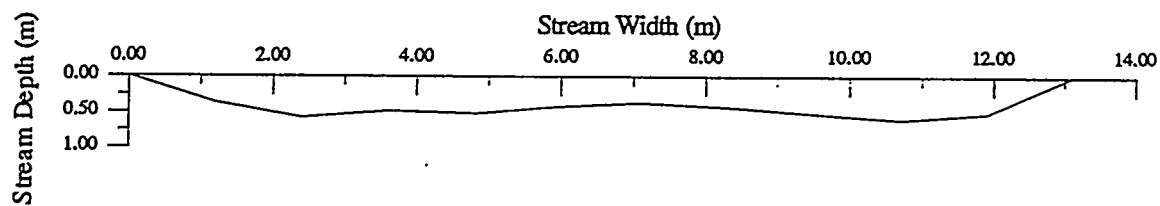
Station 18. Upper Three Runs Cr. @ Rd. A.



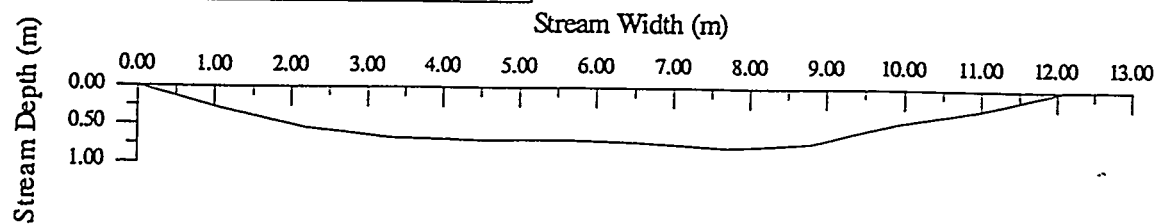
Station 19. Four Mile Creek @ Rd. A-7.



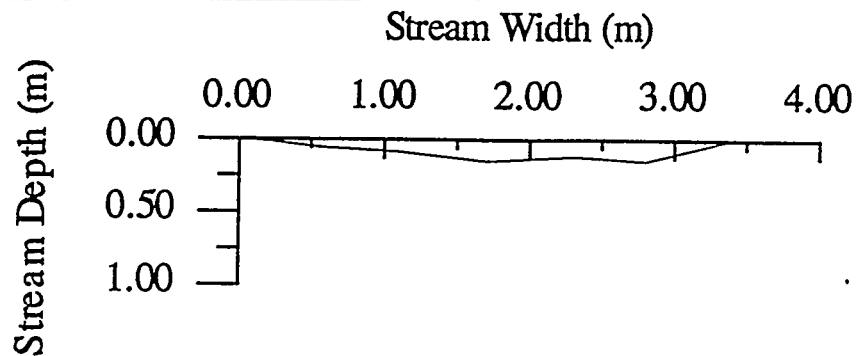
Station 20. Four Mile Creek @ Rd. A 13.2.



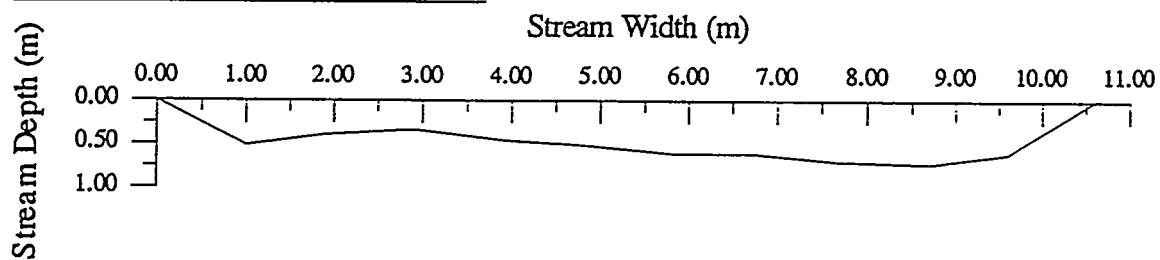
Station 21. Indian Grave Branch @ Rd. B.



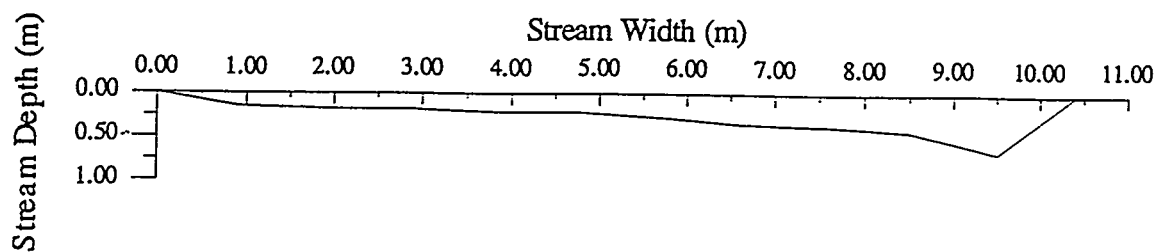
Station 22. Pen Branch @ Rd. B.



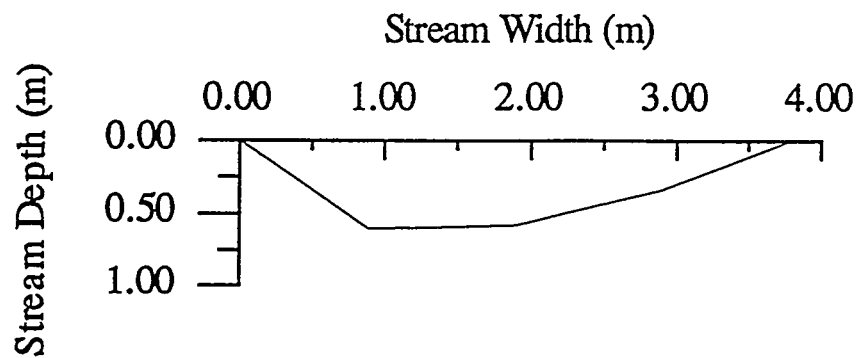
Station 23. Pen Branch @ Rd. A.



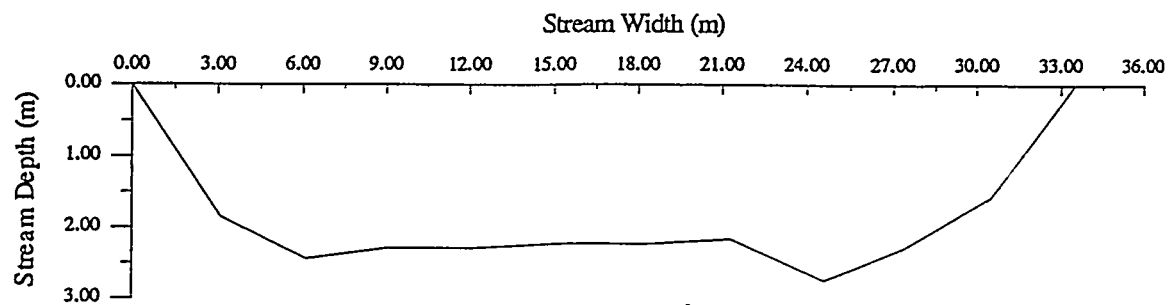
Station 24 . Pen Branch @ Rd. A 13.2.



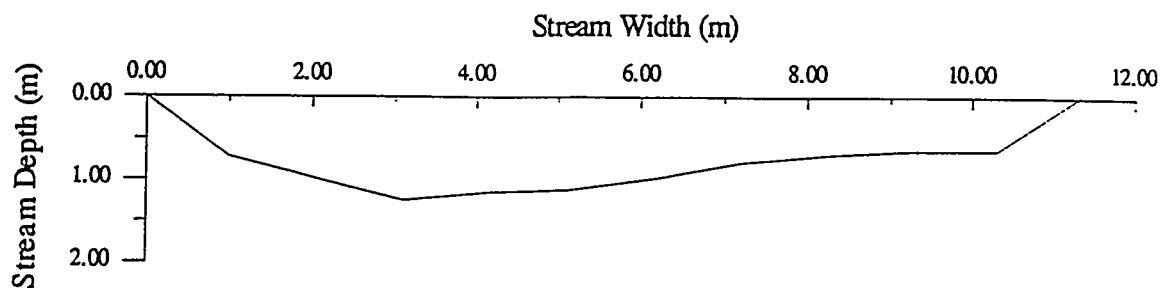
Station 26. Pen Branch @ Rd. C.



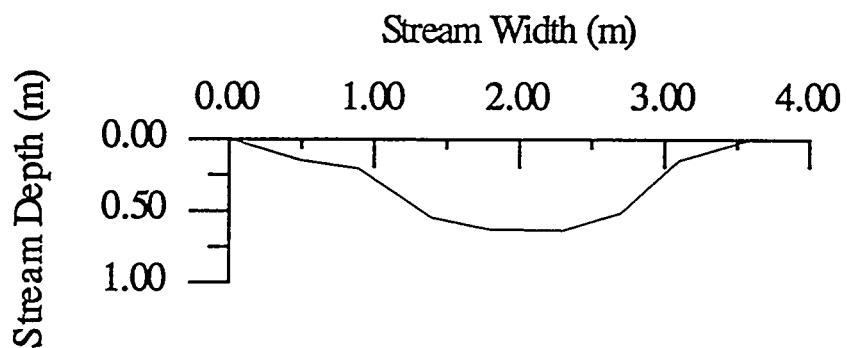
Station 27. Steel Creek @ Rd. B.



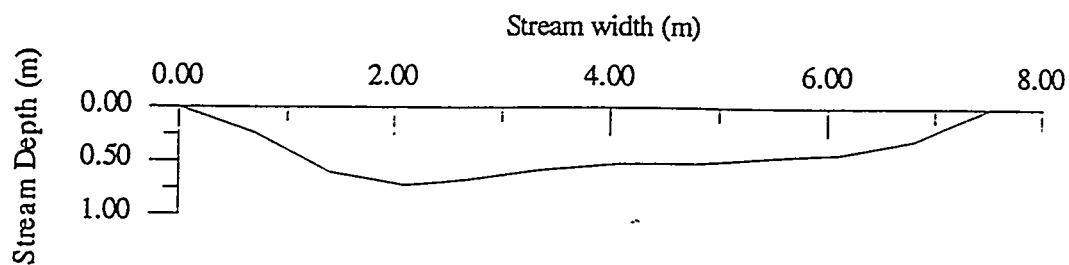
Station 28. Steel Creek @ Rd. A.



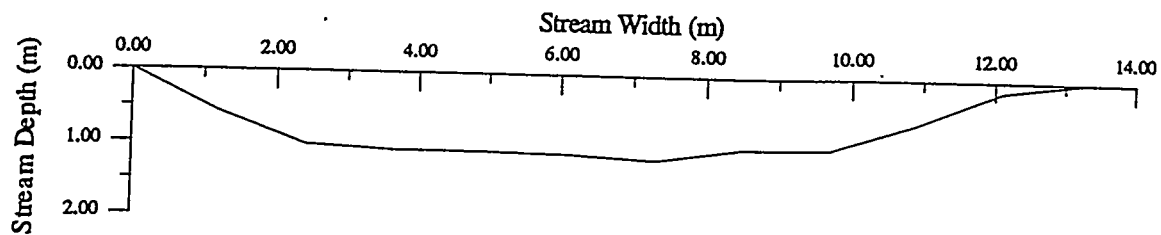
Station 29. Unnamed Tributary of Steel Creek @ Rd. 125.



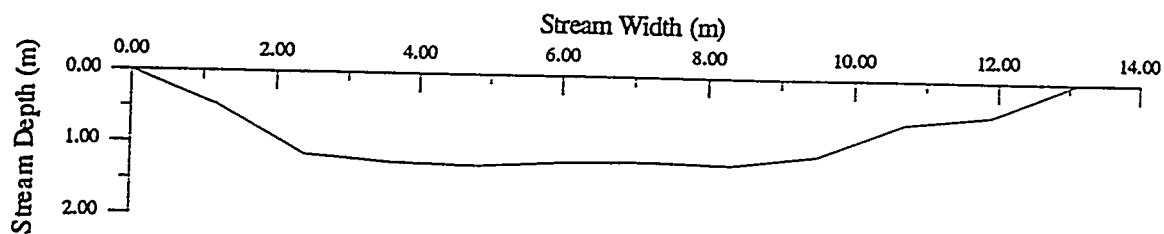
Station 30. Lower Three Runs Cr. @ Donora.



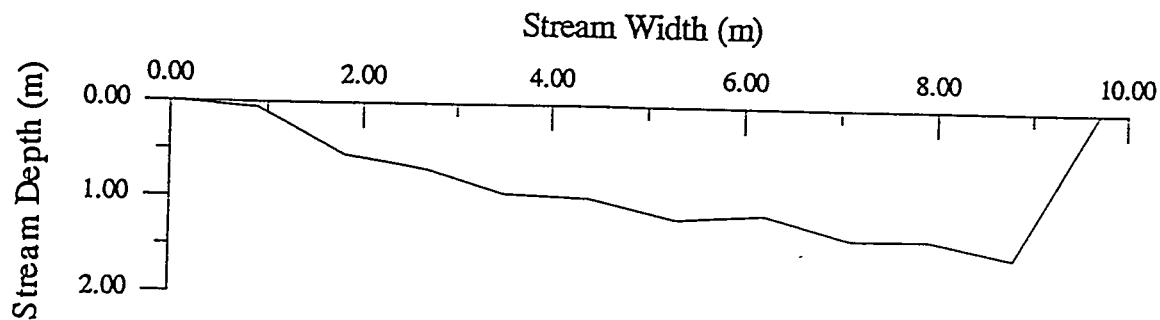
Station 31. Lower Three Runs Cr. @ Patterson Mill Rd.



Station 32. Upper Three Runs Cr. @ RR Bridge.



Station 33. Upper Three Runs Cr. @ Rd. F.



SECTION III MACROINVERTEBRATE DATA AND SUMMARY STATISTICS

Table 2. Abbreviations and explanation of terms used in the macroinvertebrate data and summary statistics p.20-21

I. Codes of Major Taxa

1)	ANO	-	Annelida, Oligochaeta
2)	ANH	-	Annelidae, Hirudinea
3)	AHC	-	Acari, Hydracarina
4)	AMG	-	Amphipoda, Gammaridae
5)	AMT	-	Amphipoda, Talitridae
6)	DCA	-	Decapoda, Cambaridae
7)	EP	-	Hexapoda, Ephemeroptera
8)	OD	-	Hexapoda, Odonata
9)	PL	-	Hexapoda, Plecoptera
10)	CO	-	Hexapoda, Coleoptera
11)	ME	-	Hexapoda, Megaloptera
12)	TR	-	Hexapoda, Trichoptera
13)	DO	-	Hexapoda, Diptera, Other
14)	DTA	-	Hexapoda, Diptera, Chironomidae, Tanypodinae
15)	DOR	-	Hexapoda, Diptera, Chironomidae, Orthocladiinae
16)	DCC	-	Hexapoda, Diptera, Chironomidae, Chironomini
17)	DPC	-	Hexapoda, Diptera, Chironomidae, Pseudochironomini
18)	DTY	-	Hexapoda, Diptera, Chironomidae, Tanytarsini
19)	DD	-	Hexapoda, Diptera, Diamesinae
20)	HA	-	Hexapoda, Heteroptera
21)	LEP	-	Hexapoda, Lepidoptera
22)	MB	-	Mollusca, Bivalvia
23)	MG	-	Mollusca, Gastropoda
24)	IAA	-	Isopoda, Asellidae

II. Functional Feeding Group Codes

1)	CG	-	Collector/Gatherer
2)	CF	-	Collector/Filterer
3)	P	-	Predator
4)	SC	-	Scraper
5)	SH	-	Shredder
6)	PH	-	Piercer/Herbivore
7)	O	-	Unidentified pupa

III. Statistical Summary Abbreviations

- 1) Bio. Index - North Carolina Biotic Index = $\frac{\text{Sum TVi NI}}{\text{Total N}}$

Where TVi = Tolerance Values

Ni = Number of Individuals of a Taxon and Total

N = Total Number of Individuals in the Sample

- 2) Mean Tax/Samp - Mean number of taxa per sampler
 3) Total Orgs. - Total number of organisms for the station
 4) Tot. Tax - Total number of taxa for the station
 5) Tot. Mean# - Total mean number of organisms per m²
 6) FG - Functional group
 7) Rel. Abd. - Relative abundance

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler	Da	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	17.1			1		2			0.509338
2	Gammaridae	AMG	6.9	CG	0								0
3	Oligochaeta	ANO	6.2	CG	0								0
4	Ancyronyx variegatus	CO	6.9	CG	48.3			2		1		3	1.188455
5	Dineutus sp.	CO	4	P	0								0
6	Ectopria nervosa	CO	4.3	SC	0								0
7	Gonelmis dietrichi	CO	4	CG	0								0
8	Macronychus glabratus	CO	4.7	CG	4.7					1			0.169779
9	Microcyllopus pusillus	CO	2.1	CG	0								0
10	Optoservus sp.	CO	2.7	CG	0								0
11	Oulimnius laticollis	CO	1.8	CG	1.8					1			0.169779
12	Stenelmis decorata	CO	5.4	CG	0								0
13	Stenelmis sinuata	CO	5.4	CG	0								0
14	Stenelmis spp.	CO	5.4	CG	5.4					1			0.169779
15	Cambaridae	DCA	7.2	PH	0								0
16	Cryptochironomus spp.	DCC	6.7	P	0								0
17	Dicranotendipes spp.	DCC	7.9	CG	0								0
18	Microtendipes rydalseni	DCC	6.2	CG	0								0
19	Microtendipes spp.	DCC	6.2	CG	0								0
20	Natona babiyi	DCC	5.5	CG	22					3		1	0.879117
21	Phaenopsectra flavipes	DCC	8.5	CG	17			2					0.339559
22	Polypedium fallax	DCC	6.7	SH	20.1								3 0.509338
23	Polypedium spp.	DCC	6.9	CG	69			2		1		3	2 1.697793
24	Stalochomyia perpulchra	DCC	4.6	SH	4.6			1					0.169779
25	Stenochironomus sp.	DCC	6.4	SH	0								0
26	Tribelos jucundum	DCC	6.6	CG	0								0
27	Dismesini genus P	DD	7.4	CG	0								0
28	Pathestia longmans	DD	7.4	CG	0								0
29	Athorix lantha	DO	2.1	P	0								0
30	Ceratopogonidae	DO	6.5	P	0								0
31	Chelifera spp.	DO	8.1	CG	16.2			1					1 0.339559
32	Hemerodromia spp.	DO	8.1	CG	291.6			12		6		10	7 6.112054
33	Simulium spp.	DO	4.4	CF	88			14		6			3.395588
34	Brilia flavifrons	DOR	5.2	SH	0								0
35	Corynoneura spp.	DOR	6.2	CG	6.2					1			0.169779
36	Cricotopus/Ortho spp.	DOR	6.8	CG	132			1		6		3	4 2.546889
37	Eukiefferiella spp.	DOR	5.7	CG	0								0
38	Nanocladius spp.	DOR	7.2	CG	0								0
39	Orthocladus lignicola	DOR	5.4	SH	0								0
40	Parakiefferiella sp.1	DOR	5.9	CG	5.9					1			0.169779
41	Parametriochnemus sp.	DOR	3.7	CG	33.3					5		4	1.528014
42	Psocrocladius sp.	DOR	3.8	CG	0								0
43	Rhaocricotopus spp.	DOR	7.3	CG	1335.9			24		70		53	3 31.06981
44	Synorthocladus semivirens	DOR	4.7	CG	0								0
45	Thienemannella spp.	DOR	6	CG	72			2		3		3	4 2.037351
46	Ivetaenia spp.	DOR	3.9	CG	74.1			4		7		6	2 3.225808
47	Unioella multivirga	DOR	0	CG	0								0
48	Xylopus par	DOR	6.6	SH	0								0
49	Ablabesmyia spp.	DTA	6.4	P	0								0
50	Cinotanytus pinguis	DTA	9.1	P	0								0
51	Conchapelopia spp.	DTA	8.7	P	69.6			1		3		3	1 1.358234
52	Lebruninia spp.	DTA	6	P	0								0
53	Natania sp.A	DTA	10	P	0								0
54	Natanytus spp.	DTA	4	P	4							1	0.169779
55	Paramerina sp.	DTA	2.8	P	0								0
56	Pentaneura inconspicua	DTY	4.6	P	0								0
57	Rhaotanytarsus spp.	DTY	6.4	CF	313.8			7		16		18	4 8.319185
58	Stempellina spp.	DTY	2	CG	0								0
59	Tanytarsus spp.	DTY	6.7	CG	698.8			15		37		27	7 17.65705
60	Acerpenna pygmaeus	EP	3.7	CG	0								0
61	Baetis spp.	EP	5.4	CG	64.8			4		3		3	2 2.037351
62	Caenis spp.	EP	7.6	CG	0								0
63	Eurylophella spp.	EP	3	CG	0								0
64	Heptagenia spp.	EP	2.8	SC	0								0
65	Neocphemera youngi	EP	2.1	CG	0								0
66	Paraleptophlebia spp.	EP	1.2	CG	0								0
67	Stenonema spp.	EP	3.4	SC	47.6			4		3		4	3 2.37691
68	Tricorythodes spp.	EP	5.4	CG	0								0
69	Corydax cornutus	ME	5.6	P	11.2					2			0.339559
70	Nigronia serricornis	ME	5.5	P	0								0
71	Sialis spp.	ME	7.5	P	0								0
72	Farrisia spp.	MG	6.9	SC	0								0
73	Boyarla vinosa	OD	6.3	P	0								0
74	Coenagrionidae	OD	9	P	0								0
75	Acronuria abnormis	PL	2.2	P	0								0
76	Acronuria arenosa	PL	2.2	P	2.2								1 0.169779
77	Acronuria lycoris	PL	1.5	P	7.5								1 0.848898
78	Acronuria mele	PL	0.9	P	3.6			1		3			0.879117
79	Acronuria spp.	PL	1.4	P	1.4							1	0.169779
80	Agnetina spp.	PL	0	P	0								0
81	Allocaenia spp.	PL	2.8	SH	5.6							1	1 0.339559
82	Helopicus spp.	PL	0.4	P	0								0
83	Isoperla spp.	PL	2	P	0								0
84	Paragnetina kanensis	PL	2	P	0								0
85	Paragnetina spp.	PL	2	P	0								0
86	Perla spp.	PL	0	P	0			1		2		1	0.879117
87	Perlinella ephyra	PL	0	P	0								0
88	Perlinella spp.	PL	0	P	0								0

89	Pteronarcys dorsata	PL	1.8	SH	0						0
90	Taeniopteryx sp.	PL	6.3	SH	0						0
91	Brachycentrus numerosus	TR	1.8	CF	1.8					1	0.169779
92	Ceraclea spp.	TR	2.3	CG	0						0
93	Cheumatopsyche spp.	TR	6.6	CF	0						0
94	Chimarra spp.	TR	2.8	CF	0						0
95	Cynellus fraternus	TR	7.4	CF	7.4			1			0.169779
96	Diplectrona modesta	TR	2.2	CF	39.6		4	3		11	3.050027
97	Heteroplectron americanum	TR	2.9	SH	2.9			1			0.169779
98	Hydropsyche decalda	TR	4.1	CF	0						0
99	Hydropsyche ellaeoma	TR	4	CF	0						0
100	Hydropsyche mississippiensis	TR	4	CF	12			1		2	0.509338
101	Hydropsyche spp.	TR	4	CF	96		6	4		4	10 4.074703
102	Hydropsyche spp.	TR	6.2	PH	0						0
103	Lepidostoma sp.	TR	1	SH	1			1			0.169779
104	Leptoceridae (imm)	TR	4	CG	0						0
105	Lype diversa	TR	4.3	SC	4.3			1			0.169779
106	Maya trichia eyams	TR	6.2	SC	6.2		1				0.169779
107	Microsema spp.	TR	0.6	SH	0						0
108	Nectopsyche spp.	TR	4.1	SH	0						0
109	Neotrichia spp.	TR	6.2	SC	0						0
110	Neuroclipsis spp.	TR	4.4	CF	0						0
111	Nyctiophylax spp.	TR	0.9	CF	0						0
112	Ocetia spp.	TR	5.7	P	0						0
113	Polycentropus spp.	TR	3.5	CF	0						0
114	Pycnopsyche spp.	TR	2.3	SH	0						0
115											
116											
117											
Table size:		114	Total orgs:	589	Tot Tax:	43	tot. mean #	658.1008			
Number Samps:		5	SC/CF:	0.13793103	Bio Index:	6.221222					
Mean TAX/Samp		20									
EPT:		17									
Statistical Summary:											
TAXC	FG	#Taxa	Total #	Mean/Samp	mean #/m^2	Rel Abd.	FG Rel. Abd				
AHC		1	3	.6	3.352	.5093					
AMG		0	0	.	.	.					
ANO		0	0	.	.	.					
CO		4	10	2.	11.1732	1.6978					
DCA		0	0	.	.	.					
DCC		5	20	4.	22.3464	3.3956					
DD		0	0	.	.	.					
DO		3	58	11.6	64.8045	9.8472					
DOR		7	240	48.	288.1564	40.747					
DTA		2	9	1.8	10.0559	1.528					
DTY		2	153	30.6	170.9497	25.9762					
EP		2	28	5.2	29.0503	4.4143					
ME		1	2	.4	2.2346	.3398					
MG		0	0	.	.	.					
OD		0	0	.	.	.					
PL		6	17	3.4	18.9944	2.8862					
TR		9	51	10.2	56.9832	8.6587					
P		9	29	5.8	32.4022	4.923599					
CG		18	420	84.	489.2737	71.3073					
SC		3	18	3.2	17.8771	2.716469					
PH		0	0	.	.	.					
SH		5	8	1.6	8.9385	1.358234					
CF		7	116	23.2	129.608939	19.6944					

Taxa List:	
Hydracarina	
Ancyronyx variegatus	
Macronychus glabratus	
Oulimnius latiusculus	
Stenelmis spp.	
Nilothauma babiye	
Phaenopsectra flavipes	
Polypedilum fallax	
Polypedilum spp.	
Stelechomyia perpulchra	
Chelifera spp.	
Hemerodromia spp.	
Simulium spp.	
Corynoneura spp.	
Cricotopus/Ortho spp.	
Parakiefferiella sp.1	
Parametriocnemus sp.	
Rheocricotopus spp.	
Thienemanniella spp.	
Tvetenia spp.	
Conchapelopia spp.	
Nilotanypus spp.	
Rheotanytarsus spp.	
Tanytarsus spp.	
Baetis spp.	
Stenonema spp.	
Corydalis cornutus	
Acroneuria arenosa	
Acroneuria lycorias	
Acroneuria mela	
Acroneuria spp.	
Allocapnia spp.	
Perlesta spp.	
Brachycentrus numerosus	
Cyrnellus fraternus	
Diplectrona modesta	
Heteroplectron americanum	
Hydropsyche mississippiensis	
Hydropsyche spp.	
Lepidostoma sp.	
Lype diversa	
Mayatrichia ayama	

UTR BANKS MILL RD 08/19/93 STATION 1 List of taxa > 5% relative abundance

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Rheocricotopus spp.	DOR		7.3 CG	1335.9			24	70	53	3	33 31.06961
2	Tanytarsus spp.	DTY		6.7 CG	698.8			15	37	27	7	18 17.65705
3	Rheotanytarsus spp.	DTY		6.4 CF	313.6			7	16	18	4	4 8.319185
4	Hemerodromia spp.	DO		8.1 CG	291.8			12	6	1	10	7 6.112054

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	0							0
2	Gammaridae	AMG	6.9	CG	0							0
3	Oligochaeta	ANO	8.2	CG	205		3	1		11	9	2.598054
4	Ancyronyx variegatus	CO	6.9	CG	20.7		1	1		1		0.311528
5	Dineutus sp.	CO	5.5	P	0							0
6	Ectopria nervosa	CO	4.3	SC	0							0
7	Gonelmis dietrichi	CO	4	CG	20		2	2		1		0.519211
8	Macronychus glabratus	CO	4.7	CG	0							0
9	Microcyloepus pusillus	CO	2.1	CG	0							0
10	Optioervus sp.	CO	2.7	CG	0							0
11	Oulimnius latuaculus	CO	1.8	CG	9		2		1	2		0.519211
12	Stenelmis decorata	CO	5.4	CG	0							0
13	Stenelmis sinuata	CO	5.4	CG	0							0
14	Stenelmis spp.	CO	5.4	CG	0							0
15	Cambaridae	DCA	7.2	PH	0							0
16	Cryptochironomus spp.	DCC	6.7	P	20.1		1			1	1	0.311528
17	Dicrotendipes spp.	DCC	7.9	CG	0							0
18	Microtendipes rydalenis	DCC	6.2	CG	0							0
19	Microtendipes spp.	DCC	6.2	CG	0							0
20	Nitthauma babyi	DCC	5.5	CG	11			1			1	0.207884
21	Paraclopedina spp.	DCC	6.4	P	12.8		1		1			0.207884
22	Phaenopsectra flavipes	DCC	8.5	CG	17		2					0.207884
23	Polypedium fallax	DCC	6.7	SH	261.3		8	8	5	9	9	4.049844
24	Polypedium spp.	DCC	6.9	CG	138		3	5	2	6	4	2.076843
25	Stelechomyia perpulchra	DCC	4.6	SH	0							0
26	Stenochironomus sp.	DCC	6.4	SH	6.4				1			0.103842
27	Tribelos jucundum	DCC	6.6	CG	33				5			0.519211
28	Diamasini genus P	DD	7.4	CG	0							0
29	Potthastia longmans	DD	7.4	CG	0							0
30	Atherix lantha	DD	2.1	P	0							0
31	Ceratopogonidae	DD	6.5	P	0							0
32	Chelifera spp.	DO	8.1	CG	8.1		1					0.103842
33	Hemerodromia spp.	DO	8.1	CG	388.8		10	3	16	12	7	4.984424
34	Simulium spp.	DO	4.4	CF	4.4		1					0.103842
35	Brills flavifrons	DOR	5.2	SH	0							0
36	Corynoneura spp.	DOR	6.2	CG	24.8		1	1		1	1	0.415389
37	Cricotopus/Ortho spp.	DOR	8.8	CG	228.8		8	2	4	6	6	2.699896
38	Euklefforilla spp.	DOR	5.7	CG	0							0
39	Nanocladius spp.	DOR	7.2	CG	0							0
40	Orthocladius lignicola	DOR	5.4	SH	5.4					1		0.103842
41	Paraklefforilla sp.1	DOR	5.9	CG	5.9					1		0.103842
42	Parametocnemus sp.	DOR	3.7	CG	3.7		1					0.103842
43	Psectrocladius sp.	DOR	3.8	CG	0							0
44	Rheocricotopus spp.	DOR	7.3	CG	2927.3		89	77	66	117	52	41.64071
45	Synorthocladius semivirens	DOR	4.7	CG	4.7			1				0.103842
46	Thienemannella spp.	DOR	6	CG	150		4	1	5	6	9	2.598054
47	Tvetenia spp.	DOR	4	CG	20		3					

89	Perlinella ephyra	PL	0	P	0							0
90	Perlinella spp.	PL	0	P	0							0
91	Pteronarcys dorsata	PL	1.8	SH	0							0
92	Taeniopteryx sp.	PL	6.3	SH	0							0
93	Brachycentrus numerosus	TR	1.8	CF	0							0
94	Ceracles spp	TR	2.3	CG	4.6						2	0.207684
95	Cheumatopsyche spp.	TR	6.6	CF	33				4		1	0.519211
96	Chimarra spp.	TR	2.8	CF	5.6				1		1	0.207684
97	Cynellus fraternus	TR	7.4	CF	44.4		1	1			4	0.623053
98	Diplectrona modesta	TR	2.2	CF	44		4	3	7		5	1 2.076843
99	Hydropsyche decakle	TR	4.1	CF	0							0
100	Hydropsyche elisoma	TR	4	CF	0							0
101	Hydropsyche mississippiensis	TR	4	CF	0							0
102	Hydropsyche spp.	TR	4	CF	128		2		10		15	5 3.322949
103	Hydroptila spp.	TR	6.2	PH	99.2			14	1		1	1.661475
104	Leptocorkidae (imm)	TR	4	CG	0							0
105	Lype diversa	TR	4.3	SC	8.6			1	1			0.207684
106	Mayatrichia ayama	TR	6.2	SC	6.2			1				0.103842
107	Microsema spp.	TR	0.8	SH	0							0
108	Nectopsyche spp.	TR	4.1	SH	0							0
109	Neotrichia spp.	TR	6.2	SC	0							0
110	Nouaclipis spp.	TR	4.4	CF	0							0
111	Nyctophylax spp.	TR	0.9	CF	0							0
112	Oecetis spp.	TR	5.7	P	5.7		1					0.103842
113	Polycentropus spp.	TR	3.5	CF	0							0
114	Pycnopsyche spp.	TR	2.3	SH	0							0
115												
116												
117												
118												
119	Table size:	114	Total orgs:	983	Tot Tax:	47	tot. mean #	1075.978				
120	Number Samps:	5	SC/CF:	0.06034483	Bio Index:	6.72866						
121	Mean TAX/Samp	25.2										
122	EPT:	15										
Statistical Summary:												
TAXC	FG	#Taxes	Total #	Mean/Samp	mean #/m^2	Rel Abd.	FG Rel. Abd					
AHC		0	0	.	.	.	.					
AMG		0	0	.	.	.	.					
ANO		1	25	5.	27.933	2.5981						
CO		3	13	2.6	14.5251	1.3499						
DCA		0	0	.	.	.	.					
DCC		8	74	14.8	82.6816	7.6843						
DD		0	0	.	.	.	.					
DO		3	50	10.	55.8659	5.1921						
DOR		9	465	93.	519.5531	48.2866						
DTA		2	13	2.6	14.5251	1.3499						
DTY		3	199	39.8	222.3464	20.6846						
EP		4	31	6.2	34.6369	3.2191						
ME		1	1	.2	1.1173	.1038						
MG		0	0	.	.	.	.					
OD		2	2	.4	2.2346	.2077						
PL		1	3	.6	3.352	.3115						
TR		10	87	17.4	97.2067	9.0343						
	P	8	22	4.4	24.581	2.284528						
	CG	24	635	127.	709.4972	65.93977						
	SC	3	14	2.8	15.6425	1.45379						
	PH	1	16	3.2	17.8771	1.661475						
	SH	4	44	8.8	49.162	4.569055						
	CF	7	232	46.4	259.217877	24.09138						

Taxa List:	
Oligochaeta	
Ancyronyx variegatus	
Gonielmis dietrichi	
Oulimnius latiusculus	
Cryptochironomus spp.	
Nilothauma babyi	
Paracladopelma spp.	
Phaenopsectra flavipes	
Polypedilum fallax	
Polypedilum spp.	
Stenochironomus sp.	
Tribelos jucundum	
Chelifera spp.	
Hemerodromia spp.	
Simulium spp.	
Corynoneura spp.	
Cricotopus/Ortho spp.	
Orthocladius lignicola	
Parakiefferiella sp.1	
Parametriocnemus sp.	
Rheocricotopus spp.	
Synorthocladius semivirens	
Thienemanniella spp.	
Tvetenia spp.	
Ablabesmyia spp.	
Conchapelopia spp.	
Caldotanytarsus spp.	
Rheotanytarsus spp.	
Tanytarsus spp.	
Acerpenna pygmaeus	
Baetis spp.	
Caenis spp.	
Stenonema spp.	
Nigronia serricornis	
Calopteryx sp.	
Coenagrionidae	
Allocaenia spp.	
Ceraclea spp.	
Cheumatopsyche spp.	
Chimarra spp.	
Cynellus fraternus	
Diplectrona modesta	
Hydropsyche spp.	
Hydroptila spp.	
Lype diversa	
Mayatrichia ayama	
Oecetis spp.	

CEDAR CREEK @ BANKS MILL RD 08/19/93 STATION 2 List of taxa > 5% relative abundance

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Rheocricotopus spp.	DOR		7.3	CG	2927.3		89	77	66	117	52
2	Rheotanytarsus spp.	DTY		6.4	CF	1062.4		35	31	38	40	22
												41.84071
												17.2378

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Ref Abd
1	Hydracarina	AHC	5.7	P	0							0
2	Gammaridae	AMG	6.9	CG	0							0
3	Oligochaeta	ANO	8.2	CG	8.2				1			0.153139
4	Anchyterus bicolor	CO	3.8	CG	3.8						1	0.153139
5	Ancyronyx variegatus	CO	6.9	CG	158.7		1	4	13		4	1 3.522205
6	Dineutus sp.	CO	5.5	P	0							0
7	Ectopria nervosa	CO	4.3	SC	0							0
8	Gonelmie dietrichi	CO	4	CG	0							0
9	Macronychus glabratus	CO	4.7	CG	122.2		7	4	8		4	3 3.981623
10	Microcyllopus pusillus	CO	2.1	CG	33.6					2	2	12 2.45023
11	Optioservus sp.	CO	2.7	CG	13.5			5				0.765697
12	Stenelmie crenata	CO	5.4	CG	37.8		1				4	2 1.071975
13	Stenelmie decorata	CO	5.4	CG	0							0
14	Stenelmie markali	CO	5.4	CG	0							0
15	Stenelmie sinuata	CO	5.4	CG	0							0
16	Stenelmie spp.	CO	5.4	CG	10.8					2		0.308279
17	Cambaridae	DCA	7.2	PH	0							0
18	Cryptochironomus spp.	DCC	6.7	P	33.5			5				0.765697
19	Dicratandipes spp.	DCC	7.9	CG	0							0
20	Microtandipes rydalsensis	DCC	6.2	CG	12.4			2				0.308279
21	Microtandipes spp.	DCC	6.2	CG	0							0
22	Nitothauma babiyi	DCC	5.5	CG	0							0
23	Paracladopelma	DCC	6.4	CG	19.2			3				0.459418
24	Paralautschornella spp.	DCC	4.8	CG	19.2		1	3				0.612557
25	Phaeopectra flavipes	DCC	6.5	CG	0							0
26	Polypedilum fallax	DCC	6.7	SH	53.6		1	5			2	1.225115
27	Polypedilum spp.	DCC	6.9	CG	641.7			86			7	14.24196
28	Stelechomyia perpulchra	DCC	4.8	SH	82.8		2	6			8	2 2.756508
29	Stenochironomus spp.	DCC	6.4	SH	0							0
30	Tribelos jucundum	DCC	6.6	CG	0							0
31	Diamelini genus P	DD	7.4	CG	0							0
32	Pothastia longmans	DD	7.4	CG	0							0
33	Atherix lantha	DO	2.1	P	0							0
34	Ceratopogonidae	DO	6.5	P	13		1	1				0.308279
35	Chalcids spp.	DO	8.1	CG	48.6				5		1	0.918836
36	Hemerodromia spp.	DO	8.1	CG	81		6	1	1		1	1.531394
37	Simulium spp.	DO	4.4	CF	26.4		1		2		3	0.918836
38	Brillia flavifrons	DOR	5.2	SH	0							0
39	Corynoneura spp.	DOR	6.2	CG	49.6			1	2		5	1.225115
40	Cricotopus/Ortho spp.	DOR	8.8	CG	193.6			13	1		2	6 3.369068
41	Eukiefferiella spp.	DOR	5.7	CG	0							0
42	Lopocladus sp.	DOR	2.2	CG	2.2			1				0.153139
43	Nanocladus spp.	DOR	7.2	CG	0							0
44	Orthocladus lignicola	DOR	5.4	SH	5.4			1				0.153139
45	Parakiefferiella sp.1	DOR	5.9	CG	0							0
46	Parametrioctonus sp.	DOR	3.7	CG	140.6		6	19	2		5	4 5.819298
47	Psectrocladus sp.	DOR	3.8	CG	0							0
48	Rhaocricotopus spp.	DOR	7.3	CG	255.5		2	13	2		10	8 5.359877
49	Synorthocladus semivirens	DOR	4.7	CG	47			1	1		8	1.531394
50	Thienemannella spp.	DOR	6	CG	222		1	5	8		23	5.886158
51	Tvetenia spp.	DOR	4	CG	4						1	0.153139
52	Unicella multivirga	DOR	0	CG	0				1			0.153139
53	Xylopus par	DOR	6.8	SH	0							0
54	Ableboemys spp.	DTA	6.4	P	44.8			6	1			1.071975
55	Cinetanytus pinguis	DTA	9.1	P	0							0
56	Conchapelopia spp.	DTA	8.7	P	200.1		3	11	2		7	3.522205
57	Labrundinia spp.	DTA	6	P	0							0
58	Natania sp.A	DTA	10	P	0							0
59	Nilotanytus spp.	DTA	4	P	4			1				0.153139
60	Parameria spp.	DTA	2.8	P	0							0
61	Pentaneura inconspicua	DTA	4.8	P	18.4			2			2	0.612557
62	Rhectanytarsus spp.	DTY	6.4	CF	198.4		2	5	10		12	2 4.74732
63	Stenelmie spp.	DTY	2	CG	0							0
64	Tanytarsus spp.	DTY	6.7	CG	884.4		9	52	15		19	37 20.2144
65	Acerperis pygmaeus	EP	3.7	CG	0							0
66	Beetle spp.	EP	5.4	CG	21.6			1	1		2	0.612557
67	Caenis spp.	EP	7.6	CG	22.8			2			1	0.459418
68	Eurylophella spp.	EP	3	CG	0							0
69	Heptagenia spp.	EP	2.8	SC	0							0
70	Neosiphonura youngi	EP	2.1	CG	0							0
71	Paraleptophlebia spp.	EP	1.2	CG	0							0
72	Stenonema spp.	EP	3.4	SC	37.4		1	2			4	4 1.684533
73	Tricorythodes spp.	EP	5.4	CG	0							0
74	Corydalis cornutus	ME	5.6	P	28		1	1	1		1	0.765697
75	Nigrone serricornis	ME	5.5	P	11				1		1	0.308279
76	Slais spp.	ME	7.5	P	0							0
77	Forlesia sp.	MG	6.9	SC	0							0
78	Boyeria vinosa	OD	6.3	P	12.6				1		1	0.308279
79	Coenagrionidae	OD	9	P	0							0
80	Acronuria abnormis	PL	2.2	P	4.4				2			0.308279
81	Acronuria areolaris	PL	2.2	P	0							0
82	Acronuria lycoris	PL	1.4	P	1.4						1	0.153139
83	Acronuria mela	PL	0.9	P	0							0
84	Agnatina spp.	PL	0	P	0							0
85	Allocepsia spp.	PL	2.8	SH	14						1	4 0.765697
86	Helopius spp.	PL	0.4	P	0							0
87	Isoperla spp.	PL	2	P	0							0
88	Paragentina immarginata	PL	6.3	P	12.6						1	1 0.308279

89	Paragentina kansensis	PL	2	P	8	3				0.459418
90	Paragentina spp.	PL	2	P	8	3		1		0.612557
91	Perlesta spp.	PL	4.9	P	19.6			2	2	0.612557
92	Perlinella ephyre	PL	0	P	0					0
93	Perlinella spp.	PL	0	P	0					0
94	Pteronarcys dorsata	PL	1.8	SH	1.8					1 0.153139
95	Taniplopteryx sp.	PL	6.3	SH	0					0
96	Anisocentropus pyraloides	TR	0.8	SH	0.8	1				0.153139
97	Brachycentrus numerous	TR	1.8	CF	0					0
98	Coracles spp.	TR	2.3	CG	0					0
99	Cheumatopsyche spp.	TR	8.6	CF	19.8	2			1	0.459418
100	Chimarra spp.	TR	2.8	CF	2.8	1				0.153139
101	Cynellus fraternus	TR	7.4	CF	7.4			1		0.153139
102	Diplectrona modesta	TR	2.2	CF	0					0
103	Hydropsyche decaldis	TR	4.1	CF	0					0
104	Hydropsyche elisoma	TR	4	CF	0					0
105	Hydropsyche mississippiensis	TR	4	CF	0					0
106	Hydropsyche spp.	TR	4	CF	8	1			1	0.308279
107	Hydroptila spp.	TR	6.2	PH	0					0
108	Lepidostoma sp.	TR	1	SH	3			1	2	0.459418
109	Leptoceridae (imm)	TR	4	CG	0					0
110	Lype diversa	TR	4.3	SC	4.3					1 0.153139
111	Macrostemum carolina	TR	3.6	CF	7.2				2	0.308279
112	Mayatrichia sasma	TR	6.2	SC	0					0
113	Microsoma spp.	TR	0.6	SH	0					0
114	Nectopsyche spp.	TR	4.1	SH	0					0
115	Neotrichia spp.	TR	6.2	SC	0					0
116	Neureclipsis spp.	TR	4.4	CF	0					0
117	Nyctophylax spp.	TR	0.9	CF	0					0
118	Ocotia spp.	TR	5.7	P	0					0
119	Polycentropus spp.	TR	3.5	CF	0					0
120	Pycnopsyche spp.	TR	2.3	SH	0					0
121										
122										
123										
124										
125	Table size:	120	Total orgs:	653	Tot Tax:	57	tot. mean #	729.6089		
126	Number Sampe:	5	SC/CF:	0.26086957	Bio Index:	6.040582				
127	Mean TAX/Samp	26.8								
128	EPT:	19								
Statistical Summary:										
TAXC	FG	#Taxes	Total #	Mean/Samp	mean #/m^2	Rel Abd.	FG Rel. Abd			
AHC		0	0	.	.	.				
AMG		0	0	.	.	.				
ANO		1	1	.2	1.1173	.1531				
CO		7	80	16.	89.3855	12.2511				
DCA		0	0	.	.	.				
DCC		7	133	26.6	148.6034	20.3675				
DD		0	0	.	.	.				
DO		4	24	4.8	26.8158	3.6753				
DOR		10	154	30.8	172.087	23.5835				
DTA		4	35	7.	39.1061	5.3599				
DTY		2	183	32.6	182.1229	24.9817				
EP		3	18	3.6	20.1117	2.7565				
ME		2	7	1.4	7.8212	1.072				
MG		0	0	.	.	.				
OD		1	2	.4	2.2346	.3063				
PL		8	22	4.4	24.581	3.3691				
TR		8	14	2.8	15.6425	2.144				
P		15	67	13.4	74.8603	10.26034				
CG		26	491	98.2	548.6034	75.19142				
SC		2	12	2.4	13.4078	1.837672				
PH		0	0	.	.	0				
SH		7	37	7.4	41.3408	5.668158				
CF		7	46	9.2	51.398648	7.04441				

Taxa List:	
Oligochaeta	
Anchytarsus bicolor	
Ancyronyx variegatus	
Macronychus glabratus	
Microcyloopus pusillus	
Optioservus sp.	
Stenelmis crenata	
Stenelmis spp.	
Cryptochironomus spp.	
Microtendipes rydalensis	
Paracladopelma	
Paralauteborniella spp.	
Polypedilum fallax	
Polypedilum spp.	
Stelechomyia perpulchra	
Ceratopogonidae	
Chelifera spp.	
Hemerodromia spp.	
Simulium spp.	
Corynoneura spp.	
Cricotopus/Ortho spp.	
Lopescladius sp.	
Orthocladius lignicola	
Parametriocnemus sp.	
Rheocricotopus spp.	
Synorthocladius semivirens	
Thienemanniella spp.	
Tvetenia spp.	
Uniella multivirga	
Ablabesmyia spp.	
Conchapelopia spp.	
Nilotanytus spp.	
Pentaneura inconspicua	
Rheotanytus spp.	
Tanytus spp.	
Baetis spp.	
Caenis spp.	
Stenonema spp.	
Corydalus cornutus	
Nigronia serricornis	
Boyeria vinosa	
Acroneuria abnormis	
Acroneuria lycorias	
Allocaenia spp.	
Paragentina immarginata	
Paragentina kansensis	
Paragentina spp.	
Perlesta spp.	

Pteronarcys dorsata
Anisocentropus pyraloides
Cheumatopsyche spp.
Chimarra spp.
Cynellus fraternus
Hydropsyche spp.
Lepidostoma sp.
Lype diversa
Macrostemum carolina

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Tanytarsus spp.	DTY		6.7 CG	884.4			9	52	15	19	37
2	Polypedilum spp.	DCC		6.9 CG	641.7				88			7
3	Parametriochnemus sp.	DOR		3.7 CG	140.6			8	19	2	5	4
4	Thienemanniella spp.	DOR		8 CG	222			1	5	8	23	5.666156
5	Rheocricotopus spp.	DOR		7.3 CG	255.5			2	13	2	10	8
												5.359877

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	0							0
2	Gammaridae	AMG	6.9	CG	0							0
3	Oligochaeta	ANO	8.2	CG	0							0
4	Ancyronyx variegatus	CO	6.9	CG	13.8			2				0.275103
5	Dineutus sp.	CO	5.5	P	0							0
6	Ectopria nervosa	CO	4.3	SC	0							0
7	Gonielmis dietrichi	CO	4	CG	24			1	2		3	0.825309
8	Macronychus glabratus	CO	4.7	CG	14.1					3		0.412655
9	Microcylloepus pusillus	CO	2.1	CG	0							0
10	Optioservus sp.	CO	2.7	CG	2.7				1			0.137552
11	Stenelmis crenata	CO	5.4	CG	5.4			1				0.137552
12	Stenelmis decorata	CO	5.4	CG	0							0
13	Stenelmis sinuata	CO	5.4	CG	0							0
14	Stenelmis spp.	CO	5.4	CG	5.4						1	0.137552
15	Cambaridae	DCA	7.2	PH	0							0
16	Cryptochironomus spp.	DCC	6.7	P	33.5			3	1		1	0.687758
17	Dicrantodiplos spp.	DCC	7.9	CG	0							0
18	Microtandipos rydalenis	DCC	8.2	CG	0							0
19	Microtandipos spp.	DCC	8.2	CG	0							0
20	Niothausa babyl	DCC	5.5	CG	18.5				2		1	0.412655
21	Phaenopsectra flavipes	DCC	8.5	CG	8.5							0.137552
22	Polypedilum fallax	DCC	6.7	SH	100.5			9	1		5	2.063274
23	Polypedilum spp.	DCC	6.9	CG	414			18	15	10	3	8.253095
24	Stelechomyia perpulchra	DCC	4.6	SH	39.8			1	3	1	1	2.100413
25	Stenochironomus sp.	DCC	6.4	SH	6.4				1			0.137552
26	Tribeles lucundum	DCC	6.8	CG	0							0
27	Diamasini genus P	DD	7.4	CG	0							0
28	Pathestia longmans	DD	7.4	CG	0							0
29	Athorix lantha	DD	2.1	P	0							0
30	Coratopogonidae	DD	6.5	P	6.5			1				0.137552
31	Chelifera spp.	DD	8.1	CG	8.1					1		0.137552
32	Hemerodromia spp.	DD	8.1	CG	243			5	8	3	8	4.128547
33	Simulium spp.	DD	4.4	CF	8.8				2			0.275103
34	Brilla flavifrons	DOR	5.2	SH	5.2						1	0.137552
35	Corynoneura spp.	DOR	6.2	CG	86.8			3	6	2	3	1.925722
36	Cricotopus/Ortho spp.	DOR	8.8	CG	387.2			4	9	8	21	6.05227
37	Eukiefferiella spp.	DOR	5.7	CG	0							0
38	Nanocladius spp.	DOR	7.2	CG	0							0
39	Orthocladius lignicola	DOR	5.4	SH	0							0
40	Parakiefferiella sp.1	DOR	5.9	CG	0							0
41	Parametriochnemus sp.	DOR	3.7	CG	18.5				4		1	0.687758
42	Psectrocladius sp.	DOR	3.8	CG	0							0
43	Rheocricotopus spp.	DOR	7.3	CG	430.7			4	28	18	11	8.115543
44	Synorthocladius semivirens	DOR	4.7	CG	131.6			5	6	8	2	7.3851444
45	Thienemannella spp.	DOR	6	CG	648			15	40	35	1	17.1485557
46	Tvetenia spp.	DOR	4	CG	40				2	2	3	3.1375516
47	Uniola multivirga	DOR	0	CG	0							0
48	Xylopus par	DOR	6.6	SH	0							0
49	Ablabesmyia spp.	DTA	6.4	P	0							0
50	Clinotanytus pinguis	DTA	9.1	P	0							0
51	Conchapelopia spp.	DTA	8.7	P	382.8			3	19	4	3	15.605227
52	Labrundinia spp.	DTA	6	P	0							0
53	Natiera sp.A	DTA	10	P	0							0
54	Nilotanytus spp.	DTA	4	P	0							0
55	Paramerina sp.	DTA	2.8	P	0							0
56	Pentaneura inconspicua	DTA	4.6	P	0							0
57	Rhoctanytareus spp.	DTY	6.4	CF	185.6			3	15	3	4	3.988996
58	Stempellina spp.	DTY	2	CG	0							0
59	Tanytareus spp.	DTY	6.7	CG	757.1			11	35	9	18	40.1554333
60	Acerpenna pygmaeus	EP	3.7	CG	0							0
61	Baetis spp.	EP	5.4	CG	21.8			2	1		1	0.550208
62	Caenis spp.	EP	7.8	CG	0							0
63	Eurylophella spp.	EP	3	CG	0							0
64	Heptagenia spp.	EP	2.8	SC	0							0
65	Neophemera youngi	EP	2.1	CG	0							0
66	Paraleptophlebia spp.	EP	1.2	CG	0							0
67	Stenonema spp.	EP	3.4	SC	27.2			4		1	1	2.1100413
68	Tricorythodes spp.	EP	5.4	CG	0							0
69	Corydalis cornutus	ME	5.8	P	5.8			1				0.137552
70	Nigronia serricornis	ME	5.5	P	0							0
71	Sialis spp.	ME	7.5	P	0							0
72	Ferisela sp.	MG	6.9	SC	0							0
73	Boyeria vinosa	OD	6.3	P	12.6					1	1	0.275103
74	Coenagrionidae	OD	9	P	0							0
75	Acronaurla abnormis	PL	2.2	P	0							0
76	Acronaurla crenosa	PL	2.2	P	0							0
77	Acronaurla lycorae	PL	1.5	P	84			8	8	13	9	18.7702889
78	Acronaurla mela	PL	0.9	P	0							0
79	Agnetina spp.	PL	0	P	0							0
80	Alkocapnia spp.	PL	2.8	SH	8.4			2		1		0.412655
81	Helopicus sp.	PL	0.4	P	0							0
82	Isoperla spp.	PL	2	P	0							0
83	Paragentina kansensis	PL	2	P	0							0
84	Paragentina spp.	PL	2	P	0							0
85	Perlesta spp.	PL	4.9	P	39.2			5	2		1	1.100413
86	Perlinella ephyre	PL	0	P	0							0
87	Perlinella spp.	PL	0	P	0							0
88	Pteronarcys borealis	PL	1.8	SH	0							0

89	Taeniopteryx sp.	PL	6.3	SH	0							0
90	Anisocentropus pyrasioides	TR	0.8	SH	0.8					1		0.137552
91	Brachycentrus numerosus	TR	1.8	CF	0							0
92	Coracles spp.	TR	2.3	CG	0							0
93	Cheumatopsyche spp.	TR	6.6	CF	13.2			2				0.275103
94	Chimarra spp.	TR	2.8	CF	2.8			1				0.137552
95	Cynellus fraternus	TR	7.4	CF	59.2			1	5	2		1.100413
96	Diplectrona modesta	TR	2.2	CF	11			2		1		2 0.687758
97	Hydropsyche decaldis	TR	4.1	CF	0							0
98	Hydropsyche elaeoma	TR	4	CF	0							0
99	Hydropsyche mississippiensis	TR	4	CF	0							0
100	Hydropsyche spp.	TR	4	CF	104			17		3	1	5 3.576341
101	Hydropsyche spp.	TR	6.2	PH	0							0
102	Leptoceridae (Imm)	TR	4	CG	0							0
103	Lype diversa	TR	4.3	SC	0							0
104	Macrostemum zebatum	TR	3.6	CF	7.2			1			1	0.275103
105	Mayatrichia ayama	TR	6.2	SC	0							0
106	Microsema spp.	TR	0.6	SH	0.6			1				0.137552
107	Nectopsyche spp.	TR	4.1	SH	0							0
108	Nectrichia spp.	TR	6.2	SC	0							0
109	Neureclipsis spp.	TR	4.4	CF	0							0
110	Nyctiophylax spp.	TR	0.9	CF	0							0
111	Oocetia spp.	TR	5.7	P	11.4						2	0.275103
112	Polycentropus spp.	TR	3.5	CF	3.5						1	0.137552
113	Pycnopsyche spp.	TR	2.3	SH	0							0
114												
115												
116												
117												
118	Table etc:	113	Total orgs:	727	Tot Tax:	45	tot. mean #	812.2905				
119	Number Sampls:	5	SC/CF:	0.10526316	Bio Index:	6.098762						
120	Mean TAX/Samp	23.8										
121	EPT:	15										
Statistical Summary:												
TAXC	FG	#Taxes	Total #	Mean/Samp	mean #/m^2	Rel Abd.	FG Rel. Abd					
AHC		0	0	.	.	.						
AMG		0	0	.	.	.						
ANO		0	0	.	.	.						
CO		8	14	2.8	15.6425	1.9257						
DCA		0	0	.	.	.						
DCC		7	93	18.6	103.9106	12.7923						
DD		0	0	.	.	.						
DO		4	34	6.8	37.9888	4.6768						
DOR		8	269	53.8	300.5587	37.0014						
DTA		1	44	8.8	49.162	6.0523						
DTY		2	142	28.4	158.6592	19.5323						
EP		2	12	2.4	13.4078	1.6508						
ME		1	1	.2	1.1173	.1376						
MG		0	0	.	.	.						
OD		1	2	.4	2.2346	.2751						
PL		3	67	13.4	74.8803	9.216						
TR		10	49	9.8	54.7486	6.74						
P		8	119	23.8	132.9609		16.38864					
CG		20	494	98.8	551.9553		67.95048					
SC		1	8	1.6	8.9385		1.100413					
PH		0	0	.	.	.	0					
SH		7	30	6.	33.5196		4.126547					
CF		9	76	15.2	84.9162011		10.45392					

Taxa List:	
Ancyronyx variegatus	
Gonielmis dietrichi	
Macronychus glabratus	
Optioservus sp.	
Stenelmis crenata	
Stenelmis spp.	
Cryptochironomus spp.	
Nilothauma babiye	
Phaenopsectra flavipes	
Polypedilum fallax	
Polypedilum spp.	
Stelechomyia perpulchra	
Stenochironomus sp.	
Ceratopogonidae	
Chelifera spp.	
Hemerodromia spp.	
Simulium spp.	
Brilla flavifrons	
Corynoneura spp.	
Cricotopus/Ortho spp.	
Parametriocnemus sp.	
Rheocricotopus spp.	
Synorthocladius semivirens	
Thienemanniella spp.	
Tveteria spp.	
Conchapelopia spp.	
Rheotanytarsus spp.	
Tanytarsus spp.	
Baetis spp.	
Stenonema spp.	
Corydalis cornutus	
Boyeria vinosa	
Acroneuria lycorias	
Allocapnia spp.	
Perlesta spp.	
Anisocentropus pyraloides	
Cheumatopsyche spp.	
Chimarra spp.	
Cyrnellus fraternus	
Diplectrona modesta	
Hydropsyche spp.	
Macrostemum zebratum	
Micrasema spp.	
Oecetis spp.	
Polycentropus spp.	

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da/A	B	C	D	E	Rel Abd
1	Tanytarsus spp.	DTY		6.7 CG	757.1		11	35	9	18	40 15.54333
2	Thienemanniella spp.	DOR		6 CG	648		15	40	35	1	17 14.85557
3	Polypedilum spp.	DCC		6.9 CG	414		16	15	10	3	16 8.253095
4	Rheocricotopus spp.	DOR		7.3 CG	430.7		4	28	18	11	8.115543
5	Acroneuria lycorias	PL		1.5 P	84		8	8	13	9	18 7.702889
6	Cricotopus/Ortho spp.	DOR		8.8 CG	387.2		4	9	8	21	2 6.05227
7	Conchapelopia spp.	DTA		8.7 P	382.8		3	19	4	3	15 6.05227

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	28.5			2	2	1		0.541128
2	Gemmeridae	AMG	8.9	CG	0							0
3	Oligochaeta	ANO	8.2	CG	18.4						2	0.21845
4	Ancyronyx variegatus	CO	6.9	CG	20.7				2	1		0.324875
5	Dineutus sp.	CO	5.5	P	0							0
6	Ectopria nervosa	CO	4.3	SC	17.2					2	2	0.4329
7	Gonelmia dietrichi	CO	4	CG	0							0
8	Macronychus glabratus	CO	4.7	CG	84.8			2	9	7		1.948052
9	Microcyllopus pusillus	CO	2.1	CG	0							0
10	Optioservus sp.	CO	2.7	CG	0							0
11	Stenelmia decorata	CO	5.4	CG	0							0
12	Stenelmia sinuata	CO	5.4	CG	0							0
13	Stenelmia spp.	CO	5.4	CG	0							0
14	Cambaridae	DCA	7.2	PH	0							0
15	Palaeomonetes pakudaeus	DCA	6.7	CG	8.7						1	0.108225
16	Cryptochironomus spp.	DCC	8.7	P	8.7						1	0.108225
17	Dicratandipes neomodeatus	DCC	8.3	CG	24.9						3	0.324875
18	Dicratandipes spp.	DCC	7.9	CG	0							0
19	Lauterborniella sp.	DCC	8	CG	18						3	0.324875
20	Microtandipes rydalsensis	DCC	6.2	CG	8.2				1			0.108225
21	Microtandipes spp.	DCC	6.2	CG	12.4						2	0.21845
22	Nitthauma babyl	DCC	5.5	CG	5.5				1			0.108225
23	Phaenopsectra flavipes	DCC	8.5	CG	0							0
24	Polypedilum fallax	DCC	6.7	SH	13.4					1	1	0.21845
25	Polypedilum spp.	DCC	6.9	CG	1642.2		2	55	108	58	15	25.75758
26	Stalochomyia perpulchra	DCC	4.8	SH	23					5		0.541128
27	Stenochironomus sp.	DCC	6.4	SH	0							0
28	Tribelos fuscicornis	DCC	6	CG	18						3	0.324875
29	Tribelos lucundum	DCC	6.8	CG	0							0
30	Diamasini genus P	DD	7.4	CG	0							0
31	Potthastia longmans	DD	7.4	CG	0							0
32	Atherix lanthe	DD	2.1	P	0							0
33	Ceratopogonidae	DD	6.5	P	0							0
34	Chelifera spp.	DD	8.1	CG	0							0
35	Hemerodromia spp.	DD	8.1	CG	48.8		1	1	2	1	1	0.849351
36	Simulium spp.	DD	4.4	CF	4.4				1			0.108225
37	Brilia flavifrons	DOR	5.2	SH	0							0
38	Corynoneura spp.	DOR	6.2	CG	204.8		2	5	19	4	3	3.571429
39	Cricotopus/Ortho spp.	DOR	8.8	CG	44				1	3	1	0.541128
40	Eukiefferiella spp.	DOR	5.7	CG	0							0
41	Nanocladius spp.	DOR	7.2	CG	7.2		1					0.108225
42	Orthocladius lignicola	DOR	5.4	SH	0							0
43	Parakiefferiella sp.1	DOR	5.9	CG	11.8						2	0.21845
44	Parakiefferiella sp.2	DOR	5.9	CG	0							0
45	Parametriochnemus sp.	DOR	3.7	CG	22.2		1			4	1	0.849351
46	Psectrocladius sp.	DOR	3.8	CG	0							0
47	Rheocricotopus spp.	DOR	7.3	CG	138.7		1	3	11	4		2.058277
48	Synorthocladius semivirens	DOR	4.7	CG	23.5				3	1	1	0.541128
49	Thienemannella spp.	DOR	6	CG	648		24	20	43	15	6	11.88831
50	Tvetenia spp.	DOR	4	CG	18				2		2	0.4329
51	Uniola multivirga	DOR	0	CG	0							0
52	Xylopus par	DOR	6.8	SH	0							0
53	Ablabesmyia spp.	DTA	6.4	P	44.8		1			1	5	0.757576
54	Clinotanytus pinguis	DTA	9.1	P	0							0
55	Conchapelopia spp.	DTA	8.7	P	34.8				1	3		0.4329
56	Lebrundia spp.	DTA	6	P	0							0
57	Neteria sp. A	DTA	10	P	0							0
58	Nilotanytus spp.	DTA	4	P	12				1	1	1	0.324875
59	Parameira sp.	DTA	2.8	P	0							0
60	Pantaneura incanepicus	DTA	4.6	P	0							0
61	Rheotanytarsus spp.	DTY	6.4	CF	492.8		2	43	11	21		8.333333
62	Stempellina spp.	DTY	2	CG	0							0
63	Tanytarsus spp.	DTY	6.7	CG	1025.1		4	1	45	6	97	16.55844
64	Acerpenna pygmaeus	EP	3.7	CG	29.6		2	3	3			0.885801
65	Baetis spp.	EP	5.4	CG	75.6				3	4	2	1.515152
66	Caenis spp.	EP	7.8	CG	0							0
67	Eurylophella spp.	EP	3	CG	18					6		0.849351
68	Heptagenia spp.	EP	2.8	SC	0							0
69	Isonychia sp.	EP	3.8	CF	7.6					2		0.21845
70	Noeophemera youngi	EP	2.1	CG	0							0
71	Paraleptophlebia spp.	EP	1.2	CG	0							0
72	Stenonema spp.	EP	3.4	SC	285.8		11	14	29	20	10	9.090909
73	Tricorythodes spp.	EP	5.4	CG	54					7	3	1.082251
74	Sphaerium spp.	MB	7.7	CF	15.4							0.21845
75	Corydalis cornutus	ME	5.8	P	61.8		2	2	3	4		1.190478
76	Nigronia serricornis	ME	5.5	P	0							0
77	Sialis spp.	ME	7.5	P	0							0
78	Forisella sp.	MG	8.9	SC	0							0
79	Physella spp.	MG	9.1	SC	9.1						1	0.108225
80	Viviparidae	MG	6.7	SC	6.7						1	0.108225
81	Boyeria vinosa	OD	6.3	P	0							0
82	Coenagrionidae	OD	9	P	0							0
83	Gomphus spp.	OD	6.2	P	6.2						1	0.108225
84	Acronuria abnormis	PL	2.2	P	0							0
85	Acronuria areolaris	PL	2.2	P	0							0
86	Acronuria mela	PL	0.9	P	0							0
87	Acronuria spp.	PL	1.4	P	0							0
88	Argetina spp.	PL	0	P	0							0

[illegible]

Taxa List:	
Hydracarina	
Oligochaeta	
Ancyronyx variegatus	
Ectopria nervosa	
Macronychus glabratus	
Palaemonetes paludosus	
Cryptochironomus spp.	
Dicrotendipes neomodestus	
Lauterborniella sp.	
Microtendipes rydalensis	
Microtendipes spp.	
Nilothauma babiyi	
Polypedilum fallax	
Polypedilum spp.	
Stelechomyia perpulchra	
Tribelos fuscicorne	
Hemerodromia spp.	
Simulium spp.	
Corynoneura spp.	
Cricotopus/Ortho spp.	
Nanocladius spp.	
Parakiefferiella sp.1	
Parametriocnemus sp.	
Rheocricotopus spp.	
Synorthocladius semivirens	
Thienemanniella spp.	
Tveteria spp.	
Ablabesmyia spp.	
Conchapelopia spp.	
Nilotanytus spp.	
Rheotanytarsus spp.	
Tanytarsus spp.	
Acerpenna pygmaeus	
Baetis spp.	
Eurylophella spp.	
Isonychia sp.	
Stenonema spp.	
Tricorythodes spp.	
Sphaerium spp.	
Corydalis cornutus	
Physella spp.	
Viviparidae	
Gomphus spp.	
Cheumatopsyche spp.	
Cyrnellus fraternus	
Hydropsyche spp.	
Hydropsychidae pupa	
Lype diversa	

Macrostemum carolina
Macrostemum zebratum
Nectopsyche exquisita
Oecetis spp.
Polycentropus spp.

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Polypedilum spp.	DCC		6.9 CG	1842.2			2	55	108	58	15 25.75758
2	Tanytarsus spp.	DTY		6.7 CG	1025.1			4	1	45	6	97 16.55844
3	Thienemanniella spp.	DOR		6 CG	648			24	20	43	15	6 11.88831
4	Stenonema spp.	EP		3.4 SC	285.6			11	14	29	20	10 9.090909
5	Rheotanytarsus spp.	DTY		6.4 CF	492.8			2	43	11	21	8.333333

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Ds	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	57			4		5		1 0.970874
2	Gammaridae	AMG	6.9	CG	0							0
3	Oligochaeta	ANO	8.2	CG	0							0
4	Ancyronyx variegatus	CO	6.9	CG	13.8							2 0.194175
5	Dineutus sp.	CO	5.5	P	0							0
6	Ectopria nervosa	CO	4.3	SC	0							0
7	Gonelmis dietrichi	CO	4	CG	0							0
8	Macronychus glabratus	CO	4.7	CG	244.4		13		10		4	15 5.048544
9	Microcyllopus pusillus	CO	2.1	CG	2.1							1 0.097087
10	Optioervus sp.	CO	2.7	CG	0							0
11	Stenelmis crenatus	CO	5.4	CG	750.6		62		18		15	37 9 13.49515
12	Stenelmis decorata	CO	5.4	CG	0							0
13	Stenelmis sinuata	CO	5.4	CG	0							0
14	Stenelmis spp.	CO	5.4	CG	0							0
15	Cambaridae	DCA	7.2	PH	0							0
16	Cryptochironomus spp.	DCC	6.7	P	13.4					1		1 0.194175
17	Dicranotendipes spp.	DCC	7.9	CG	0							0
18	Microtendipes rydalseni	DCC	6.2	CG	0							0
19	Microtendipes spp.	DCC	6.2	CG	0							0
20	Nitthauma babyl	DCC	5.5	CG	49.5				4		5	0.873788
21	Phaenopspectra flavipes	DCC	8.5	CG	0							0
22	Polypedilum foliux	DCC	6.7	SH	20.1		2					1 0.291282
23	Polypedilum spp.	DCC	6.9	CG	331.2		9		9		10	7 13 4.680194
24	Stelochomyia perpulchra	DCC	4.6	SH	41.4		4		2		2	1 0.873788
25	Stenochironomus sp.	DCC	6.4	SH	6.4							1 0.097087
26	Tribeles jucundum	DCC	6.6	CG	0							0
27	Diamesini genus P	DD	7.4	CG	0							0
28	Potthastia longmans	DD	7.4	CG	0							0
29	Atherix lanthe	DO	2.1	P	2.1						1	0.097087
30	Coratopogonidae	DO	6.5	P	0							0
31	Chetifera spp.	DO	8.1	CG	0							0
32	Hemerodromia spp.	DO	8.1	CG	315.9		13		8		8	4 6 3.788408
33	Palpomyia spp.	DO	6.9	P	6.9					1		0.097087
34	Simulium spp.	DO	4.4	CF	30.8		3			1		3 0.679812
35	Bratia flavifrons	DOR	5.2	SH	5.2		1					0.097087
36	Corynoneura spp.	DOR	6.2	CG	155		4		6		11	2 2 2.427184
37	Cricotopus/Ortho spp.	DOR	8.8	CG	211.2		4		2		7	2 9 2.330097
38	Eukiefferiella spp.	DOR	5.7	CG	0							0
39	Lopescladius spp.	DOR	2.2	CG	2.2					1		0.097087
40	Nanocladius spp.	DOR	7.2	CG	57.6		1		1		2	1 3 0.776899
41	Orthocladius lignicola	DOR	5.4	SH	0							0
42	Parakiefferiella sp.1	DOR	5.9	CG	11.8					1		1 0.194175
43	Parametrichonemus sp.	DOR	3.7	CG	229.4		16		8		15	10 13 6.019417
44	Psectrocladius sp.	DOR	3.8	CG	0							0
45	Rheocricotopus spp.	DOR	7.3	CG	1043.9		21		11		58	35 18 13.8835
46	Synorthocladius semivirens	DOR	4.7	CG	4.7				1			0.097087
47	Thienemannella spp.	DOR	6	CG	1230		32		34		95	27 17 19.90291
48	Tvetenia spp.	DOR	4	CG	16		1		1			2 0.38835
49	Uniola multivirga	DOR	0	CG	0							0
50	Xylopus par	DOR	6.6	SH	0							0
51	Pseudochironomus spp.	DPC	4.2	CG	4.2						1	0.097087
52	Ablabesmyia spp.	DTA	6.4	P	6.4					1		0.097087
53	Clinotanytus pinguis	DTA	9.1	P	0							0
54	Conchapelopia spp.	DTA	8.7	P	374.1		14		8		15	1 5 4.174757
55	Labrundinia spp.	DTA	6	P	0							0
56	Natereis sp.A	DTA	10	P	0							0
57	Nilotanytus spp.	DTA	4	P	0							0
58	Paramorina sp.	DTA	2.8	P	0							0
59	Pentaneura inconspicua	DTA	4.6	P	23					5		0.485437
60	Rhyotanytarsus spp.	DTY	6.4	CF	258		8		15		11	2 6 3.883495
61	Stempellina spp.	DTY	2	CG	4		1		1			0.194175
62	Tanytarsus spp.	DTY	6.7	CG	415.4		17		12		22	8 5 6.019417
63	Acerpenna pygmaeus	EP	3.7	CG	0							0
64	Baetis spp.	EP	5.4	CG	91.8		4		1		1	3 8 1.650485
65	Caenis spp.	EP	7.6	CG	0							0
66	Eurylophella spp.	EP	3	CG	0							0
67	Heptagenia spp.	EP	2.8	SC	0							0
68	Noesphemera youngi	EP	2.1	CG	8.4		1		1		1	1 0.38835
69	Paraleptophlebia spp.	EP	1.2	CG	0							0
70	Stenonema spp.	EP	3.4	SC	30.6		4		1		3	1 0.873788
71	Tricothyridos spp.	EP	5.4	CG	0							0
72	Corydalis cornutus	ME	5.6	P	5.6		1					0.097087
73	Nigronia saricornis	ME	5.5	P	0							0
74	Stelis spp.	ME	7.5	P	0							0
75	Ferriesia sp.	MG	6.9	SC	0							0
76	Boyeria vinoxia	OD	6.3	P	0							0
77	Coenagrionidae	OD	9	P	0							0
78	Acronaurea abnormis	PL	2.2	P	44		7		1		3	3 6 1.941748
79	Acronaurea arenoea	PL	2.2	P	0							0
80	Acronaurea mela	PL	0.9	P	0							0
81	Acronaurea spp.	PL	1.4	P	0							0
82	Agnetina spp.	PL	0	P	0							0
83	Allocaenia spp.	PL	2.8	SH	8.4		2			1		0.291282
84	Holopisus sp.	PL	0.4	P	0							0
85	Isoperla spp.	PL	2	P	0							0
86	Paragnetina immarginata	PL	1.7	P	15.3		4		1		1	2 0.873788
87	Paragnetina kansensis	PL	2	P	0							0
88	Paragnetina spp.	PL	2	P	0							0

89	Perlesta spp.	PL	4.9	P	0							0
90	Perlinella ephyra	PL	0	P	0							0
91	Perlinella spp.	PL	0	P	0							0
92	Pteronarcys dorsata	PL	1.8	SH	5.4		1			1	1	0.291262
93	Taeniopteryx sp.	PL	6.3	SH	0							0
94	Anisocentropus pyraloides	TR	0.8	SH	2.4		1		1		1	0.291262
95	Brachycentrus numerosus	TR	1.8	CF	0							0
96	Caracis spp.	TR	2.3	CG	0							0
97	Cheumatopsyche spp.	TR	6.6	CF	26.4		1		3			0.38835
98	Chimarra spp.	TR	2.8	CF	0							0
99	Cynellus fraterius	TR	7.4	CF	0							0
100	Diplectrona modesta	TR	2.2	CF	0							0
101	Hydropsyche decaldis	TR	4.1	CF	0							0
102	Hydropsyche ellisoma	TR	4	CF	0							0
103	Hydropsyche mississippiensis	TR	4	CF	0							0
104	Hydropsyche spp.	TR	4	CF	0							0
105	Hydroptila spp.	TR	6.2	PH	0							0
106	Lepidostoma sp.	TR	1	SH	1						1	0.097087
107	Leptoceridae (imm)	TR	4	CG	0							0
108	Lype diversa	TR	4.3	SC	0							0
109	Maya trichia ayama	TR	6.2	SC	0							0
110	Microstoma spp.	TR	0.8	SH	0							0
111	Nectopsyche spp.	TR	4.1	SH	0							0
112	Neotrichia spp.	TR	6.2	SC	0							0
113	Neureclipsis spp.	TR	4.4	CF	0							0
114	Nyctophylax spp.	TR	0.9	CF	0							0
115	Oecetis spp.	TR	5.7	P	5.7				1			0.097087
116	Polycentropus spp.	TR	3.5	CF	0							0
117	Pallotreta sp.	TR	0	SC	0				1			0.097087
118	Pycnopsyche spp.	TR	2.3	SH	0							0
119												
120												
121												
122												
123	Table size:	118	Total orgs:	1030	Tot Tax:	46	tot. mean #	1150.838				
124	Number Sampls:	5	SC/CF:	0.19607843	Bio Index:	6.00068						
125	Mean TAX/Samp	27.2										
126	EPT:	12										
Statistical Summary:												
TAXC	FG	#Taxes	Total #	Mean/Samp	mean #/m^2	Rel Abd.	FG Rel. Abd					
AHC		1	10	2.	11.1732	.9709						
AMG		0	0	.	.	.						
ANO		0	0	.	.	.						
CO		4	194	38.8	216.7598	18.835						
DCA		0	0	.	.	.						
DCC		8	72	14.4	80.4469	6.9903						
DD		0	0	.	.	.						
DO		4	48	9.0	53.6313	4.6602						
DOR		11	478	95.2	531.8436	46.2136						
DPC		1	1	.2	1.1173	.0971						
DTA		3	49	9.8	54.7486	4.7573						
DTY		3	104	20.8	116.2011	10.0971						
EP		3	30	6.	33.5198	2.9128						
ME		1	1	.2	1.1173	.0971						
MG		0	0	.	.	.						
QD		0	0	.	.	.						
PL		4	35	7.	39.1081	3.3981						
TR		5	10	2.	11.1732	.9709						
	P	11	94	18.8	105.0279	9.126214						
	CG	22	851	170.2	950.838	82.62136						
	SC	2	10	2.	11.1732	0.970874						
	PH	0	0	.	.	.						0
	SH	8	24	4.8	28.8156	2.330097						
	CF	3	51	10.2	56.9832402	4.951456						

Taxa List:	
Hydracarina	
Ancyronyx variegatus	
Macronychus glabratus	
Microcyloepus pusillus	
Stenelmis crenatus	
Cryptochironomus spp.	
Nilothauma babiwi	
Polypedilum fallax	
Polypedilum spp.	
Stelechomyia perpulchra	
Stenochironomus sp.	
Atherix lantha	
Hemerodromia spp.	
Palpomyia spp.	
Simulium spp.	
Brilla flavifrons	
Corynoneura spp.	
Cricotopus/Ortho spp.	
Lopescladius spp.	
Nanocladius spp.	
Parakiefferiella sp.1	
Parametriocnemus sp.	
Rheocricotopus spp.	
Synorthocladius semivirens	
Thienemanniella spp.	
Tvetenia spp.	
Pseudochironomus spp.	
Ablabesmyia spp.	
Conchapelopia spp.	
Pentaneura inconspicua	
Rheotanytarsus spp.	
Stempellina spp.	
Tanytarsus spp.	
Baetis spp.	
Neophemera youngi	
Stenonema spp.	
Corydalus cornutus	
Acroneuria abnormis	
Allocapnia spp.	
Paragentina immarginata	
Pteronarcys dorsata	
Anisocentropus pyraloides	
Cheumatopsyche spp.	
Lepidostoma sp.	
Oecetis spp.	
Psilotreta sp.	

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Thienemanniella spp.	DOR		6 CG	1230			32	34	95	27	17 19.90291
2	Rheocricotopus spp.	DOR		7.3 CG	1043.9			21	11	58	35	18 13.8835
3	Stenelmia crenatus	CO		5.4 CG	750.8			62	18	15	37	9 13.49515
4	Parametrioconemus sp.	DOR		3.7 CG	229.4			16	8	15	10	13 6.019417
5	Tanytarsus spp.	DTY		6.7 CG	415.4			17	12	22	6	5 6.019417
6	Macronychus glabratus	CO		4.7 CG	244.4			13	10	4	10	15 5.048544

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	0							0
2	Gammaridae	AMG	6.9	CG	0							0
3	Hyalina azteca	AMT	7.9	CG	7.9						1	0.10881
4	Oligochaeta	ANO	8.2	CG	0							0
5	Ancyronyx variegatus	CO	6.9	CG	255.3		14	2	5	3	13	3.944563
6	Dinotus sp.	CO	5.5	P	0							0
7	Ectopria nervosa	CO	4.3	SC	0							0
8	Gonelmis dietrichi	CO	4	CG	0							0
9	Macronychus glabratus	CO	4.7	CG	4.7					1		0.10881
10	Microcyllopus pusillus	CO	2.1	CG	0							0
11	Optioservus sp.	CO	2.7	CG	0							0
12	Stenelmis crenatus	CO	5.4	CG	102.6		1	8		1	9	2.025588
13	Stenelmis decorata	CO	5.4	CG	0							0
14	Stenelmis sinuata	CO	5.4	CG	0							0
15	Stenelmis spp.	CO	5.4	CG	0							0
16	Cambaridae	DCA	7.2	PH	0							0
17	Cryptochironomus spp.	DCC	6.7	P	40.2		1	2	1		2	0.639659
18	Microtendipes spp.	DCC	7.9	CG	55.3		1		3	1	2	0.748269
19	Leuterothrips sp.	DCC	8	CG	96		3	2	5	2	4	1.705757
20	Microtendipes rydalseni	DCC	6.2	CG	365.8		33	21			5	6.289979
21	Microtendipes spp.	DCC	6.2	CG	74.4			1	1	9	1	1.279318
22	Nitothauma babyi	DCC	5.5	CG	49.5		4	1		4		0.959488
23	Pagastella ostenae	DCC	2.6	CG	13		1	1	1	2		0.533049
24	Paraleuterothrips sp.	DCC	4.8	CG	4.8					1		0.10881
25	Paratendipes sp.	DCC	4.8	CG	4.8				1			0.10881
26	Phaenopsectra flavipes	DCC	8.5	CG	8.5						1	0.10881
27	Polypedium fallax	DCC	6.7	SH	187.6		2	4		6	16	2.985075
28	Polypedium spp.	DCC	6.9	CG	179.4		6	7	2	3	8	2.771855
29	Stelechomyia parpulchra	DCC	4.6	SH	0							0
30	Stenochironomus sp.	DCC	6.4	SH	0							0
31	Tribelos fuscicornis	DCC	6.6	CG	6.6					1		0.10881
32	Tribelos jucundum	DCC	6.6	CG	198			1	28		1	3.198294
33	Diamelin genus P	DD	7.4	CG	0							0
34	Pothastia longimana	DD	7.4	CG	0							0
35	Atherix lenthia	DO	2.1	P	0							0
36	Ceratopogonidae	DO	6.5	P	6.5						1	0.10881
37	Chelifera spp.	DO	8.1	CG	0							0
38	Hemerodromia spp.	DO	8.1	CG	16.2			1		1		0.21322
39	Palpomyia sp.	DO	6.9	P	89.7		4	2	1	5	1	1.385928
40	Simulium spp.	DO	4.4	CF	0							0
41	Brake flavifrons	DOR	5.2	SH	0							0
42	Corynoneura spp.	DOR	6.2	CG	49.6		2	2		2	2	0.852878
43	Cricotopus/Ortho spp.	DOR	8.8	CG	17.6		1			1		0.21322
44	Eukiefferiella spp.	DOR	5.7	CG	0							0
45	Nanocladius spp.	DOR	7.2	CG	0							0
46	Orthocladius lignicola	DOR	5.4	SH	0							0
47	Parakiefferiella sp.1	DOR	5.9	CG	0							0
48	Parametriochnomus sp.	DOR	3.7	CG	3.7			1				0.10881
49	Psectrocladius sp.	DOR	3.8	CG	0							0
50	Rhoocricotopus spp.	DOR	7.3	CG	51.1		4	1		1	1	0.748269
51	Synorthocladius semivirens	DOR	4.7	CG	0							0
52	Thienemannella spp.	DOR	6	CG	252		20	12		7	3	4.477812
53	Tvetenia spp.	DOR	4	CG	0							0
54	Unielia multivirga	DOR	0	CG	0						1	0.10881
55	Xylopus par	DOR	6.6	SH	0							0
56	Pseudochironomus sp.	DPC	4.2	CG	4.2			1				0.10881
57	Ablabeomyia spp.	DTA	6.4	P	339.2		19	14	11	4	5	5.65032
58	Clinotanytus pinguis	DTA	9.1	P	0							0
59	Conchapelopia spp.	DTA	8.7	P	278.4		9	8	1	8	6	3.411514
60	Labrundinia spp.	DTA	6	P	18		1		2			0.319829
61	Lereia sp.	DTA	8.3	P	8.3		1					0.10881
62	Natania sp.A	DTA	10	P	0							0
63	Nilotanytus spp.	DTA	4	P	0							0
64	Parameletia sp.	DTA	2.8	P	0							0
65	Pentaneura inconspicua	DTA	4.6	P	0							0
66	Rhoctanytarsus spp.	DTY	6.4	CF	19.2		2	1				0.319829
67	Stempellina spp.	DTY	2	CG	76		11	15	1	8	3	4.051173
68	Tanytarsus spp.	DTY	6.7	CG	2425.4		130	103	13	74	42	38.59275
69	Acerpenna pygmaeus	EP	3.7	CG	0							0
70	Beetle spp.	EP	5.4	CG	0							0
71	Coenias spp.	EP	7.6	CG	60.8		1	3	2	1	1	0.852878
72	Eurylophella spp.	EP	3	CG	12		2	2				0.426439
73	Heptagenia spp.	EP	2.8	SC	0							0
74	Neosiphonella youngi	EP	2.1	CG	0							0
75	Paraleptophlebia spp.	EP	1.2	CG	16.8		3	4		7		1.492537
76	Stenonema spp.	EP	3.4	SC	68		5	4	1	8	2	2.132198
77	Tricorythodes spp.	EP	5.4	CG	0							0
78	Sphaerium spp.	MB	7.7	CF	7.7		1					0.10881
79	Corydalis cornutus	ME	5.6	P	0							0
80	Nigronia serricornis	ME	5.5	P	5.5					1		0.10881
81	Sialis spp.	ME	7.5	P	7.5						1	0.10881
82	Farrisella sp.	MG	6.9	SC	6.9		1					0.10881
83	Physella spp.	MG	9.1	SC	81.9				3		6	0.959488
84	Boyeria vinosa	OD	6.3	P	0							0
85	Coenagrionidae	OD	9	P	0							0
86	Enallagma spp.	OD	9	P	18				2			0.21322
87	Acronuria abnormis	PL	2.2	P	0							0
88	Acronuria arenosa	PL	2.2	P	0							0

89	Acronuria meia	PL	0.9	P	0							0
90	Acronuria spp.	PL	1.4	P	0							0
91	Agnetina spp.	PL	0	P	0							0
92	Allocaenia spp.	PL	2.8	SH	19.6		3	2			2	0.748289
93	Heloporus spp.	PL	0.4	P	0							0
94	Isoperla spp.	PL	2	P	0							0
95	Paragnetina kansensis	PL	2	P	0							0
96	Paragnetina spp.	PL	2	P	0							0
97	Perlesta spp.	PL	4.9	P	0							0
98	Perlesta ophyra	PL	0	P	0							0
99	Perlesta spp.	PL	0	P	0							0
100	Pteronarcys dorsata	PL	1.8	SH	0							0
101	Taeniopteryx sp.	PL	6.3	SH	0							0
102	Brachycentrus numerosus	TR	1.8	CF	1.8		1					0.10681
103	Cercois spp.	TR	2.3	CG	0							0
104	Cheumatopsyche spp.	TR	6.6	CF	6.6					1		0.10681
105	Chimarra spp.	TR	2.8	CF	0							0
106	Cynellus fraternus	TR	7.4	CF	0							0
107	Diplectrona modesta	TR	2.2	CF	0							0
108	Hydropsyche decalda	TR	4.1	CF	0							0
109	Hydropsyche elliesoma	TR	4	CF	0							0
110	Hydropsyche mississippiensis	TR	4	CF	0							0
111	Hydropsyche spp.	TR	4	CF	0							0
112	Hydroptila spp.	TR	6.2	PH	0							0
113	Leptoceridae (imm)	TR	4	CG	0							0
114	Lype diversa	TR	4.3	SC	12.9					1	2	0.319829
115	Mayatrichia ayama	TR	6.2	SC	0							0
116	Microsema spp.	TR	0.6	SH	0							0
117	Nectopsyche spp.	TR	4.1	SH	0							0
118	Nothrichia spp.	TR	6.2	SC	0							0
119	Neurclipsis spp.	TR	4.4	CF	0							0
120	Nyctophylax spp.	TR	0.9	CF	23.4		9	5	1	8	3	2.771855
121	Ocoteis spp.	TR	5.7	P	0							0
122	Oxyethira spp.	TR	5.7	PH	5.7		1					0.10681
123	Polycentropus spp.	TR	3.5	CF	28		2	4			2	0.852878
124	Pycnopsyche spp.	TR	2.3	SH	0							0
125												
126												
127												
128												
129	Table size:	124	Total orgs:	938	Tot Tax:	52	tot. mean #	1048.045				
130	Number Samps:	5	SC/CF:	0.825	Bio Index:	6.06887						
131	Mean TAX/Samp	28.4										
132	EPT:	11										
Statistical Summary:												
TAXC	FG	#Taxa	Total #	Mean/Samp	mean #/m*2	Rel Abd.	FG Rel. Abd					
AHC		0	0	.	.	.						
AMG		0	0	.	.	.						
AMT		1	1	.2	1.1173	.1068						
ANO		0	0	.	.	.						
CO		3	57	11.4	63.6972	6.0768						
DCA		0	0	.	.	.						
DCC		14	202	40.4	225.6983	21.5352						
DO		0	0	.	.	.						
DO		3	16	3.2	17.8771	1.7058						
DOR		6	61	12.2	68.1564	6.5032						
DPC		1	1	.2	1.1173	.1068						
DTA		4	89	17.8	99.4413	9.4883						
DTY		3	403	80.6	450.2793	42.9838						
EP		4	46	9.2	51.3988	4.9041						
MB		1	1	.2	1.1173	.1068						
ME		2	2	.4	2.2346	.2132						
MG		2	10	2.	11.1732	1.0681						
OD		1	2	.4	2.2346	.2132						
PL		1	7	1.4	7.8212	.7463						
TR		6	40	8.	44.6927	4.2644						
P		10	113	22.6	128.257	12.04691						
CG		29	716	143.2	800.	78.33262						
SC		4	33	6.6	36.8715	3.518124						
PH		1	1	.2	1.1173	.10681						
SH		2	35	7.	39.1081	3.731343						
CF		6	40	8	44.6927374	4.264392						

Taxa List:	
<i>Hyalella azteca</i>	
<i>Ancyronyx variegatus</i>	
<i>Macronychus glabratus</i>	
<i>Stenelmis crenatus</i>	
<i>Cryptochironomus</i> spp.	
<i>Dicrotendipes</i> spp.	
<i>Lauterborniella</i> sp.	
<i>Microtendipes rydalensis</i>	
<i>Microtendipes</i> spp.	
<i>Nilothauma babi</i>	
<i>Pagastiella ostansa</i>	
<i>Paralauterborniella</i> sp.	
<i>Paratendipes</i> sp.	
<i>Phaenopsectra flavipes</i>	
<i>Polypedilum fallax</i>	
<i>Polypedilum</i> spp.	
<i>Tribelos fuscicorne</i>	
<i>Tribelos jucundum</i>	
Ceratopogonidae	
<i>Hemerodromia</i> spp.	
<i>Palpomyia</i> sp.	
<i>Corynoneura</i> spp.	
<i>Cricotopus/Ortho</i> spp.	
<i>Parametriocnemus</i> sp.	
<i>Rheocricotopus</i> spp.	
<i>Thienemanniella</i> spp.	
<i>Uniella multivirga</i>	
<i>Pseudochironomus</i> sp.	
<i>Ablabesmyia</i> spp.	
<i>Conchapelopia</i> spp.	
<i>Labrundinia</i> spp.	
<i>Larsia</i> sp.	
<i>Rheotanytarsus</i> spp.	
<i>Stempellina</i> spp.	
<i>Tanytarsus</i> spp.	
<i>Caenis</i> spp.	
<i>Eurylophella</i> spp.	
<i>Paraleptophlebia</i> spp.	
<i>Stenonema</i> spp.	
<i>Sphaerium</i> spp.	
<i>Nigronia serricornis</i>	
<i>Sialis</i> spp.	
<i>Ferrissia</i> sp.	
<i>Physella</i> spp.	
<i>Enallagma</i> spp.	
<i>Allocaenia</i> spp.	
<i>Brachycentrus numerosus</i>	
<i>Cheumatopsyche</i> spp.	

Lype diversa
Nyctiophylax spp.
Oxyethira spp.
Polycentropus spp.

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Tanytarsus spp.	DTY	6.7	CG	2425.4		130	103	13	74	42	38.59275
2	Microtendipes rydalsensis	DCC	6.2	CG	385.8		33	21			5	6.289979
3	Ablabesmyia spp.	DTA	6.4	P	339.2		19	14	11	4	5	5.65032

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler	Da	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	0								0
2	Gammaridae	AMG	6.9	CG	6.9							1	0.063371
3	Oligochaeta	ANO	8.2	CG	0								0
4	Ancyrionyx variegatus	CO	6.9	CG	69			5			5		0.633714
5	Dineutus sp.	CO	5.5	P	11				1			1	0.126743
6	Ectopria nervosa	CO	4.3	SC	0								0
7	Goniokleia dietrichi	CO	4	CG	0								0
8	Macronychus glabratus	CO	4.7	CG	18.8			1			2	1	0.253485
9	Microcrylopus pusillus	CO	2.1	CG	0								0
10	Optioervus sp.	CO	2.7	CG	0								0
11	Stenelmis crenatus	CO	5.4	CG	5.4						1		0.063371
12	Stenelmis decorata	CO	5.4	CG	0								0
13	Stenelmis sinuata	CO	5.4	CG	0								0
14	Stenelmis spp.	CO	5.4	CG	0								0
15	Cambaridae	DCA	7.2	PH	0								0
16	Cryptochironomus spp.	DCC	6.7	P	13.4				1			1	0.126743
17	Cryptotendipes sp.	DCC	6.1	CG	67.1			1	1			1	0.697085
18	Dicortendipes neomedeatus	DCC	8.3	CG	83				1		3	1	0.633714
19	Dicortendipes spp.	DCC	7.9	CG	31.6				1		1	2	0.253485
20	Lauterborniella sp.	DCC	6	CG	6				1				0.063371
21	Microtendipes rydalseni	DCC	6.2	CG	117.8			5			13	1	1.204056
22	Microtendipes spp.	DCC	6.2	CG	6.2			1					0.063371
23	Niothauma babyl	DCC	5.5	CG	225.5			14	6		12	4	5.2598228
24	Pagastella oetanae	DCC	2.6	CG	5.2								0.126743
25	Paraclopedella spp.	DCC	8.4	CG	8.4						1		0.063371
26	Paralauterborniella nigrohalterata	DCC	4.8	CG	19.2				1			3	0.253485
27	Paratendipes sp.	DCC	5.3	CG	10.6				2				0.126743
28	Phaenopsectra flavipes	DCC	8.5	CG	17				1			1	0.126743
29	Polypedilum fallax	DCC	6.7	SH	46.9			3	1		2		1.0443599
30	Polypedilum spp.	DCC	6.9	CG	1221.3			19	3		75	52	28.11.21673
31	Stalochomyia perpulchra	DCC	4.6	SH	41.4			2	2		2	2	1.0570342
32	Stenochironomus sp.	DCC	6.4	SH	0								0
33	Tribelos fuscicornis	DCC	6	CG	342			1	29		1	10	16.3.612167
34	Tribelos jucundum	DCC	6.6	CG	39.6				6				0.380228
35	Diamelin genus P	DD	7.4	CG	0								0
36	Pothostia longimana	DD	7.4	CG	0								0
37	Atherix lantia	DO	2.1	P	0								0
38	Ceratopogonidae	DO	6.5	P	13							1	0.126743
39	Cholifera spp.	DO	6.1	CG	0								0
40	Hemerodromia spp.	DO	6.1	CG	16.2			2					0.126743
41	Palpomyia sp.	DO	6.9	P	213.9			6	8		3	6	8.1.964512
42	Simulium spp.	DO	4.4	CF	0								0
43	Brilia flavifrons	DOR	5.2	SH	0								0
44	Corynoneura spp.	DOR	6.2	CG	43.4			5			2		0.443599
45	Cricotopus/Ortho spp.	DOR	8.8	CG	704			32			44	3	1.5.069708
46	Eukiefferiella spp.	DOR	5.7	CG	0								0
47	Nanocladius spp.	DOR	7.2	CG	64.8			7	1		1		0.570342
48	Orthocladius lignicola	DOR	5.4	SH	0								0
49	Parakiefferiella sp.1	DOR	5.9	CG	47.2			3	4			1	0.506971
50	Parametocladius sp.	DOR	3.7	CG	40.7			3			8		0.697085
51	Psectrocladius sp.	DOR	3.8	CG	0								0
52	Rheocricotopus spp.	DOR	7.3	CG	452.6			27			34		1.3.929024
53	Synorthocladius semivirens	DOR	4.7	CG	0							1	0.3.929024
54	Thienemanniella spp.	DOR	6	CG	612			97	1			3	1.6.463878
55	Tsetonia spp.	DOR	4	CG	0								0
56	Unioella multivirga	DOR	0	CG	0				1		2		0.190114
57	Xylopus par	DOR	6.6	SH	0								0
58	Ablabesmyia spp.	DTA	6.4	P	678.4			8	24		3	36	35.6.717364
59	Apsectrotanytus sp.	DTA	0	P	0				1				0.063371
60	Clinotanytus pinguis	DTA	9.1	P	0								0
61	Conchapelopia spp.	DTA	8.7	P	600.3			21	3		35	8	2.4.372824
62	Lebrundinia spp.	DTA	6	P	30				3			1	0.316857
63	Lersia sp.	DTA	8.3	P	16.6							2	0.126743
64	Natersia sp.	DTA	10	P	0								0
65	Nilotanytus spp.	DTA	4	P	0								0
66	Paramerina sp.	DTA	2.8	P	5.6						2		0.126743
67	Pentaneura inconspicua	DTA	4.6	P	0								0
68	Procladius sp.	DTA	9.3	P	83.7				1			3	5.0.570342
69	Rheotanytus spp.	DTY	6.4	CF	569.6			33			52		4.5.840051
70	Stempelina spp.	DTY	2	CG	0								0
71	Stempelina spp.	DTY	5.3	CG	185.5			6	1		25	3	2.217997
72	Tanytarsus spp.	DTY	6.7	CG	2659.9			199	16		143	22	17.25.15843
73	Acerpenna pygmaeus	EP	3.7	CG	0								0
74	Baetis spp.	EP	5.4	CG	10.8							1	0.126743
75	Caenis spp.	EP	7.6	CG	129.2			5	3		6	1	2.1.077313
76	Eurylophella spp.	EP	3	CG	0								0
77	Haptogenia spp.	EP	2.8	SC	0								0
78	Noesphemera youngi	EP	2.1	CG	0								0
79	Paraleptophlebia spp.	EP	1.2	CG	2.4			1			1		0.126743
80	Stenonema spp.	EP	3.4	SC	98.6			17	2		5	3	2.1.837769
81	Tricorythodes spp.	EP	5.4	CG	280.8			28			20	2	2.3.295311
82	Corydalis cornutus	ME	5.6	P	0								0
83	Nigronia serricornis	ME	5.5	P	0								0
84	Slala spp.	ME	7.5	P	0								0
85	Farrisella spp.	MG	6.9	SC	0								0
86	Physella sp.	MG	9.1	SC	9.1						1		0.063371
87	Boyeria vinosa	OD	6.3	P	6.3							1	0.063371
88	Coenagrionidae	OD	9	P	0								0

89	Enallagma spp.	OD	9	P	36			1			2	1	0.253485
90	Gomphus sp.	OD	6.2	P	6.2						1		0.063371
91	Acronuria abnormis	PL	2.2	P	0								0
92	Acronuria areolaris	PL	2.2	P	0								0
93	Acronuria mela	PL	0.9	P	0								0
94	Acronuria spp.	PL	1.4	P	0								0
95	Ametia spp.	PL	0	P	0								0
96	Allospina spp.	PL	2.8	SH	0								0
97	Helopis spp.	PL	0.4	P	0								0
98	Isoptera spp.	PL	2	P	0								0
99	Paragnetia kansensis	PL	2	P	0								0
100	Paragnetia spp.	PL	2	P	0								0
101	Perlesta spp.	PL	4.9	P	0								0
102	Perlinella ephyre	PL	0	P	0								0
103	Perlinella spp.	PL	0	P	0								0
104	Pteronarcys dorsata	PL	1.8	SH	0								0
105	Taeniopteryx sp.	PL	6.3	SH	0								0
106	Brachycentrus numerosus	TR	1.8	CF	0								0
107	Ceraclea spp.	TR	2.3	CG	0								0
108	Cheumatopsyche spp.	TR	6.8	CF	13.2			1		1			0.126743
109	Chimarra spp.	TR	2.8	CF	0								0
110	Cynallus fraternus	TR	7.4	CF	7.4			1					0.063371
111	Diplectrona modesta	TR	2.2	CF	22			1	2	7			0.633714
112	Hydropsyche decakia	TR	4.1	CF	0								0
113	Hydropsyche eliseoma	TR	4	CF	0								0
114	Hydropsyche mississippiensis	TR	4	CF	0								0
115	Hydropsyche spp.	TR	4	CF	4						1		0.063371
116	Hydroptila spp.	TR	6.2	PH	0								0
117	Leptoceridae (imm)	TR	4	CG	0								0
118	Lype diversa	TR	4.3	SC	4.3			1					0.063371
119	Mayetichia ayama	TR	6.2	SC	0								0
120	Micrasema spp.	TR	0.6	SH	0								0
121	Nectopsyche pavida	TR	4.1	SH	4.1				1				0.063371
122	Nectrichia spp.	TR	6.2	SC	0								0
123	Neureclipsis spp.	TR	4.4	CF	0								0
124	Nyctiophylax spp.	TR	0.9	CF	12.6			4	2	5	2	1	0.887189
125	Oecetis spp.	TR	5.7	P	11.4								0.126743
126	Oxyethira sp.	TR	7.2	PH	21.6					3			0.190114
127	Polycentropus spp.	TR	3.5	CF	98			4	6	4	7	7	1.774398
128	Pycnopsyche spp.	TR	2.3	SH	0								0
129													
130													
131													
132													
133	Table size:	128	Total orgs:	1578	Tot Tax:	63	tot. mean #	1763.128					
134	Number Samps:	5	SC/CF:	0.2137931	Bio Index:	6.482066							
135	Mean TAX/Samp	33.2											
136	EPT:	15											
Statistical Summary:													
TAXC	FG	#Taxes	Total #	Mean/Samp	mean #/m*2	Rel Abd.	FG Rel. Abd						
AHC		0	0	.	.	.	.						
AMG		1	1	.2	1.1173	.0634							
ANO		0	0	.	.	.	.						
CO		4	17	3.4	18.9944	1.0773							
DCA		0	0	.	.	.	.						
DCC		18	356	71.2	397.7854	22.5802							
DD		0	0	.	.	.	.						
DO		3	35	7.	39.1081	2.218							
DOR		8	282	56.4	315.0838	17.8707							
DTA		7	194	38.8	216.7598	12.294							
DTY		3	521	104.2	582.1229	33.0165							
EP		5	102	20.4	113.9665	6.4639							
ME		0	0	.	.	.	.						
MG		1	1	.2	1.1173	.0634							
OD		3	6	1.2	6.7039	.3802							
PL		0	0	.	.	.	.						
TR		10	63	12.6	70.3911	3.9924							
	P	15	239	47.8	267.0391	15.14575							
	CG	34	1143	228.6	1277.095	72.43348							
	SC	3	31	6.2	34.6369	1.984512							
	PH	1	3	.8	3.352	0.190114							
	SH	3	17	3.4	18.9944	1.077313							
	CF	7	145	29	162.011173	9.188847							

Taxa List:	
Gammaridae	
Ancyronyx variegatus	
Dineutus sp.	
Macronychus glabratus	
Stenelmis crenatus	
Cryptochironomus spp.	
Cryptotendipes sp.	
Dicrotendipes neomodestus	
Dicrotendipes spp.	
Lauterborniella sp.	
Microtendipes rydalis	
Microtendipes spp.	
Nilothauma babyi	
Pagastiella ostansa	
Paracladopelma spp.	
Paralauterborniella nigrohalteralis	
Paratendipes sp.	
Phaenopsectra flavipes	
Polypedilum fallax	
Polypedilum spp.	
Stelechomyia perpulchra	
Tribelos fuscicorne	
Tribelos jucundum	
Ceratopogonidae	
Hemerodromia spp.	
Palpomyia sp.	
Corynoneura spp.	
Cricotopus/Ortho spp.	
Nanocladius spp.	
Parakiefferiella sp.1	
Parametriocnemus sp.	
Rheocricotopus spp.	
Thienemanniella spp.	
Uniella multivirga	
Ablabesmyia spp.	
Apsectrotanypus sp.	
Conchapelopia spp.	
Labrundinia spp.	
Larsia sp.	
Paramerina sp.	
Procladius sp.	
Rheotanytarsus spp.	
Stempellinella spp.	
Tanytarsus spp.	
Baetis spp.	
Caenis spp.	
Paraleptophlebia spp.	
Stenonema spp.	

Tricorythodes spp.
Physella sp.
Boyeria vinosa
Enallagma spp.
Gomphus sp.
Cheumatopsyche spp.
Cyrnellus fraternus
Diplectrona modesta
Hydropsyche spp.
Lype diversa
Nectopsyche pavidia
Nyctiophylax spp.
Oecetis spp.
Oxyethira sp.
Polycentropus spp.

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da/A	B	C	D	E	Rel Abd
1	Tanytarsus spp.	DTY	6.7	CG	2659.9		199	18	143	22	17
2	Polypedilum spp.	DCC	6.9	CG	1221.3		19	3	75	52	28
3	Ablabesmyia spp.	DTA	6.4	P	678.4		8	24	3	36	35
4	Thienemannella spp.	DOR	6	CG	612		97	1		3	1
5	Rheotanytarsus spp.	DTY	6.4	CF	569.6		33		52		4
6	Cricetopus/Ortho spp.	DOR	8.8	CG	704		32		44	3	1

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler De	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	0							0
2	Gammaridae	AMG	6.9	CG	0							0
3	Oligochaeta	ANO	8.2	CG	0							0
4	Ancyronyx variegatus	CO	6.9	CG	6.9							0
5	Dineutus sp.	CO	5.5	P	0						1	0.342468
6	Ectopria nervosa	CO	4.3	SC	0							0
7	Goniopsis dietrichi	CO	4	CG	0							0
8	Macronychus glabratus	CO	4.7	CG	0							0
9	Microcyllopus pusillus	CO	2.1	CG	0							0
10	Optioservus sp.	CO	2.7	CG	0							0
11	Stenelmis decorata	CO	5.4	CG	0							0
12	Stenelmis sinuata	CO	5.4	CG	0							0
13	Stenelmis spp.	CO	5.4	CG	10.8							0
14	Cambaridae	DCA	7.2	PH	0			2				0.684932
15	Chironomus spp.	DCC	9.8	CG	9.8				1			0.342468
16	Cryptochironomus spp.	DCC	6.7	P	0							0
17	Cryptotendipes sp.	DCC	6.1	CG	12.2						2	0.684932
18	Dicranotendipes simpeoni	DCC	10	CG	20				1		1	0.684932
19	Dicranotendipes spp.	DCC	7.9	CG	0							0
20	Kiefferulus dux	DCC	10	CG	30				1		1	1.027397
21	Microtendipes rydalsensis	DCC	6.2	CG	0							0
22	Microtendipes spp.	DCC	6.2	CG	0							0
23	Nitthauma babiyi	DCC	5.5	CG	0							0
24	Phaenopsectra flavipes	DCC	8.5	CG	102				1		3	4.109589
25	Polypedilum fallax	DCC	6.7	SH	201		15		7		6	10.27397
26	Polypedilum spp.	DCC	6.9	CG	82.8		6		1		1	4.109589
27	Stelechomyia perpulchra	DCC	4.6	SH	0							0
28	Stenochironomus sp.	DCC	6.4	SH	0							0
29	Tribelos fuscicornis	DCC	6	CG	48							0
30	Tribelos jucundum	DCC	6.6	CG	99		4		1		3	2.739728
31	Diamasini genus P	DD	7.4	CG	0			5				5.136988
32	Potthastia longmans	DD	7.4	CG	0							0
33	Athorix lantha	DO	2.1	P	0							0
34	Ceratopogonidae	DO	6.5	P	13						2	0.684932
35	Cheliferia spp.	DO	8.1	CG	0							0
36	Hemerodromia spp.	DO	8.1	CG	8.1							0
37	Palpomyia spp.	DO	6.9	P	41.4							0
38	Simulium spp.	DO	4.4	CF	0		2			1	2	2.054795
39	Telmatoecopus sp.	DO	9.9	CG	29.7							0
40	Brila flavifrons	DOR	5.2	SH	0						3	1.027397
41	Corynoneura spp.	DOR	6.2	CG	117.8							0
42	Cricotopus/Ortho spp.	DOR	8.8	CG	17.8		4		10		2	6.506849
43	Eukiefferiella spp.	DOR	5.7	CG	0		1				1	0.684932
44	Nanocladius spp.	DOR	7.2	CG	0							0
45	Orthocladus bignicola	DOR	5.4	SH	0							0
46	Parakiefferiella sp.1	DOR	5.9	CG	0							0
47	Parasitocnemus sp.	DOR	3.7	CG	0							0
48	Psectrocladius sp.	DOR	3.8	CG	0							0
49	Rhaetocricotopus spp.	DOR	7.3	CG	0							0
50	Synorthocladus semivirens	DOR	4.7	CG	0							0
51	Thienomanniella spp.	DOR	8	CG	24				3		1	1.369883
52	Tvetenia spp.	DOR	4	CG	0							0
53	Uniolela multivirga	DOR	0	CG	0							0
54	Xylopus par	DOR	6.6	SH	0							0
55	Ablabesomyia spp.	DTA	8.4	P	44.8				4		2	2.39728
56	Clinotanypus pinguis	DTA	9.1	P	0							0
57	Conchapelopia spp.	DTA	8.7	P	200.1		2		5		4	7.878712
58	Labrundinia spp.	DTA	6	P	84		7		3		1	4.794521
59	Natania sp.A	DTA	10	P	0							0
60	Nilotanypus spp.	DTA	4	P	0							0
61	Parameirina sp.	DTA	2.8	P	10.8		2		3		1	2.054795
62	Pentaneura inconspicua	DTA	4.6	P	0							0
63	Zavrelimyia sp.	DTA	9.3	P	46.5				1		2	1.712329
64	Rhaetanyterus spp.	DTY	6.4	CF	0							0
65	Stempellina spp.	DTY	2	CG	0							0
66	Tanyterus spp.	DTY	6.7	CG	482.4		7		25		1	24.85753
67	Acerpenna pygmaeus	EP	3.7	CG	0							0
68	Boettia spp.	EP	5.4	CG	0							0
69	Coenias spp.	EP	7.6	CG	0							0
70	Eurylophella spp.	EP	3	CG	0							0
71	Heptagenia spp.	EP	2.8	SC	0							0
72	Neosphemera youngi	EP	2.1	CG	0							0
73	Paraleptophlebia spp.	EP	1.2	CG	0							0
74	Stenonema spp.	EP	3.4	SC	6.8				1		1	0.684932
75	Tricorythodes spp.	EP	5.4	CG	0							0
76	Corydus cornutus	ME	5.6	P	0							0
77	Nigronia serricornis	ME	5.5	P	11				1		1	0.684932
78	Stale spp.	ME	7.5	P	0							0
79	Ferriesia sp.	MG	6.9	SC	6.9				1			0.342468
80	Argia sp.	OD	8.7	P	26.1						2	1.027397
81	Boyeria vinosa	OD	8.3	P	6.3						1	0.342468
82	Calopteryx sp.	OD	8.3	P	24.9						2	1.027397
83	Coenagrionidae	OD	9	P	0							0
84	Enallagma sp.	OD	9	P	9							0
85	Progomphus sp.	OD	8.7	P	8.7						1	0.342468
86	Acronuria abnormis	PL	2.2	P	0							0
87	Acronuria areolaris	PL	2.2	P	0							0
88	Acronuria mala	PL	0.9	P	0							0

89	Acronexia spp.	PL	1.4	P	0						0
90	Agnethia spp.	PL	0	P	0						0
91	Allocaenia spp.	PL	2.8	SH	58.8			3		18	2 7.191781
92	Helopius spp.	PL	0.4	P	0						0
93	Isoperla spp.	PL	2	P	0						0
94	Paragnetina kansensis	PL	2	P	0						0
95	Paragnetina spp.	PL	2	P	0						0
96	Perloeta spp.	PL	4.9	P	0						0
97	Perlinella ephyre	PL	0	P	0						0
98	Perlinella spp.	PL	0	P	0						0
99	Pteronarcys dorsata	PL	1.8	SH	0						0
100	Taeniopteryx sp.	PL	6.3	SH	0						0
101	Brachycentrus numerosus	TR	1.8	CF	0						0
102	Ceracis spp.	TR	2.3	CG	0						0
103	Chaumatopsyche spp.	TR	6.6	CF	0						0
104	Chimarra spp.	TR	2.8	CF	0						0
105	Cynellus fraternus	TR	7.4	CF	0						0
106	Diplectrona modesta	TR	2.2	CF	2.2			1			0.342466
107	Hydropsyche decalis	TR	4.1	CF	0						0
108	Hydropsyche elisoma	TR	4	CF	0						0
109	Hydropsyche mississippiensis	TR	4	CF	0						0
110	Hydropsyche spp.	TR	4	CF	0						0
111	Hydropula spp.	TR	6.2	PH	0						0
112	Leptoceridae (imm)	TR	4	CG	0						0
113	Lype diversa	TR	4.3	SC	17.2			2			2 1.369883
114	Mesotrichia ayama	TR	6.2	SC	0						0
115	Micrasoma spp.	TR	0.6	SH	0						0
116	Nectopsyche spp.	TR	4.1	SH	0						0
117	Nootrichia spp.	TR	6.2	SC	0						0
118	Neuroclipeis spp.	TR	4.4	CF	0						0
119	Nyctiophylax spp.	TR	0.9	CF	0						0
120	Oecetis spp.	TR	5.7	P	0						0
121	Polycentropus spp.	TR	3.5	CF	0						0
122	Pycnopsyche spp.	TR	2.3	SH	0						0
123											0
124											
125											
126											
127	Table size:	122	Total orgs:	292	Tot Tax:	35	tot. mean #	326.257			
128	Number Samps:	5	SC/CF:	7	Bio Index:	6.597945					
129	Mean TAX/Samp	17									
130	EPT:	4									
Statistical Summary:											
TAXC	FG	#Taxa	Total #	Mean/Samp	mean #/m ²	Rel Abd.	FG Rel. Abd				
AHC		0	0	.	.	.	.				
AMG		0	0	.	.	.	.				
ANO		0	0	.	.	.	.				
CO		2	3	.6	3.352	1.0274					
DCA		0	0	.	.	.	.				
DCC		9	85	17.	94.9721	29.1096					
DO		0	0	.	.	.	.				
DO		4	12	2.4	13.4078	4.1096					
DOR		3	25	5.	27.933	8.5816					
DTA		5	55	11.	61.4525	18.8356					
DTY		1	72	14.4	80.4469	24.6575					
EP		1	2	.4	2.2346	.6849					
ME		1	2	.4	2.2346	.6849					
MG		1	1	.2	1.1173	.3425					
OO		5	9	1.8	10.0559	3.0822					
PL		1	21	4.2	23.4637	7.1918					
TR		2	5	1.	5.5866	1.7123					
	P	13	74	14.8	82.6816	25.34247					
	CG	16	159	31.8	177.6536	54.45205					
	SC	3	7	1.4	7.8212	2.39726					
	PH	0	0	.	.	.					
	SH	2	51	10.2	58.9832	17.46575					
	CF	1	1	0.2	1.11731844	0.342466					

Taxa List:	
Ancyronyx variegatus	
Stenelmis spp.	
Chironomus spp.	
Cryptotendipes sp.	
Dicrotendipes simpsoni	
Kiefferulus dux	
Phaenopsectra flavipes	
Polypedilum fallax	
Polypedilum spp.	
Tribelos fuscicorne	
Tribelos jucundum	
Ceratopogonidae	
Hemerodromia spp.	
Palpomyia spp.	
Telmatoscopus sp.	
Corynoneura spp.	
Cricotopus/Ortho spp.	
Thienemanniella spp.	
Ablabesmyia spp.	
Conchapelopia spp.	
Labrundinia spp.	
Paramerina sp.	
Zavrelimyia sp.	
Tanytarsus spp.	
Stenonema spp.	
Nigronia serricornis	
Ferrissia sp.	
Argia sp.	
Boyeria vinosa	
Calopteryx sp.	
Enallagma sp.	
Progomphus sp.	
Allocaenia spp.	
Diplectrona modesta	
Lype diversa	

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Tanytarsus spp.	DTY		6.7 CG	482.4			7	25	1	18	21 24.85753
2	Polypedium fallax	DCC		6.7 SH	201			15	7	1	6	1 10.27397
3	Conchapelopia spp.	DTA		8.7 P	200.1			2	5	4	6	6 7.876712
4	Allocaenia spp.	PL		2.8 SH	58.8				3		16	2 7.191781
5	Corynoneura spp.	DOR		6.2 CG	117.8			4	10	2	2	1 6.508849
6	Tribelos jucundum	DCC		6.6 CG	99			4	5			6 5.136986

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler	De	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	5.7					1			0.092507
2	Gammaridae	AMG	6.9	CG	6.9							1	0.092507
3	Hyaloleia arctica	AMT	7.9	CG	165.9				8		5	8	1.942646
4	Oligochaeta	ANO	8.2	CG	0								0
5	Ancyromyxa variegatus	CO	6.9	CG	545.1			18	23		9	15	14 7.308048
6	Dineutus sp.	CO	5.5	P	0								0
7	Ectopria nervosa	CO	4.3	SC	0								0
8	Gonelmia dietrichi	CO	4	CG	0								0
9	Macronychus glabratus	CO	4.7	CG	432.4			15	24		8	13	32 8.510638
10	Microcyklopus pusillus	CO	2.1	CG	0								0
11	Optocervus sp.	CO	2.7	CG	0								0
12	Stenelmia crenatus	CO	5.4	CG	88.4			1	10		1		4 1.480111
13	Stenelmia decorata	CO	5.4	CG	0								0
14	Stenelmia sinuata	CO	5.4	CG	0								0
15	Stenelmia spp.	CO	5.4	CG	0								0
16	Cambaridae	DCA	7.2	PH	0								0
17	Cryptochironomus spp.	DCC	6.7	P	80.4			5			2	4	1 1.110083
18	Dicrorandipes neomedeatus	DCC	8.3	CG	8.3							1	0.092507
19	Dicrorandipes spp.	DCC	7.9	CG	7.9							1	0.092507
20	Microtandipes rydalenis	DCC	6.2	CG	0								0
21	Microtandipes spp.	DCC	6.2	CG	0								0
22	Nikothauma babyl	DCC	5.5	CG	0								0
23	Pagastella ostenae	DCC	2.6	CG	2.6								1 0.092507
24	Paracledopelma undine	DCC	6.4	CG	6.4			1					0.092507
25	Phaenopsectra flavipes	DCC	8.5	CG	0								0
26	Polypedium fallax	DCC	6.7	SH	40.2				1		3	1	1 0.555042
27	Polypedium spp.	DCC	6.9	CG	131.1			10	1		2	3	3 1.757832
28	Stelochomyia perpulchra	DCC	4.6	SH	0								0
29	Stenochironomus sp.	DCC	6.4	SH	0								0
30	Tribelos jucundum	DCC	6.6	CG	72.6			1	1		4	5	1.017578
31	Diamasini genus P	DD	7.4	CG	0								0
32	Pothastia longmana	DD	7.4	CG	0								0
33	Atharix lantha	DO	2.1	P	0								0
34	Ceratopogonidae	DO	6.5	P	0								0
35	Chekiere spp.	DO	8.1	CG	8.1							1	0.092507
36	Chrysops sp.	DO	7.3	P	7.3							1	0.092507
37	Hemerodromia spp.	DO	8.1	CG	178.2			6	2			2	12 2.035153
38	Palpomyia sp.	DO	6.9	P	13.8							2	0.185014
39	Simulium spp.	DO	4.4	CF	17.6								4 0.370028
40	Brila flavifrons	DOR	5.2	SH	0								0
41	Corynoneura spp.	DOR	6.2	CG	179.8			2	9			8	12 2.682701
42	Cricotopus/Ortho spp.	DOR	8.8	CG	52.8			2					4 0.555042
43	Eukiefferiella spp.	DOR	5.7	CG	0								0
44	Nanocladius spp.	DOR	7.2	CG	0								0
45	Orthocladus lignicola	DOR	5.4	SH	0								0
46	Parakiefferiella sp.1	DOR	5.9	CG	17.7			1	1			1	0.277521
47	Parametrioconemus sp.	DOR	3.7	CG	55.5			5	5			2	3 1.387804
48	Psectrocladius sp.	DOR	3.8	CG	0								0
49	Rheocricotopus spp.	DOR	7.3	CG	211.7			2	9			1	17 2.682701
50	Synorthocladus semivirens	DOR	4.7	CG	0								0
51	Thionemannella spp.	DOR	6	CG	1248			29	50		5	18	108 19.24144
52	Tvetenia spp.	DOR	4	CG	0								0
53	Uniola multivirga	DOR	0	CG	0								0
54	Xylopus par	DOR	6.6	SH	0								0
55	Abletomyia spp.	DTA	6.4	P	102.4			8	1		2	5	1.480111
56	Cinotanytus pinguis	DTA	9.1	P	0								0
57	Conchapelopia spp.	DTA	8.7	P	452.4			13	12		10	8	9 4.810381
58	Lebrundinia spp.	DTA	6	P	0								0
59	Natania sp.A	DTA	10	P	0								0
60	Nilotanytus spp.	DTA	4	P	4						1		0.092507
61	Paramerina spp.	DTA	2.8	P	5.6			1				1	0.185014
62	Pentaneura inconspicua	DTA	4.6	P	0								0
63	Rheotanytus spp.	DTY	6.4	CF	198.4				10			1	20 2.887715
64	Stempellina spp.	DTY	2	CG	0								0
65	Stempellina spp.	DTY	5.3	CG	108			15	2		2	1	1.850139
66	Tanytarsus spp.	DTY	6.7	CG	1929.8			75	47		32	77	57 28.642
67	Acarpenna pygmaeus	EP	3.7	CG	0								0
68	Baetis spp.	EP	5.4	CG	0								0
69	Caenis spp.	EP	7.6	CG	0								0
70	Eurylophella spp.	EP	3	CG	0								0
71	Heptagenia spp.	EP	2.8	SC	0								0
72	Neophemera youngi	EP	2.1	CG	0								0
73	Paraleptophlebia spp.	EP	1.2	CG	0								0
74	Stenonema spp.	EP	3.4	SC	0								0
75	Tricorythodes spp.	EP	5.4	CG	0								0
76	Corydalis cornutus	ME	5.6	P	0								0
77	Nigronia sorbicornis	ME	5.5	P	0								0
78	Stalis spp.	ME	7.5	P	0								0
79	Ferriesia sp.	MG	6.9	SC	0								0
80	Argia sp.	OD	8.7	P	8.7							1	0.092507
81	Boyeria vinosa	OD	6.3	P	0								0
82	Calopteryx sp.	OD	8.3	P	8.3			1					0.092507
83	Coenagrionidae	OD	9	P	0								0
84	Acronuria abnormis	PL	2.2	P	0								0
85	Acronuria arenosa	PL	2.2	P	0								0
86	Acronuria mela	PL	0.9	P	0								0
87	Acronuria spp.	PL	1.4	P	0								0
88	Agnatina spp.	PL	0	P	0								0

89	Aloecarpia spp.	PL	2.8 SH	0						0
90	Helopiscus sp.	PL	0.4 P	0						0
91	Isoptera spp.	PL	2 P	0						0
92	Paragentina kansensis	PL	2 P	0						0
93	Paragentina spp.	PL	2 P	0						0
94	Perlesta spp.	PL	4.9 P	0						0
95	Perlonea ephyræ	PL	0 P	0						0
96	Perlonea spp.	PL	0 P	0						0
97	Pteronarcys dorsata	PL	1.8 SH	0						0
98	Taeniopteryx sp.	PL	6.3 SH	0						0
99	Brachycentrus numerosus	TR	1.8 CF	0						0
100	Ceraclea spp.	TR	2.3 CG	0						0
101	Cheumatopsyche spp.	TR	6.6 CF	26.4						0
102	Chimarra spp.	TR	2.8 CF	0			1		3	0.370028
103	Cynellus fraterculus	TR	7.4 CF	0						0
104	Diplectrona modesta	TR	2.2 CF	33					15	1.387604
105	Hydropsyche decaleta	TR	4.1 CF	0						0
106	Hydropsyche elaeoma	TR	4 CF	0						0
107	Hydropsyche mississippiensis	TR	4 CF	0						0
108	Hydropsyche spp.	TR	4 CF	268						0
109	Hydroptila spp.	TR	6.2 PH	0					67	6.197965
110	Leptoceridae (imm)	TR	4 CG	0						0
111	Type diverse	TR	4.3 SC	0						0
112	Mayatrichia ayama	TR	6.2 SC	0						0
113	Micrasoma spp.	TR	0.6 SH	0						0
114	Nectopsyche spp.	TR	4.1 SH	0						0
115	Neotrichia spp.	TR	6.2 SC	0						0
116	Neureclipsis spp.	TR	4.4 CF	0						0
117	Nyctophyllax spp.	TR	0.9 CF	0						0
118	Oecetis spp.	TR	5.7 P	5.7						0
119	Polycentropus spp.	TR	3.5 CF	0				1		0.092507
120	Pycnopsycha spp.	TR	2.3 SH	0						0
121										
122										
123										
124										
125	Table size:	120	Total orgs:	1081	Tot Tax:	38	tot. mean #	1207.821		
126	Number Samps:	5	SC/CF:	0	Bio Index:	6.226549				
127	Mean TAX/Samp	20.2								
128	EPT:	4								
Statistical Summary:										
TAXC	FG	#Taxes	Total #	Mean/Samp	mean #/m^2	Taxon	Rel Abd.	FG Rel. Abd		
AHC		1	1	.2	1.1173		.0925			
AMG		1	1	.2	1.1173		.0925			
AMT		1	21	4.2	23.4637		1.9428			
ANO		0	0	.	.		.			
CO		3	187	37.4	208.9385		17.2988			
DCA		0	0	.	.		.			
DCC		8	52	10.4	58.1006		4.8104			
DD		0	0	.	.		.			
DO		5	30	6.	33.5198		2.7752			
DOR		6	290	58.	324.0223		26.827			
DTA		4	71	14.2	79.3298		6.588			
DTY		3	339	67.8	378.7709		31.3599			
EP		0	0	.	.		.			
ME		0	0	.	.		.			
MG		0	0	.	.		.			
OD		2	2	.4	2.2346		.185			
PL		0	0	.	.		.			
TR		4	87	17.4	97.2087	8.0481				
	P	11	90	18.	100.5587		8.325824			
	CG	21	864	172.8	965.3831		79.92599			
	SC	0	0	.	.		0			
	PH	0	0	.	.		0			
	SH	1	6	1.2	6.7039		0.555042			
	CF	5	121	24.2	135.195531		11.19334			

Taxa List:	
Hydracarina	
Gammaridae	
Hyalieia azteca	
Ancyronyx variegatus	
Macronychus glabratus	
Stenelmis crenatus	
Cryptochironomus spp.	
Dicrotandipes neomodestus	
Dicrotendipes spp.	
Pagastiella ostansa	
Paracladopelma undine	
Polypedilum fallax	
Polypedilum spp.	
Tribelos jucundum	
Chelifera spp.	
Chrysops sp.	
Hemerodromia spp.	
Palpomyia sp.	
Simulium spp.	
Corynoneura spp.	
Cricotopus/Ortho spp.	
Parakiefferiella sp.1	
Parametriocnemus sp.	
Rheocricotopus spp.	
Thienemanniella spp.	
Ablabesmyia spp.	
Conchapelopia spp.	
Nilotanytus spp.	
Paramerina sp.	
Rheotanytarsus spp.	
Stempellinella sp.	
Tanytarsus spp.	
Argia sp.	
Calopteryx sp.	
Cheumatopsyche spp.	
Diplectrona modesta	
Hydropsyche spp.	
Oecetis spp.	

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Tanytarsus spp.	DTY	6.7	CG	1929.6			75	47	32	77	26.842
2	Thienemanniella spp.	DOR	6	CG	1248			29	50	5	18	19.24144
3	Macronychus glabratus	CO	4.7	CG	432.4			15	24	8	13	8.510638
4	Ancyronyx variegatus	CO	6.9	CG	545.1			18	23	9	15	7.308048
5	Hydropsyche spp.	TR		4	CF	268						67 6.197985

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler	Da	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	5.7							1	0.138504
2	Gammaridae	AMG	6.9	CG	0								0
3	Oligochaeta	ANO	8.2	CG	0								0
4	Anchyraeus bicolor	CO	3.8	CG	3.8			1					0.138504
5	Ancyronyx variegatus	CO	6.9	CG	82.8			4	2		1	4	1.66205
6	Dinaeus sp.	CO	5.5	P	0								0
7	Ectopria nervosa	CO	4.3	SC	0								0
8	Gonolepis dietrichi	CO	4	CG	0								0
9	Macronychus glabratus	CO	4.7	CG	296.1			22	14		9	8	12 8.725782
10	Microcyllopus pusillus	CO	2.1	CG	12.6			1	1		3	1	0.831025
11	Optiocervus sp.	CO	2.7	CG	0								0
12	Stenelmis decorata	CO	5.4	CG	0								0
13	Stenelmis sinuata	CO	5.4	CG	0								0
14	Stenelmis spp.	CO	5.4	CG	21.6			1	2				1 0.554017
15	Cambaridae	DCA	7.2	PH	0								0
16	Cryptochironomus spp.	DCC	6.7	P	13.4			1			1		0.277008
17	Microtendipes spp.	DCC	7.9	CG	0								0
18	Microtendipes rydalsensis	DCC	6.2	CG	6.2				1				0.138504
19	Microtendipes spp.	DCC	6.2	CG	0								0
20	Mothauma babyl	DCC	5.5	CG	27.5			1	1			3	0.692521
21	Paralauterborniella nigrohalteralis	DCC	4.8	CG	4.8			1					0.138504
22	Phaenopsectra flavipes	DCC	8.5	CG	8.5						1		0.138504
23	Polypedilum fallax	DCC	6.7	SH	73.7			1	1		7	1	1.523546
24	Polypedilum spp.	DCC	6.9	CG	345			14			25	7	4 6.925208
25	Stelechomyia perpulchra	DCC	4.6	SH	0								0
26	Stenochironomus sp.	DCC	6.4	SH	25.6			4					0.554017
27	Tribelos lucundum	DCC	6.8	CG	13.2			1			1		0.277008
28	Diamesini genus P	DD	7.4	CG	0								0
29	Patthastia longimana	DD	7.4	CG	0								0
30	Atherix lantha	DD	2.1	P	0								0
31	Coratopogonidae	DD	6.5	P	13				1			1	0.277008
32	Chelifera spp.	DD	8.1	CG	0								0
33	Hemerodromia spp.	DD	8.1	CG	32.4						1	2	1 0.554017
34	Limnophila sp.	DD	7.3	P	7.3						1		0.138504
35	Palpomyia spp.	DD	6.9	P	13.8				1		1		0.277008
36	Simulium spp.	DD	4.4	CF	0								0
37	Brilia flavifrons	DOR	5.2	SH	10.4			1					1 0.277008
38	Corynoneura spp.	DOR	6.2	CG	74.4			2	3			7	1.66205
39	Cricotopus/Ortho spp.	DOR	8.8	CG	440			13	5		14		18 6.925208
40	Eukiefferiella spp.	DOR	5.7	CG	0								0
41	Nanocladius spp.	DOR	7.2	CG	14.4			1				1	0.277008
42	Orthocladius lignicola	DOR	5.4	SH	0								0
43	Parakiefferiella sp.1	DOR	5.9	CG	5.9			1					0.138504
44	Parametocnemus sp.	DOR	3.7	CG	99.9			9	5		7	3	3 3.739612
45	Psectrocladius spp.	DOR	3.8	CG	0								0
46	Rheocricotopus spp.	DOR	7.3	CG	401.5			12	11		10	17	5 7.617729
47	Synorthocladius semivirens	DOR	4.7	CG	65.8			7	4		2		1 1.939058
48	Thionemanniella spp.	DOR	6	CG	678			37	35		16	6	19 15.65097
49	Tveteria spp.	DOR	4	CG	0								0
50	Unella multivirga	DOR	0	CG	0								0
51	Xylopus par	DOR	6.6	SH	0								0
52	Ablabesomyia spp.	DTA	6.4	P	6.4				1				0.138504
53	Clinotanypus pinguis	DTA	9.1	P	0								0
54	Conchapelopia spp.	DTA	8.7	P	539.4			17	16		17	6	6 8.587258
55	Labrundinia spp.	DTA	6	P	0								0
56	Natania sp.A	DTA	10	P	0								0
57	Nilotanypus spp.	DTA	4	P	8				1		1		0.277008
58	Paramerina sp.	DTA	2.8	P	2.8				1				0.138504
59	Pentaneura inconspicua	DTA	4.6	P	0								0
60	Zavrelimyia	DTA	9.3	P	9.3			1					0.138504
61	Rheotanytarsus spp.	DTY	6.4	CF	268.8			6	19		5	6	6 5.817175
62	Stempelinella sp.	DTY	5.3	CG	58.3			2	1		5	3	1.523546
63	Stempelina spp.	DTY	2	CG	0								0
64	Tanytarsus spp.	DTY	6.7	CG	482.4			22	13		12	7	18 9.972299
65	Acorpenna pygmaeus	EP	3.7	CG	0								0
66	Baetis spp.	EP	5.4	CG	64.8			3	4			1	4 1.66205
67	Caenis spp.	EP	7.8	CG	0								0
68	Eurylophella spp.	EP	3	CG	0								0
69	Heptagenia spp.	EP	2.8	SC	0								0
70	Noesophemera youngi	EP	2.1	CG	0								0
71	Paraleptophlebia spp.	EP	1.2	CG	6			2			3		0.692521
72	Stenonema spp.	EP	3.4	SC	54.4			2	2		1	5	6 2.216068
73	Tricorythodes spp.	EP	5.4	CG	0								0
74	Microvelia	HA	9	P	9								1 0.138504
75	Corydalis cornutus	ME	5.6	P	0								0
76	Nigronia sordidicornis	ME	5.5	P	27.5			3	2				0.692521
77	Stalis spp.	ME	7.5	P	0								0
78	Farrisella sp.	MG	6.9	SC	0								0
79	Boyeria vinosa	OD	6.3	P	0								0
80	Calopteryx sp.	OD	8.3	P	8.3			1					0.138504
81	Coenagrionidae	OD	9	P	0								0
82	Heterina sp.	OD	6.2	P	6.2				1				0.138504
83	Acronouria abnormis	PL	2.2	P	0								0
84	Acronouria arenoea	PL	2.2	P	0								0
85	Acronouria mela	PL	0.9	P	0								0
86	Acronouria spp.	PL	1.4	P	0								0
87	Agnatina spp.	PL	0	P	0								0
88	Allocaenia spp.	PL	2.8	SH	42			2	1		8	3	1 2.077582

[illegible]

Taxa List:	
Hydracarina	
Anchytarsus bicolor	
Ancyronyx variegatus	
Macronychus glabratus	
Microcylloepus pusillus	
Stenelmis spp.	
Cryptochironomus spp.	
Microtendipes rydalensis	
Nilothauma babiyi	
Paralauterborniella nigrohalteralis	
Phaenopsectra flavipes	
Polypedilum fallax	
Polypedilum spp.	
Stenochironomus sp.	
Tribelos jucundum	
Ceratopogonidae	
Hemerodromia spp.	
Limnophila sp.	
Palpomyia spp.	
Brilla flavifrons	
Corynoneura spp.	
Cricotopus/Ortho spp.	
Nanocladius spp.	
Parakiefferiella sp.1	
Parametriocnemus sp.	
Rheocricotopus spp.	
Synorthocladius semivirens	
Thienemanniella spp.	
Ablabesmyia spp.	
Conchapelopia spp.	
Nilotanytus spp.	
Paramerina sp.	
Zavrelimyia	
Rheotanytus spp.	
Stempelinella sp.	
Tanytarsus spp.	
Baetis spp.	
Paraleptophlebia spp.	
Stenonema spp.	
Microvelia	
Nigronia serricornis	
Calopteryx sp.	
Heterina sp.	
Allocaenia spp.	
Paragentina kansensis	
Cheumatopsyche spp.	
Chimarra spp.	
Oecetis spp.	

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Thienemanniella spp.	DOR		6 CG	678			37	35	16	6	19 15.85097
2	Tanytarsus spp.	DTY		6.7 CG	482.4			22	13	12	7	18 9.972299
3	Macronychus glabratus	CO		4.7 CG	298.1			22	14	9	6	12 8.725762
4	Conchapelopia spp.	DTA		8.7 P	539.4			17	16	17	6	6 8.587258
5	Rheocricotopus spp.	DOR		7.3 CG	401.5			12	11	10	17	5 7.617729
6	Cricotopus/Ortho spp.	DOR		8.8 CG	440			13	5	14		18 6.925208
7	Polypedium spp.	DCC		6.9 CG	345			14		25	7	4 6.925208
8	Rheotanytarsus spp.	DTY		6.4 CF	268.8			6	19	5	6	6 5.817175

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler	Da	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	5.7						1		0.552488
2	Gammaridae	AMG	8.9	CG	0								0
3	Oligochaeta	ANO	8.2	CG	0								0
4	Ancyronyx variegatus	CO	8.9	CG	0								0
5	Cymbiodyta sp.	CO	9.5	CG	9.5							1	0.552488
6	Dineutus sp.	CO	5.5	P	0								0
7	Ectopria nervosa	CO	4.3	SC	0								0
8	Gonelmis dietrichi	CO	4	CG	0								0
9	Macronychus glabratus	CO	4.7	CG	0								0
10	Microcyllopus pusillus	CO	2.1	CG	0								0
11	Optioservus sp.	CO	2.7	CG	0								0
12	Stenelmis decorata	CO	5.4	CG	0								0
13	Stenelmis sinuata	CO	5.4	CG	0								0
14	Stenelmis spp.	CO	5.4	CG	5.4						1		0.552488
15	Cambaridae	DCA	7.2	PH	0								0
16	Chironomus spp.	DCC	9.8	CG	264.8						11	18	14.91713
17	Cryptochironomus spp.	DCC	6.7	P	0								0
18	Dicrotendipes neomodeatus	DCC	8.3	CG	8.3								1 0.552488
19	Dicrotendipes simpsoni	DCC	10	CG	40						1	3	2.209945
20	Dicrotendipes spp.	DCC	7.9	CG	0								0
21	Goeldichironomus holopraeus	DCC	10	CG	60						2	4	3.314917
22	Kiefferulus dux	DCC	10	CG	1170			34	1		28	54	64.64088
23	Microtendipes rydalsensis	DCC	8.2	CG	0								0
24	Microtendipes spp.	DCC	6.2	CG	0								0
25	Nitthauma babyl	DCC	5.5	CG	0								0
26	Phaenopsectra flavipes	DCC	8.5	CG	0								0
27	Polypedium falkx	DCC	6.7	SH	0								0
28	Polypedium spp.	DCC	6.9	CG	6.9						1		0.552488
29	Stelechomyia perpulchra	DCC	4.8	SH	0								0
30	Stenochironomus sp.	DCC	6.4	SH	0								0
31	Tribelos jucundum	DCC	6.8	CG	0								0
32	Diamelin genus P	DO	7.4	CG	0								0
33	Pothaetia longmans	DO	7.4	CG	0								0
34	Atherix lantha	DO	2.1	P	0								0
35	Caratopogonidae	DO	6.5	P	13				1		1		1.104972
36	Chelifera spp.	DO	8.1	CG	0								0
37	Hemerodromia spp.	DO	8.1	CG	0								0
38	Psychoda sp.	DO	9.9	CG	9.9				1				0.552488
39	Simulium spp.	DO	4.4	CF	0								0
40	Brilia flavifrons	DOR	5.2	SH	0								0
41	Corynoneura spp.	DOR	6.2	CG	0								0
42	Cricotopus/Ortho spp.	DOR	8.8	CG	8.8							1	0.552488
43	Eukiefferiella spp.	DOR	5.7	CG	0								0
44	Nanocladius spp.	DOR	7.2	CG	0								0
45	Orthocladius lignicola	DOR	5.4	SH	0								0
46	Parakiefferiella sp.1	DOR	5.9	CG	0								0
47	Parametriocnemus sp.	DOR	3.7	CG	0								0
48	Psectrocladius sp.	DOR	3.8	CG	0								0
49	Rheocricotopus spp.	DOR	7.3	CG	0								0
50	Synorthocladius semivirens	DOR	4.7	CG	0								0
51	Thienemannella spp.	DOR	8	CG	0								0
52	Tvetenia spp.	DOR	4	CG	0								0
53	Unifella multivirga	DOR	0	CG	0								0
54	Xylopus par	DOR	6.8	SH	0								0
55	Pseudochironomus spp.	DPC	4.2	CG	4.2							1	0.552488
56	Ablabesmyia spp.	DTA	6.4	P	0								0
57	Clinotanypus pinguis	DTA	9.1	P	0								0
58	Conchapelopia spp.	DTA	8.7	P	0								0
59	Labrundinia spp.	DTA	6	P	18				1		2		1.657459
60	Natania sp.A	DTA	10	P	0								0
61	Nilotanypus spp.	DTA	4	P	0								0
62	Paramerina sp.	DTA	2.8	P	0								0
63	Pentaneura inconspicua	DTA	4.6	P	4.6							1	0.552488
64	Rheotanytarsus spp.	DTY	6.4	CF	12.8						2		1.104972
65	Stampellina spp.	DTY	2	CG	0								0
66	Tanytarsus spp.	DTY	6.7	CG	53.6				8				4.41989
67	Acerpenna pygmaeus	EP	3.7	CG	0								0
68	Beetle spp.	EP	5.4	CG	0								0
69	Caenis spp.	EP	7.6	CG	0								0
70	Eurylophella spp.	EP	3	CG	0								0
71	Hemiteles spp.	EP	2.8	SC	0								0
72	Neocphemera youngi	EP	2.1	CG	0								0
73	Paraleptophlebia spp.	EP	1.2	CG	0								0
74	Stenonema spp.	EP	3.4	SC	0								0
75	Tricorythodes spp.	EP	5.4	CG	0								0
76	Microvelia	HA		P	0							1	0.552488
77	Corydalis cornutus	ME	5.8	P	0								0
78	Nigronia serricornis	ME	5.5	P	0								0
79	Sialis spp.	ME	7.5	P	0								0
80	Ferriesia sp.	MG	6.9	SC	0								0
81	Boyeria vinosa	OD	6.3	P	0								0
82	Coenagrionidae	OD	9	P	18				1		1		1.104972
83	Acronuria abnormis	PL	2.2	P	0								0
84	Acronuria areolaris	PL	2.2	P	0								0
85	Acronuria melis	PL	0.9	P	0								0
86	Acronuria spp.	PL	1.4	P	0								0
87	Agnetina spp.	PL	0	P	0								0
88	Allocaenia spp.	PL	2.8	SH	0								0

[illegible]

Taxa List:	
Hydracarina	
Cymbiodyta sp.	
Stenelmis spp.	
Chironomus spp.	
Dicrotendipes neomodestus	
Dicrotendipes simpsoni	
Goeldichironomus holoprasinus	
Kiefferulus dux	
Polypedilum spp.	
Ceratopogonidae	
Psychoda sp.	
Cricotopus/Ortho spp.	
Pseudochironomus spp.	
Labrundinia spp.	
Pentaneura inconspicua	
Rheotanytarsus spp.	
Tanytarsus spp.	
Microvelia	
Coenagrionidae	

CROUCH BR @ RD. 4 08/20/93 STATION 12 List of taxa >5% relative abundance

Seq	Taxon	TAXC	NCBI	FG	{for BI}	Sampler Da	A	B	C	D	E	Rel Abd
1	Kiefferulus dux	DCC		10 CG	1170			34	1	28	54	64.84088
2	Chironomus spp.	DCC		9.8 CG	284.6					11	16	14.91713

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	0							0
2	Gammaridae	AMG	8.9	CG	0							0
3	Oligochaeta	ANO	8.2	CG	0							0
4	Ancyronyx variegatus	CO	6.9	CG	13.8						1	0.192493
5	Dineutus sp.	CO	5.5	P	0							0
6	Ectopria nervosa	CO	4.3	SC	0							0
7	Gonielmis dietrichi	CO	4	CG	0							0
8	Macronychius glabratus	CO	4.7	CG	75.2		3	3	4	1	5	1.539942
9	Microcyllopus pusillus	CO	2.1	CG	0							0
10	Optioservus sp.	CO	2.7	CG	0							0
11	Stenelmis decorata	CO	5.4	CG	0							0
12	Stenelmis sinuata	CO	5.4	CG	0							0
13	Stenelmis spp.	CO	5.4	CG	32.4			2	1	3		0.577478
14	Cambaridae	DCA	7.2	PH	0							0
15	Cryptochironomus spp.	DCC	6.7	P	6.7			1				0.096248
16	Dirotandipes spp.	DCC	7.9	CG	0							0
17	Microtandipes rydalsensis	DCC	8.2	CG	6.2					1		0.096248
18	Microtandipes spp.	DCC	8.2	CG	0							0
19	Nitothauma babyl	DCC	5.5	CG	16.5			2	1			0.288739
20	Paraclopedius undine	DCC	5.2	CG	5.2			1				0.096248
21	Phaenopsectra flavipes	DCC	8.5	CG	0							0
22	Polypedium fallax	DCC	6.7	SH	28.8			2	2			0.384988
23	Polypedium spp.	DCC	6.9	CG	1207.5		1	72	48	30	24	16.84312
24	Stelechomyia perpulchra	DCC	4.6	SH	18.4		1	1			2	0.384988
25	Stenochironomus sp.	DCC	6.4	SH	6.4						1	0.096248
26	Tribelos lucundum	DCC	6.8	CG	6.8						1	0.096248
27	Diamenini genus P	DD	7.4	CG	0							0
28	Pothaetia longimana	DD	7.4	CG	0							0
29	Archipogon sp.	DO	6.8	SC	27.2		3		1			0.384988
30	Athorix lantha	DO	2.1	P	2.1						1	0.096248
31	Ceratopogonidae	DO	6.5	P	0							0
32	Chelifera spp.	DO	8.1	CG	0							0
33	Hemerodromia spp.	DO	8.1	CG	81			5	5			0.962464
34	Palpomyia spp.	DO	6.9	P	20.7			2			1	0.288739
35	Simulium spp.	DO	4.4	CF	127.6		3	14	1	7	4	2.791145
36	Brila flavifrons	DOR	5.2	SH	0							0
37	Corynoneura spp.	DOR	6.2	CG	82			4	2	3	1	0.962464
38	Cricotopus/Ortho spp.	DOR	8.8	CG	1214.4		6	55	35	13	29	13.282
39	Eukiefferiella spp.	DOR	5.7	CG	0							0
40	Nanocladius spp.	DOR	7.2	CG	64.8					4	3	2 0.868218
41	Orthocladius ignicola	DOR	5.4	SH	0							0
42	Parakiefferiella sp.1	DOR	5.9	CG	35.4		2		1		3	0.577478
43	Parakiefferiella sp.2	DOR	5.9	CG	23.6			2		1	1	0.384988
44	Parametrioctonus sp.	DOR	3.7	CG	59.2			12	1		3	1.539942
45	Psectrocladius sp.	DOR	3.8	CG	0							0
46	Rheocricotopus spp.	DOR	7.3	CG	1148.1		2	95	10	25	25	15.11088
47	Synorthocladius semivirens	DOR	4.7	CG	37.8			3	1	2	2	0.789971
48	Thienemanniella spp.	DOR	6	CG	788		2	68	15	27	19	12.60828
49	Tvetenia spp.	DOR	4	CG	60		2	2	2	7	2	1.443698
50	Uniola multivirga	DOR	0	CG	0							0
51	Xylopus par	DOR	6.8	SH	0							0
52	Ablabesmyia spp.	DTA	6.4	P	0							0
53	Clinotanypus pinguis	DTA	9.1	P	0							0
54	Conchapelopia spp.	DTA	8.7	P	287.1			18	5	5	5	3.178131
55	Labrundinia spp.	DTA	6	P	0							0
56	Natania sp.A	DTA	10	P	0							0
57	Nilotanypus spp.	DTA	4	P	60			10		4	1	1.443698
58	Paramerina sp.	DTA	2.8	P	2.8			1				0.096248
59	Pentaneura inconspicua	DTA	4.6	P	4.6		1					0.096248
60	Rheotanytarsus spp.	DTY	6.4	CF	275.2			20	6	8	9	4.138595
61	Stamellina spp.	DTY	2	CG	0							0
62	Tanytarsus spp.	DTY	6.7	CG	549.4			42	9	15	16	7.892204
63	Acorperina pygmaeus	EP	3.7	CG	0							0
64	Baetis spp.	EP	5.4	CG	21.8			2		1	1	0.384988
65	Caenis spp.	EP	7.6	CG	45.6			6				0.577478
66	Eurylophella spp.	EP	3	CG	0							0
67	Haptagenia spp.	EP	2.8	SC	14		1	3			1	0.481232
68	Neophemera youngi	EP	2.1	CG	0							0
69	Paraleptophlebia spp.	EP	1.2	CG	0							0
70	Stenonema spp.	EP	3.4	SC	10.2				2	1		0.288739
71	Tricorythodes spp.	EP	5.4	CG	0							0
72	Peraponyx sp.	LEP	5	PH	5			1				0.096248
73	Corydalis cornutus	ME	5.6	P	22.4		1			1	2	0.384988
74	Nigronia eeriicornis	ME	5.5	P	5.5					1		0.096248
75	Sialis spp.	ME	7.5	P	0							0
76	Ferissia sp.	MG	6.9	SC	0							0
77	Boyeria vinosa	OD	6.3	P	0							0
78	Coenagrionidae	OD	9	P	0							0
79	Acronaurea abnormis	PL	2.2	P	48.4			4	5	6	7	2.117421
80	Acronaurea areosa	PL	2.2	P	0							0
81	Acronaurea mela	PL	0.9	P	0.9					1		0.096248
82	Acronaurea spp.	PL	1.4	P	0							0
83	Agmatina spp.	PL	0	P	0							0
84	Alloceponia spp.	PL	2.8	SH	8.4					3		0.288739
85	Helopius sp.	PL	0.4	P	0							0
86	Isoperla spp.	PL	2	P	0							0
87	Paragentina kansensis	PL	2	P	18		3	3	2			0.789971
88	Paragentina spp.	PL	2	P	0							0

[illegible]

Taxa List:	
Ancyronyx variegatus	
Macronychus glabratus	
Stenelmis spp.	
Cryptochironomus spp.	
Microtendipes rydalensis	
Nilothauma babiyi	
Paracladopelma undine	
Polypedilum fallax	
Polypedilum spp.	
Stelechomyia perpulchra	
Stenochironomus sp.	
Tribelos jucundum	
Archipogon sp.	
Atherix lantha	
Hemerodromia spp.	
Palpomyia spp.	
Simulium spp.	
Corynoneura spp.	
Cricotopus/Ortho spp.	
Nanocladius spp.	
Parakiefferiella sp.1	
Parakiefferiella sp.2	
Parametriocnemus sp.	
Rheocricotopus spp.	
Synorthocladius semivirens	
Thienemanniella spp.	
Tvetenia spp.	
Conchapelopia spp.	
Nilotanypus spp.	
Paramerina sp.	
Pentaneura inconspicua	
Rheotanytarsus spp.	
Tanytarsus spp.	
Baetis spp.	
Caenis spp.	
Heptagenia spp.	
Stenonema spp.	
Paraponyx sp.	
Corydalis cornutus	
Nigronia serricornis	
Acroneuria abnormis	
Acroneuria mela	
Allocaenia spp.	
Paragentina kansensis	
Pteronarcys dorsata	
Brachycentrus numerosus	
Cheumatopsyche spp.	
Chimarra spp.	

Hydropsyche spp.
Hydroptila spp.
Oecetis spp.
Polycentropus spp.

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da/A	B	C	D	E	Rel Abd
1	Polypedilum spp.	DCC		6.9 CG	1207.5		1	72	48	30	24
2	Rheocricotopus spp.	DOR		7.3 CG	1146.1		2	95	10	25	25
3	Cricotopus/Ortho spp.	DOR		8.8 CG	1214.4		6	55	35	13	29
4	Thienemanniella spp.	DOR		6 CG	786		2	68	15	27	19
5	Tanytarsus spp.	DTY		6.7 CG	549.4			42	9	15	18

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	5.7			1				0.25841
2	Gammaridae	AMG	6.9	CG	0							0
3	Oligochaeta	ANO	8.2	CG	0							0
4	Ancyroneurax variegatus	CO	6.9	CG	138		4	12			4	5.128205
5	Dineutus sp.	CO	5.5	P	0							0
6	Ectopria nervosa	CO	4.3	SC	0							0
7	Gonelmia distichi	CO	4	CG	0							0
8	Macromyrmex glabratus	CO	4.7	CG	112.8		11	5		1	7	6.153848
9	Microgaster pusillus	CO	2.1	CG	0							0
10	Optioeruvus sp.	CO	2.7	CG	0							0
11	Stenelmia decorata	CO	5.4	CG	0							0
12	Stenelmia sinuata	CO	5.4	CG	0							0
13	Stenelmia spp.	CO	5.4	CG	313.2		9	37		1	10	14.87178
14	Cambaridae	DCA	7.2	PH	0							0
15	Cryptochironomus spp.	DCC	6.7	P	6.7			1				0.25841
16	Dicortendipes spp.	DCC	7.9	CG	47.4					3		3 1.538482
17	Klafterulus dux	DCC	10	CG	40						4	1.025841
18	Microtendipes rydalseni	DCC	6.2	CG	0							0
19	Microtendipes spp.	DCC	6.2	CG	0							0
20	Nitthauma babyl	DCC	5.5	CG	0							0
21	Phaenopsectra flavipes	DCC	8.5	CG	0							0
22	Polypedilum follox	DCC	6.7	SH	100.5		6	1		2	6	3.846154
23	Polypedilum spp.	DCC	6.9	CG	144.9		6	4			7	4 5.384615
24	Stelechomyia perpulchra	DCC	4.6	SH	0							0
25	Stenochironomus sp.	DCC	6.4	SH	0							0
26	Tribelos fuscicornis	DCC	6	CG	8					1		0.25841
27	Tribelos jucundum	DCC	6.8	CG	85.8		4			6		3 3.333333
28	Diamesini genus P	DD	7.4	CG	0							0
29	Poithastia longimana	DD	7.4	CG	0							0
30	Atherix lanthe	DO	2.1	P	0							0
31	Caratopogonidae	DO	6.5	P	52		2	1		3		2 2.051282
32	Cheliferia spp.	DO	8.1	CG	0							0
33	Hemerodromia spp.	DO	8.1	CG	16.2		2					0.512821
34	Palpomyia spp.	DO	6.9	P	48.3		1	1		3	2	1.794872
35	Simulium spp.	DO	4.4	CF	0							0
36	Brilia flavifrons	DOR	5.2	SH	0							0
37	Corynoneura spp.	DOR	6.2	CG	12.4		1			1		0.512821
38	Cricotopus/Ortho spp.	DOR	8.8	CG	607.2		41	14		3	11	17.69231
39	Eukiefferiella spp.	DOR	5.7	CG	0							0
40	Nanocladius spp.	DOR	7.2	CG	0							0
41	Orthocladius lignicola	DOR	5.4	SH	0							0
42	Parakiefferiella sp.1	DOR	5.9	CG	29.5			2		3		1.292051
43	Parametocnemus sp.	DOR	3.7	CG	3.7			1				0.25841
44	Psectrocladius sp.	DOR	3.8	CG	0							0
45	Rheocricotopus spp.	DOR	7.3	CG	292		30	3		1	6	10.25841
46	Synorthocladius semivirens	DOR	4.7	CG	0							0
47	Thienemanniella spp.	DOR	6	CG	108		12	4		1	1	4.615385
48	Tvetenia spp.	DOR	4	CG	0							0
49	Uniola multivirga	DOR	0	CG	0							0
50	Xylopus par	DOR	6.6	SH	0							0
51	Ablabesmyia spp.	DTA	6.4	P	115.2		1	3		6	1	7 4.615385
52	Clinotanytus pinguis	DTA	9.1	P	0							0
53	Conchapelopia spp.	DTA	8.7	P	121.8		5	2			6	1 3.589744
54	Labrundinia spp.	DTA	6	P	0							0
55	Natania sp.A	DTA	10	P	0							0
56	Nilotanytus spp.	DTA	4	P	0							0
57	Paramerina spp.	DTA	2.8	P	0							0
58	Pentaneura inconspicua	DTA	4.6	P	0							0
59	Rheotanytarsus spp.	DTY	6.4	CF	0							0
60	Stempelina spp.	DTY	2	CG	0							0
61	Tanytarsus spp.	DTY	6.7	CG	48.9		3	1		3		1.794872
62	Acarpenna pygmaeus	EP	3.7	CG	0							0
63	Beetle spp.	EP	5.4	CG	5.4		1					0.25841
64	Caenis spp.	EP	7.6	CG	0							0
65	Eurylophella spp.	EP	3	CG	0							0
66	Heptagenia spp.	EP	2.8	SC	0							0
67	Neophemera youngi	EP	2.1	CG	0							0
68	Paraleptophlebia spp.	EP	1.2	CG	0							0
69	Stenonema spp.	EP	3.4	SC	17			3		2		1.282051
70	Tricorythodes spp.	EP	5.4	CG	0							0
71	Sphaerium spp.	MB	7.7	CF	15.4							2 0.512821
72	Corydalis cornutus	ME	5.8	P	22.4		2	1			1	1.025841
73	Nigronia serricornis	ME	5.5	P	0							0
74	Sialis spp.	ME	7.5	P	0							0
75	Campeloma sp.	MG	6.7	SC	6.7						1	0.25841
76	Ferriesia sp.	MG	6.9	SC	0							0
77	Colopteryx sp.	OD	8.3	P	8.3					1		0.25841
78	Coenagrionidae	OD	9	P	18			1				1 0.512821
79	Boyeria vinosa	ODA	6.3	P	0							0
80	Acronuria abnormis	PL	2.2	P	0							0
81	Acronuria arensa	PL	2.2	P	0							0
82	Acronuria mela	PL	0.9	P	0							0
83	Acronuria spp.	PL	1.4	P	0							0
84	Agnatina spp.	PL	0	P	0							0
85	Allocaulia spp.	PL	2.8	SH	0							0
86	Helopius sp.	PL	0.4	P	0							0
87	Isoperla spp.	PL	2	P	0							0
88	Paragnetina kansensis	PL	2	P	0							0

89	Paragentina spp.	PL	2	P	0							0
90	Perlesta spp.	PL	4.9	P	0							0
91	Perlinella ephya	PL	0	P	0							0
92	Perlinella spp.	PL	0	P	0							0
93	Pteronarcys dorsata	PL	1.8	SH	0							0
94	Taeniopteryx sp.	PL	6.3	SH	0							0
95	Brachycentrus numerosus	TR	1.8	CF	0							0
96	Ceraclea spp.	TR	2.3	CG	0							0
97	Cheumatopsyche spp.	TR	6.6	CF	6.6			1				0.25641
98	Chimarra spp.	TR	2.8	CF	0							0
99	Cynellus fraternus	TR	7.4	CF	7.4			1				0.25641
100	Diplozona modesta	TR	2.2	CF	0							0
101	Hydropsyche decalda	TR	4.1	CF	0							0
102	Hydropsyche elaeoma	TR	4	CF	0							0
103	Hydropsyche mississippiensis	TR	4	CF	0							0
104	Hydropsyche spp.	TR	4	CF	24			1		5		1.539482
105	Hydroptila spp.	TR	6.2	PH	0							0
106	Leptoceridae (imm)	TR	4	CG	0							0
107	Lype diversa	TR	4.3	SC	4.3					1		0.25641
108	Mayatrichia ayama	TR	6.2	SC	0							0
109	Microsema spp.	TR	0.6	SH	0							0
110	Nectopsyche spp.	TR	4.1	SH	0							0
111	Nectrichia spp.	TR	6.2	SC	0							0
112	Neureclipsis spp.	TR	4.4	CF	0							0
113	Nyctophylax spp.	TR	0.9	CF	0							0
114	Oecetis spp.	TR	5.7	P	45.6			2		3		2.051282
115	Polycentropus spp.	TR	3.5	CF	7						2	0.512821
116	Pycnopsyche spp.	TR	2.3	SH	0							0
117												
118												
119												
120												
121	Table size:	116	Total orgs:	390	Tot Tax:	36	tot. mean #	435.7542				
122	Number Sampls:	5	SC/CF:	0.58333333	Bio Index:	8.775128						
123	Mean TAX/Samp	17.6										
124	EPT:	8										
Statistical Summary:												
TAXC	FG	#Taxes	Total #	Mean/Samp	mean #/m ²	Rel Abd.	FG Rel. Abd					
AHC		1	1	.2	1.1173	.2584						
AMG		0	0	.	.	.						
ANO		0	0	.	.	.						
CO		3	102	20.4	113.9665	28.1538						
DCA		0	0	.	.	.						
DCC		7	61	12.2	68.1564	15.641						
DD		0	0	.	.	.						
DO		3	17	3.4	18.9944	4.359						
DOR		6	135	27.	150.838	34.6154						
DTA		2	32	6.4	35.7542	8.2051						
DTY		1	7	1.4	7.8212	1.7949						
EP		2	6	1.2	6.7039	1.5385						
MB		1	2	.4	2.2346	.5128						
ME		1	4	.8	4.4893	1.0258						
MG		1	1	.2	1.1173	.2584						
OD		2	3	.6	3.352	.7892						
ODA		0	0	.	.	.						
PL		0	0	.	.	.						
TR		6	19	3.8	21.2291	4.8718						
P		10	64	12.8	71.5084	16.41026						
CG		17	292	58.4	328.257	74.87179						
SC		3	7	1.4	7.8212	1.794872						
PH		0	0	.	.	.						
SH		1	15	3.	16.7598	3.846154						
CF		5	12	2.4	13.4078212	3.078923						

Taxa List:	
Hydracarina	
Ancyronyx variegatus	
Macronychus glabratus	
Stenelmis spp.	
Cryptochironomus spp.	
Dicrotendipes spp.	
Kiefferulus dux	
Polypedilum fallax	
Polypedilum spp.	
Tribelos fuscicorne	
Tribelos jucundum	
Ceratopogonidae	
Hemerodromia spp.	
Palpomyia spp.	
Corynoneura spp.	
Cricotopus/Ortho spp.	
Parakiefferiella sp.1	
Parametriocnemus sp.	
Rheocricotopus spp.	
Thienemanniella spp.	
Ablabesmyia spp.	
Conchapelopia spp.	
Tanytarsus spp.	
Baetis spp.	
Stenonema spp.	
Sphaerium spp.	
Corydalis cornutus	
Campeloma sp.	
Calopteryx sp.	
Coenagrionidae	
Cheumatopsyche spp.	
Cynellus fraternus	
Hydropsyche spp.	
Lype diversa	
Oecetis spp.	
Polycentropus spp.	

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Cricotopus/Ortho spp.	DOR		8.8 CG	607.2			41	14	3	11	17.69231
2	Stenelmis spp.	CO		5.4 CG	313.2			9	37	1	10	14.87179
3	Rheocricotopus spp.	DOR		7.3 CG	292			30	3	1	6	10.25841
4	Macronychus glabratus	CO		4.7 CG	112.8			11	5	1	7	6.153846
5	Polypedilum spp.	DCC		6.9 CG	144.9			6	4		7	5.384615
6	Ancyronyx variegatus	CO		6.9 CG	138			4	12		4	5.128205

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	0							0
2	Gammaridae	AMG	6.9	CG	0							0
3	Hirudinea sp.	ANH	8.2	P	8.2		1					5
4	Oligochaeta	ANO	8.2	CG	0							0
5	Ancyronyx variegatus	CO	6.9	CG	0							0
6	Dineutus sp.	CO	5.5	P	0							0
7	Ectopria nervosa	CO	4.3	SC	0							0
8	Gonelmis dietrichi	CO	4	CG	0							0
9	Macronychus glabratus	CO	4.7	CG	0							0
10	Microcyclops pusillus	CO	2.1	CG	0							0
11	Optiocervus sp.	CO	2.7	CG	0							0
12	Stenelmis decorata	CO	5.4	CG	0							0
13	Stenelmis sinuata	CO	5.4	CG	0							0
14	Stenelmis spp.	CO	5.4	CG	0							0
15	Cambaridae	DCA	7.2	PH	0							0
16	Chironomus spp.	DCC	9.8	CG	19.6					2		16
17	Cryptochironomus spp.	DCC	6.7	P	0							0
18	Dicrotendipes spp.	DCC	7.9	CG	0							0
19	Microtendipes rydalenis	DCC	6.2	CG	0							0
20	Microtendipes spp.	DCC	6.2	CG	0							0
21	Naitiua babyi	DCC	5.5	CG	0							0
22	Phaeospectra flavipes	DCC	8.5	CG	0							0
23	Polypedilum fallax	DCC	6.7	SH	0							0
24	Polypedilum spp.	DCC	6.9	CG	0							0
25	Stelechomyia perpulchra	DCC	4.6	SH	0							0
26	Stenochironomus sp.	DCC	6.4	SH	0							0
27	Tribelos jucundum	DCC	6.6	CG	6.6		1					5
28	Diamasini genus P	DD	7.4	CG	0							0
29	Potthastia longimana	DD	7.4	CG	0							0
30	Atherix lantha	DO	2.1	P	0							0
31	Ceratopogonidae	DO	6.5	P	0							0
32	Chelifera spp.	DO	8.1	CG	0							0
33	Hemerodromia spp.	DO	8.1	CG	0							0
34	Simulium spp.	DO	4.4	CF	0							0
35	Brilia flavifrons	DOR	5.2	SH	0							0
36	Corynoneura spp.	DOR	6.2	CG	0							0
37	Cricotopus/Ortho spp.	DOR	6.8	CG	0							0
38	Euklefferiella spp.	DOR	5.7	CG	0							0
39	Nanocladius spp.	DOR	7.2	CG	0							0
40	Orthocladius lignicola	DOR	5.4	SH	0							0
41	Paraklefferiella sp.1	DOR	5.9	CG	0							0
42	Parametriochnemus sp.	DOR	3.7	CG	0							0
43	Psectrocladius sp.	DOR	3.8	CG	0							0
44	Rheocricotopus spp.	DOR	7.3	CG	0							0
45	Synorthocladius semivirens	DOR	4.7	CG	0							0
46	Thienemannella spp.	DOR	8	CG	0							0
47	Tvetenia spp.	DOR	4	CG	0							0
48	Unicella multivirga	DOR	0	CG	0							0
49	Xylopus par	DOR	6.6	SH	0							0
50	Ablabesmyia spp.	DTA	6.4	P	0							0
51	Clinotanytus pinquus	DTA	9.1	P	0							0
52	Conchapelopia spp.	DTA	8.7	P	0							0
53	Lebrundinia spp.	DTA	6	P	0							0
54	Natania sp.A	DTA	10	P	0							0
55	Niotanytus spp.	DTA	4	P	0							0
56	Paramerina sp.	DTA	2.8	P	0							0
57	Pentaneura inconspicua	DTA	4.6	P	0							0
58	Rheotanytarsus spp.	DTY	6.4	CF	0							0
59	Stempellina spp.	DTY	2	CG	0							0
60	Tanytarsus spp.	DTY	6.7	CG	0							0
61	Acerpenna pygmaeus	EP	3.7	CG	0							0
62	Baetis spp.	EP	5.4	CG	0							0
63	Caenis spp.	EP	7.6	CG	0							0
64	Eurylophella spp.	EP	3	CG	0							0
65	Heptagenia spp.	EP	2.8	SC	0							0
66	Neocphemera youngi	EP	2.1	CG	0							0
67	Paraleptophlebia spp.	EP	1.2	CG	0							0
68	Stenonema spp.	EP	3.4	SC	0							0
69	Tricorythodes spp.	EP	5.4	CG	0							0
70	Corydalis cornutus	ME	5.6	P	0							0
71	Nigronia serricornis	ME	5.5	P	0							0
72	Stella spp.	ME	7.5	P	0							0
73	Ferriesia sp.	MG	6.9	SC	103.5		4	2	8	1		75
74	Boyeria vinosa	OD	6.3	P	0							0
75	Cosagrionidae	OD	9	P	0							0
76	Pachydiplax longipennis	OD	9.6	P	9.6		1					5
77	Acronuria abnormis	PL	2.2	P	0							0
78	Acronuria areosa	PL	2.2	P	0							0
79	Acronuria mela	PL	0.9	P	0							0
80	Acronuria spp.	PL	1.4	P	0							0
81	Agnetina spp.	PL	0	P	0							0
82	Allocepnia spp.	PL	2.8	SH	0							0
83	Helopicus sp.	PL	0.4	P	0							0
84	Isoptera spp.	PL	2	P	0							0
85	Paragentina kansensis	PL	2	P	0							0
86	Paragentina spp.	PL	2	P	0							0
87	Perlesta spp.	PL	4.9	P	0							0
88	Perlinella aphyre	PL	0	P	0							0

[illegible]

Taxa List:	
Hirudinea sp.	
Chironomus spp.	
Tribelos jucundum	
Ferrissia sp.	
Pachydiplax longipennis	

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Ferrisia sp.	MG		6.9 SC	103.5			4	2	8	1	75
2	Chironomus spp.	DCC		9.8 CG	19.6					2		10
3	Hirudinea sp.	ANH		8.2 P	8.2			1				5
4	Tribelos jucundum	DCC		6.8 CG	6.8			1				5
5	Pachydiplax longipennis	OD		9.6 P	9.6			1				5

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler	Da	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	0								0
2	Gammaridae	AMG	6.9	CG	0								0
3	Hyalella azteca	AMT	6.9	CG	6.9						1		0.189753
4	Hirudinea sp.	ANH	8.2	P	8.2					1			0.189753
5	Oligochaeta	ANO	8.2	CG	16.4			2					0.379507
6	Anonyx variegatus	CO	6.9	CG	227.7			2		8	2	20	1 6.26186
7	Dineutus sp.	CO	5.5	P	0								0
8	Ectopria nervosa	CO	4.3	SC	4.3					1			0.189753
9	Gonelmis dietrichi	CO	4	CG	0								0
10	Macronychus glabratus	CO	4.7	CG	0								0
11	Microcyklopus pusillus	CO	2.1	CG	0								0
12	Optioservus sp.	CO	2.7	CG	0								0
13	Stenelmis decorata	CO	5.4	CG	0								0
14	Stenelmis sinuata	CO	5.4	CG	0								0
15	Stenelmis spp.	CO	5.4	CG	37.8			6				1	1.328273
16	Cambaridae	DCA	7.2	PH	0								0
17	Chironomus sp.	DCC	9.8	CG	147			3		6	1	2	3 2.8463
18	Cryptochironomus spp.	DCC	6.7	P	26.8					2			2 0.759013
19	Dicranotendipes spp.	DCC	7.9	CG	7.9					1			0.189753
20	Microtendipes rydalenis	DCC	6.2	CG	0								0
21	Microtendipes spp.	DCC	6.2	CG	0								0
22	Nitthauma babyloni	DCC	5.5	CG	27.5					4			1 0.948767
23	Phaenopsectra flavipes	DCC	8.5	CG	0								0
24	Phaenopsectra sp.	DCC	6.8	CG	6.8						1		0.189753
25	Polypedilum fallax	DCC	6.7	SH	6.7					1			0.189753
26	Polypedilum spp.	DCC	6.9	CG	193.2			7		12		5	4 5.313093
27	Stelechomyia perpulchra	DCC	4.6	SH	0								0
28	Stenochironomus sp.	DCC	6.4	SH	6.4								1 0.189753
29	Tribelos fuscicornis	DCC	6	CG	354					35			24 11.19545
30	Tribelos jucundum	DCC	6.8	CG	112.2			2		12			3 3.225808
31	Diamasini genus P	DD	7.4	CG	0								0
32	Pothastia longmans	DD	7.4	CG	0								0
33	Atherix lantae	DO	2.1	P	0								0
34	Ceratopogonidae	DO	6.5	P	13					2			0.379507
35	Chelifer spp.	DO	8.1	CG	0								0
36	Hemerodromia spp.	DO	8.1	CG	121.5			2			7	6	2.8463
37	Polomyia spp.	DO	6.9	P	20.7			1		1			1 0.56928
38	Simulium spp.	DO	4.4	CF	0								0
39	Brilia flavifrons	DOR	5.2	SH	0								0
40	Corynoneura spp.	DOR	6.2	CG	24.8			3					0.759013
41	Cricotopus/Ortho spp.	DOR	8.8	CG	26.4						3	1	0.56928
42	Eukiefferiella spp.	DOR	5.7	CG	0								0
43	Nanocladius spp.	DOR	7.2	CG	14.4								2 0.379507
44	Orthocladius lignicola	DOR	5.4	SH	0								0
45	Parakiefferiella sp.1	DOR	5.9	CG	0								0
46	Parametriochnus sp.	DOR	3.7	CG	7.4						2		0.379507
47	Psectrocladius sp.	DOR	3.8	CG	0								0
48	Rheocricotopus spp.	DOR	7.3	CG	978.2			60		1	22	50	1 25.42894
49	Synorthocladius semivirens	DOR	4.7	CG	0								0
50	Thienemannella spp.	DOR	6	CG	198			14			4	15	6.26186
51	Tvetenia spp.	DOR	3.9	CG	0								0
52	Uniola multivirga	DOR	0	CG	0								0
53	Xylopus par	DOR	6.6	SH	0								0
54	Ablabesmyia spp.	DTA	6.4	P	98					6			9 2.8463
55	Clinotanytus pinguis	DTA	9.1	P	0								0
56	Conchapelopia spp.	DTA	8.7	P	95.7			4			2	2	3 2.087287
57	Lebrundinia spp.	DTA	6	P	18					2			1 0.56928
58	Larsia spp.	DTA	8.3	P	8.3								1 0.189753
59	Natania sp.A	DTA	10	P	0								0
60	Nilotanytus spp.	DTA	4	P	0								0
61	Paramerina spp.	DTA	2.8	P	0								0
62	Pentaneura inconspicua	DTA	4.6	P	0								0
63	Rheotanytarsus spp.	DTY	6.4	CF	89.6			5			1	8	2.656548
64	Stempellina spp.	DTY	2	CG	2								1 0.189753
65	Tanytarsus spp.	DTY	6.7	CG	261.3			9		4	10	11	5 7.40038
66	Acerperus pygmaeus	EP	3.7	CG	0								0
67	Beetia spp.	EP	5.4	CG	10.8								0.379507
68	Caenis spp.	EP	7.6	CG	22.8					2		1	1 0.56928
69	Eurylophella spp.	EP	3	CG	0								0
70	Hoptagenia spp.	EP	2.8	SC	0								0
71	Neosiphonema youngi	EP	2.1	CG	0								0
72	Paraleptophlebia spp.	EP	1.2	CG	0								0
73	Stenonema spp.	EP	3.4	SC	40.8			3		2	3	3	1 2.27704
74	Tricorythodes spp.	EP	5.4	CG	0								0
75	Corydalis cornutus	ME	5.6	P	22.4			1			2	1	0.759013
76	Nigronia serricornis	ME	5.5	P	0								0
77	Slais spp.	ME	7.5	P	0								0
78	Ferriella sp.	MG	6.9	SC	48.3						2	2	3 1.328273
79	Phyella sp.	MG	9.1	SC	9.1						1		0.189753
80	Pianorbidae spp.	MG	6.5	SC	13					1			1 0.379507
81	Boyeria vinosa	OD	6.3	P	0								0
82	Calopteryx sp.	OD	8.3	P	8.3								1 0.189753
83	Coenagrionidae	OD	9	P	0								0
84	Enallagma spp.	OD	9	P	162					8			10 3.41558
85	Gomphus spp.	OD	6.2	P	18.8					2			1 0.56928
86	Acronuria abnormis	PL	2.2	P	0								0
87	Acronuria areolaris	PL	2.2	P	0								0
88	Acronuria mela	PL	0.9	P	0								0

89	Acronuria spp.	PL	1.4	P	0						0
90	Agnetina spp.	PL	0	P	0						0
91	Alkocopia spp.	PL	2.8	SH	0						0
92	Holopius sp.	PL	0.4	P	0						0
93	Isoperla spp.	PL	2	P	0						0
94	Paragentina kansensis	PL	2	P	0						0
95	Paragentina spp.	PL	2	P	0						0
96	Perlesta spp.	PL	4.9	P	0						0
97	Perlinella ephyra	PL	0	P	0						0
98	Perlinella spp.	PL	0	P	0						0
99	Pteronarcys dorsata	PL	1.8	SH	0						0
100	Taeniopteryx sp.	PL	6.3	SH	0						0
101	Brachycentrus numerosus	TR	1.8	CF	0						0
102	Ceraclea spp.	TR	2.3	CG	0						0
103	Chamaetopseps spp.	TR	6.6	CF	66		5		1	4	1.897533
104	Chimarra spp.	TR	2.8	CF	0						0
105	Cynallus fraternus	TR	7.4	CF	0						0
106	Diplectrona modesta	TR	2.2	CF	0						0
107	Hydropsyche decalda	TR	4.1	CF	0						0
108	Hydropsyche elisoma	TR	4	CF	0						0
109	Hydropsyche miesisippensis	TR	4	CF	0						0
110	Hydropsyche spp.	TR	4	CF	0						0
111	Hydroptila spp.	TR	6.2	PH	0						0
112	Leptoceridae (lmm)	TR	4	CG	0						0
113	Lype diverse	TR	4.3	SC	12.9			1			2 0.56926
114	Mayetrichia ayama	TR	6.2	SC	0						0
115	Micrasema spp.	TR	0.8	SH	0						0
116	Nectopsyche spp.	TR	4.1	SH	0						0
117	Neotrichia spp.	TR	6.2	SC	0						0
118	Neureclipsis spp.	TR	4.4	CF	0						0
119	Nyctiophylax spp.	TR	0.9	CF	0						0
120	Oecetis spp.	TR	5.7	P	5.7			1			0.189753
121	Polycentropus spp.	TR	3.5	CF	3.5						1 0.189753
122	Pycnopsyche spp.	TR	2.3	SH	0						0
123											
124											
125											
126											
127	Table size:	122	Total orgs:	527	Tot Tax:	46	tot. mean #	588.8268			
128	Number Sampe:	5	SC/CF:	1.04	Bio Index:	6.848767					
129	Mean TAX/Samp	20.2									
130	EPT:	7									
Statistical Summary:											
TAXC	FG	#Taxes	Total #	Mean/Samp	mean #/m*2	Taxon	Ref Abd.	FG Rel. Abd			
AHC		0	0	.	.	.	.				
AMG		0	0	.	.	.	.				
AMT		1	1	.2	1.1173	.1898					
ANH		1	1	.2	1.1173	.1898					
ANO		1	2	.4	2.2346	.3795					
CO		3	41	8.2	45.8101	7.7799					
DCA		0	0	.	.	.	.				
DCC		10	132	26.4	147.486	25.0474					
DD		0	0	.	.	.	.				
DO		3	20	4.	22.3464	3.7951					
DOR		6	178	35.6	198.8827	33.7761					
DTA		4	30	6.	33.5196	5.6926					
DTY		3	54	10.8	60.3352	10.2467					
EP		3	17	3.4	18.9944	3.2258					
ME		1	4	.8	4.4693	.759					
MG		3	10	2.	11.1732	1.8975					
OD		3	22	4.4	24.581	4.1746					
PL		0	0	.	.	.	.				
TR		4	15	3.	16.7598	2.8463					
	P	13	67	13.4	74.8603			12.71347			
	CG	22	407	81.4	454.7486			77.2296			
	SC	8	26	5.2	29.0503			4.933586			
	PH	0	0	.	.	.	.	0			
	SH	2	2	.4	2.2346			0.379507			
	CF	3	25	5	27.9329609			4.743833			

Taxa List:	
Hyaella azteca	
Hirudinea sp.	
Oligochaeta	
Ancyronyx variegatus	
Ectopria nervosa	
Stenelmis spp.	
Chironomus sp.	
Cryptochironomus spp.	
Dicrotendipes spp.	
Nilothauma babyi	
Phaenopsectra sp.	
Polypedilum fallax	
Polypedilum spp.	
Stenochironomus sp.	
Tribelos fuscicorne	
Tribelos jucundum	
Ceratopogonidae	
Hemerodromia spp.	
Polpomyia spp.	
Corynoneura spp.	
Cricotopus/Ortho spp.	
Nanocladius spp.	
Parametriocnemus sp.	
Rheocricotopus spp.	
Thienemanniella spp.	
Ablabesmyia spp.	
Conchapelopia spp.	
Labrundinia spp.	
Larsia spp.	
Rheotanytarsus spp.	
Stempellina spp.	
Tanytarsus spp.	
Baetis spp.	
Caenis spp.	
Stenonema spp.	
Corydalis cornutus	
Ferrissia sp.	
Physella sp.	
Planorbidae sp.	
Caloptesyx sp.	
Enallagma spp.	
Gomphus sp.	
Cheumatopsyche spp.	
Lype diversa	
Oecetis spp.	
Polycentropus spp.	

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da/A	B	C	D	E	Rel Abd
1	Rheoricotopus spp.	DOR	7.3	CG	978.2		60	1	22	50	1 25.42894
2	Tribelba fuscicornis	DCC	6	CG	354			35			24 11.19545
3	Tanytarsus spp.	DTY	6.7	CG	261.3		9	4	10	11	5 7.40038
4	Ancyronyx variegatus	CO	6.9	CG	227.7		2	8	2	20	1 6.26180
5	Thienemanniella spp.	DOR	6	CG	198		14		4	15	6.26180
6	Polypedium spp.	DCC	6.9	CG	193.2		7	12		5	4 5.313093

Seq	Taxon	TAXC	NCBI	FG	((for BI)	Sampler	Da	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	0								0
2	Gammaridae	AMG	6.9	CG	0								0
3	Oligochaeta	ANO	8.2	CG	0								0
4	Ancyronyx variegatus	CO	6.9	CG	20.7			1			2		0.665188
5	Dineutus sp.	CO	5.5	P	0								0
6	Dubiraphia sp.	CO	6.4	CG	6.4							1	0.221729
7	Ectopria nervosa	CO	4.3	SC	0								0
8	Gonelmis dietrichi	CO	4	CG	0								0
9	Macronychus glabratus	CO	4.7	CG	0								0
10	Microcylloepus pusillus	CO	2.1	CG	0								0
11	Optoservus sp.	CO	2.7	CG	0								0
12	Stenelmis decorata	CO	5.4	CG	0								0
13	Stenelmis sinuata	CO	5.4	CG	0								0
14	Stenelmis spp.	CO	5.4	CG	10.8			1			1		0.443459
15	Cambaridae	DCA	7.2	PH	0								0
16	Chironomus spp.	DCC	9.8	CG	19.6							2	0.443459
17	Cryptochironomus spp.	DCC	6.7	P	0								0
18	Dicortendipes spp.	DCC	7.9	CG	0								0
19	Kiefferulus dux	DCC	10	CG	10							1	0.221729
20	Microtendipes rydalseni	DCC	6.2	CG	0								0
21	Microtendipes spp.	DCC	6.2	CG	0								0
22	Nitthauma babiyi	DCC	5.5	CG	49.5			1	2	4	1	1	1.995565
23	Paraleuterborniella nigrohalteralis	DCC	4.8	CG	9.8			1	1				0.443459
24	Phaenopspectra flavipes	DCC	8.5	CG	8.5							1	0.221729
25	Polypedilum fallax	DCC	6.7	SH	20.1					1	2		0.665188
26	Polypedilum spp.	DCC	6.9	CG	144.9			1	2	5	9	4	4.656319
27	Stalechomyia perpallens	DCC	4.6	SH	0								0
28	Stenochironomus sp.	DCC	6.4	SH	0								0
29	Tribelos fuscicornis	DCC	6	CG	158			5	8	8		5	5.784967
30	Tribelos jucundum	DCC	6.6	CG	343.2			7	6	30	3	6	11.52993
31	Diamosini genus P	DD	7.4	CG	0								0
32	Pothastia longmans	DD	7.4	CG	0								0
33	Atherix lantha	DO	2.1	P	0								0
34	Ceratopogonidae	DO	6.5	P	0								0
35	Chelifera spp.	DO	8.1	CG	0								0
36	Hemerodromia spp.	DO	8.1	CG	8.1							1	0.221729
37	Palpomyia spp.	DO	6.9	P	62.1				3	3		3	1.995565
38	Simulium spp.	DO	4.4	CF	0								0
39	Brilia flavifrons	DOR	5.2	SH	0								0
40	Corynoneura spp.	DOR	6.2	CG	0								0
41	Cricotopus/Ortho spp.	DOR	8.8	CG	8.8							1	0.221729
42	Eukiefferiella spp.	DOR	5.7	CG	0								0
43	Nanocladus spp.	DOR	7.2	CG	28.8				1	2		1	0.886918
44	Orthocladus lignicola	DOR	5.4	SH	0								0
45	Parakiefferiella sp.1	DOR	5.9	CG	0								0
46	Parametocnemus sp.	DOR	3.7	CG	0								0
47	Psectrocladius sp.	DOR	3.8	CG	0								0
48	Rheocricotopus spp.	DOR	7.3	CG	0								0
49	Synorthocladus semivirens	DOR	4.7	CG	0								0
50	Thienemanniella spp.	DOR	6	CG	0								0
51	Tvetenia spp.	DOR	4	CG	0								0
52	Uniola multivirga	DOR	0	GG	0								0
53	Xylopus per	DOR	6.6	SH	0								0
54	Ableboomyia spp.	DTA	6.4	P	627.2			10	23	36	16	13	21.72949
55	Cinotanytus pinguis	DTA	9.1	P	0								0
56	Conchapelopia spp.	DTA	8.7	P	104.4			1	1	6	3	1	2.660754
57	Labrundinia spp.	DTA	6	P	102			2	6		6	3	3.769401
58	Leria spp.	DTA	8.3	P	99.6				1	11			2.660754
59	Natereia sp.A	DTA	10	P	0								0
60	Nilotanytus spp.	DTA	4	P	0								0
61	Parmerina spp.	DTA	2.8	P	0								0
62	Pentaneura inconspicua	DTA	4.6	P	0								0
63	Procladius sp.	DTA	9.3	P	9.3				1				0.221729
64	Rheotanyterus spp.	DTY	6.4	CF	0								0
65	Stempellina spp.	DTY	2	CG	0								0
66	Tanyterus spp.	DTY	6.7	CG	723.6			27	22	15	30	14	23.94678
67	Acerpenna pygmaeus	EP	3.7	CG	0								0
68	Beetle spp.	EP	5.4	CG	0								0
69	Caenis spp.	EP	7.6	CG	159.6			1	9	1		10	4.656319
70	Eurylophella spp.	EP	3	CG	66				5	7	7	3	4.878049
71	Heptagenia spp.	EP	2.8	SC	0								0
72	Noesphemera youngi	EP	2.1	CG	0								0
73	Paraleptophlebia spp.	EP	1.2	CG	0								0
74	Stenonema spp.	EP	3.4	SC	3.4			1					0.221729
75	Tricorythodes spp.	EP	5.4	CG	0								0
76	Corydalis cornutus	ME	5.6	P	0								0
77	Nigronia sarcicornis	ME	5.5	P	0								0
78	Stalis spp.	ME	7.5	P	0								0
79	Stalis velata	ME	7.7	P	15.4				1		1		0.443459
80	Ferrieis sp.	MG	6.9	SC	0								0
81	Boyeria vinosa	OD	6.3	P	0								0
82	Coenagrionidae	OD	9	P	0								0
83	Enallagma spp.	OD	9	P	128			4	3	4	3		3.104213
84	Gomphus spp.	OD	6.2	P	6.2				1				0.221729
85	Acronuria abnormis	PL	2.2	P	0								0
86	Acronuria areolaris	PL	2.2	P	0								0
87	Acronuria mela	PL	0.9	P	0								0
88	Acronuria spp.	PL	1.4	P	0								0

[illegible]

Taxa List:	
Ancyronyx variegatus	
Dubiraphia sp.	
Stenelmis spp.	
Chironomus spp.	
Kiefferulus dux	
Nilothauma babiye	
Paralauterborniella nigrohalteralis	
Phaenopsectra flavipes	
Polypedilum fallax	
Polypedilum spp.	
Tribelos fuscicorne	
Tribelos jucundum	
Hemerodromia spp.	
Palpomyia spp.	
Cricotopus/Ortho spp.	
Nanocladius spp.	
Ablabesmyia spp.	
Conchapelopia spp.	
Labrundinia spp.	
Larsia spp.	
Procladius sp.	
Tanytarsus spp.	
Caenis spp.	
Eurylophella spp.	
Stenonema spp.	
Sialis velata	
Enallagma spp.	
Gomphus sp.	
Oecetis spp.	
Polycentropus spp.	

FMC @ RD E-1 08/20/93 STATION 17 List of taxa >5% relative abundance

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Tanytarsus spp.	DTY		6.7 CG	723.6			27	22	15	30	14 23.94878
2	Ablabesmyia spp.	DTA		6.4 P	627.2			10	23	36	16	13 21.72949
3	Tribelos jucundum	DCC		6.6 CG	343.2			7	8	30	3	6 11.52993
4	Tribelos fuscicornis	DCC		6 CG	156			5	8	8		5 5.784967

Seq	Taxon	TAXC	NCBI	FG	(for B)	Sampler Da	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	5.7				1			0.193798
2	Gemmaridae	AMG	6.9	CG	0							0
3	Oligochaeta	ANO	8.2	CG	0							0
4	Anonyx variegatus	CO	6.9	CG	0							0
5	Dineutus sp.	CO	5.5	P	0							0
6	Ectopria nervosa	CO	4.3	SC	4.3				1			0.193798
7	Gonelmis dietrichi	CO	4	CG	0							0
8	Macronychus glabratus	CO	4.7	CG	150.4		7	3		6	7	8.20155
9	Microcyllopus pusillus	CO	2.1	CG	0							0
10	Optioervus sp.	CO	2.7	CG	0							0
11	Stenelmis decorata	CO	5.4	CG	0							0
12	Stenelmis sinuata	CO	5.4	CG	0							0
13	Stenelmis spp.	CO	5.4	CG	59.4		1			2	3	5
14	Cambaridae	OCA	7.2	PH	0							2.131783
15	Cryptochironomus spp.	DCC	6.7	P	0							0
16	Dicortandipes spp.	DCC	7.9	CG	0							0
17	Microtandipes rydalsensis	DCC	6.2	CG	6.2		1					0.193798
18	Microtandipes spp.	DCC	6.2	CG	0							0
19	Nithauma babyi	DCC	5.5	CG	0							0
20	Phaenopsectra flavipes	DCC	8.5	CG	0							0
21	Polypedilum fallax	DCC	6.7	SH	6.7				1			0.193798
22	Polypedilum spp.	DCC	6.9	CG	303.6		17		10	3	14	8.527132
23	Stelechomyia perpulchra	DCC	4.6	SH	23		1			3	1	0.968992
24	Stenochironomus sp.	DCC	6.4	SH	0							0
25	Tribelos jucundum	DCC	6.6	CG	0							0
26	Diamasini genus P	DD	7.4	CG	0							0
27	Potthastia longimana	DD	7.4	CG	0							0
28	Atherix lantha	DD	2.1	P	2.1		1					0.193798
29	Ceratopogonidae	DD	6.5	P	0							0
30	Chekiara spp.	DD	8.1	CG	0							0
31	Hemerodromia spp.	DD	8.1	CG	105.3		8		3	2	2	2.51938
32	Simulium spp.	DD	4.4	CF	61.6		9		2	1	1	2.713178
33	Brilia flavifrons	DOR	5.2	SH	0							0
34	Corynoneura spp.	DOR	6.2	CG	18.6		2		1			0.581395
35	Cricotopus/Ortho spp.	DOR	8.8	CG	642.4		2		10	37	23	14.14729
36	Eukiefferiella spp.	DOR	5.7	CG	0							0
37	Nanocladius spp.	DOR	7.2	CG	64.8		2		2	4	1	1.744186
38	Orthocladius lignicola	DOR	5.4	SH	0							0
39	Parakiefferiella sp.1	DOR	5.9	CG	5.9				1			0.193798
40	Parametrioctonus sp.	DOR	3.7	CG	144.3		22		5	5	7	7.55814
41	Psectrocladius sp.	DOR	3.8	CG	0							0
42	Rheocricotopus spp.	DOR	7.3	CG	423.4		25		17	8	8	11.24031
43	Synorthocladius semivirens	DOR	4.7	CG	4.7		1					0.193798
44	Thienemannella spp.	DOR	6	CG	390		14		11	25	14	12.5968
45	Iveteria spp.	DOR	4	CG	40		7		1	1	1	1.937984
46	Unella multivirga	DOR	0	CG	0							0
47	Xylopus par	DOR	6.6	SH	0							0
48	Ablabesmyia spp.	DTA	6.4	P	0							0
49	Cinotanyus pinguis	DTA	9.1	P	0							0
50	Conchapelopia spp.	DTA	8.7	P	104.4		7		3	1	1	2.325581
51	Labrundinia spp.	DTA	6	P	0							0
52	Natania sp.A	DTA	10	P	0							0
53	Nilotanyus spp.	DTA	4	P	16		2			2		0.775194
54	Paramerina sp.	DTA	2.8	P	0							0
55	Pentaneura inconspicua	DTA	4.6	P	0							0
56	Rheotanytarsus spp.	DTY	6.4	CF	217.8		13		5	12	3	6.589147
57	Stempellina spp.	DTY	2	CG	0							0
58	Stempellina sp.	DTY	5.3	CG	5.3							0
59	Tanytarsus spp.	DTY	6.7	CG	90.4		6		3	3	1	0.193798
60	Acerperna pygmaeus	EP	3.7	CG	0							2.325581
61	Beetle spp.	EP	5.4	CG	27		1		3		1	0.968992
62	Caenis spp.	EP	7.6	CG	7.6		1					0.193798
63	Ephemerella sp.	EP	1.4	CG	1.4						1	0.193798
64	Eurylophella spp.	EP	3	CG	0							0
65	Heptagenia spp.	EP	2.8	SC	16.8			3				3
66	Neophemera youngi	EP	2.1	CG	0							0
67	Paraleptophlebia spp.	EP	1.2	CG	0							0
68	Stenonema spp.	EP	3.4	SC	23.8		1		2	2	2	1.356589
69	Tricorythodes spp.	EP	5.4	CG	0							0
70	Parasponyx sp.	LEP	5	PH	5		1					0.193798
71	Corydalis cornutus	ME	5.6	P	5.6					1		0.193798
72	Nigronia senicornis	ME	5.5	P	11		1			1		0.387597
73	Sialis spp.	ME	7.5	P	0							0
74	Farrisia sp.	MG	6.9	SC	6.9			1				0.193798
75	Boyeria vinosa	OD	6.3	P	0							0
76	Coenagrionidae	OD	9	P	0							0
77	Acronuria abnormis	PL	2.2	P	35.2		3		4	3	4	2
78	Acronuria arensa	PL	2.2	P	0							3.100775
79	Acronuria mela	PL	0.9	P	0							0
80	Acronuria spp.	PL	1.4	P	0							0
81	Agnatina spp.	PL	0	P	0							0
82	Allocaenia spp.	PL	2.8	SH	0							0
83	Holopictus sp.	PL	0.4	P	0							0
84	Isoporia spp.	PL	2	P	0							0
85	Paragentina keneensis	PL	2	P	10		1			2	1	0.968992
86	Paragentina spp.	PL	2	P	0							0
87	Perlesta spp.	PL	4.9	P	0							0
88	Porinella ephyra	PL	0	P	0							0

[illegible]

Taxa List:	
Hydracarina	
Ectopria nervosa	
Macronychus glabratus	
Stenelmis spp.	
Microtendipes rydalensis	
Polypedilum fallax	
Polypedilum spp.	
Stelechomyia perpulchra	
Atherix lantha	
Hemerodromia spp.	
Simulium spp.	
Corynoneura spp.	
Cricotopus/Ortho spp.	
Nanocladius spp.	
Parakiefferiella sp.1	
Parametriocnemus sp.	
Rheocricotopus spp.	
Synorthocladius semivirens	
Thienemanniella spp.	
Tvetenia spp.	
Conchapelopia spp.	
Nilotanypus spp.	
Rheotanytarsus spp.	
Stempellinella sp.	
Tanytarsus spp.	
Baetis spp.	
Caenis spp.	
Ephemerella sp.	
Heptagenia spp.	
Stenonema spp.	
Paraponyx sp.	
Corydalus cornutus	
Nigronia serricornis	
Ferrissia sp.	
Acroneuria abnormis	
Paragentina kansensis	
Pteronarcys dorsata	
Brachycentrus numerosus	
Cheumatopsyche spp.	
Chimarra spp.	
Diplectrona modesta	
Hydropsyche spp.	
Hydroptila spp.	

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da/A	B	C	D	E	Rel Abd
1	Cricotopus/Ortho spp.	DOR	8.8 CG		642.4		2	10	37	23	1 14.14729
2	Thienemanniella spp.	DOR	6 CG		390		14	11	25	14	1 12.5909
3	Rheocricotopus spp.	DOR	7.3 CG		423.4		25	17	8		11.24031
4	Polypedium spp.	DCC	6.9 CG		303.6		17	10	3	14	8.527132
5	Parametricnemus sp.	DOR	3.7 CG		144.3		22	5	5		7.55814
6	Rheotanytarsus spp.	DTY	6.4 CF		217.6		13	5	12	3	1 6.589147
7	Macronychus glabratus	CO	4.7 CG		150.4		7	3	6	7	9 6.20155

Seq	Taxon	TAXC	NCBI	FG	((for BI))	Sampler Da	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	216.6			2		7	26	3 2.223523
2	Gammaridae	AMG	6.9	CG	0							0
3	Oligochaeta	ANO	8.2	CG	32.8					1	3	0.234055
4	Anonyx variegatus	CO	6.9	CG	144.9		4	1	5		8	1.228789
5	Dineutus sp.	CO	5.5	P	0							0
6	Ectopria nervosa	CO	4.3	SC	0							0
7	Goniopsis dietrichi	CO	4	CG	0							0
8	Macronychus glabratus	CO	4.7	CG	479.4		13	14	35		27	13 5.968403
9	Microcyllopus pusillus	CO	2.1	CG	14.7		3		3			1 0.409596
10	Optioervus sp.	CO	2.7	CG	0							0
11	Stenelmis decorata	CO	5.4	CG	0							0
12	Stenelmis sinuata	CO	5.4	CG	0							0
13	Stenelmis spp.	CO	5.4	CG	64.8		1		7			4 0.702165
14	Cambaridae	DCA	7.2	PH	0							0
15	Cryptochironomus spp.	DCC	6.7	P	0							0
16	Microtandipes neomodeus	DCC	8.3	CG	16.6		1	1				0.117028
17	Microtandipes spp.	DCC	7.9	CG	0							0
18	Microtandipes rydalseni	DCC	6.2	CG	0							0
19	Microtandipes spp.	DCC	6.2	CG	0							0
20	Nitothauma babyi	DCC	5.5	CG	0							0
21	Phaeospectra flavipes	DCC	8.5	CG	0							0
22	Polypedium fallax	DCC	6.7	SH	26.8		1	1			1	0.234055
23	Polypedium spp.	DCC	6.9	CG	69		6	1			3	0.585138
24	Stalochomyia perpulchra	DCC	4.6	SH	0							0
25	Stenochironomus sp.	DCC	6.4	SH	0							0
26	Tribelos jucundum	DCC	6.6	CG	0							0
27	Diamasini genus P	DD	7.4	CG	0							0
28	Pothastia longmana	DD	7.4	CG	7.4							1 0.058514
29	Atherix lantha	DO	2.1	P	0							0
30	Ceratopogonidae	DO	6.5	P	0							0
31	Chelifer spp.	DO	8.1	CG	0							0
32	Dasyheles sp.	DO	6.9	P	6.9			1				0.058514
33	Hemerodromia spp.	DO	8.1	CG	121.5		3	1	8		3	0.877708
34	Palpomyia spp.	DO	6.9	P	227.7		6	9	2	2	14	1.930954
35	Simulium spp.	DO	4.4	CF	13.2				2		1	0.175541
36	Brilia flavifrons	DOR	5.2	SH	0							0
37	Corynoneura spp.	DOR	6.2	CG	217		12	2	6		13	2.047981
38	Cricotopus/Ortho spp.	DOR	8.8	CG	1205.8		27	15	10		82	23 6.016384
39	Eukiefferiella spp.	DOR	5.7	CG	0							0
40	Nanocladius spp.	DOR	7.2	CG	57.8		1	5				2 0.46811
41	Orthocladius signicola	DOR	5.4	SH	0							0
42	Parakiefferiella sp.2	DOR	5.9	CG	17.7			1				2 0.175541
43	Parametrioctonus sp.	DOR	3.7	CG	0							0
44	Psectrocladius sp.	DOR	3.8	CG	0							0
45	Rheocricotopus spp.	DOR	7.3	CG	540.2		20	11	9		21	13 4.330018
46	Synorthocladius semivirens	DOR	4.7	CG	42.3				1		8	0.526624
47	Thienemannella spp.	DOR	6	CG	828		38	8	14		70	10 8.074898
48	Tvetenia spp.	DOR	4	CG	132		5		9		18	1 1.930954
49	Uniola multivirga	DOR	0	CG	0							0
50	Xylopus par	DOR	6.6	SH	0							0
51	Ablabesmyia spp.	DTA	6.4	P	57.6		2	3			1	3 0.526624
52	Clinotanytus pinguis	DTA	9.1	P	0							0
53	Conchospelopia spp.	DTA	8.7	P	43.5			2	2		1	0.292569
54	Lebrundinia spp.	DTA	6	P	0							0
55	Natercia sp.A	DTA	10	P	0							0
56	Nitanytus spp.	DTA	4	P	18			1	1		2	0.234055
57	Paramerina sp.	DTA	2.8	P	0							0
58	Pentaneura inconspicua	DTA	4.6	P	82.8		5	1	5		7	1.053248
59	Rheotanytarsus spp.	DTY	6.4	CF	3353.6		72	3	117		319	13 30.66121
60	Stempellina spp.	DTY	2	CG	0							0
61	Tanytarsus spp.	DTY	6.7	CG	73.7		4	3			1	3 0.643651
62	Acerpenna pygmaeus	EP	3.7	CG	0							0
63	Baetis spp.	EP	5.4	CG	297		7	4	16		16	12 3.218258
64	Caenis spp.	EP	7.8	CG	68.4		3	1	3			2 0.526624
65	Eurylophella spp.	EP	3	CG	0							0
66	Heptagenia spp.	EP	2.8	SC	0							0
67	Neophemera youngi	EP	2.1	CG	0							0
68	Paraleptophlebia spp.	EP	1.2	CG	0							0
69	Stenonema spp.	EP	3.4	SC	489.6		25	8	63		8	40 8.42598
70	Tricorythodes spp.	EP	5.4	CG	91.8			4	3			10 0.994734
71	Corydalis cornutus	ME	5.6	P	39.2		1				4	2 0.409596
72	Nigronia saricornis	ME	5.5	P	5.5							1 0.058514
73	Stelis spp.	ME	7.5	P	0							0
74	Forisala sp.	MG	6.9	SC	34.5		1	2	1			1 0.292569
75	Planorbidae	MG	6.5	SC	6.5		1					0.058514
76	Boyeria vinosa	OD	6.3	P	0							0
77	Coenagrionidae	OD	9	P	0							0
78	Enallagma spp.	OD	9	P	9							0
79	Gomphus spp.	OD	6.2	P	18.6		3					1 0.058514
80	Acronuria abnormis	PL	2.2	P	4.4		1					0.175541
81	Acronuria areolaris	PL	2.2	P	0							1 0.117028
82	Acronuria mela	PL	0.9	P	0							0
83	Acronuria spp.	PL	1.4	P	0							0
84	Agnetina spp.	PL	0	P	0							0
85	Allocepsia spp.	PL	2.8	SH	0							0
86	Helopisus spp.	PL	0.4	P	0							0
87	Isoparia spp.	PL	2	P	0							0
88	Paragentina kansensis	PL	2	P	0							0

[illegible]

Taxa List:	
Hydracarina	
Oligochaeta	
Ancyronyx variegatus	
Macronychus glabratus	
Microcylloepus pusillus	
Stenelmis spp.	
Dicrotendipes neomodestus	
Polypedilum fallax	
Polypedilum spp.	
Potthastia longmana	
Dasyhelea sp.	
Hemerodromia spp.	
Palpomyia spp.	
Simulium spp.	
Corynoneura spp.	
Cricotopus/Ortho spp.	
Nanocladius spp.	
Parakiefferiella sp.2	
Rheocricotopus spp.	
Synorthocladius semivirens	
Thienemanniella spp.	
Tvetenia spp.	
Ablabesmyia spp.	
Conchapelopia spp.	
Nilotanytus spp.	
Pentaneura inconspicua	
Rheotanytus spp.	
Tanytus spp.	
Baetis spp.	
Caenis spp.	
Stenonema spp.	
Tricorythodes spp.	
Corydalus cornutus	
Nigronia serricornis	
Ferrissia sp.	
Planorbidae	
Enallagma spp.	
Gomphus sp.	
Acroneuria abnormis	
Cheumatopsyche spp.	
Chimarra spp.	
Hydropsyche carolina	
Hydropsyche elissoma	
Hydropsyche spp.	
Hydroptila spp.	
Macrotermum carolina	
Oecetis spp.	
Oxyethira sp.	

Polycentropus spp.

1	Rheotyphlops spp.	DTY	6.4	CF	3353.6	72	3	117	319	13	30.66121
2	Stenonema spp.	EP	3.4	SC	489.6	25	8	63	8	40	8.42598
3	Thienemanniella spp.	DOR	6	CG	828	36	8	14	70	10	8.074898
4	Cricotopus/Ortho spp.	DOR	8.8	CG	1205.6	27	15	10	62	23	8.016384
5	Macronychus glabratus	CO	4.7	CG	479.4	13	14	35	27	13	5.988403
6	Hydroptila spp.	TR	6.2	PH	589	8	18	29	24	16	5.558608

Seq	Taxon	TAXC	NCBI	FG	((for BI))	Sampler Da	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	0							0
2	Gammaridae	AMG	6.9	CG	0							0
3	Oligochaeta	ANO	8.2	CG	0							0
4	Ancyroneurax variegatus	CO	6.9	CG	103.5		5	2	4	4		1.316945
5	Dineutus sp.	CO	5.5	P	0							0
6	Ectopria nervosa	CO	4.3	SC	4.3							1 0.087796
7	Gonelmis dietrichi	CO	4	CG	0							0
8	Macronychus glabratus	CO	4.7	CG	244.4		9	5	10	19	9	4.565408
9	Microcorydus pusillus	CO	2.1	CG	10.5						5	0.438982
10	Optioeuvus sp.	CO	2.7	CG	0							0
11	Stenelmis crenata	CO	5.4	CG	16.2				1		2	0.263389
12	Stenelmis decorata	CO	5.4	CG	0							0
13	Stenelmis spp.	CO	5.4	CG	81		3	5	2		5	1.316945
14	Cambaridae	DCA	7.2	PH	0							0
15	Cryptochironomus spp.	DCC	6.7	P	6.7					1		0.087796
16	Cryptotendipes spp.	DCC	6.1	CG	6.1					1		0.087796
17	Dicortendipes modestus	DCC	9.2	CG	36.8		2			2		0.351185
18	Dicortendipes neomedeus	DCC	8.3	CG	664		8	13	19		3	37 7.023705
19	Dicortendipes spp.	DCC	7.9	CG	450.3		6	8	18		25	5.00439
20	Microtendipes rydalenis	DCC	6.2	CG	0							0
21	Microtendipes spp.	DCC	6.2	CG	0							0
22	Nitothauma babyl	DCC	5.5	CG	5.5							1 0.087796
23	Phaenopsectra flavipes	DCC	8.5	CG	0							0
24	Polypedilum follex	DCC	6.7	SH	0							0
25	Polypedilum spp.	DCC	6.9	CG	6.9					1		0.087796
26	Stelechomyia perpulchra	DCC	4.8	SH	0							0
27	Stenochironomus sp.	DCC	6.4	SH	0							0
28	Tribelos jucundum	DCC	6.8	CG	0							0
29	Diamasini genus P	DD	7.4	CG	0							0
30	Pothaetia longmans	DD	7.4	CG	0							0
31	Atherix lanthe	DD	2.1	P	0							0
32	Caratopogonidae	DD	6.5	P	6.5				1			0.087796
33	Chelifer spp.	DD	8.1	CG	0							0
34	Hemerodromia spp.	DD	8.1	CG	8.1					1		0.087796
35	Palpomyia spp.	DD	6.9	P	303.6		6	21	8		1 8	3.863038
36	Simulium spp.	DD	4.4	CF	0							0
37	Brilia flavitrons	DOR	5.2	SH	0							0
38	Corynoneura spp.	DOR	6.2	CG	99.2		4	2	6	2	2	1.404741
39	Cricotopus/Ortho spp.	DOR	8.8	CG	35.2		2	2				0.351185
40	Eukiofferiella spp.	DOR	5.7	CG	0							0
41	Lopescladius sp.	DOR	2.2	CG	2.2					1		0.087796
42	Nanocladius spp.	DOR	7.2	CG	7.2				1			0.087796
43	Orthocladius lignicola	DOR	5.4	SH	0							0
44	Parakiofferiella sp.1	DOR	5.9	CG	0							0
45	Parametrioecnemus sp.	DOR	3.7	CG	0							0
46	Psectrocladius sp.	DOR	3.8	CG	0							0
47	Rheocricotopus spp.	DOR	7.3	CG	14.6				1			0.175593
48	Synorthocladius semivirens	DOR	4.7	CG	0							0
49	Thienemanniella spp.	DOR	8	CG	188		5		4	12	10	2.721886
50	Tvatania spp.	DOR	4	CG	0							0
51	Unielia multivirga	DOR	0	CG	0							0
52	Xylopus par	DOR	6.8	SH	0							0
53	Ablabesmyia spp.	DTA	6.4	P	70.4			4	7			0.965759
54	Clinotanytus pinguis	DTA	9.1	P	0							0
55	Conchapelopia spp.	DTA	8.7	P	60.9		2			1	4	0.614574
56	Labrundinia spp.	DTA	6	P	0							0
57	Natania sp.A	DTA	10	P	0							0
58	Nilotanytus spp.	DTA	4	P	8					2		0.175593
59	Parameira spp.	DTA	2.8	P	0							0
60	Pentaneura inconspicua	DTA	4.6	P	98.6		2	3	4	2	10	1.843723
61	Procladius sp.	DTA	9.3	P	9.3					1		0.087796
62	Rheotanytarsus spp.	DTY	6.4	CF	25.8					1		3 0.351185
63	Stempellina spp.	DTY	2	CG	0							0
64	Tanytarsus spp.	DTY	6.7	CG	174.2				11	7	2	6 2.282704
65	Acerpenna pygmaeus	EP	3.7	CG	0							0
66	Baetis spp.	EP	5.4	CG	70.2		3				9	1 1.141352
67	Caenis spp.	EP	7.6	CG	167.2		2	8		9	1	2 1.931519
68	Callibaetis spp.	EP	9.3	CG	37.2					2	1	1 0.351185
69	Eurylophella spp.	EP	3	CG	9		2				1	0.263389
70	Heptagenia spp.	EP	2.8	SC	0							0
71	Isonychia spp.	EP	3.8	CF	247		9	5	12	16	23	5.70678
72	Neocphemera youngi	EP	2.1	CG	0							0
73	Paraleptophlebia spp.	EP	1.2	CG	0							0
74	Stenonema spp.	EP	3.4	SC	1383.8		109	60	65	98	75	35.7331
75	Tricorythodes spp.	EP	5.4	CG	653.4		22	30	19	9	41	10.62335
76	Sphaerium spp.	MB	7.7	CF	15.4			1	1			0.175593
77	Corydalis cornutus	ME	5.8	P	11.2		1				1	0.175593
78	Nigronia serricornis	ME	5.5	P	0							0
79	Sialis spp.	ME	7.5	P	0							0
80	Farrisia sp.	MG	6.9	SC	0							0
81	Boyeria vinosa	OD	6.3	P	6.3		1					0.087796
82	Coenagrionidae	OD	9	P	0							0
83	Enallagma spp.	OD	9	P	18			2				0.175593
84	Neurocordulia obsoleta	OD	5.4	P	5.4					1		0.087796
85	Progomphus sp.	OD	8.7	P	8.7					1		0.087796
86	Acronuria abnormis	PL	2.2	P	0							0
87	Acronuria areolaris	PL	2.2	P	0							0
88	Acronuria melis	PL	0.9	P	0							0

[illegible]

Taxa List:	
Ancyronyx variegatus	
Ectopria nervosa	
Macronychus glabratus	
Microcyloepus pusillus	
Stenelmis crenata	
Stenelmis spp.	
Cryptochironomus spp.	
Cryptotendipes sp.	
Dicrotendipes modestus	
Dicrotendipes neomodestus	
Dicrotendipes spp.	
Nilothauma babiyi	
Polypedilum spp.	
Ceratopogonidae	
Hemerodromia spp.	
Palpomyia spp.	
Corynoneura spp.	
Cricotopus/Ortho spp.	
Lopescladius sp.	
Nanocladius spp.	
Rheocricotopus spp.	
Thienemanniella spp.	
Ablabesmyia spp.	
Conchapelopia spp.	
Nilotanytus spp.	
Pentaneura inconspicua	
Procladius sp.	
Rheotanytarsus spp.	
Tanytarsus spp.	
Baetis spp.	
Caenis spp.	
Callibaetis spp.	
Eurylophella spp.	
Isonychia spp.	
Stenonema spp.	
Tricorythodes spp.	
Sphaerium spp.	
Corydalis cornutus	
Boyeria vinosa	
Enallagma spp.	
Neurocordulia obseleta	
Progomphus sp.	
Cheumatopsyche spp.	
Chimarra spp.	
Diplectrona modesta	
Hydropsyche spp.	
Hydroptila spp.	
Nectopsyche pavidata	

Nectopsyche spp.
Neureclipsis spp.
Oëcetis spp.
Polycentropus spp.

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Stanonema spp.	EP		3.4 SC	1383.8			109	60	85	98	75 35.7331
2	Tricorythodes spp.	EP		5.4 CG	653.4			22	30	19	9	41 10.62335
3	Dicrotendipes neomodestus	DCC		8.3 CG	684			8	13	19	3	37 7.023705
4	Isomyia spp.	EP		3.8 CF	247			9	5	12	16	23 5.70876
5	Dicrotendipes spp.	DCC		7.9 CG	450.3			6	8	18		25 5.00439

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	0							0
2	Gammaridae	AMG	6.9	CG	0							0
3	Oligochaeta	ANO	8.2	CG	0							0
4	Ancyronyx variegatus	CO	6.9	CG	0							0
5	Dineutus sp.	CO	5.5	P	0							0
6	Dubiraphia sp.	CO	6.4	CG	6.4						1	0.10101
7	Ectopria nervosa	CO	4.3	SC	0							0
8	Gonelmia dietrichi	CO	4	CG	0							0
9	Macronychus glabratus	CO	4.7	CG	0							0
10	Microcyllopus pusillus	CO	2.1	CG	0							0
11	Optioervus sp.	CO	2.7	CG	0							0
12	Stenelmia crenata	CO	5.4	CG	5.4					1		0.10101
13	Stenelmia spp.	CO	5.4	CG	16.2				1		2	0.30303
14	Cambaridae	DCA	7.2	PH	0							0
15	Cryptochironomus spp.	DCC	6.7	P	0							0
16	Cryptotendipes sp.	DCC	6.1	CG	0							0
17	Dicortandipes modestus	DCC	9.2	CG	0							0
18	Dicortandipes neomodelus	DCC	8.3	CG	8.3			1				0.10101
19	Dicortandipes spp.	DCC	7.9	CG	15.8				2			0.20202
20	Microtendipes rydalseni	DCC	6.2	CG	0							0
21	Microtendipes spp.	DCC	6.2	CG	0							0
22	Nitothauma babiyi	DCC	5.5	CG	0							0
23	Phaeospectra flavipes	DCC	8.5	CG	0							0
24	Polypodium fallax	DCC	6.7	SH	0							0
25	Polypodium spp.	DCC	6.9	CG	6.9						1	0.10101
26	Stelochomyia perpulchra	DCC	4.6	SH	0							0
27	Stenochironomus sp.	DCC	6.4	SH	0							0
28	Tribelos jucundum	DCC	6.6	CG	0							0
29	Diamosini genus P	DD	7.4	CG	0							0
30	Polthoetia longimana	DD	7.4	CG	0							0
31	Atherix lantha	DD	2.1	P	0							0
32	Ceratopogonidae	DD	6.5	P	32.5					5		0.505051
33	Chelifera spp.	DD	6.1	CG	0							0
34	Ephydriidae	DD	6	PH	84				3	3	3	1.414141
35	Hemerodromia spp.	DD	8.1	CG	0							0
36	Palpomyia spp.	DD	6.9	P	0							0
37	Simulium spp.	DD	4.4	CF	0							0
38	Brilia flavifrons	DOR	5.2	SH	0							0
39	Corynoneura spp.	DOR	6.2	CG	0							0
40	Cricotopus/Ortho spp.	DOR	8.8	CG	79.2			2		4	2	0.909091
41	Eukiefferiella spp.	DOR	5.7	CG	0							0
42	Lopocladus sp.	DOR	2.2	CG	0							0
43	Nanocladus spp.	DOR	7.2	CG	0							0
44	Orthocladus lignicola	DOR	5.4	SH	0							0
45	Parakiefferiella sp.1	DOR	5.9	CG	0							0
46	Parametocnemus sp.	DOR	3.7	CG	0							0
47	Psectrocladus sp.	DOR	3.8	CG	0							0
48	Rheocricotopus spp.	DOR	7.3	CG	0							0
49	Synorthocladus semivirens	DOR	4.7	CG	0							0
50	Thienemannella spp.	DOR	6	CG	6						1	0.10101
51	Tvetania spp.	DOR	4	CG	12						1	0.30303
52	Uniole multivirga	DOR	0	CG	0							0
53	Xylopus per	DOR	6.6	SH	0							0
54	Ableboomyia spp.	DTA	6.4	P	172.8			3	3	12	2	7.2727273
55	Cinotanytus pinguis	DTA	9.1	P	0							0
56	Conchapelopia spp.	DTA	8.7	P	26.1			2			1	0.30303
57	Labrundinia spp.	DTA	6	P	0							0
58	Natania sp.A	DTA	10	P	0							0
59	Nilotanytus spp.	DTA	4	P	0							0
60	Paramerina sp.	DTA	2.6	P	0							0
61	Pentaneura inconspicua	DTA	4.6	P	96.6			3	6	5	1	2.121212
62	Procladius sp.	DTA	9.3	P	0							0
63	Rheotanytarsus spp.	DTY	6.4	CF	38.4			1		1	3	0.606061
64	Stempellina spp.	DTY	2	CG	0							0
65	Tanytarsus spp.	DTY	6.7	CG	6.7							1 0.10101
66	Acerpenna pygmaeus	EP	3.7	CG	0							0
67	Beetle spp.	EP	5.4	CG	59.4			2		4		5 1.111111
68	Caenis spp.	EP	7.6	CG	53.2			3	2	1	1	0.707071
69	Callibaetis spp.	EP	9.3	CG	0							0
70	Eurylophella spp.	EP	3	CG	0							0
71	Heptagenia spp.	EP	2.8	SC	0							0
72	Isonychia spp.	EP	3.8	CF	0							0
73	Neophemera youngi	EP	2.1	CG	0							0
74	Paraleptophlebia spp.	EP	1.2	CG	0							0
75	Stenonema spp.	EP	3.4	SC	686.8			44	29	60	21	20.40404
76	Tricorythodes spp.	EP	5.4	CG	129.6			8	4	6	4	2 2.424242
77	Pyralidae (pupa)	LEP	5	PH	15						3	0.30303
78	Sphaerium spp.	MB	7.7	CF	0							0
79	Corydalis cornutus	ME	5.6	P	5.6						1	0.10101
80	Nigronia serricornis	ME	5.5	P	0							0
81	Sialis spp.	ME	7.5	P	0							0
82	Farrisia sp.	MG	6.9	SC	20.7			1		1	1	0.30303
83	Hydrobiidae	MG	6.5	SC	884			26	27	30	21	13.73737
84	Physella spp.	MG	9.1	SC	127.4				3	2	8	1 1.414141
85	Planorbidae	MG	6.5	SC	591.5			7	27	10	13	9.191919
86	Argia sp.	OD	8.7	P	8.7						1	0.10101
87	Boyeria vinosa	OD	6.3	P	6.3							1 0.10101
88	Coenagrionidae	OD	9	P	0							0

89	Enallagma sp.	OD	9 P	36				1		3	0.40404
90	Enallagma spp.	OD	9 P	0							0
91	Neurocordulia obsoleta	OD	5.4 P	0							0
92	Progomphus sp.	OD	8.7 P	0							0
93	Acroeneuria abnormis	PL	2.2 P	0							0
94	Acroeneuria arenosa	PL	2.2 P	0							0
95	Acroeneuria mela	PL	0.9 P	0							0
96	Acroeneuria spp.	PL	1.4 P	0							0
97	Agnetina spp.	PL	0 P	0							0
98	Allocaenia spp.	PL	2.8 SH	0							0
99	Haloplius sp.	PL	0.4 P	0							0
100	Isoperla spp.	PL	2 P	0							0
101	Paragnetina kansensis	PL	2 P	0							0
102	Paragnetina spp.	PL	2 P	0							0
103	Perlota spp.	PL	4.9 P	0							0
104	Perinella ephyra	PL	0 P	0							0
105	Perinella spp.	PL	0 P	0							0
106	Pteronarcys dorsata	PL	1.8 SH	0							0
107	Taeniopteryx sp.	PL	6.3 SH	0							0
108	Brachycentrus numerosus	TR	1.8 CF	0							0
109	Ceraclea spp.	TR	2.3 CG	0							0
110	Chumatopsyche spp.	TR	6.6 CF	1089	9	1	68	36	51	16.88687	
111	Chimarra spp.	TR	2.8 CF	137.2	4	1	35	3	8	4.949495	
112	Cynellus fraternus	TR	7.4 CF	14.8	1			1		0.20202	
113	Diplectrona modesta	TR	2.2 CF	11			5			0.505051	
114	Hydropsyche decakia	TR	4.1 CF	0						0	
115	Hydropsyche eliseoma	TR	4 CF	0						0	
116	Hydropsyche mississippiensis	TR	4 CF	0						0	
117	Hydropsyche spp.	TR	4 CF	240	5		18	24	13	6.060606	
118	Hydropsyche spp.	TR	6.2 PH	291.4	2	3	9	11	22	4.747475	
119	Leptoceridae (imm)	TR	4 CG	0						0	
120	Lyse diversae	TR	4.3 SC	0						0	
121	Macrostemum carolina	TR	3.6 CF	7.2			2			0.20202	
122	Mayatrichia ayama	TR	6.2 SC	0						0	
123	Micrasema spp.	TR	0.6 SH	0						0	
124	Nectopsyche pavidus	TR	4.2 SH	0						0	
125	Nectopsyche spp.	TR	4.1 SH	0						0	
126	Nectrichia spp.	TR	6.2 SC	0						0	
127	Neureclipsis spp.	TR	4.4 CF	17.6		1	1	2		0.40404	
128	Nyctophylax spp.	TR	0.9 CF	0						0	
129	Oecetis spp.	TR	5.7 P	313.5	5	2	18	11	19	5.555556	
130	Oxyethira spp.	TR	7.2 PH	21.6				1	2	0.30303	
131	Polycentropus spp.	TR	3.5 CF	3.5				1		0.10101	
132	Pycnopsyche spp.	TR	2.3 SH	0						0	

Taxa List:	
Dubiraphia sp.	
Stenelmis crenata	
Stenelmis spp.	
Dicrotendipes neomodestus	
Dicrotendipes spp.	
Polypedilum spp.	
Ceratopogonidae	
Ephydriidae	
Cricotopus/Ortho spp.	
Thienemanniella spp.	
Tvetenia spp.	
Ablabesmyia spp.	
Conchapelopia spp.	
Pentaneura inconspicua	
Rheotanytarsus spp.	
Tanytarsus spp.	
Baetis spp.	
Caenis spp.	
Stenonema spp.	
Tricorythodes spp.	
Pyralidae (pupae)	
Corydalis cornutus	
Ferrissia sp.	
Hydrobiidae	
Physella spp.	
Planorbidae	
Argia sp.	
Boyeria vinosa	
Enallagma sp.	
Cheumatopsyche spp.	
Chimarra spp.	
Cyrnellus fraternus	
Diplectrona modesta	
Hydropsyche spp.	
Hydroptila spp.	
Macrostemum carolina	
Neureclipsis spp.	
Oecetis spp.	
Oxyethira spp.	
Polycentropus spp.	

INDIAN GRAVE BRANCH @ RD B 088/19/93 STATION 21 List of taxa >5% relative abundance

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da/A	B	C	D	E	Rel Abd
1	Stenonema spp.	EP		3.4 SC	686.8		44	29	80	21	28 20.40404
2	Cheumatopsycha spp.	TR		6.6 CF	1089		9	1	68	38	51 16.66667
3	Hydrobiidae	MG		6.5 SC	884		26	27	30	21	32 13.73737
4	Planorbidae	MG		6.5 SC	591.5		7	27	10	13	34 9.191919
5	Hydropsyche spp.	TR		4 CF	240		5		18	24	13 6.060606
6	Oecetis spp.	TR		5.7 P	313.5		5	2	18	11	19 5.555556

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	22.8					4		0.33557
2	Gammaridae	AMG	6.9	CG	0							0
3	Oligochaeta	ANO	8.2	CG	0							0
4	Ancyronyx variegatus	CO	6.9	CG	414		8	12	25	18	1	5.033557
5	Dineutus sp.	CO	5.5	P	0							0
6	Ectopria narvosa	CO	4.3	SC	0							0
7	Gonielmis dietrichi	CO	4	CG	0							0
8	Helichus striatus	CO	5.4	SC	5.4						1	0.083893
9	Macronychus glabratus	CO	4.7	CG	338.4		8	27	28	9	2	6.040288
10	Microcyllopus pusillus	CO	2.1	CG	0							0
11	Optioservus sp.	CO	2.7	CG	0							0
12	Stanelmia crenata	CO	5.4	CG	5.4				1			0.083893
13	Stanelmia decorata	CO	5.4	CG	0							0
14	Stanelmia spp.	CO	5.4	CG	0							0
15	Gammaridae	DCA	7.2	PH	0							0
16	Cryptochironomus spp.	DCC	6.7	P	6.7					1		0.083893
17	Cryptotendipes sp.	DCC	6.1	CG	0							0
18	Dicranotendipes modestus	DCC	9.2	CG	0							0
19	Dicranotendipes neomodelus	DCC	8.3	CG	41.5		2	1	2			0.419463
20	Dicranotendipes spp.	DCC	7.9	CG	15.8		2					0.187785
21	Microtendipes rydalsensis	DCC	6.2	CG	0							0
22	Microtendipes spp.	DCC	6.2	CG	0							0
23	Nlothausia babiji	DCC	5.5	CG	0							0
24	Phaenopsectra flavipes	DCC	8.5	CG	0							0
25	Polypedilum fallax	DCC	6.7	SH	13.4				1	1		0.187785
26	Polypedilum spp.	DCC	6.9	CG	200.1		9	5	4		11	2.432888
27	Saethoria sp.	DCC	8.1	P	8.1						1	0.083893
28	Stalochomyia perpulchra	DCC	4.6	SH	0							0
29	Stanochironomus sp.	DCC	6.4	SH	0							0
30	Tribelos lucundum	DCC	6.6	CG	6.6						1	0.083893
31	Diamasini genus P	DD	7.4	CG	0							0
32	Patthastia longmanae	DD	7.4	CG	0							0
33	Archipogon sp.	DD	6.8	P	20.4						3	0.251678
34	Atherix lantus	DD	2.1	P	0							0
35	Ceratopogonidae	DD	6.5	P	32.5		3				2	0.419463
36	Chelifera spp.	DD	8.1	CG	0							0
37	Hemerodromia spp.	DD	8.1	CG	24.3				3			0.251678
38	Polomyia spp.	DD	6.9	P	6.9					1		0.083893
39	Simulium spp.	DD	4.4	CF	0							0
40	Brüla flavifrons	DOR	5.2	SH	0							0
41	Corynonoura spp.	DOR	6.2	CG	489.8		35	11	17	1	15	6.627517
42	Cricotopus/Ortho spp.	DOR	8.8	CG	114.4		10	3				1.090604
43	Eukiefferiella spp.	DOR	5.7	CG	0							0
44	Lopocladus sp.	DOR	2.2	CG	0							0
45	Nanocladus spp.	DOR	7.2	CG	21.8		1	1	1			0.251678
46	Orthocladus ignicola	DOR	5.4	SH	0							0
47	Parakiefferiella sp.1	DOR	5.9	CG	0							0
48	Parametrichonemys sp.	DOR	3.7	CG	107.3		9	6	10	1	3	2.432888
49	Psectrocladus sp.	DOR	3.8	CG	0							0
50	Rheocricotopus spp.	DOR	7.3	CG	487.2		23	14	24	2	1	5.369128
51	Synorthocladus semivirens	DOR	4.7	CG	0							0
52	Thienemannella spp.	DOR	6	CG	1470		80	58	102	4	1	20.55389
53	Tvetenia spp.	DOR	4	CG	0							0
54	Uniola multivirga	DOR	0	CG	0		2		1			0.251678
55	Xylopus par	DOR	6.6	SH	0							0
56	Ablabesmyia spp.	DTA	6.4	P	115.2		6	8	1	3		1.510067
57	Clinotanytus pinguis	DTA	9.1	P	0							0
58	Conchapelopia spp.	DTA	8.7	P	121.8			4	8	1	1	1.174497
59	Labrundinia spp.	DTA	8	P	6			1				0.083893
60	Natania sp.A	DTA	10	P	0							0
61	Natanytus spp.	DTA	4	P	32		4	1	3			0.671141
62	Parameira sp.	DTA	2.8	P	14		1		1	1	2	0.419463
63	Pontanura inocephala	DTA	4.8	P	197.8		16	8	14	1	4	3.607383
64	Procladius sp.	DTA	9.3	P	0							0
65	Stempellina sp.	DTA	2	CG	2		1					0.083893
66	Rheotanytarsus spp.	DTY	6.4	CF	89.6		1	4	9			1.174497
67	Stempellina spp.	DTY	2	CG	0							0
68	Tanytarsus spp.	DTY	6.7	CG	783.8		39	23	38	8	6	9.583758
69	Acerpenna pygmaeus	EP	3.7	CG	0							0
70	Beetle spp.	EP	5.4	CG	27		4				1	0.419463
71	Caenis spp.	EP	7.8	CG	0							0
72	Calibaetis spp.	EP	9.3	CG	0							0
73	Ephemerella sp.	EP	1.7	CG	1.7					1		0.083893
74	Eurylophella spp.	EP	3	CG	0							0
75	Heptagenia spp.	EP	2.8	SC	0							0
76	Isonychia sp.	EP	3.8	CF	49.4			5	7	1		1.090604
77	Neophemera youngi	EP	2.1	CG	0							0
78	Paraleptophlebia spp.	EP	1.2	CG	0							0
79	Stenonema spp.	EP	3.4	SC	377.4		14	18	53	14	14	9.312081
80	Tricorythodes spp.	EP	5.4	CG	815.4		23	19	59	24	28	12.68779
81	Sphaerium sp.	MB	7.7	CF	23.1						3	0.251678
82	Corydalis cornutus	ME	5.8	P	22.4		1	2		1		0.33557
83	Nigronia serricornis	ME	5.5	P	27.5			2	3			0.419463
84	Stalis spp.	ME	7.5	P	0							0
85	Ferissia sp.	MG	6.9	SC	55.2				3	5		0.671141
86	Hydrobiidae	MG	6.5	SC	6.5			1				0.083893
87	Boyeria vinosa	OD	6.3	P	6.3					1		0.083893
88	Colopteryx sp.	OD	8.3	P	8.3					1	-	0.083893

89	Coenagrionidae	OD	9	P	0							0
90	Enallagma spp.	OD	9	P	38					3	1	0.33557
91	Gomphus sp.	OD	6.2	P	68.2			2	2	4	2	0.922819
92	Neurocordulia obovata	OD	5.4	P	0							0
93	Progomphus sp.	OD	8.7	P	0							0
94	Acronaia abnormis	PL	2.2	P	0							0
95	Acronaia arenosa	PL	2.2	P	0							0
96	Acronaia mela	PL	0.9	P	0							0
97	Acronaia spp.	PL	1.4	P	0							0
98	Agnetina spp.	PL	0	P	0							0
99	Allocaenis spp.	PL	2.8	SH	0							0
100	Helopius sp.	PL	0.4	P	0							0
101	Isoptera spp.	PL	2	P	0							0
102	Paragnetina kansensis	PL	2	P	0							0
103	Paragnetina spp.	PL	2	P	0							0
104	Perla spp.	PL	4.9	P	4.9			1				0.083893
105	Perla ephre	PL	0	P	0							0
106	Perla spp.	PL	0	P	0							0
107	Phaenocarpa dorsata	PL	1.8	SH	0							0
108	Taeniopteryx sp.	PL	6.3	SH	0							0
109	Brachycentrus numerosus	TR	1.8	CF	0							0
110	Ceraclea spp.	TR	2.3	CG	0							0
111	Cheumatopsyche spp.	TR	6.6	CF	99			9	6			1.258389
112	Chimarra spp.	TR	2.8	CF	0							0
113	Cynellus fraternus	TR	7.4	CF	0							0
114	Diplectrona modesta	TR	2.2	CF	0							0
115	Hydropsyche decalke	TR	4.1	CF	0							0
116	Hydropsyche elisoma	TR	4	CF	0							0
117	Hydropsyche mississippiensis	TR	4	CF	0							0
118	Hydropsyche spp.	TR	4	CF	20			1	2	2		0.419463
119	Hydropsyche spp.	TR	6.2	PH	0							0
120	Leptoceridae (imm)	TR	4	CG	0							0
121	Lyse diversa	TR	4.3	SC	8.6			1		1		0.167785
122	Mayatrichia ayama	TR	6.2	SC	0							0
123	Microsema spp.	TR	0.6	SH	0							0
124	Nectopsyche pavida	TR	4.2	SH	0							0
125	Nectopsyche spp.	TR	4.1	SH	0							0
126	Neotrichia spp.	TR	6.2	SC	0							0
127	Neureclipsis spp.	TR	4.4	CF	4.4					1		0.083893
128	Nyctophylax spp.	TR	0.9	CF	0							0
129	Ocoetis spp.	TR	5.7	P	17.1				2	1		0.251678
130	Oxyethira sp.	TR	7.2	PH	7.2					1		0.083893
131	Polycentropus spp.	TR	3.5	CF	0							0
132	Pycnopsyche spp.	TR	2.3	SH	0							0
133												0
134												
135												
136												
137	Table size:	132	Total orgs:	1192	Tot Tax:	53	tot. mean #	1331.844				
138	Number Samps:	5	SC/CF:	2.41176471	Bio Index:	5.755389						
139	Mean TAX/Samp	26.8										
140	EPT:	12										
Statistical Summary:												
TAXC	FG	#Taxes	Total #	Mean/Samp	mean #/m*2	Rel Abd.	FG Rel. Abd					
AHC		1	4	.8	4.4693	.3358						
AMG		0	0	.	.	.						
ANO		0	0	.	.	.						
CO		4	134	26.8	149.7207	11.2416						
DCA		0	0	.	.	.						
DCC		7	41	8.2	45.8101	3.4398						
DO		0	0	.	.	.						
DO		4	12	2.4	13.4078	1.0067						
DOR		7	438	87.2	487.1508	36.5772						
DTA		7	90	18.	100.5587	7.5503						
DTY		2	128	25.6	143.0168	10.7383						
EP		5	281	56.2	313.9665	23.5738						
MB		1	3	.6	3.352	.2517						
ME		2	9	1.8	10.0559	.755						
MG		2	9	1.8	10.0559	.755						
OD		4	17	3.4	18.9944	1.4282						
PL		1	1	.2	1.1173	.0839						
TR		6	27	5.4	30.1678	2.2651						
P		20	134	26.8	149.7207	11.24161						
CG		20	881	178.2	984.3575	73.9094						
SC		5	123	24.6	137.4302	10.31879						
PH		1	1	.2	1.1173	0.083893						
SH		1	2	.4	2.2348	0.167785						
CF		6	51	10.2	58.9832402	4.278523						

Taxa List:	
Hydracarina	
Ancyronyx variegatus	
Helichus striatus	
Macronychus glabratus	
Stenelmis crenata	
Cryptochironomus spp.	
Dicrotendipes neomodestus	
Dicrotendipes spp.	
Polypedilum fallax	
Polypedilum spp.	
Saetheria sp.	
Tribelos jucundum	
Archipogon sp.	
Ceratopogonidae	
Hemerodromia spp.	
Palpomyia spp.	
Corynoneura spp.	
Cricotopus/Ortho spp.	
Nanocladius spp.	
Parametriocnemus sp.	
Rheocricotopus spp.	
Thienemanniella spp.	
Uniella multivirga	
Ablabesmyia spp.	
Conchapelopia spp.	
Labrundinia spp.	
Nilotanytus spp.	
Paramerina sp.	
Pentaneura inconspicua	
Stempellina sp.	
Rheotanytarsus spp.	
Tanytarsus spp.	
Baetis spp.	
Ephemerella sp.	
Isonychia sp.	
Stenonema spp.	
Tricorythodes spp.	
Sphaerium sp.	
Corydalis cornutus	
Nigronia serricornis	
Ferrissia sp.	
Hydrobiidae	
Boyeria vinosa	
Calopteryx sp.	
Enallagma spp.	
Gomphus sp.	
Perlesta spp.	
Cheumatopsyche spp.	

Hydropsyche spp.
Lype diversa
Neureclipsis spp.
Oecetis spp.
Oxyethira sp.

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Thienemannella spp.	DOR		6 CG	1470			80	58	102	4	1 20.55369
2	Tricorythodes spp.	EP		5.4 CG	815.4			23	19	59	24	28 12.66779
3	Tanytarsus spp.	DTY		6.7 CG	763.8			39	23	38	8	6 9.563758
4	Stenonema spp.	EP		3.4 SC	377.4			14	16	53	14	14 9.312081
5	Corynoneura spp.	DOR		6.2 CG	489.8			35	11	17	1	15 6.627517
6	Macronychus glabratus	CO		4.7 CG	338.4			6	27	28	9	2 6.040288
7	Rheocricotopus spp.	DOR		7.3 CG	467.2			23	14	24	2	1 5.369128
8	Ancyronyx variegatus	CO		6.9 CG	414			6	12	25	16	1 5.033557

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	5.7							1 0.078864
2	Gammaridae	AMG	6.9	CG	0							0
3	Oligochaeta	ANO	8.2	CG	0							0
4	Ancyronyx variegatus	CO	6.9	CG	55.2		1	1	2	1	3	0.614912
5	Dineutus sp.	CO	5.5	P	0							0
6	Ectopria nervosa	CO	4.3	SC	4.3		1					0.078864
7	Gonelmis districhi	CO	4	CG	12		3					0.230592
8	Macronychus glabratus	CO	4.7	CG	568.7		22	11	33	21	34	9.300538
9	Microcyllopus pusillus	CO	2.1	CG	0							0
10	Optioservus sp.	CO	2.7	CG	0							0
11	Stanelmis crenata	CO	5.4	CG	0							0
12	Stanelmis decorata	CO	5.4	CG	0							0
13	Stanelmis spp.	CO	5.4	CG	10.8				1	1		0.153728
14	Cambaridae	DCA	7.2	PH	0							0
15	Cladopelma sp.	DCC	2.5	CG	5			2				0.153728
16	Cryptochironomus spp.	DCC	6.7	P	26.8			3		1		0.307458
17	Cryptotendipes sp.	DCC	6.1	CG	0							0
18	Dicortendipes modestus	DCC	9.2	CG	18.4		2					0.153728
19	Dicortendipes neomodelus	DCC	8.3	CG	74.7		2	1	4	1	1	0.691776
20	Dicortendipes spp.	DCC	7.9	CG	118.5		3	1	7	2	2	1.152959
21	Microtendipes rydalenis	DCC	6.2	CG	0							0
22	Microtendipes spp.	DCC	6.2	CG	0							0
23	Nitthauma babyi	DCC	5.5	CG	11				1		1	0.153728
24	Phaenopsectra flavipes	DCC	8.5	CG	8.5			1				0.078864
25	Polypedilum fallax	DCC	6.7	SH	6.7			1				0.078864
26	Polypedilum spp.	DCC	6.9	CG	13.8					1	1	0.153728
27	Stelechomyia perpalliva	DCC	4.6	SH	0							0
28	Stenochironomus sp.	DCC	6.4	SH	0							0
29	Tribelos fuscicornis	DCC	6	CG	48			8				0.614912
30	Tribelos jucundum	DCC	6.8	CG	0							0
31	Diamesini genus P	DD	7.4	CG	0							0
32	Potthastia longmans	DD	7.4	CG	0							0
33	Atherix lanthe	DO	2.1	P	0							0
34	Ceratopogonidae	DO	6.5	P	0							0
35	Chelifera spp.	DO	8.1	CG	0							0
36	Hemerodromia spp.	DO	8.1	CG	24.3					1	2	0.230592
37	Palpomyia spp.	DO	6.9	P	13.8			2				0.153728
38	Simulium spp.	DO	4.4	CF	0							0
39	Brilia flavifrons	DOR	5.2	SH	0							0
40	Corynoneura spp.	DOR	6.2	CG	43.4		2	1	2		2	0.538048
41	Oricoptopus/Ortho spp.	DOR	8.8	CG	193.6		2		8	4	8	1.691007
42	Eukiefferiella spp.	DOR	5.7	CG	0							0
43	Lopecladius sp.	DOR	2.2	CG	0							0
44	Nanocladius spp.	DOR	7.2	CG	7.2					1		0.078864
45	Orthocladius lignicola	DOR	5.4	SH	0							0
46	Parakiefferiella sp.1	DOR	5.9	CG	59		3	7				0.768864
47	Parametriochnomus sp.	DOR	3.7	CG	0							0
48	Psectrocladius sp.	DOR	3.8	CG	0							0
49	Rheocricotopus spp.	DOR	7.3	CG	7.3			1				0.078864
50	Synorthocladius semivirens	DOR	4.7	CG	0							0
51	Thienomaniella spp.	DOR	6	CG	930		29		40	20	68	11.91391
52	Utrania spp.	DOR	4	CG	4				1			0.078864
53	Uniola multivirga	DOR	0	CG	0							0
54	Xylopus par	DOR	6.6	SH	0							0
55	Pseudochironomus sp.	DPC	4.2	CG	4.2			1				0.078864
56	Ablabesmyia spp.	DTA	6.4	P	102.4		4	8	4			1.229823
57	Cinotanytus pinguis	DTA	9.1	P	0							0
58	Conchapelopia spp.	DTA	8.7	P	52.2		3		1	1	1	0.481184
59	Lebrundinia spp.	DTA	6	P	0							0
60	Nataria sp.A	DTA	10	P	0							0
61	Nilotanytus spp.	DTA	4	P	0							0
62	Paramerina sp.	DTA	2.8	P	0							0
63	Pentaneura inconspicua	DTA	4.8	P	119.6		5		6	4	11	1.998463
64	Procladius sp.	DTA	9.3	P	0							0
65	Rheotanytarsus spp.	DTY	6.4	CF	98		1			12	2	1.152959
66	Stempellina spp.	DTY	2	CG	12				6			0.481184
67	Tanytarsus spp.	DTY	6.7	CG	348.4		6	4	17	1	24	3.998925
68	Acerpenna pygmaeus	EP	3.7	CG	0							0
69	Baetis spp.	EP	5.4	CG	97.2							0
70	Caenis spp.	EP	7.6	CG	53.2		3	3	2	4	12	1.383551
71	Calibaetis spp.	EP	9.3	CG	0							0
72	Eurylophella spp.	EP	3	CG	0							0
73	Heptagenia spp.	EP	2.8	SC	0							0
74	Isotrichia spp.	EP	3.8	CF	45.6		1		1	2	8	0.922387
75	Neosphemera youngi	EP	2.1	CG	0							0
76	Paraleptophlebia spp.	EP	1.2	CG	0							0
77	Stenonema spp.	EP	3.4	SC	1189.6		89	28	60	80	89	28.4412
78	Tricorythodes spp.	EP	5.4	CG	684.2		28	14	26	11	44	9.454266
79	Sphaerium spp.	MB	7.7	CF	46.2		1		3		2	0.481184
80	Corydalis cornutus	ME	5.8	P	44.8		2	1	1	1	3	0.614912
81	Nigronia serricornis	ME	5.5	P	0							0
82	Sialis spp.	ME	7.5	P	0							0
83	Farrisia sp.	MG	6.9	SC	89.7		6	3	3		1	0.999231
84	Hydrobiidae spp.	MG	6.5	SC	13		2					0.153728
85	Physella sp.	MG	9.1	CF	27.3		1		1	1		0.230592
86	Planorbidae spp.	MG	6.5	SC	28				3		1	0.307458
87	Boyeria vinosa	OD	6.3	P	0							0
88	Coleptryx sp.	OD	8.3	P	8.3			1				0.078864

89	Coenagrionidae	OD	9 P	0								0
90	Enallagma	OD	9 P	0								0
91	Enallagma spp.	OD	9 P	18			1	1				0.153728
92	Gomphus sp.	OD	6.2 P	49.6			2		6			0.614912
93	Macromia sp.	OD	6.7 P	53.6			1	3		4		0.614912
94	Neurocordulia obsoleta	OD	5.4 P	0								0
95	Progomphus	OD	8.7 P	0								0
96	Acronuria abnormis	PL	2.2 P	2.2				1				0.076864
97	Acronuria arenosa	PL	2.2 P	0								0
98	Acronuria mele	PL	0.9 P	0								0
99	Acronuria spp.	PL	1.4 P	0								0
100	Aniseta spp.	PL	0 P	0								0
101	Allocaenia spp.	PL	2.8 SH	0								0
102	Helopocus sp.	PL	0.4 P	0								0
103	Ieperia spp.	PL	2 P	0								0
104	Paragnetina kansensis	PL	2 P	0								0
105	Paragnetina spp.	PL	2 P	0								0
106	Perlesta spp.	PL	4.9 P	0								0
107	Perlinella ephyre	PL	0 P	0								0
108	Perlinella spp.	PL	0 P	0								0
109	Pteronarcys dorsata	PL	1.8 SH	0								0
110	Taeniopteryx sp.	PL	6.3 SH	0								0
111	Brachycentrus numerosus	TR	1.8 CF	0								0
112	Ceracles spp.	TR	2.3 CG	0								0
113	Chaumatopsyche spp.	TR	6.6 CF	303.6		7		5	13	21	3.535742	
114	Chimarra spp.	TR	2.8 CF	72.8		3			5	18	1.998463	
115	Cynellus fraternus	TR	7.4 CF	0								0
116	Diplectrona modesta	TR	2.2 CF	2.2		1					0.076864	
117	Hydropsyche decida	TR	4.1 CF	0								0
118	Hydropsyche ellisoma	TR	4.1 CF	0								0
119	Hydropsyche mississippiensis	TR	4 CF	0								0
120	Hydropsyche spp.	TR	4 CF	48		4		4	4		0.922367	
121	Hydroptila spp.	TR	6.2 PH	316.2		10		11	7	23	3.920061	
122	Leptoceridae (imm)	TR	4 CG	0								0
123	Lype diversa	TR	4.3 SC	4.3		1					0.076864	
124	Macrostemum zobatum	TR	3.6 CF	3.6					1		0.076864	
125	Mayatrichia syama	TR	6.2 SC	0								0
126	Micrasema spp.	TR	0.6 SH	0								0
127	Nectopsyche candida	TR	4.1 SH	49.2		3		3		6	0.922367	
128	Nectopsyche exquiesita	TR	4.3 SH	17.2				1	3		0.307456	
129	Nectopsyche pevida	TR	4.2 SH	0								0
130	Neophylax sp.	TR	1.8 SC	6.4						4	0.307456	
131	Neotrichia spp.	TR	6.2 SC	0								0
132	Neureclipsis spp.	TR	4.4 CF	66		1	1		6	7	1.152959	
133	Nyctophylax spp.	TR	0.9 CF	0								0
134	Oecetis spp.	TR	5.7 P	342		8	10	12	9	21	4.611837	
135	Oxyethira sp.	TR	7.2 PH	7.2		1					0.076864	
136	Polycentropus spp.	TR	3.5 CF	3.5			1				0.076864	
137	Pycnopsyche spp.	TR	2.3 SH	0								0
138												
139												
140												
141												
142	Table size:	137	Total orgs:	1301	Tot Tax:	62	tot. mean #	1453.631				
143	Number Samps:	5	SC/CF:	2.67391304	Bio Index:	5.116218						
144	Mean TAX/Samp	31.6										
145	EPT:	20										
Statistical Summary:												
TAXC	FG	#Taxes	Total #	Mean/Samp	mean #/m ²	Rel Abd.	FG Rel. Abd					
AHC		1	1	.2	1.1173	.0769						
AMG		0	0	.	.	.						
ANO		0	0	.	.	.						
CO		5	135	27.	150.838	10.3786						
DCA		0	0	.	.	.						
DCC		10	46	9.2	51.3966	3.5357						
DD		0	0	.	.	.						
DO		2	5	1.	5.5866	.3843						
DOR		7	197	39.4	220.1117	15.1422						
DPC		1	1	.2	1.1173	.0769						
DTA		3	48	9.6	53.6313	3.6895						
DTY		3	73	14.6	81.5642	5.6111						
EP		5	504	100.8	563.1265	38.7394						
MB		1	6	1.2	6.7039	.4612						
ME		1	8	1.6	8.9385	.6149						
MG		4	22	4.4	24.581	1.691						
OD		4	19	3.8	21.2291	1.4604						
PL		1	1	.2	1.1173	.0769						
TR		14	235	47.	262.5698	18.063						
	P	13	143	28.6	159.7765		10.99154					
	CG	26	582	116.4	650.2793		44.73482					
	SC	7	369	73.8	412.2905		28.3628					
	PH	2	52	10.4	58.1008		3.996925					
	SH	3	17	3.4	18.9944		1.306687					
	CF	11	138	27.6	154.189944		10.60723					

Taxa List:	
Hydracarina	
Ancyronyx variegatus	
Ectopria nervosa	
Gonielmis dietrichi	
Macronychus glabratus	
Stenelmis spp.	
Cladopelma sp.	
Cryptochironomus spp.	
Dicrotendipes modestus	
Dicrotendipes neomodestus	
Dicrotendipes spp.	
Nilothauma babyi	
Phaenopsectra flavipes	
Polypedilum fallax	
Polypedilum spp.	
Tribelos fuscicorne	
Hemerodromia spp.	
Palpomyia spp.	
Corynoneura spp.	
Cricotopus/Ortho spp.	
Nanocladius spp.	
Parakiefferiella sp.1	
Rheocricotopus spp.	
Thienemanniella spp.	
Tvetenia spp.	
Pseudochironomus sp.	
Ablabesmyia spp.	
Conchapelopia spp.	
Pentaneura inconspicua	
Rheotanytarsus spp.	
Stempellina spp.	
Tanytarsus spp.	
Baetis spp.	
Caenis spp.	
Isonychia spp.	
Stenonema spp.	
Tricorythodes spp.	
Sphaerium spp.	
Corydalus cornutus	
Ferrissia sp.	
Hydrobiidae spp.	
Physella sp.	
Planorbidae spp.	
Calopteryx sp.	
Enallagma spp.	
Gomphus sp.	
Macromia sp.	
Acroneuria abnormis	

Cheumatopsyche spp.
Chimarra spp.
Diplectrona modesta
Hydropsyche spp.
Hydroptila spp.
Lype diversa
Macrostemum zebratum
Nectopsyche candida
Nectopsyche exquisita
Neophylax sp.
Neureclipsis spp.
Oecetis spp.
Oxyethira sp.
Polycentropus spp.

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd	
1	Stenonema spp.	EP		3.4 SC	1169.6			89	26	60	80	89	26.4412
2	Thienemanniella spp.	DOR		6 CG	930			29		40	20	66	11.91391
3	Tricorythodes spp.	EP		5.4 CG	664.2			28	14	26	11	44	9.454268
4	Macronychus glabratus	CO		4.7 CG	568.7			22	11	33	21	34	9.300538

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler De	A	B	C	D	E
1	Hydracarina	AHC	6.7	P	62.7				3	2	4
2	Gammaridae	AMG	6.9	CG	0						
3	Oligochaeta	ANO	8.2	CG	0						
4	Ancyronyx variegatus	CO	6.9	CG	0						
5	Dineutus sp.	CO	5.5	P	0						
6	Ectopria nervosa	CO	4.3	SC	4.3			1			
7	Gonelmis dietrichi	CO	4	CG	0						
8	Macronychus glabratus	CO	4.7	CG	803.7		43	24		27	48
9	Microcyllopus pusillus	CO	2.1	CG	0						
10	Optioservus sp.	CO	2.7	CG	0						
11	Stenelmis crenata	CO	5.4	CG	0						
12	Stenelmis decorata	CO	5.4	CG	0						
13	Stenelmis spp.	CO	5.4	CG	21.6			1			1
14	Cambaridae	DCA	7.2	PH	0						2
15	Cryptochironomus spp.	DCC	6.7	P	33.5			1			1
16	Cryptotendipes sp.	DCC	6.1	CG	0						3
17	Dicortendipes modestus	DCC	9.2	CG	0						
18	Dicortendipes neomodeatus	DCC	8.3	CG	66.4		1	1		2	4
19	Dicortendipes spp.	DCC	7.9	CG	158			2		7	11
20	Microtendipes rydalsensis	DCC	6.2	CG	0						
21	Microtendipes spp.	DCC	6.2	CG	0						
22	Nilothauma babiyi	DCC	5.5	CG	5.5						1
23	Phaenopsectra flavipes	DCC	8.5	CG	0						
24	Polypodilum fallax	DCC	6.7	SH	0						
25	Polypodilum spp.	DCC	6.9	CG	834.8		18	19		18	20
26	Stelechomyia perpulchra	DCC	4.6	SH	9.2		1				1
27	Stenochironomus sp.	DCC	6.4	SH	0						
28	Tribelos jucundum	DCC	6.6	CG	0						
29	Damesini genus P	DD	7.4	CG	0						
30	Potthastia longmana	DD	7.4	CG	7.4		1				
31	Atherix lantha	DO	2.1	P	0						
32	Ceratopogonidae	DO	6.5	P	0						
33	Chelifera spp.	DO	8.1	CG	0						
34	Hemerodromia spp.	DO	8.1	CG	56.7		1	3		2	1
35	Palpomyia spp.	DO	6.9	P	69		5				1
36	Simulium spp.	DO	4.4	CF	26.4		4	1		1	4
37	Brilia flavifrons	DOR	6.2	SH	0						
38	Corynoneura spp.	DOR	6.2	CG	396.8		8	21		14	14
39	Cricotopus/Ortho spp.	DOR	8.8	CG	1100		11	39		29	13
40	Eukiefferiella spp.	DOR	5.7	CG	0						33
41	Lopescladius sp.	DOR	2.2	CG	0						
42	Nanocladius spp.	DOR	7.2	CG	38		1				3
43	Orthocladius lignicola	DOR	6.4	SH	0						1
44	Parakiefferiella sp.1	DOR	5.9	CG	23.6			3		1	
45	Parakiefferiella sp.2	DOR	5.9	CG	5.8			1			
46	Parametrioctenus sp.	DOR	3.7	CG	0						
47	Psectrocladius sp.	DOR	3.8	CG	0						
48	Rheocricotopus spp.	DOR	7.3	CG	138.7		1	6		3	8
49	Synorthocladius semivirens	DOR	4.7	CG	0						1
50	Thienemanniella spp.	DOR	6	CG	2010		44	89		70	83
51	Tveteria spp.	DOR	4	CG	68		3	3		4	7
52	Unella multivirga	DOR	0	CG	0						
53	Xylopus par	DOR	6.6	SH	0						
54	Ablabesmyia spp.	DTA	6.4	P	12.8					1	1
55	Clinotanypus pinguis	DTA	9.1	P	0						
56	Conchapelopia spp.	DTA	8.7	P	739.6		20	12		13	18
57	Labrundinia spp.	DTA	6	P	0						22
58	Natania sp.A	DTA	10	P	0						
59	Nilotanypus spp.	DTA	4	P	32					2	4
60	Paramerina sp.	DTA	2.8	P	0						2
61	Pentaneura inconspicua	DTA	4.6	P	82		5			2	8
62	Procladius sp.	DTA	9.3	P	0						5
63	Rheotanytarsus spp.	DTY	6.4	CF	403.2		24	9		10	17
64	Stempellina spp.	DTY	2	CG	0						3
65	Tanytarsus spp.	DTY	6.7	CG	1058.6		11	29		19	24
66	Acerpenna pygmaeus	EP	3.7	CG	0						76
67	Baetis spp.	EP	6.4	CG	621		22	16		16	37
68	Caenis spp.	EP	7.8	CG	205.2		4	3			1
69	Calibaetis spp.	EP	9.3	CG	0						19
70	Eurylophella spp.	EP	3	CG	0						
71	Heptagenia spp.	EP	2.8	SC	0						
72	Isonychia spp.	EP	3.8	CF	30.4			2		2	2
73	Neophemera youngi	EP	2.1	CG	0						
74	Paraleptophlebia spp.	EP	1.2	CG	0						
75	Stenonema spp.	EP	3.4	SC	533.8		16	28		46	44
76	Tricorythodes spp.	EP	5.4	CG	583.2		26	16		18	22
77	Sphaerium spp.	MB	7.7	CF	0						27
78	Corydalis cornutus	ME	6.6	P	442.4		17	17		16	18
79	Nigronia serricornis	ME	5.5	P	192.5		13	10		3	6
80	Sialis spp.	ME	7.5	P	0						3
81	Ferriesia sp.	MG	6.9	SC	34.5		1				4
82	Boyeria vinosa	OD	6.3	P	6.3		1				
83	Coenagrionidae	OD	9	P	0						

84	Enallagma spp.	OD	9	P	0						
85	Neurocordulia obsoleta	OD	5.4	P	0						
86	Progomphus sp.	OD	8.7	P	0						
87	Acroneuria abnormis	PL	2.2	P	4.4		1				1
88	Acroneuria arenosa	PL	2.2	P	0						
89	Acroneuria melis	PL	0.9	P	0						
90	Acroneuria spp.	PL	1.4	P	0						
91	Agnatina spp.	PL	0	P	0						
92	Allocaenia spp.	PL	2.8	SH	0						
93	Helopicus sp.	PL	0.4	P	0						
94	Isoperla spp.	PL	2	P	0						
95	Paragnetina kansensis	PL	2	P	0						
96	Paragnetina spp.	PL	2	P	0						
97	Perlesta spp.	PL	4.9	P	0						
98	Perlinella ephyre	PL	0	P	0						
99	Perlinella spp.	PL	0	P	0						
100	Pteronarcys dorsata	PL	1.8	SH	0						
101	Taeniopteryx sp.	PL	6.3	SH	0						
102	Brachycentrus numerosus	TR	1.8	CF	0						
103	Ceraclea spp.	TR	2.3	CG	0						
104	Choristopsycha spp.	TR	6.6	CF	1168.2		47	43	27	43	17
105	Chimarra spp.	TR	2.8	CF	826		94	30	46	101	24
106	Cymellus fraternus	TR	7.4	CF	0						
107	Diplectrona modesta	TR	2.2	CF	0						
108	Hydropsyche decaldis	TR	4.1	CF	0						
109	Hydropsyche elisoma	TR	4	CF	0						
110	Hydropsyche mississippiensis	TR	4	CF	0						
111	Hydropsyche spp.	TR	4	CF	356		30	13	11	30	6
112	Hydroptila spp.	TR	6.2	PH	465		6	3	22	24	20
113	Leptoceridae (imm)	TR	4	CG	0						
114	Lype diversa	TR	4.3	SC	0						
115	Macroctenium carolina	TR	3.6	CF	14.4		3			1	
116	Macroctenium zebatum	TR	3.6	CF	7.2					1	1
117	Mayetichia ayama	TR	6.2	SC	0						
118	Micrasema spp.	TR	0.6	SH	0						
119	Nectopsyche pavidia	TR	4.2	SH	29.4			1	1	2	3
120	Neotrichia spp.	TR	6.2	SC	0						
121	Neuraclipsis spp.	TR	4.4	CF	96.8		6		12	2	2
122	Nyctophylax spp.	TR	0.9	CF	0						
123	Oecetis spp.	TR	6.7	P	126.4		3	1	4	2	12
124	Polycentropus spp.	TR	3.5	CF	0						
125	Pycnopsycha spp.	TR	2.3	SH	0						
126											
127											
128											
129											
130	Table size:	125	Total orgs:	2475	Tot Tax:	47	tot. mean	2765.363			
131	Number Samps:	5	SC/CF:	0.2447447	Bio Index:	5.583192					
132	Mean TAX/Samp	34.2									
133	EPT:	15									
Statistical Summary:						Taxon					
TAXC	FG	#Taxa	Total #	Mean/Samp	mean #/m^2	Rel Abd.	FG Rel. Abd				
AHC		1	11	2.2	12.2905	.4444					
AMG		0	0	.	.	.					
ANO		0	0	.	.	.					
CO		3	178	35.2	196.648	7.1111					
DCA		0	0	.	.	.					
DCC		6	128	26.6	143.0168	5.1717					
OD		1	1	.2	1.1173	.0404					
DO		3	23	4.6	25.6983	.9293					
DOR		8	570	114.	638.8715	23.0303					
DTA		4	115	23.	128.4916	4.6465					
DTY		2	221	44.2	246.9274	8.9293					
EP		5	415	83.	463.6872	16.7677					
MB		0	0	.	.	.					
ME		2	114	22.8	127.3743	4.6061					
MG		1	5	1.	5.5868	.202					
OD		1	1	.2	1.1173	.0404					
PL		1	2	.4	2.2346	.0808					
TR		9	693	138.6	774.3017	28.					
	P	12	260	56.	312.8492		11.31313				
	CG	20	1282	256.4	1432.4022		51.79798				
	SC	3	163	32.6	182.1229		6.565859				
	PH	1	75	15.	83.7989		3.030303				
	SH	2	9	1.8	10.0559		0.363636				
	CF	9	666	133.2	744.13408		26.90909				

Taxa List:	
Hydracarina	
Ectopria nervosa	
Macronychus glabratus	
Stenelmis spp.	
Cryptochironomus spp.	
Dicrotendipes neomodestus	
Dicrotendipes spp.	
Nilothauma babyi	
Polypedilum spp.	
Stelechomyia perpulchra	
Potthastia longmana	
Hemerodromia spp.	
Palpomyia spp.	
Simulium spp.	
Corynoneura spp.	
Cricotopus/Ortho spp.	
Nanocladius spp.	
Parakiefferiella sp.1	
Parakiefferiella sp.2	
Rheocricotopus spp.	
Thienemanniella spp.	
Tvetenia spp.	
Ablabesmyia spp.	
Conchapelopia spp.	
Nilotanytus spp.	
Pentaneura inconspicua	
Rheotanytus spp.	
Tanytus spp.	
Baetis spp.	
Caenis spp.	
Isonychia spp.	
Stenonema spp.	
Tricorythodes spp.	
Corydalus cornutus	
Nigronia serricornis	
Ferrissia sp.	
Boyeria vinosa	
Acroneuria abnormis	
Cheumatopsyche spp.	
Chimarra spp.	
Hydropsyche spp.	
Hydroptila spp.	
Macrostemum carolina	
Macrostemum zebratum	
Nectopsyche pavida	
Neureclipsis spp.	
Oecetis spp.	

PEN BR. RD. A 13.2 08/19/93 STATION 24 List of taxa >5% relative abundance

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Thienemanniella spp.	DOR		8 CG	2010			44	99	70	83	39 13.53535
2	Chimarra spp.	TR		2.8 CF	826			94	30	46	101	24 11.91919
3	Cheumatopsyche spp.	TR		6.6 CF	1166.2			47	43	27	43	17 7.151515
4	Macronychus glabratus	CO		4.7 CG	803.7			43	24	27	48	29 6.909091
5	Tanytarsus spp.	DTY		6.7 CG	1058.6			11	29	19	24	75 6.383838
6	Stenonema spp.	EP		3.4 SC	533.8			16	28	46	44	23 6.343434
7	Cricotopus/Ortho spp.	DOR		8.8 CG	1100			11	39	29	13	33 5.050505

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler	Da	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	0								0
2	Gammaridae	AMG	6.9	CG	0								0
3	Oligochaeta	ANO	8.2	CG	0								0
4	Ancyronyx variogatus	CO	6.9	CG	0								0
5	Celina sp.	CO	8.5	P	17					1	1		40
6	Dineutus sp.	CO	5.5	P	0								0
7	Ectopria nervosa	CO	4.3	SC	0								0
8	Gonelmis dietrichi	CO	4	CG	0								0
9	Macronychus glabratus	CO	4.7	CG	0								0
10	Microcyllopus pusillus	CO	2.1	CG	0								0
11	Optioservus sp.	CO	2.7	CG	0								0
12	Stenelmis crenata	CO	5.4	CG	0								0
13	Stenelmis decorata	CO	5.4	CG	0								0
14	Stenelmis spp.	CO	5.4	CG	0								0
15	Cambaridae	DCA	7.2	PH	0								0
16	Cryptochironomus spp.	DCC	6.7	P	0								0
17	Cryptotendipes sp.	DCC	6.1	CG	0								0
18	Dicortendipes modestus	DCC	9.2	CG	0								0
19	Dicortendipes neomodestus	DCC	8.3	CG	0								0
20	Dicortendipes spp.	DCC	7.9	CG	0								0
21	Microtendipes rydalseni	DCC	6.2	CG	0								0
22	Microtendipes spp.	DCC	6.2	CG	0								0
23	Nikothauma babiyi	DCC	5.5	CG	0								0
24	Phaenopspectra flavipes	DCC	8.5	CG	0								0
25	Polypodium fallax	DCC	6.7	SH	0								0
26	Polypodium spp.	DCC	6.9	CG	0								0
27	Stelochomyia perpulchra	DCC	4.6	SH	0								0
28	Stenochironomus sp.	DCC	6.4	SH	0								0
29	Tribeles jucundum	DCC	6.6	CG	0								0
30	Dismesini genus P	DD	7.4	CG	0								0
31	Pothaetia longmans	DD	7.4	CG	0								0
32	Atherix lantha	DD	2.1	P	0								0
33	Ceratopogonidae	DD	6.5	P	0								0
34	Chelifera spp.	DD	8.1	CG	0								0
35	Hemerodromia spp.	DD	8.1	CG	0								0
36	Palpomyia spp.	DD	8.9	P	0								0
37	Simulium spp.	DD	4.4	CF	0								0
38	Brilia flavifrons	DOR	5.2	SH	0								0
39	Corynoneura spp.	DOR	6.2	CG	0								0
40	Cricotopus/Ortho spp.	DOR	8.8	CG	0								0
41	Eukiefferiella spp.	DOR	5.7	CG	0								0
42	Lopescladius sp.	DOR	2.2	CG	0								0
43	Nanocladius spp.	DOR	7.2	CG	0								0
44	Orthocladius lignicola	DOR	5.4	SH	0								0
45	Parakiefferiella sp.1	DOR	5.9	CG	0								0
46	Parametocnemus sp.	DOR	3.7	CG	0								0
47	Psectrocladius sp.	DOR	3.8	CG	0								0
48	Rheocricotopus spp.	DOR	7.3	CG	0								0
49	Synorthocladius semivirens	DOR	4.7	CG	0								0
50	Thienemanniella spp.	DOR	6	CG	0								0
51	Ivatanella spp.	DOR	4	CG	0								0
52	Unieia multivirga	DOR	0	CG	0								0
53	Xylopus par	DOR	6.6	SH	0								0
54	Ablabesmyia spp.	DTA	6.4	P	0								0
55	Cinotanytus pinguis	DTA	9.1	P	0								0
56	Conchapelopia spp.	DTA	8.7	P	0								0
57	Lebrundinia spp.	DTA	6	P	0								0
58	Natarella sp.A	DTA	10	P	0								0
59	Nilotanytus spp.	DTA	4	P	4							1	20
60	Paramerina sp.	DTA	2.8	P	0								0
61	Pentaneura inconspicua	DTA	4.6	P	0								0
62	Procladius sp.	DTA	9.3	P	0								0
63	Rheotanytarsus spp.	DTY	6.4	CF	0								0
64	Stempellina spp.	DTY	2	CG	0								0
65	Tanytarsus spp.	DTY	6.7	CG	0								0
66	Acarpenna pygmaeus	EP	3.7	CG	0								0
67	Baetis spp.	EP	5.4	CG	0								0
68	Caenis spp.	EP	7.6	CG	0								0
69	Calibaetis spp.	EP	9.3	CG	0								0
70	Eurylophella spp.	EP	3	CG	0								0
71	Heptagenia spp.	EP	2.8	SC	0								0
72	Isonychia spp.	EP	3.8	CF	0								0
73	Neophemera youngi	EP	2.1	CG	0								0
74	Paraleptophlebia spp.	EP	1.2	CG	0								0
75	Stenonema spp.	EP	3.4	SC	0								0
76	Tricorythodes spp.	EP	5.4	CG	0								0
77	Aesalus sp.	IAA	9.4	CG	9.4								20
78	Sphaerium spp.	MB	7.7	CF	0								0
79	Corydalis cornutus	ME	5.6	P	0								0
80	Nigronia serricornis	ME	5.5	P	0								0
81	Stalis spp.	ME	7.5	P	0								0
82	Ferissia sp.	MG	6.9	SC	0								0
83	Boyeria vinosa	OD	6.3	P	0								0
84	Coenagrionidae	OD	9	P	0								0
85	Enallagma spp.	OD	9	P	0								0
86	Neurocordulia obscura	OD	5.4	P	0								0
87	Progomphus sp.	OD	8.7	P	0								0
88	Acronuria abnormis	PL	2.2	P	0								0

[illegible]

Taxa List:	
Celina sp.	
Nilotanypus spp.	
Asellus sp.	
Hydroptila spp.	

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Celina sp.	CO	8.5 P	17					1			40
2	Nilotanypus spp.	DTA	4 P	4							1	20
3	Asellus sp.	IAA	9.4 CG	9.4								20
4	Hydroptila spp.	TR	6.2 PH	6.2								20

Seq	Taxon	TAXC	NCBI	FG	((for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	0							0
2	Gammaridae	AMG	6.9	CG	0							0
3	Oligochaeta	ANO	8.2	CG	0							0
4	Anonyx variegatus	CO	6.9	CG	0							0
5	Dinotus sp.	CO	5.5	P	0							0
6	Ectopria nervosa	CO	4.3	SC	0							0
7	Gonelmis dietrichi	CO	4	CG	0							0
8	Macronychus glebratus	CO	4.7	CG	0							0
9	Microcylopus pusillus	CO	2.1	CG	0							0
10	Optioservus sp.	CO	2.7	CG	0							0
11	Stenelmis crenata	CO	5.4	CG	0							0
12	Stenelmis decorata	CO	5.4	CG	0							0
13	Stenelmis spp.	CO	5.4	CG	0							0
14	Cambaridae	DCA	7.2	PH	0							0
15	Chironomus spp.	DCC	9.8	CG	225.4		1	6	8	8		16.19718
16	Cryptochironomus spp.	DCC	6.7	P	0							0
17	Cryptotendipes sp.	DCC	6.1	CG	0							0
18	Dicranotendipes modestus	DCC	9.2	CG	0							0
19	Dicranotendipes neodestus	DCC	8.3	CG	0							0
20	Dicranotendipes spp.	DCC	7.9	CG	0							0
21	Kiefferulus dux	DCC	10	CG	120		2	5	3	2		8.450704
22	Microtendipes rydalsensis	DCC	6.2	CG	0							0
23	Microtendipes spp.	DCC	6.2	CG	0							0
24	Nitthauma babyl	DCC	5.5	CG	0							0
25	Ombius pica	DCC	5	CG	5		1					0.704225
26	Phaenopsectra flavipes	DCC	8.5	CG	51			1	3	1	1	4.225352
27	Polypedium folax	DCC	6.7	SH	6.7		1					0.704225
28	Polypedium spp.	DCC	6.9	CG	6.9			1				0.704225
29	Stelechomyia perpulchra	DCC	4.6	SH	0							0
30	Stanochironomus sp.	DCC	6.4	SH	0							0
31	Tribelos lucundum	DCC	6.6	CG	600.6		17	21	21	26	6	64.08451
32	Diamasini genus P	DD	7.4	CG	0							0
33	Potthastia longmans	DD	7.4	CG	0							0
34	Atherix lantha	DO	2.1	P	0							0
35	Coratopogonidae	DO	6.5	P	6.5		1					0.704225
36	Chelifera spp.	DO	8.1	CG	0							0
37	Hemerodromia spp.	DO	8.1	CG	0							0
38	Palpomyia spp.	DO	6.9	P	6.9						1	0.704225
39	Simulium spp.	DO	4.4	CF	0							0
40	Brilia flavifrons	DOR	5.2	SH	0							0
41	Corynoneura spp.	DOR	6.2	CG	0							0
42	Cricotopus/Ortho spp.	DOR	8.8	CG	8.8						1	0.704225
43	Eukiefferiella spp.	DOR	5.7	CG	0							0
44	Lopescladius sp.	DOR	2.2	CG	0							0
45	Nanocladius spp.	DOR	7.2	CG	0							0
46	Orthocladius lignicola	DOR	5.4	SH	0							0
47	Parakiefferiella sp.1	DOR	5.9	CG	0							0
48	Parametriochnomus sp.	DOR	3.7	CG	0							0
49	Psectrocladius sp.	DOR	3.8	CG	0							0
50	Rheocricotopus spp.	DOR	7.3	CG	0							0
51	Synorthocladius semivirens	DOR	4.7	CG	0							0
52	Thienemannella spp.	DOR	6	CG	0							0
53	Tvetenia spp.	DOR	4	CG	0							0
54	Uniola multivirga	DOR	0	CG	0							0
55	Xylopus par	DOR	6.6	SH	0							0
56	Ablabeomyia spp.	DTA	6.4	P	12.8					2		1.408451
57	Cinotanytus pinguis	DTA	9.1	P	0							0
58	Conchapelopia spp.	DTA	8.7	P	0							0
59	Labrundinia spp.	DTA	6	P	0							0
60	Natania sp.A	DTA	10	P	0							0
61	Natanytus spp.	DTA	4	P	0							0
62	Paranema sp.	DTA	2.8	P	0							0
63	Pentaneura inconspicua	DTA	4.8	P	0							0
64	Procladius sp.	DTA	9.3	P	0							0
65	Rheotanytarsus spp.	DTY	6.4	CF	0							0
66	Stempellina spp.	DTY	2	CG	0							0
67	Tanytarsus spp.	DTY	6.7	CG	13.4		1			1		1.408451
68	Acerpenna pygmaeus	EP	3.7	CG	0							0
69	Beetle spp.	EP	5.4	CG	0							0
70	Caenis spp.	EP	7.6	CG	0							0
71	Callibaetis spp.	EP	9.3	CG	0							0
72	Eurylophella spp.	EP	3	CG	0							0
73	Heptagenia spp.	EP	2.8	SC	0							0
74	Isonychia spp.	EP	3.8	CF	0							0
75	Noesphemora youngi	EP	2.1	CG	0							0
76	Paraleptophlebia spp.	EP	1.2	CG	0							0
77	Stanonema spp.	EP	3.4	SC	0							0
78	Tricorythodes spp.	EP	5.4	CG	0							0
79	Sphaerium spp.	MB	7.7	CF	0							0
80	Corydalis cornutus	ME	5.6	P	0							0
81	Nigronia serricornis	ME	5.5	P	0							0
82	Sialis spp.	ME	7.5	P	0							0
83	Ferriesia sp.	MG	6.9	SC	0							0
84	Boyeria vinosa	OD	6.3	P	0							0
85	Coenagrionidae	OD	9	P	0							0
86	Enallagma spp.	OD	9	P	0							0
87	Neurocordulia oboeata	OD	5.4	P	0							0
88	Progomphus	OD	8.7	P	0							0

[illegible]

Taxa List:	
Chironomus spp.	
Kiefferulus dux	
Omisus pica	
Phaenopsectra flavipes	
Polypedilum fallax	
Polypedilum spp.	
Tribelos jucundum	
Ceratopogonidae	
Palpomyia spp.	
Cricotopus/Ortho spp.	
Ablabesmyia spp.	
Tanytarsus spp.	

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da/A	B	C	D	E	Rel Abd
1	Tribelos jucundum	DCC	6.6 CG	600.6			17	21	21	28	64.08451
2	Chironomus spp.	DCC	9.8 CG	225.4			1	6	8	8	16.19718
3	Kiefferulus dux	DCC	10 CG	120			2	5	3	2	8.450704
4	Phaenopsectra flavipes	DCC	8.5 CG	51			1	1	3	1	4.225352

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler De	A	B	C	D	E	Ref Abd
1	Hydracarina	AHC	5.7	P	0							0
2	Gammaridae	AMG	6.9	CG	0							0
3	Oligochaeta	ANO	8.2	CG	0							0
4	Ancyronyx variegatus	CO	6.9	CG	0							0
5	Dineutus sp.	CO	5.5	P	0							0
6	Ectopria nervosa	CO	4.3	SC	0							0
7	Gonelmis dietrichi	CO	4	CG	0							0
8	Macronychus glaberrus	CO	4.7	CG	0							0
9	Microcylloepus pusillus	CO	2.1	CG	0							0
10	Optioservus sp.	CO	2.7	CG	0							0
11	Stanelmia cranata	CO	5.4	CG	0							0
12	Stanelmia decorata	CO	5.4	CG	0							0
13	Stanelmia spp.	CO	5.4	CG	0							0
14	Cambaridae	DCA	7.2	PH	0							0
15	Chironomus spp.	DCC	9.8	CG	9.8				1			0.155783
16	Cryptochironomus spp.	DCC	6.7	P	0							0
17	Cryptotendipes spp.	DCC	6.1	CG	6.1						1	0.155783
18	Dicortendipes modestus	DCC	9.2	CG	0							0
19	Dicortendipes neomoderatus	DCC	8.3	CG	58.1		1	1		4	1	1.090343
20	Dicortendipes simpsoni	DCC	10	CG	110				2	7	2	1.713398
21	Dicortendipes spp.	DCC	7.9	CG	55.3				4	1	2	1.090343
22	Microtendipes rydalseni	DCC	6.2	CG	0							0
23	Microtendipes spp.	DCC	6.2	CG	0							0
24	Nitthauma babini	DCC	5.5	CG	18.5		1				1	0.48729
25	Phaenopspectra flavipes	DCC	8.5	CG	8.5						1	0.155783
26	Polypedilum fallax	DCC	6.7	SH	0							0
27	Polypedilum spp.	DCC	6.9	CG	27.6		1	1	2			0.623053
28	Stelechomyia perpulchra	DCC	4.6	SH	0							0
29	Stenochironomus sp.	DCC	6.4	SH	0							0
30	Tribelos fuscicornis	DCC	6	CG	984		50	10	38	54	12	25.54517
31	Tribelos lucundum	DCC	6.6	CG	0							0
32	Diamasini genus P	DD	7.4	CG	0							0
33	Potthaetia longmans	DD	7.4	CG	0							0
34	Atherix lantha	DO	2.1	P	0							0
35	Caratopogonidae	DO	6.5	P	26			1	1	2		0.623053
36	Cheffers spp.	DO	8.1	CG	0							0
37	Dasyhelea sp.	DO	6.8	P	6.8		1					0.155783
38	Hemerodromia spp.	DO	8.1	CG	0							0
39	Palpomyia spp.	DO	6.9	P	351.9		11	18	7	7	8	7.943925
40	Simulium spp.	DO	4.4	CF	0							0
41	Brilia flavifrons	DOR	5.2	SH	0							0
42	Corynoneura spp.	DOR	6.2	CG	0							0
43	Cricotopus/Ortho spp.	DOR	8.8	CG	61.6		4		2	1		1.090343
44	Eukiefferiella spp.	DOR	5.7	CG	0							0
45	Lopescladius sp.	DOR	2.2	CG	0							0
46	Nanocladius spp.	DOR	7.2	CG	28.8			1		2	1	0.623053
47	Orthocladius lignicola	DOR	5.4	SH	0							0
48	Parakiefferiella sp.1	DOR	5.9	CG	29.5			4		1		0.778818
49	Parametriochnemus sp.	DOR	3.7	CG	0							0
50	Psectrocladius sp.	DOR	3.8	CG	0							0
51	Rhaecricotopus spp.	DOR	7.3	CG	0							0
52	Synorthocladius semivirens	DOR	4.7	CG	0							0
53	Thienemanniella spp.	DOR	6	CG	0							0
54	Tvetenia spp.	DOR	4	CG	0							0
55	Uniola multivirga	DOR	0	CG	0							0
56	Xylopus par	DOR	6.6	SH	0							0
57	Pseudochironomus spp.	DPC	4.2	CG	411.8		21	28	23	15	13	15.2848
58	Ablabeomyia spp.	DTA	6.4	P	659.2		19	22	24	22	16	16.04381
59	Clinotanytus pinguis	DTA	9.1	P	0							0
60	Conchusopelia spp.	DTA	8.7	P	0							0
61	Lebrundia spp.	DTA	6	P	0							0
62	Larala spp.	DTA	8.3	P	348.6		1	7	16	5	13	6.542058
63	Natania sp.A	DTA	10	P	0							0
64	Nilotanytus spp.	DTA	4	P	0							0
65	Paramerina sp.	DTA	2.8	P	0							0
66	Pentaneura inconspicua	DTA	4.6	P	0							0
67	Procladius spp.	DTA	9.3	P	0							0
68	Cladotanytaneus sp.	DTY	3.7	CG	3.7					1		0.155783
69	Rhaotanytaneus spp.	DTY	6.4	CF	0							0
70	Stempellina spp.	DTY	2	CG	0							0
71	Tanytarsus spp.	DTY	6.7	CG	154.1		5	5	3	4	8	3.582555
72	Acerperina pygmaeus	EP	3.7	CG	0							0
73	Baetis spp.	EP	5.4	CG	0							0
74	Caenis spp.	EP	7.6	CG	494		5	10	16	21	13	10.12461
75	Calibaetis spp.	EP	9.3	CG	0							0
76	Eurylophella spp.	EP	3	CG	0							0
77	Heptagenia spp.	EP	2.8	SC	0							0
78	Isonychia spp.	EP	3.8	CF	0							0
79	Neophemera youngi	EP	2.1	CG	0							0
80	Paraleptophlebia spp.	EP	1.2	CG	1.2						1	0.155783
81	Stenonema spp.	EP	3.4	SC	0							0
82	Tricorythodes spp.	EP	5.4	CG	5.4			1				0.155783
83	Sphaerium spp.	MB	7.7	CF	0							0
84	Corydalis cornutus	ME	5.6	P	0							0
85	Nigronia senicornis	ME	5.5	P	0							0
86	Sialis spp.	ME	7.5	P	0							0
87	Ferriesia sp.	MG	6.9	SC	0							0
88	Boyeria vinosa	OD	6.3	P	0							0

89	Coenagrionidae	OD	9 P	0							0
90	Enallagma spp.	OD	9 P	0							0
91	Erythemis sp.	OD	7.7 P	61.6		2	1	3	2	1.246106	0
92	Leestes sp.	OD	9 P	9					1	0.155763	0
93	Neurocordulia obsoleta	OD	5.4 P	0							0
94	Progomphus sp.	OD	8.7 P	0							0
95	Acronaia abnormis	PL	2.2 P	0							0
96	Acronaia areolaris	PL	2.2 P	0							0
97	Acronaia mela	PL	0.9 P	0							0
98	Acronaia spp.	PL	1.4 P	0							0
99	Agnetia spp.	PL	0 P	0							0
100	Allocaenia spp.	PL	2.6 SH	0							0
101	Helopis spp.	PL	0.4 P	0							0
102	Isoperla spp.	PL	2 P	0							0
103	Paragnetia kansensis	PL	2 P	0							0
104	Paragnetia spp.	PL	2 P	0							0
105	Parleta spp.	PL	4.9 P	0							0
106	Perinella sphyre	PL	0 P	0							0
107	Perinella spp.	PL	0 P	0							0
108	Pteronarcys dorsata	PL	1.8 SH	0							0
109	Taeniopteryx sp.	PL	6.3 SH	0							0
110	Brachycentrus numerosus	TR	1.8 CF	0							0
111	Ceraclea spp.	TR	2.3 CG	0							0
112	Cheumatopsyche spp.	TR	6.6 CF	0							0
113	Chimarra spp.	TR	2.8 CF	0							0
114	Cynellus fraternus	TR	7.4 CF	22.2		2	1			0.46728	0
115	Diplectrona modesta	TR	2.2 CF	0							0
116	Hydropsyche decakda	TR	4.1 CF	0							0
117	Hydropsyche elisoma	TR	4 CF	0							0
118	Hydropsyche mississippiensis	TR	4 CF	0							0
119	Hydropsyche spp.	TR	4 CF	0							0
120	Hydroptila spp.	TR	6.2 PH	0							0
121	Leptoceridae (imm)	TR	4 CG	0							0
122	Lype diversa	TR	4.3 SC	0							0
123	Mayatrichia ayama	TR	6.2 SC	0							0
124	Microsema spp.	TR	0.6 SH	0							0
125	Nectopsyche pavidia	TR	4.2 SH	0							0
126	Nectopsyche spp.	TR	4.1 SH	0							0
127	Neotrichia spp.	TR	6.2 SC	0							0
128	Neuractipis spp.	TR	4.4 CF	0							0
129	Nyctophylax spp.	TR	0.9 CF	0							0
130	Oecetis spp.	TR	5.7 P	0							0
131	Orthotrichia spp.	TR	7.2 PH	21.6		1				2	0.46729
132	Oxyethira sp.	TR	7.2 PH	28.8		1	1	1		1	0.623053
133	Polycentropus spp.	TR	3.5 CF	63		2	4	3	7	2	2.803738
134	Pycnopsyche spp.	TR	2.3 SH	0							0
135											
136											
137											
138											
139	Table size:	134	Total orgs:	642	Tot Tax:	29	tot. mean #	717.3184			
140	Number Samps:	5	SC/CF:	0	Bio Index:	6.330997					
141	Mean TAX/Samp	17.4									
142	EPT:	7									
Statistical Summary:											
TAXC	FG	#Taxes	Total #	Mean/Samp	mean #/m ²	Rel Abd.	FG Rel. Abd				
AHC		0	0	.	.	.	.				
AMG		0	0	.	.	.	.				
ANO		0	0	.	.	.	.				
CO		0	0	.	.	.	.				
DCA		0	0	.	.	.	.				
DCC		9	199	39.8	222.3464	30.9969					
DD		0	0	.	.	.	.				
DO		3	56	11.2	62.5898	8.7227					
DOR		3	18	3.2	17.8771	2.4922					
DPC		1	98	19.8	109.4972	15.2648					
DTA		2	145	29.	162.0112	22.5857					
DTY		2	24	4.8	26.8156	3.7383					
EP		3	67	13.4	74.8603	10.4361					
MB		0	0	.	.	.	.				
ME		0	0	.	.	.	.				
MG		0	0	.	.	.	.				
OD		2	9	1.8	10.0559	1.4019					
PL		0	0	.	.	.	.				
TR		4	28	5.6	31.2849	4.3614					
	P	7	210	42.	234.6369	32.71028					
	CG	18	404	60.8	451.3966	62.92835					
	SC	0	0	.	.	.	.				
	PH	2	7	1.4	7.8212	1.090343					
	SH	0	0	.	.	.	.				
	CF	2	21	4.2	23.4636872	3.271028					

Taxa List:	
Chironomus spp.	
Cryptotendipes spp.	
Dicrotendipes neomodestus	
Dicrotendipes simpsoni	
Dicrotendipes spp.	
Nilothauma babei	
Phaenopsectra flavipes	
Polypedilum spp.	
Tribelos fuscicorne	
Ceratopogonidae	
Dasyhelea sp.	
Palpomyia spp.	
Cricotopus/Ortho spp.	
Nanocladius spp.	
Parakiefferiella sp.1	
Pseudochironomus spp.	
Ablabesmyia spp.	
Larsia spp.	
Cladotanytansus sp.	
Tanytarsus spp.	
Caenis spp.	
Paraleptophlebia spp.	
Tricorythodes spp.	
Erythemis sp.	
Lestes sp.	
Cynellus fraternus	
Orthotrichia spp.	
Oxyethira sp.	
Polycentropus spp.	

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da/A	B	C	D	E	Rel Abd
1	Tribelos fuscicornis	DCC		6 CG	984		50	10	38	54	12 25.54517
2	Ablabesmyia spp.	DTA		6.4 P	659.2		19	22	24	22	16 16.04361
3	Pseudochironomus spp.	DPC		4.2 CG	411.6		21	26	23	15	13 15.2648
4	Caenis spp.	EP		7.6 CG	494		5	10	16	21	13 10.12461
5	Palpomyia spp.	DO		6.9 P	351.9		11	18	7	7	8 7.943925
6	Larsia spp.	DTA		8.3 P	348.6		1	7	16	5	13 6.542056

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	85.5				7	8		1.491054
2	Gemmeridae	AMG	6.9	CG	0							0
3	Oligochaeta	ANO	8.2	CG	0							0
4	Ancyronyx variegatus	CO	6.9	CG	48.3			3	1		3	0.695825
5	Dineutus sp.	CO	5.5	P	5.5						1	0.099404
6	Ectopria nervosa	CO	4.3	SC	107.5		7	2	8	1	7	2.485089
7	Stenelmia dietrichi	CO	4	CG	0							0
8	Macronychus globatus	CO	4.7	CG	404.2		10	13	19	24	20	8.548708
9	Microcyllopus pusillus	CO	2.1	CG	0							0
10	Optioservus	CO	2.7	CG	0							0
11	Stenelmia crenata	CO	5.4	CG	0							0
12	Stenelmia decorata	CO	5.4	CG	0							0
13	Stenelmia spp.	CO	5.4	CG	0							0
14	Cambaridae	DCA	7.2	PH	0							0
15	Cryptochironomus spp.	DCC	6.7	P	6.7						1	0.099404
16	Cryptotendipes sp.	DCC	6.1	CG	0							0
17	Dicortandipes modestus	DCC	9.2	CG	0							0
18	Dicortandipes neomodelus	DCC	8.3	CG	99.6		3	5	3		1	1.192843
19	Dicortandipes spp.	DCC	7.9	CG	71.1			2	6		1	0.894632
20	Microtendipes rydalsensis	DCC	6.2	CG	0							0
21	Microtendipes spp.	DCC	6.2	CG	0							0
22	Nitothauma babyl	DCC	5.5	CG	0							0
23	Paraclopedipus sp.	DCC	6.4	CG	12.8			1	1			0.198907
24	Phaenopspectra flavipes	DCC	6.5	CG	0							0
25	Polypedilum fallax	DCC	6.7	SH	20.1				2		1	0.298211
26	Polypedilum spp.	DCC	6.9	CG	34.5		1		2	1	1	0.497018
27	Stelechomyia perpulchra	DCC	4.8	SH	0							0
28	Stenochironomus sp.	DCC	6.4	SH	0							0
29	Tribelos fuscicornis	DCC	6	CG	24				4			0.397814
30	Tribelos lucidum	DCC	6.6	CG	0							0
31	Diametini genus P	DO	7.4	CG	0							0
32	Potthastia longmans	DO	7.4	CG	0							0
33	Atherix lantha	DO	2.1	P	0							0
34	Ceratopogonidae	DO	6.5	P	0							0
35	Cheliferia spp.	DO	8.1	CG	0							0
36	Hemerodromia spp.	DO	8.1	CG	72.9		1		2		6	0.894632
37	Palpomyia spp.	DO	6.9	P	20.7		2				1	0.298211
38	Simulium spp.	DO	4.4	CF	13.2		2				1	0.298211
39	Brilia flavifrons	DOR	5.2	SH	0							0
40	Corynoneura spp.	DOR	6.2	CG	99.2		1	4	1	10		1.590457
41	Cricotopus/Ortho spp.	DOR	8.8	CG	959.2		32	28	35	12	2	10.83499
42	Eukiefferiella spp.	DOR	5.7	CG	0							0
43	Lopecladius sp.	DOR	2.2	CG	0							0
44	Nanocladius spp.	DOR	7.2	CG	0							0
45	Orthocladius lignicola	DOR	5.4	SH	0							0
46	Parakiefferiella sp.1	DOR	5.9	CG	5.9		1					0.099404
47	Parametocnemeus sp.	DOR	3.7	CG	0							0
48	Psectrocladius sp.	DOR	3.8	CG	0							0
49	Rheocricotopus spp.	DOR	7.3	CG	43.8		3			2	1	0.598421
50	Synorthocladius semivirens	DOR	4.7	CG	0							0
51	Thienemannella spp.	DOR	6	CG	438		7	13	6	39	8	7.256461
52	Tvetenia spp.	DOR	4	CG	0							0
53	Uniola multivirga	DOR	0	CG	0							0
54	Xylopus par	DOR	6.6	SH	0							0
55	Abalabeomyia spp.	DTA	6.4	P	89.6		1	2	10		1	1.39165
56	Cinotanytus pinus	DTA	9.1	P	0							0
57	Conchapelopia spp.	DTA	8.7	P	0							0
58	Labrundinia spp.	DTA	6	P	0							0
59	Natania sp.A	DTA	10	P	0							0
60	Nilotanytus spp.	DTA	4	P	0							0
61	Paramerina sp.	DTA	2.8	P	0							0
62	Pentaneura inconspicua	DTA	4.6	P	262.2		18	7	17	7	8	5.688004
63	Procladius sp.	DTA	9.3	P	0							0
64	Rheotanytus spp.	DTY	6.4	CF	102.4		5			11		1.590457
65	Stempellina spp.	DTY	2	CG	0							0
66	Tanytarsus spp.	DTY	6.7	CG	80.4		2	2	8			1.192843
67	Acerpenna pygmaeus	EP	3.7	CG	0							0
68	Baetis spp.	EP	5.4	CG	75.6		1	2	1	9	1	1.39165
69	Caenis spp.	EP	7.6	CG	0							0
70	Calibaetis spp.	EP	9.3	CG	0							0
71	Eurylophella spp.	EP	3	CG	0							0
72	Heptagenia spp.	EP	2.8	SC	0							0
73	Isonychia spp.	EP	3.8	CF	38		3	2		4	1	0.994038
74	Neophemera youngi	EP	2.1	CG	0							0
75	Paraleptophlebia spp.	EP	1.2	CG	0							0
76	Stenonema spp.	EP	3.4	SC	1094.8		68	53	47	79	77	32.00795
77	Tricorythodes spp.	EP	5.4	CG	194.4		8	3	11	10	4	3.578529
78	Parapovynx sp.	LEP	5	PH	15		1			2		0.298211
79	Sphaerium spp.	MB	7.7	CF	0							0
80	Corydalis cornutus	ME	5.6	P	16.8					3		0.298211
81	Nigronia serricornis	ME	5.5	P	5.5			1				0.099404
82	Sialis spp.	ME	7.5	P	0							0
83	Ferriesia sp.	MG	6.9	SC	48.3			1	1		5	0.895825
84	Hydrobiidae	MG	6.5	SC	6.5			1				0.099404
85	Physella spp.	MG	9.1	SC	81.9			2	3		4	0.894632
86	Boyeria vinosa	OD	6.3	P	0							0
87	Coenagrionidae	OD	9	P	0							0
88	Enallagma spp.	OD	9	P	0							0

89	Gomphus sp.	OD	6.2	P	6.2					1			0.099404
90	Neurocordulia obovata	OD	5.4	P	0								0
91	Progomphus sp.	OD	8.7	P	0								0
92	Acronuria abnormis	PL	2.2	P	0								0
93	Acronuria arenosa	PL	2.2	P	0								0
94	Acronuria mela	PL	0.9	P	0								0
95	Acronuria spp.	PL	1.4	P	0								0
96	Agnatina spp.	PL	0	P	0								0
97	Allocaonia spp.	PL	2.8	SH	0								0
98	Helopisus sp.	PL	0.4	P	0								0
99	Isoperla spp.	PL	2	P	0								0
100	Paragnetina kansensis	PL	2	P	0								0
101	Paragnetina spp.	PL	2	P	0								0
102	Perleeta spp.	PL	4.9	P	0								0
103	Perlinella ophyre	PL	0	P	0								0
104	Perlinella spp.	PL	0	P	0								0
105	Pteronarcys dorsata	PL	1.8	SH	0								0
106	Taeniopteryx sp.	PL	6.3	SH	0								0
107	Brachycentrus numerosus	TR	1.8	CF	1.8					1			0.099404
108	Coracina spp.	TR	2.3	CG	0								0
109	Chaumatopsyche spp.	TR	6.6	CF	52.8			1		1	3	3	0.795229
110	Chimarra spp.	TR	2.8	CF	14						4	1	0.497018
111	Cynellus fraternus	TR	7.4	CF	0								0
112	Diplectrona modesta	TR	2.2	CF	2.2			1					0.099404
113	Hydropsyche decaldis	TR	4.1	CF	0								0
114	Hydropsyche ellipsoma	TR	4	CF	0								0
115	Hydropsyche mississippiensis	TR	4	CF	0								0
116	Hydropsyche spp.	TR	4	CF	96						23	1	2.385886
117	Hydropsyche spp.	TR	6.2	PH	6.2							1	0.099404
118	Leptoceridae (Imm)	TR	4	CG	0								0
119	Lype diversa	TR	4.3	SC	8.6			1	1				0.198807
120	Macroctenium zebratum	TR	3.6	CF	3.6					1			0.099404
121	Mayetichia ayama	TR	6.2	SC	0								0
122	Micrasoma spp.	TR	0.6	SH	0								0
123	Nectopsyche candida	TR	3.8	SH	3.8					1			0.099404
124	Nectopsyche pavidia	TR	4.2	SH	0								0
125	Nectopsyche spp.	TR	4.1	SH	4.1							1	0.099404
126	Neotrichia spp.	TR	6.2	SC	0								0
127	Neureclipsis spp.	TR	4.4	CF	0								0
128	Nyctiophylax exquiste	TR	0.9	CF	10.8			5	2	5			1.192843
129	Ocoetis spp.	TR	5.7	P	290.7			6	5	11	19	10	5.069583
130	Oxyethira sp.	TR	7.2	PH	7.2				1				0.099404
131	Polycentropus spp.	TR	3.5	CF	3.5					1			0.099404
132	Pycnopsyche spp.	TR	2.3	SH	0								0
133													
134													
135													
136													
137	Table size:	132	Total orgs:	1008	Tot Tax:	49	tot. mean #	1124.022					
138	Number Samps:	5	SC/CF:	4.46341463	Bio Index:	5.164612							
139	Mean TAX/Samp	25.8											
140	EPT:	18											
Statistical Summary:													
TAXC	FG	#Taxes	Total #	Mean/Samp	mean #/m ²	Rel Abd.	FG Rel. Abd						
AHC		1	15	3.	16.7598	1.4911							
AMG		0	0	.	.	.							
ANO		0	0	.	.	.							
CO		4	119	23.8	132.9609	11.829							
DCA		0	0	.	.	.							
DCC		7	38	7.2	40.2235	3.5785							
DD		0	0	.	.	.							
DO		3	15	3.	16.7598	1.4911							
DOR		5	205	41.	229.0503	20.3777							
DTA		2	71	14.2	79.3296	7.0577							
DTY		2	28	5.6	31.2849	2.7833							
EP		4	382	76.4	426.8156	37.9722							
LEP		1	3	.6	3.352	.2962							
MB		0	0	.	.	.							
ME		2	4	.8	4.4693	.3976							
MG		3	17	3.4	18.9944	1.6899							
OD		1	1	.2	1.1173	.0994							
PL		0	0	.	.	.							
TR		14	110	22.	122.905	10.9344							
P		10	147	29.4	164.2458	14.61233							
CG		16	401	80.2	448.0447	39.88083							
SC		6	368	73.2	408.9385	36.38171							
PH		3	5	1.	5.5888	0.497018							
SH		3	5	1.	5.5888	0.497018							
CF		11	82	16.4	91.6201117	8.151093							

Taxa List:	
Hydracarina	
Ancyronyx variegatus	
Dineutus sp.	
Ectopria nervosa	
Macronychus glabratus	
Cryptochironomus spp.	
Dicrotendipes neomodestus	
Dicrotendipes spp.	
Paracladopelma sp.	
Polypedilum fallax	
Polypedilum spp.	
Tribelos fuscicorne	
Hemerodromia spp.	
Palpomyia spp.	
Simulium spp.	
Corynoneura spp.	
Cricotopus/Ortho spp.	
Parakiefferiella sp.1	
Rheocricotopus spp.	
Thienemanniella spp.	
Ablabesmyia spp.	
Pentaneura inconspicua	
Rheotanytarsus spp.	
Tanytarsus spp.	
Baetis spp.	
Isonychia spp.	
Stenonema spp.	
Tricorythodes spp.	
Parapoynx sp.	
Corydalis cornutus	
Nigronia serricornis	
Ferrissia sp.	
Hydrobiidae	
Physella spp.	
Gomphus sp.	
Brachycentrus numerosus	
Cheumatopsyche spp.	
Chimarra spp.	
Diplectrona modesta	
Hydropsyche spp.	
Hydroptila spp.	
Lype diversa	
Macrostamum zebratum	
Nectopsyche candida	
Nectopsyche spp.	
Nyctiophylax exquista	
Oecetis spp.	
Oxyethira sp.	

STEEL CR. @ RD A 08/19/93 STATION 28

Polycentropus spp.

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da/A	B	C	D	E	Rel Abd
1	Stenonema spp.	EP	3.4 SC	1094.8		66	53	47	79	77	32.00795
2	Cricotopus/Ortho spp.	DOR	8.8 CG	959.2		32	28	35	12	2	10.83499
3	Macronychus glabratus	CO	4.7 CG	404.2		10	13	19	24	20	8.548708
4	Thienemanniella spp.	DOR	6 CG	438		7	13	6	39	8	7.258461
5	Pentaneura inconspicua	DTA	4.6 P	262.2		18	7	17	7	8	5.666004
6	Oecetis spp.	TR	5.7 P	290.7		6	5	11	19	10	5.089583

Seq	Taxon	TAXC	NCBI	FG	((for BI))	Samplor Da	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	28.5			1	3	1		2.380952
2	Gammaridae	AMG	6.9	CG	34.5			2	3			2.380952
3	Hirudinea	ANH	8	P	16				1	1		0.952381
4	Oligochaeta	ANO	8.2	CG	0							0
5	Ancyronyx variegatus	CO	6.9	CG	0							0
6	Dinatus sp.	CO	5.5	P	0							0
7	Ectopria nervosa	CO	4.3	SC	0							0
8	Gonielmis dietrichi	CO	4	CG	0							0
9	Macronychus glabratus	CO	4.7	CG	0							0
10	Microcyllopus pusillus	CO	2.1	CG	0							0
11	Optioservus sp.	CO	2.7	CG	0							0
12	Stenelmis crenata	CO	5.4	CG	0							0
13	Stenelmis decorata	CO	5.4	CG	0							0
14	Stenelmis spp.	CO	5.4	CG	0							0
15	Cambaridae	DCA	7.2	PH	0							0
16	Chironomus spp.	DCC	9.8	CG	19.6				1		1	0.952381
17	Cladopelma spp.	DCC	2.5	CG	20				2	5		1 3.809524
18	Cryptochironomus spp.	DCC	6.7	P	6.7							0.47619
19	Cryptotendipes sp.	DCC	6.1	CG	0							0
20	Dicortandipes modestus	DCC	9.2	CG	73.8		1		3	2	1	1 3.809524
21	Dicortandipes spp.	DCC	7.9	CG	31.6		1					3 1.904762
22	Fluaria natchitochaeae	DCC	8.5	CG	34				4			1.904762
23	Kiefferulus dux	DCC	10	CG	20				1		1	0.952381
24	Microtandipes rydalsensis	DCC	6.2	CG	0							0
25	Microtandipes spp.	DCC	6.2	CG	0							0
26	Niothauma babyli	DCC	5.5	CG	0							0
27	Phaenopsectra flavipes	DCC	8.5	CG	0							0
28	Polypedium fallax	DCC	6.7	SH	6.7					1		0.47619
29	Polypedium spp.	DCC	6.9	CG	13.8				1	1		0.952381
30	Stelechomyia perpulchra	DCC	4.6	SH	0							0
31	Stenochironomus sp.	DCC	6.4	SH	0							0
32	Tribelos jucundum	DCC	6.6	CG	13.2		2					0.952381
33	Tribelos sp.	DCC	6.6	CG	13.6						2	0.952381
34	Diamasini genus P	DD	7.4	CG	0							0
35	Potthadia longimana	DD	7.4	CG	0							0
36	Atherix lanthe	DD	2.1	P	0							0
37	Ceratopogonidae	DO	6.5	P	143				19	3		10.47619
38	Chelifera spp.	DO	8.1	CG	0							0
39	Hemerodromia spp.	DO	8.1	CG	0							0
40	Palpomyla spp.	DO	6.9	P	269.1				15	9	7	8 18.57143
41	Simulium spp.	DO	4.4	CF	0							0
42	Brilla fleovitrons	DOR	5.2	SH	0							0
43	Corynoneura spp.	DOR	6.2	CG	0							0
44	Cricotopus/Ortho spp.	DOR	8.8	CG	0							0
45	Eukiefferiella spp.	DOR	5.7	CG	0							0
46	Lopescladius sp.	DOR	2.2	CG	0							0
47	Nanocladius spp.	DOR	7.2	CG	14.4		1			1		0.952381
48	Orthocladius lignicola	DOR	5.4	SH	0							0
49	Parakiefferiella sp.1	DOR	5.9	CG	0							0
50	Parametrioctenemus sp.	DOR	3.7	CG	0							0
51	Psectrocladius sp.	DOR	3.8	CG	0							0
52	Rheocricotopus spp.	DOR	7.3	CG	7.3					1		0.47619
53	Synorthocladius semivirens	DOR	4.7	CG	0							0
54	Thienemanniella spp.	DOR	6	CG	0							0
55	Tvetenia spp.	DOR	4	CG	0							0
56	Uniola multivirga	DOR	0	CG	0							0
57	Xylopus par	DOR	6.6	SH	0							0
58	Ablabeomyia spp.	DTA	6.4	P	147.2		3			4	9	7 10.95238
59	Clinotanytus pinguis	DTA	9.1	P	0							0
60	Conchapelopia spp.	DTA	8.7	P	52.2						2	4 2.857143
61	Labrundinia spp.	DTA	6	P	30				2	3		2.380952
62	Larela spp.	DTA	8.3	P	66.4		1		4	1	2	3.809524
63	Natrela sp.A	DTA	10	P	0							0
64	Näotanytus spp.	DTA	4	P	4		1					0.47619
65	Paramerina spp.	DTA	2.8	P	0							0
66	Pentaneura inornepicus	DTA	4.6	P	0							0
67	Procladius sp.	DTA	9.3	P	9.3						1	0.47619
68	Procladius spp.	DTA	9.3	P	9.3						1	0.47619
69	Rheotanytarsus spp.	DTY	6.4	CF	12.8						2	0.952381
70	Stempellina spp.	DTY	2	CG	0							0
71	Tanytarsus spp.	DTY	6.7	CG	87.1		2		3	2	1	5 6.190476
72	Acerponna pygmaeus	EP	3.7	CG	0							0
73	Baetis spp.	EP	5.4	CG	16.2		1		2			1.428571
74	Caenis spp.	EP	7.6	CG	136.8		2		9	5	2	8.571429
75	Calibaetis spp.	EP	9.3	CG	0							0
76	Eurylophella spp.	EP	3	CG	0							0
77	Heptagenia spp.	EP	2.8	SC	0							0
78	Isonychia spp.	EP	3.8	CF	0							0
79	Leptophlebia sp.	EP	6.4	CG	6.4					1		0.47619
80	Neophemera youngi	EP	2.1	CG	0							0
81	Paraleptophlebia spp.	EP	1.2	CG	0							0
82	Stenonema spp.	EP	3.4	SC	3.4				1			0.47619
83	Tricorythodes spp.	EP	5.4	CG	0							0
84	Sphaerium spp.	MB	6.8	CF	0							0
85	Corydalis cornutus	ME	5.6	P	0							0
86	Nigronia serricornis	ME	5.5	P	0							0
87	Sialis spp.	ME	7.5	P	0							0
88	Forissia sp.	MG	6.9	SC	6.9						1	0.47619

89	Planorbidae	MG	6.5	SC	13			1	1		0.952381
90	Boyeria vinosa	OD	6.3	P	0						0
91	Coenagrionidae	OD	9	P	0						0
92	Enallagma spp.	OD	9	P	9						0
93	Erythemis sp.	OD	7.7	P	15.4			2		1	0.47619
94	Neurocordulia obsoleta	OD	5.4	P	0						0
95	Neurocordulia sp.	OD	5.8	P	5.8			1			0.952381
96	Progomphus sp.	OD	8.7	P	0						0.47619
97	Acronaia abnormis	PL	2.2	P	0						0
98	Acronaia aranea	PL	2.2	P	0						0
99	Acronaia mela	PL	0.9	P	0						0
100	Acronaia spp.	PL	1.4	P	0						0
101	Agnetina spp.	PL	0	P	0						0
102	Allospina spp.	PL	2.8	SH	0						0
103	Helopis sp.	PL	0.4	P	0						0
104	Isoperla spp.	PL	2	P	0						0
105	Paragnetina kansensis	PL	2	P	0						0
106	Paragnetina spp.	PL	2	P	0						0
107	Perla spp.	PL	4.9	P	0						0
108	Perinella ephyra	PL	0	P	0						0
109	Perinella spp.	PL	0	P	0						0
110	Pteronarcys borealis	PL	1.8	SH	0						0
111	Taeniopteryx sp.	PL	6.3	SH	0						0
112	Brachycentrus numerosus	TR	1.8	CF	0						0
113	Ceratopsia spp.	TR	2.3	CG	0						0
114	Chamaetopseus spp.	TR	6.6	CF	0						0
115	Chamaetopseus spp.	TR	2.8	CF	0						0
116	Cynotarsus fraternus	TR	7.4	CF	0						0
117	Diplectrona modesta	TR	2.2	CF	0						0
118	Hydropsyche decolorata	TR	4.1	CF	0						0
119	Hydropsyche elisabethae	TR	4	CF	0						0
120	Hydropsyche mississippiensis	TR	4	CF	0						0
121	Hydropsyche spp.	TR	4	CF	0						0
122	Hydropsyche spp.	TR	6.2	PH	6.2			1			0.47619
123	Leptoceridae (imm)	TR	4	CG	0						0
124	Lype diversa	TR	4.3	SC	0						0
125	Mayatrichia ayama	TR	6.2	SC	0						0
126	Microstoma spp.	TR	0.6	SH	0						0
127	Nectopsyche pavida	TR	4.2	SH	0						0
128	Nectopsyche spp.	TR	4.1	SH	0						0
129	Neotrichia spp.	TR	6.2	SC	0						0
130	Neotrichia spp.	TR	4.4	CF	0						0
131	Nyctophylax spp.	TR	0.9	CF	0						0
132	Oecetis spp.	TR	5.7	P	0						0
133	Oxyethira sp.	TR	7.2	PH	14.4			1	1		0.952381
134	Polycentropus spp.	TR	3.5	CF	17.5			2		1	2.380952
135	Pycnopsycha spp.	TR	2.3	SH	0						0
136											
137											
138											
139											
140	Table size:	135	Total orgs:	210	Tot Tax:	39	tot. mean #	234.6369			
141	Number Sampe:	5	SC/CF:	0.57142857	Bio Index:	6.832857					
142	Mean TAX/Samp	15.6									
143	EPT:	7									
Statistical Summary:											
TAXC	FG	#Taxa	Total #	Mean/Samp	mean #/m ²	Rel Abd.	FG Rel. Abd				
AHC		1	5	1.	5.5868	2.381					
AMG		1	5	1.	5.5868	2.381					
ANH		1	2	.4	2.2346	.9524					
ANO		0	0	.	.	.					
CO		0	0	.	.	.					
DCA		0	0	.	.	.					
DCC		11	38	7.2	40.2235	17.1429					
DD		0	0	.	.	.					
DO		2	61	12.2	68.1564	29.0476					
DOR		2	3	.6	3.352	1.4286					
DTA		7	45	9.	50.2793	21.4286					
DTY		2	15	3.	16.7598	7.1429					
EP		4	23	4.6	25.6983	10.9524					
MB		0	0	.	.	.					
ME		0	0	.	.	.					
MG		2	3	.6	3.352	1.4286					
OD		3	4	.8	4.4693	1.9048					
PL		0	0	.	.	.					
TR		3	8	1.6	8.9385	3.8095					
P		15	118	23.6	131.8436	56.19048					
CG		16	77	15.4	86.0335	36.66667					
SC		3	4	.8	4.4693	1.904762					
PH		2	3	.6	3.352	1.428571					
SH		1	1	.2	1.1173	0.47619					
CF		2	7	1.4	7.82122905	3.333333					

Taxa List:	
Hydracarina	
Gammaridae	
Hirudinea	
Chironomus spp.	
Cladopelma spp.	
Cryptochironomus spp.	
Dicrotendipes modestus	
Dicrotendipes spp.	
Fleuria natchitochaeae	
Kiefferulus dux	
Polypedilum fallax	
Polypedilum spp.	
Tribelos jucundum	
Tribelos sp.	
Ceratopogonidae	
Palpomyia spp.	
Nanocladius spp.	
Rheocricotopus spp.	
Ablabesmyia spp.	
Conchapelopia spp.	
Labrundinia spp.	
Larsia spp.	
Nilotanytus spp.	
Procladius sp.	
Procladius spp.	
Rheotanytarsus spp.	
Tanytarsus spp.	
Baetis spp.	
Caenis spp.	
Leptophlebia sp.	
Stenonema spp.	
Ferrissia sp.	
Planorbidae	
Enallagma spp.	
Erythemis sp.	
Neurocordulia sp.	
Hydroptila spp.	
Oxyethira sp.	
Polycentropus spp.	

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Palpomyia spp.	DO	6.9P		289.1				15	9	7	8 18.57143
2	Abiaesmyia spp.	DTA	6.4P		147.2			3		4	9	7 10.95238
3	Ceratopogonidae	DO	6.5P		143				19	3		10.47619
4	Caenis spp.	EP	7.8CG		136.8			2	9	5		2 8.571429
5	Tanytarsus spp.	DTY	6.7CG		87.1			2	3	2	1	5 6.190476

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler	Da	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	39.9			3	1			3	0.311388
2	Gammaridae	AMG	6.9	CG	0								0
3	Oligochaeta	ANO	8.2	CG	0								0
4	Anonyx variegatus	CO	6.9	CG	0								0
5	Dineutus sp.	CO	5.5	P	0								0
6	Ectopria nervosa	CO	4.3	SC	0								0
7	Goniopsis dietrichi	CO	4	CG	0								0
8	Macronychus glabratus	CO	4.7	CG	98.7			6	5	7		3	0.934164
9	Microcyloepus pusillus	CO	2.1	CG	0								0
10	Optioservus sp.	CO	2.7	CG	0								0
11	Stenelmis crenata	CO	5.4	CG	0								0
12	Stenelmis crenata	CO	5.4	CG	5.4					1			0.044484
13	Stenelmis decorata	CO	5.4	CG	0								0
14	Cambaridae	DCA	7.2	PH	0								0
15	Cryptochironomus spp.	DCC	6.7	P	0								0
16	Cryptotendipes sp.	DCC	6.1	CG	0								0
17	Dicortendipes modestus	DCC	9.2	CG	0								0
18	Dicortendipes neomodestus	DCC	8.3	CG	0								0
19	Dicortendipes spp.	DCC	7.9	CG	0								0
20	Microtendipes rydalenis	DCC	6.2	CG	0								0
21	Microtendipes spp.	DCC	6.2	CG	0								0
22	Nitothauma babyi	DCC	5.5	CG	0								0
23	Phaenopsectra flavipes	DCC	8.5	CG	0								0
24	Polypedium fallax	DCC	6.7	SH	13.4					1	1		0.088968
25	Polypedium spp.	DCC	6.9	CG	586.5			35	14	10	20	6	3.781139
26	Stelechomyia perpulchra	DCC	4.6	SH	0								0
27	Stenochironomus sp.	DCC	6.4	SH	83.2			4	4	2		3	0.578292
28	Tribelos lucundum	DCC	6.8	CG	0								0
29	Diamesini genus P	DD	7.4	CG	0								0
30	Pothastis longimana	DD	7.4	CG	0								0
31	Atherix lantha	DO	2.1	P	0								0
32	Ceratopogonidae	DO	6.5	P	0								0
33	Chelifer spp.	DO	8.1	CG	0								0
34	Hemerodromia spp.	DO	8.1	CG	153.9			3	1	3	9	3	0.845198
35	Palpomyia spp.	DO	6.9	P	0								0
36	Simulium spp.	DO	4.4	CF	4.4					1			0.044484
37	Brilia flavifrons	DOR	5.2	SH	0								0
38	Corynoneura spp.	DOR	6.2	CG	80.6			5	2	5	1		0.578292
39	Cricotopus/Ortho spp.	DOR	8.8	CG	248.4			6	4	3	2	13	1.245552
40	Eukiefferiella spp.	DOR	5.7	CG	0								0
41	Lopocladus sp.	DOR	2.2	CG	0								0
42	Nanocladius spp.	DOR	7.2	CG	0								0
43	Orthocladius lignicola	DOR	5.4	SH	0								0
44	Parakiefferiella sp.1	DOR	5.9	CG	0								0
45	Parametionemus sp.	DOR	3.7	CG	3.7				1				0.044484
46	Psectrocladius sp.	DOR	3.8	CG	0								0
47	Rheocricotopus spp.	DOR	7.3	CG	766.5			13	24	12	41	15	4.670819
48	Synorthocladius semivirens	DOR	4.7	CG	0								0
49	Thienemanniella spp.	DOR	6	CG	2274			55	103	54	131	36	16.85943
50	Tvetenia spp.	DOR	4	CG	8			1			1		0.088968
51	Uniola multivirga	DOR	0	CG	0								0
52	Xylopus par	DOR	6.6	SH	0								0
53	Ablabesmyia spp.	DTA	6.4	P	19.2				2		1		0.133452
54	Clinotanytus pinguis	DTA	9.1	P	0								0
55	Conchapelopia spp.	DTA	8.7	P	0								0
56	Labrundinia spp.	DTA	6	P	0								0
57	Natania sp. A	DTA	10	P	0								0
58	Natanytus spp.	DTA	4	P	4					1			0.044484
59	Parameira sp.	DTA	2.8	P	0								0
60	Pentaneura inconspicua	DTA	4.6	P	0								0
61	Procladius sp.	DTA	9.3	P	0								0
62	Rheotanytarsus spp.	DTY	6.4	CF	1075.2			35	18	44	24	47	7.47331
63	Stempellina spp.	DTY	2	CG	0								0
64	Tanytarsus spp.	DTY	6.7	CG	13.4			2					0.088968
65	Acerpenna pygmaeus	EP	3.7	CG	0								0
66	Baetis spp.	EP	5.4	CG	129.6			2	2	4	11	5	1.067616
67	Caenis spp.	EP	7.6	CG	0								0
68	Calibaetis spp.	EP	9.3	CG	0								0
69	Ephemerella sp.	EP	1.4	CG	2.8						2		0.088968
70	Eurylophella spp.	EP	3	CG	0								0
71	Heptagenia spp.	EP	2.8	SC	0								0
72	Isaenychia spp.	EP	3.8	CF	0								0
73	Nocephemera youngi	EP	2.1	CG	0								0
74	Paraleptophlebia spp.	EP	1.2	CG	0								0
75	Stenonema spp.	EP	3.4	SC	550.8			28	25	33	64	14	7.206408
76	Tricorythodes spp.	EP	5.4	CG	27			1		1	3		0.22242
77	Sphaerium spp.	MB	7.7	CF	0								0
78	Corydalis cornutus	ME	5.6	P	145.6			6	7	5	4	4	1.156584
79	Nigronia sericornis	ME	5.5	P	16.5					1		2	0.133452
80	Sialis spp.	ME	7.5	P	0								0
81	Feriseta sp.	MG	6.9	SC	0								0
82	Boyeria vinoxia	OD	6.3	P	0								0
83	Coenagrionidae	OD	9	P	0								0
84	Enallagma spp.	OD	9	P	0								0
85	Neurocordulia obsolita	OD	5.4	P	0								0
86	Progomphus sp.	OD	8.7	P	0								0
87	Acronuria abnormis	PL	2.2	P	0								0
88	Acronuria areolaris	PL	2.2	P	0								0

89	Acroneris mela	PL	0.9 P	0								0
90	Acroneris spp.	PL	1.4 P	0								0
91	Agnatina spp.	PL	0 P	0								0
92	Allocaenia spp.	PL	2.8 SH	0								0
93	Helopius sp.	PL	0.4 P	0								0
94	Isoptera spp.	PL	2 P	0								0
95	Paragnetina kansensis	PL	2 P	0								0
96	Paragnetina spp.	PL	2 P	0								0
97	Perlosta spp.	PL	4.9 P	0								0
98	Perlinella ephyra	PL	0 P	0								0
99	Perlinella spp.	PL	0 P	0								0
100	Pteronarcys dorsata	PL	1.8 SH	0								0
101	Taeniopteryx sp.	PL	6.3 SH	0								0
102	Brachycentrus numerosus	TR	1.8 CF	0								0
103	Ceraclea spp.	TR	2.3 CG	0								0
104	Cheumatopsyche spp.	TR	6.6 CF	2455.2	63	68	92	138	13	16.54804		0
105	Chimarra spp.	TR	2.8 CF	61.8	4	5		9	4	0.978648		0
106	Cynellus fraternus	TR	7.4 CF	0								0
107	Diplectrona modesta	TR	2.2 CF	33	8	5	2			0.66726		0
108	Hydropsyche decaldis	TR	4.1 CF	0								0
109	Hydropsyche elsonia	TR	4 CF	0								0
110	Hydropsyche mississippiensis	TR	4 CF	0								0
111	Hydropsyche spp.	TR	4 CF	2872	110	78	174	224	134	31.9395		0
112	Hydroptila spp.	TR	6.2 PH	18.6	2	1				0.133452		0
113	Leptoacrididae (imm)	TR	4 CG	0								0
114	Lype diversa	TR	4.3 SC	0								0
115	Macroctenium carolinae	TR	3.8 CF	10.8					3	0.133452		0
116	Mayatrichia ayamae	TR	6.2 SC	0								0
117	Micrasema spp.	TR	0.8 SH	0								0
118	Nectopsyche pavida	TR	4.2 SH	0								0
119	Nectopsyche spp.	TR	4.1 SH	0								0
120	Nectrichia spp.	TR	6.2 SC	0								0
121	Noemaclopes spp.	TR	4.4 CF	88	3	1	2	11	3	0.88968		0
122	Nyctophylax spp.	TR	0.9 CF	0								0
123	Oecetis spp.	TR	5.7 P	125.4	4	1	4	11	2	0.978648		0
124	Polycentropus spp.	TR	3.5 CF	0								0
125	Pycnopsyche spp.	TR	2.3 SH	0								0
126												
127												
128												
129												
130	Table size:	125	Total orgs:	2248	Tot Tax:	32	tot. mean #	2511.732				
131	Number Sampls:	5	SC/CF:	0.12282032	Bio Index:	5.343995						
132	Mean TAX/Samp	21.4										
133	EPT:	12										
Statistical Summary:												
TAXC	FG	#Taxes	Total #	Mean/Samp	mean #/m^2	Rel Abd.	FG Rel. Abd					
AHC		1	7	1.4	7.8212	.3114						
AMG		0	0	.	.	.						
ANO		0	0	.	.	.						
CO		2	22	4.4	24.581	.9788						
DCA		0	0	.	.	.						
DCC		3	100	20.	111.7318	4.4484						
DD		0	0	.	.	.						
DO		2	20	4.	22.3464	.8897						
DOR		6	528	105.6	589.9441	23.4875						
DTA		2	4	.8	4.4893	.1779						
DTY		2	170	34.	189.9441	7.5823						
EP		4	193	38.8	215.6425	8.5854						
MB		0	0	.	.	.						
ME		2	29	5.8	32.4022	1.29						
MG		0	0	.	.	.						
OD		0	0	.	.	.						
PL		0	0	.	.	.						
TR		8	1175	235.	1312.8492	52.2687						
	P	8	62	12.4	69.2737		2.758007					
	CG	14	687	137.4	787.5978		30.5605					
	SC	1	162	32.4	181.0058		7.208408					
	PH	1	3	.6	3.352		0.133452					
	SH	2	15	3.	16.7598		0.68726					
	CF	8	1319	263.8	1473.74302		58.67438					

Taxa List:	
Hydracarina	
Macronychus glabratus	
Stenelmis crenata	
Polypedilum fallax	
Polypedilum spp.	
Stenochironomus sp.	
Hemerodromia spp.	
Simulium spp.	
Corynoneura spp.	
Cricotopus/Ortho spp.	
Parametriocnemus sp.	
Rheocricotopus spp.	
Thienemanniella spp.	
Tvetenia spp.	
Ablabesmyia spp.	
Nilotanytus spp.	
Rheotanytus spp.	
Tanytus spp.	
Baetis spp.	
Ephemerella sp.	
Stenonema spp.	
Tricorythodes spp.	
Corydalis cornutus	
Nigronia serricornis	
Cheumatopsyche spp.	
Chimarra spp.	
Diplectrona modesta	
Hydropsyche spp.	
Hydroptila spp.	
Macrostemum carolina	
Neureclipsis spp.	
Oecetis spp.	

[illegible]

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler De	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	22.8				4			0.292398
2	Gammaridae	AMG	8.9	CG	0							0
3	Oligochaeta	ANO	8.2	CG	0							0
4	Ancyronyx variegatus	CO	8.9	CG	13.8					1		1 0.146189
5	Dineutus sp.	CO	5.5	P	16.5					1		0.219298
6	Ectopria nervosa	CO	4.3	SC	25.8		1			1	1	3 0.438598
7	Gonelmis dietrichi	CO	4	CG	0							0
8	Macronychus glabratus	CO	4.7	CG	291.4		10		10	14	13	15 4.532164
9	Microcyllopus pusillus	CO	2.1	CG	0							0
10	Optioservus sp.	CO	2.7	CG	0							0
11	Stenelmis crenata	CO	5.4	CG	16.2					3		0.219298
12	Stenelmis decorata	CO	5.4	CG	0							0
13	Stenelmis spp.	CO	5.4	CG	16.2		1		1		1	0.219298
14	Cambaridae	DCA	7.2	PH	7.2							1 0.073099
15	Cryptochironomus spp.	DCC	6.7	P	0							0
16	Cryptotendipes sp.	DCC	6.1	CG	0							0
17	Diclotendipes modestus	DCC	9.2	CG	0							0
18	Diclotendipes neomodelus	DCC	8.3	CG	0							0
19	Diclotendipes spp.	DCC	7.9	CG	0							0
20	Microtendipes rydalenis	DCC	6.2	CG	1016.8		13		61	52	14	24 11.9883
21	Microtendipes spp.	DCC	6.2	CG	24.8							4 0.292398
22	Nitothauma babyl	DCC	5.5	CG	38.5		4			1		2 0.511696
23	Phaenopspectra flavipes	DCC	8.5	CG	0							0
24	Polypedilum fallax	DCC	6.7	SH	40.2		1		3	1		1 0.438598
25	Polypedilum spp.	DCC	6.9	CG	710.7		31		20	17	24	11 7.52924
26	Stelechomyia perpulchra	DCC	4.6	SH	13.8		3					0.219298
27	Stelechomyia perpulchra	DCC	4.6	SH	0							0
28	Stenochironomus sp.	DCC	6.4	SH	6.4					1		0.073099
29	Tribelos lucundum	DCC	6.6	CG	59.4							9 0.657895
30	Diamesini genus P	DD	7.4	CG	0							0
31	Portia longmans	DD	7.4	CG	0							0
32	Atherix lanthe	DO	2.1	P	0							0
33	Ceratopogonidae	DO	6.5	P	6.5					1		0.073099
34	Chelifer spp.	DO	8.1	CG	0							0
35	Hemerodromia spp.	DO	8.1	CG	275.4		7		6	9	1	11 2.48538
36	Palpomyia spp.	DO	6.9	P	96.6		3		3	4	2	2 1.023392
37	Simulium spp.	DO	4.4	CF	4.4				1			0.073099
38	Brilia flavifrons	DOR	5.2	SH	0							0
39	Corynoneura spp.	DOR	6.2	CG	124		3		3	3		11 1.461888
40	Cricotopus/Ortho spp.	DOR	8.8	CG	88		2		3	4	1	0.730994
41	Euklofferiella spp.	DOR	5.7	CG	0							0
42	Lopescladius sp.	DOR	2.2	CG	0							0
43	Nanocladius spp.	DOR	7.2	CG	7.2						1	0.073099
44	Orthocladius lignicola	DOR	5.4	SH	0							0
45	Paraklofferiella sp.1	DOR	5.9	CG	53.1		1		3	3	1	1 0.657895
46	Parametrioctonus sp.	DOR	3.7	CG	37		1		5		3	1 0.730994
47	Psectrocladius sp.	DOR	3.8	CG	0							0
48	Rheocricotopus spp.	DOR	7.3	CG	73				2	6	2	0.730994
49	Synorthocladius semivirens	DOR	4.7	CG	0							0
50	Thionemannella spp.	DOR	6	CG	1104		38		57	53	28	10 13.45029
51	Tvetenia spp.	DOR	4	CG	0							0
52	Unioella multivirga	DOR	0	CG	0							0
53	Xylopus par	DOR	6.6	SH	0							0
54	Ablabeomyia spp.	DTA	6.4	P	83.2				1	2		10 0.950292
55	Clinotanytus pinguis	DTA	9.1	P	0							0
56	Conchapelopia spp.	DTA	8.7	P	165.3		4		4	3	1	7 1.388889
57	Labrundinia spp.	DTA	6	P	6					1		0.073099
58	Natania sp.A	DTA	10	P	0							0
59	Nilotanytus spp.	DTA	4	P	160		4		18	10	2	6 2.923977
60	Paramerina sp.	DTA	2.8	P	0							0
61	Pentaneura inornata	DTA	4.6	P	13.8				1	2		0.219298
62	Procladius sp.	DTA	9.3	P	0							0
63	Rheotanytarsus spp.	DTY	6.4	CF	396.8		39		7	8	7	1 4.532164
64	Stempellina sp.	DTY	2	CG	144		2		8	8	5	51 5.263158
65	Stempellina spp.	DTY	2	CG	0							0
66	Tanytarsus spp.	DTY	6.7	CG	1185.9		48		48	27	15	39 12.9388
67	Acerpenna pygmaeus	EP	3.7	CG	0							0
68	Baetis spp.	EP	5.4	CG	32.4					6		0.438598
69	Caenis spp.	EP	7.6	CG	144.4		2		9	4		4 1.388889
70	Callibaetis spp.	EP	9.3	CG	0							0
71	Ephemerella sp.	EP	1.7	CG	5.1					3		0.219298
72	Eurylophella spp.	EP	3	CG	0							0
73	Heptagenia spp.	EP	2.8	SC	0							0
74	Isonychia spp.	EP	3.8	CF	0							0
75	Noesphemera youngi	EP	2.1	CG	0							0
76	Paraleptophlebia spp.	EP	1.2	CG	0							0
77	Stenonema spp.	EP	3.4	SC	295.8		15		18	33	8	13 6.359849
78	Tricorythodes spp.	EP	5.4	CG	334.8		9		19	17	2	15 4.532164
79	Sphaerium spp.	MB	7.7	CF	0							0
80	Corydalis cornutus	ME	5.6	P	22.4		3			1		0.292398
81	Nigronia sorricornis	ME	5.5	P	11					1	1	0.146189
82	Slake spp.	ME	7.5	P	0							0
83	Ferissia sp.	MG	6.9	SC	20.7							3 0.219298
84	Argia sp.	OD	8.7	P	8.7		1					0.073099
85	Boyeria vinosa	OD	6.3	P	0							0
86	Coenagrionidae	OD	9	P	0							0
87	Enallagma spp.	OD	9	P	9							1 0.073099
88	Nourocordulia obsolita	OD	5.4	P	0							0

89	Progomphus sp.	OD	8.7	P	0							0
90	Acronuria abnormis	PL	2.2	P	8.8							0
91	Acronuria areolaris	PL	2.2	P	0		2			1	1	0.292398
92	Acronuria mela	PL	0.9	P	0							0
93	Acronuria spp.	PL	1.4	P	0							0
94	Agetina spp.	PL	0	P	0							0
95	Allocaenia spp.	PL	2.8	SH	0							0
96	Helopius sp.	PL	0.4	P	0							0
97	Isoperla spp.	PL	2	P	0							0
98	Paragnetina immarginalis	PL	2	P	8			1	3			0.292398
99	Paragnetina kansensis	PL	2	P	0							0
100	Perlota spp.	PL	4.9	P	0							0
101	Perlinella ephyra	PL	0	P	0							0
102	Perlinella spp.	PL	0	P	0							0
103	Pteronarcys dorsata	PL	1.8	SH	1.8					1		0.073099
104	Taeniopteryx sp.	PL	6.3	SH	0							0
105	Brachycentrus numerous	TR	1.8	CF	66.8			1	23	11	2	2.704878
106	Ceraclea spp.	TR	2.3	CG	0							0
107	Cheumatopsyche spp.	TR	6.6	CF	48.2			6	1			0.511698
108	Chimarra spp.	TR	2.8	CF	5.6		1		1			0.146199
109	Cynellus fraternus	TR	7.4	CF	0							0
110	Diplectrona modesta	TR	2.2	CF	0							0
111	Hydropsyche decaldis	TR	4.1	CF	0							0
112	Hydropsyche elisoma	TR	4	CF	0							0
113	Hydropsyche mississippiensis	TR	4	CF	0							0
114	Hydropsyche spp.	TR	4	CF	4						1	0.073099
115	Hydroptila spp.	TR	6.2	PH	0							0
116	Leptoceridae (Imm)	TR	4	CG	0							0
117	Lype diversa	TR	4.3	SC	30.1			2	2		3	0.511698
118	Mayatrichia ayama	TR	6.2	SC	0							0
119	Micrasema spp.	TR	0.8	SH	0.8				1			0.073099
120	Nectopsyche exquisita	TR	4.1	SH	4.1			1				0.073099
121	Nectopsyche pavidis	TR	4.2	SH	0							0
122	Nectrichia spp.	TR	6.2	SC	0							0
123	Neureclipsis spp.	TR	4.4	CF	4.4			1				0.073099
124	Nyctophylax spp.	TR	0.9	CF	0							0
125	Oecetis spp.	TR	5.7	P	273.6		2	22	15	7	2	3.508772
126	Polycentropus spp.	TR	3.5	CF	14			1	1		2	0.292398
127	Pycnopsyche spp.	TR	2.3	SH	0							0
128												
129												
130												
131												
132	Table size:	127	Total orgs:	1368	Tot Tax:	58	tot. mean #	1528.492				
133	Number Samps:	5	SC/CF:	0.89565217	Bio Index:	5.626316						
134	Mean TAX/Samp	32.2										
135	EPT:	18										
Statistical Summary:												
TAXC	FG	#Taxes	Total #	Mean/Samp	mean #/m ²	Ref Abd.	FG Ref. Abd					
AHC		1	4	.8	4.4693	.2924						
AMG		0	0	.	.	.						
ANO		0	0	.	.	.						
CO		6	79	15.8	88.2882	5.7749						
DCA		1	1	.2	1.1173	.0731						
DCC		8	297	59.4	331.8438	21.7105						
DD		0	0	.	.	.						
DO		4	50	10.	55.8859	3.655						
DOR		7	244	48.8	272.6257	17.8363						
DTA		5	78	15.2	84.9162	5.5556						
DTY		3	311	62.2	347.488	22.7339						
EP		5	177	35.4	197.7654	12.9388						
MB		0	0	.	.	.						
ME		2	6	1.2	6.7039	.4388						
MG		1	3	.6	3.352	.2193						
OD		2	2	.4	2.2348	.1462						
PL		3	9	1.8	10.0559	.6579						
TR		10	109	21.8	121.7877	7.9678						
P		16	162	32.4	181.0056		11.84211					
CG		23	974	194.8	1088.2882		71.19883					
SC		4	103	20.6	115.0838		7.52924					
PH		1	1	.2	1.1173		0.073099					
SH		8	13	2.6	14.5251		0.950292					
CF		8	115	23	128.49162		8.406433					

Taxa List:	
Hydracarina	
Ancyronyx variegatus	
Dineutus sp.	
Ectopria nervosa	
Macronychus glabratus	
Stenelmis crenata	
Stenelmis spp.	
Cambaridae	
Microtendipes rydalensis	
Microtendipes spp.	
Nilothauma babyi	
Polypedilum fallax	
Polypedilum spp.	
Stelechomyia perpulchra	
Stenochironomus sp.	
Tribelos jucundum	
Ceratopogonidae	
Hemerodromia spp.	
Palpomyia spp.	
Simulium spp.	
Corynoneura spp.	
Cricotopus/Ortho spp.	
Nanocladius spp.	
Parakiefferiella sp.1	
Parametriocnemus sp.	
Rheocricotopus spp.	
Thienemanniella spp.	
Ablabesmyia spp.	
Conchapelopia spp.	
Labrundinia spp.	
Nilotanytus spp.	
Pentaneura inconspicua	
Rheotanytarsus spp.	
Stempellina sp.	
Tanytarsus spp.	
Baetis spp.	
Caenis spp.	
Ephemerella sp.	
Stenonema spp.	
Tricorythodes spp.	
Corydalus cornutus	
Nigronia serricornis	
Ferrissia sp.	
Argia sp.	
Enallagma spp.	
Acroneuria abnormis	
Paragentina immarginala	
Pteronarcys dorsata	

Brachycentrus numerosus
Cheumatopsyche spp.
Chimarra spp.
Hydropsyche spp.
Lype diversa
Micrasema spp.
Nectopsyche exquisita
Neureclipsis spp.
Oecetis spp.
Polycentropus spp.

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da/A	B	C	D	E	Rel Abd
1	Thienemanniella spp.	DOR		6 CG	1104		36	57	53	28	10 13.45029
2	Tanytarsus spp.	DTY		6.7 CG	1185.9		48	48	27	15	39 12.9386
3	Microtendipes rydalsensis	DCC		6.2 CG	1018.8		13	61	52	14	24 11.9883
4	Polypedilum spp.	DCC		6.9 CG	710.7		31	20	17	24	11 7.52924
5	Stenonema spp.	EP		3.4 SC	295.8		15	18	33	8	13 6.359649
6	Stempellina sp.	DTY		2 CG	144		2	8	6	5	51 5.283158

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler	Da	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	5.7							1	0.081037
2	Gammaridae	AMG	6.9	CG	0								0
3	Oligochaeta	ANO	8.2	CG	0								0
4	Ancyromyz variegatus	CO	6.9	CG	13.8							1	0.162075
5	Dineutus sp.	CO	5.5	P	5.5						1		0.081037
6	Dubiraphia sp.	CO	6.4	CG	12.8						2		0.162075
7	Ectopria nervosa	CO	4.3	SC	0								0
8	Gonolmis dietrichi	CO	4	CG	0								0
9	Macronychus glabratus	CO	4.7	CG	61.1			1		2	6	1	3 1.053485
10	Microcyllopus pusillus	CO	2.1	CG	0								0
11	Optioservus sp.	CO	2.7	CG	0								0
12	Stenelmis crenata	CO	5.4	CG	54			2		4		2	2 0.810373
13	Stenelmis decorata	CO	5.4	CG	0								0
14	Stenelmis spp.	CO	5.4	CG	0								0
15	Cambaridae	DCA	7.2	PH	0								0
16	Cryptochironomus spp.	DCC	6.7	P	0								0
17	Cryptotendipes sp.	DCC	6.1	CG	0								0
18	Dicortandipes modestus	DCC	9.2	CG	0								0
19	Dicortandipes neomodestus	DCC	8.3	CG	0								0
20	Dicortandipes spp.	DCC	7.9	CG	0								0
21	Microtendipes rydalseni	DCC	6.2	CG	0								0
22	Microtendipes spp.	DCC	6.2	CG	0								0
23	Nitthauma babyl	DCC	5.5	CG	0								0
24	Phaenopsectra flavipes	DCC	8.5	CG	0								0
25	Polypedium folio	DCC	6.7	SH	6.7								0
26	Polypedium spp.	DCC	6.9	CG	841.8				9		49	35	29 9.88548
27	Stelechomyia perpulchra	DCC	4.8	SH	9.2						1		1 0.162075
28	Stenochironomus sp.	DCC	6.4	SH	12.8							2	0.162075
29	Tribelos jucundum	DCC	6.6	CG	0								0
30	Diamasini genus P	DD	7.4	CG	0								0
31	Portia longimana	DD	7.4	CG	0								0
32	Atherix lenthia	DO	2.1	P	6.3				2				1 0.243112
33	Ceratopogonidae	DO	6.5	P	0								0
34	Chelifera spp.	DO	8.1	CG	0								0
35	Hemerodromia spp.	DO	8.1	CG	137.7			1		2	5	7	2 1.377834
36	Palpomyia spp.	DO	6.9	P	13.8						1		1 0.162075
37	Simulium spp.	DO	4.4	CF	338.8			1		24	7	3	42 8.23987
38	Brilia flavifrons	DOR	5.2	SH	0								0
39	Corynoneura spp.	DOR	6.2	CG	12.4							1	1 0.162075
40	Cricotopus/Ortho spp.	DOR	6.8	CG	3834.4			11		192	103	40	67 33.4684
41	Eukiefferiella spp.	DOR	5.7	CG	0								0
42	Lopecladius sp.	DOR	2.2	CG	0								0
43	Nanocladius sp.	DOR	7.2	CG	93.6					1		7	5 1.053485
44	Orthocladius lignicola	DOR	5.4	SH	0								0
45	Parakiefferiella sp.1	DOR	5.9	CG	11.8							2	0.162075
46	Parametriochnemus sp.	DOR	3.7	CG	77.7			1		1	8	7	4 1.701783
47	Psectrocladius sp.	DOR	3.8	CG	0								0
48	Rheocricotopus spp.	DOR	7.3	CG	649.7			2		10	32	27	18 7.212318
49	Synorthocladius semivirens	DOR	4.7	CG	28.2						1	2	3 0.488224
50	Thienemanniella spp.	DOR	6	CG	834			1		21	61	21	35 11.28418
51	Tvetenia spp.	DOR	4	CG	72					2	1	3	12 1.458871
52	Unielia multivirga	DOR	0	CG	0								0
53	Xylopus par	DOR	6.8	SH	0								0
54	Ablabeemyla spp.	DTA	6.4	P	0								0
55	Clinotanytus pinguis	DTA	9.1	P	0								0
56	Conchapelopia spp.	DTA	6.7	P	182.7						8	6	7 1.701783
57	Labrundinia spp.	DTA	6	P	0								0
58	Nataria sp.A	DTA	10	P	0								0
59	Nilotanytus spp.	DTA	4	P	0								0
60	Paramerina sp.	DTA	2.6	P	0								0
61	Pentaneura inconspicua	DTA	4.6	P	0								0
62	Procladius sp.	DTA	9.3	P	0								0
63	Rheotanytarsus spp.	DTY	6.4	CF	224						11	12	12 2.838305
64	Stempellina spp.	DTY	2	CG	2								1 0.081037
65	Tanytarsus spp.	DTY	6.7	CG	328.3						19	18	12 3.970827
66	Acarpennia pygmaeus	EP	3.7	CG	0								0
67	Baetis spp.	EP	5.4	CG	91.8					2	1		14 1.377834
68	Caenis spp.	EP	7.8	CG	7.8								1 0.081037
69	Calibaetis spp.	EP	9.3	CG	0								0
70	Eurylophella spp.	EP	3	CG	0								0
71	Heptagenia spp.	EP	2.8	SC	0								0
72	Isotrichia spp.	EP	3.8	CF	0								0
73	Nocophemera youngi	EP	2.1	CG	0								0
74	Paraleptophlebia spp.	EP	1.2	CG	0								0
75	Stenonema spp.	EP	3.4	SC	112.2			4		4	8	5	12 2.87423
76	Tricorythodes spp.	EP	5.4	CG	10.8						1		1 0.162075
77	Parapogonys	LEP	5	PH	10							1	1 0.162075
78	Sphaerium spp.	MB	7.7	CF	0								0
79	Corydalis cornutus	ME	5.6	P	0								0
80	Nigronia serricornis	ME	5.5	P	5.5							1	0.081037
81	Sialis spp.	ME	7.5	P	0								0
82	Ferriesia sp.	MG	6.9	SC	0								0
83	Boyeria vinosa	OD	6.3	P	0								0
84	Coenagrionidae	OD	9	P	0								0
85	Enallagma spp.	OD	9	P	0								0
86	Neurocordulia obsolita	OD	5.4	P	0								0
87	Progomphus	OD	8.7	P	0								0
88	Acronuria abnormis	PL	2.2	P	22					1		6	3 0.810373

89	Acronuria areosa	PL	2.2	P	0							0
90	Acronuria mela	PL	0.9	P	0							0
91	Acronuria spp.	PL	1.4	P	0							0
92	Agrestia spp.	PL	0	P	0							0
93	Allocaenia spp.	PL	2.8	SH	0							0
94	Halopicea spp.	PL	0.4	P	0							0
95	Isoperla spp.	PL	2	P	0							0
96	Paragnetina immarginata	PL	2	P	18	1	3	1	1	2	0.848298	0
97	Paragnetina kansensis	PL	2	P	14		3	1		3	0.567261	0
98	Perlesta spp.	PL	4.9	P	0							0
99	Perlinella ephyra	PL	0	P	0							0
100	Perlinella spp.	PL	0	P	0							0
101	Pteronarcys dorsata	PL	1.8	SH	9	1			2	2	0.405188	0
102	Taeniopteryx sp.	PL	6.3	SH	0							0
103	Brachycentrus numerosus	TR	1.8	CF	88.2		23	18	8		3.970827	0
104	Ceraclea spp.	TR	2.3	CG	0							0
105	Cheumatopsyche spp.	TR	6.8	CF	28.4			2		2	0.324149	0
106	Chimarra spp.	TR	2.8	CF	2.8			1			0.081037	0
107	Cynellus fraterus	TR	7.4	CF	0							0
108	Diplectrona modesta	TR	2.2	CF	0							0
109	Hydropsyche decalda	TR	4.1	CF	0							0
110	Hydropsyche elisoma	TR	4	CF	0							0
111	Hydropsyche mississippiensis	TR	4	CF	0							0
112	Hydropsyche spp.	TR	4	CF	100		1	9		15	2.025932	0
113	Hydroptila spp.	TR	6.2	PH	12.4		1	1			0.162075	0
114	Leptoceridae (imm)	TR	4	CG	0							0
115	Lype diversa	TR	4.3	SC	4.3				1		0.081037	0
116	Mayatrichia ayama	TR	8.2	SC	0							0
117	Microsema spp.	TR	0.6	SH	0							0
118	Nectopsyche pavida	TR	4.2	SH	0							0
119	Nectopsyche spp.	TR	4.1	SH	0							0
120	Noetrichia spp.	TR	6.2	SC	0							0
121	Neureclipsis spp.	TR	4.4	CF	0							0
122	Nyctophylax spp.	TR	0.9	CF	0							0
123	Oecetis spp.	TR	5.7	P	11.4				2		0.162075	0
124	Polycentropus spp.	TR	3.5	CF	0							0
125	Pycnopsyche spp.	TR	2.3	SH	0							0
126												
127												
128												
129												
130	Table size:	125	Total orgs:	1234	Tot Tax:	44	tot. mean #	1378.771				
131	Number Samps:	5	SC/CF:	0.17801047	Bio Index:	6.657374						
132	Mean TAX/Samp	24										
133	EPT:	15										
Statistical Summary:												
TAXC	FG	#Taxes	Total #	Mean/Samp	mean #/m^2	Rel Abd.	FG Rel. Abd					
AHC		1	1	.2	1.1173	.081						
AMG		0	0	.	.	.						
ANO		0	0	.	.	.						
CO		5	28	5.6	31.2849	2.269						
DCA		0	0	.	.	.						
DCC		4	127	25.4	141.8994	10.2917						
DD		0	0	.	.	.						
DO		4	99	19.8	110.6145	8.0227						
DOR		9	703	140.6	785.4749	58.9692						
DTA		1	21	4.2	23.4637	1.7018						
DTY		3	85	17.	84.9721	6.8882						
EP		4	53	10.6	59.2179	4.295						
LEP		1	2	.4	2.2346	.1621						
MB		0	0	.	.	.						
ME		1	1	.2	1.1173	.081						
MG		0	0	.	.	.						
OD		0	0	.	.	.						
PL		4	30	6.	33.5198	2.4311						
TR		7	84	16.8	93.8547	6.8071						
	P	10	58	11.2	62.5698	4.538088						
	CG	20	939	187.8	1049.162	78.094						
	SC	2	34	6.8	37.9888	2.755287						
	PH	2	4	.8	4.4693	0.324149						
	SH	4	10	2.	11.1732	0.810373						
	CF	6	191	38.2	213.407821	15.47812						

Taxa List:	
Hydracarina	
Ancyronyx variegatus	
Dineutus sp.	
Dubiraphia sp.	
Macronychus glabratus	
Stenelmis crenata	
Polypedilum fallax	
Polypedilum spp.	
Stelechomyia perpulchra	
Stenochironomus sp.	
Atherix lantha	
Hemerodromia spp.	
Palpomyia spp.	
Simulium spp.	
Corynoneura spp.	
Cricotopus/Ortho spp.	
Nanocladius spp.	
Parakiefferiella sp.1	
Parametriocnemus sp.	
Rheocricotopus spp.	
Synorthocladius semivirens	
Thienemanniella spp.	
Tvetenia spp.	
Conchapelopia spp.	
Rheotanytarsus spp.	
Stempellina spp.	
Tanytarsus spp.	
Baetis spp.	
Caenis spp.	
Stenonema spp.	
Tricorythodes spp.	
Parapognyx	
Nigronia serricornis	
Acroneuria abnormis	
Paragentina immarginata	
Paragentina kansensis	
Pteronarcys dorsata	
Brachycentrus numerosus	
Cheumatopsyche spp.	
Chimarra spp.	
Hydropsyche spp.	
Hydroptila spp.	
Lype diversa	
Oecetis spp.	

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Cricotopus/Ortho spp.	DOR	8.8	CG	3634.4			11	192	103	40	67 33.4684
2	Thienemanniella spp.	DOR	6	CG	834			1	21	61	21	35 11.26418
3	Polypedilum spp.	DCC	6.9	CG	841.8				9	49	35	29 9.886548
4	Rheocricotopus spp.	DOR	7.3	CG	649.7			2	10	32	27	18 7.212318
5	Simulium spp.	DO	4.4	CF	338.8			1	24	7	3	42 6.23987

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da	A	B	C	D	E	Rel Abd
1	Hydracarina	AHC	5.7	P	0							0
2	Gammaridae	AMG	6.9	CG	0							0
3	Oligochaeta	ANO	8.2	CG	0							0
4	Ancyronyx variegatus	CO	6.9	CG	6.9						1	0.251256
5	Dineutus sp.	CO	5.5	P	0							0
6	Duhiraphis sp.	CO	6.4	SC	12.8			2				0.502513
7	Ectopria nervosa	CO	4.3	SC	0							0
8	Gonelmis dietrichi	CO	4	CG	0							0
9	Macronychus glabratus	CO	4.7	CG	108.1			5	2	2	7	5.778894
10	Microcyllopus pusillus	CO	2.1	CG	0							0
11	Optioservus sp.	CO	2.7	CG	0							0
12	Stanelmia crenata	CO	5.4	CG	0							0
13	Stanelmia crenatus	CO	5.4	CG	194.4			3	6	7	5	15 9.045226
14	Stanelmia decorata	CO	5.4	CG	0							0
15	Cambaridae	DCA	7.2	PH	0							0
16	Chironomus spp.	DCC	9.8	CG	9.8			1				0.251256
17	Cryptochironomus spp.	DCC	6.7	P	0							0
18	Cryptotendipes sp.	DCC	6.1	CG	0							0
19	Dicortandipes modestus	DCC	9.2	CG	0							0
20	Dicortandipes neomodestus	DCC	8.3	CG	0							0
21	Dicortandipes spp.	DCC	7.9	CG	0							0
22	Microtandipes rydelsensis	DCC	6.2	CG	0							0
23	Microtandipes spp.	DCC	6.2	CG	0							0
24	Nithauma babbyi	DCC	5.5	CG	5.5						1	0.251256
25	Phaenopsectra flavipes	DCC	8.5	CG	0							0
26	Polypedilum fallax	DCC	6.7	SH	20.1							3 0.753789
27	Polypedilum spp.	DCC	6.9	CG	255.3			5	4	5	15	8 9.296482
28	Stelechomyia perpulchra	DCC	4.8	SH	4.6				1			0.251256
29	Stenochironomus sp.	DCC	6.4	SH	0							0
30	Tribelos jucundum	DCC	6.6	CG	0							0
31	Dlamesini genus P	DD	7.4	CG	0							0
32	Parthaetia longmans	DD	7.4	CG	0							0
33	Atherix lanthe	DO	2.1	P	6.3						1	2 0.753789
34	Ceratopogonidae	DO	6.5	P	0							0
35	Cheffera spp.	DO	8.1	CG	0							0
36	Hemerodromia spp.	DO	8.1	CG	145.8			2	3	4	4	5 4.522813
37	Palpomyia spp.	DO	6.9	P	0							0
38	Simulium spp.	DO	4.4	CF	28.4			2	1	1	1	1 1.507538
39	Brilia flavifrons	DOR	5.2	SH	0							0
40	Corynoneura spp.	DOR	6.2	CG	12.4				1		1	0.502513
41	Cricotopus/Ortho spp.	DOR	8.8	CG	184.8			1	6	2	12	5.276382
42	Eukiefferiella spp.	DOR	5.7	CG	0							0
43	Lopescladius sp.	DOR	2.2	CG	0							0
44	Nanocladius spp.	DOR	7.2	CG	14.4				1		1	0.502513
45	Orthocladius lyngbyi	DOR	5.4	SH	5.4						1	0.251256
46	Parakiefferiella sp.1	DOR	5.9	CG	0							0
47	Parametocnemus sp.	DOR	3.7	CG	33.3			3		3		3 2.281307
48	Psectrocladius sp.	DOR	3.8	CG	3.8			1				0.251256
49	Rheocricotopus spp.	DOR	7.3	CG	452.6			7	4	20	27	4 15.57789
50	Synorthocladius aemivirens	DOR	4.7	CG	14.1						3	0.753789
51	Thienemannella spp.	DOR	6	CG	188			6	6		17	2 7.788945
52	Tvetenia spp.	DOR	4	CG	8				1		1	0.502513
53	Uniola multivirga	DOR	0	CG	0							0
54	Xylocus par	DOR	6.6	SH	0							0
55	Ablabeomyia spp.	DTA	6.4	P	6.4				1			0.251256
56	Cinotanytus pinguis	DTA	9.1	P	0							0
57	Conchapelopia spp.	DTA	8.7	P	95.7			1	1	1	4	4 2.763819
58	Labrundinia spp.	DTA	6	P	0							0
59	Natania sp.A	DTA	10	P	0							0
60	Nilotanytus spp.	DTA	4	P	8					1	1	0.502513
61	Paramerina sp.	DTA	2.8	P	0							0
62	Pentaneura inconspicua	DTA	4.6	P	0							0
63	Procladius sp.	DTA	9.3	P	9.3			1				0.251256
64	Rheotanytarsus spp.	DTY	6.4	CF	102.4			3	1	4	6	2 4.020101
65	Stempellina spp.	DTY	2	CG	0							0
66	Tanytarsus spp.	DTY	6.7	CG	127.3			5	3	4	4	3 4.773889
67	Acarpenns pygmaeus	EP	3.7	CG	0							0
68	Baetis spp.	EP	5.4	CG	10.8						2	0.502513
69	Caenis spp.	EP	7.6	CG	0							0
70	Callibaetis spp.	EP	9.3	CG	0							0
71	Eurylophella spp.	EP	3	CG	0							0
72	Heptagenia spp.	EP	2.8	SC	0							0
73	Leuctra spp.	EP	3.8	CF	0							0
74	Neophemera youngi	EP	2.1	CG	0							0
75	Paraleptophlebia spp.	EP	1.2	CG	0							0
76	Stenonema spp.	EP	3.4	SC	95.2			4		5	14	5 7.035178
77	Tricothyridae spp.	EP	5.4	CG	16.2						2	1 0.753789
78	Sphaerium spp.	MB	7.7	CF	0							0
79	Corydalis cornutus	ME	5.6	P	5.6							1 0.251256
80	Nigronia semicornis	ME	5.5	P	5.5			1				0.251256
81	Sialis spp.	ME	7.5	P	0							0
82	Ferresia sp.	MG	6.9	SC	0							0
83	Boyeria vinosa	OD	6.3	P	0							0
84	Coenagrionidae	OD	9	P	0							0
85	Enallagma spp.	OD	9	P	0							0
86	Neurocordulia obsoleta	OD	5.4	P	0							0
87	Progomphus sp.	OD	6.7	P	0							0
88	Acronoxia abnormis	PL	2.2	P	19.8				2	3	1	3 2.281307

[illegible]

Taxa List:	
Ancyronyx variegatus	
Duhiraphia sp.	
Macronychus glabratus	
Stenelmis crenatus	
Chironomus spp.	
Nilothauma babiyi	
Polypedilum fallax	
Polypedilum spp.	
Stelechomyia perpulchra	
Atherix lantha	
Hemerodromia spp.	
Simulium spp.	
Corynoneura spp.	
Cricotopus/Ortho spp.	
Nanocladius spp.	
Orthocladius lignicola	
Parametriocnemus sp.	
Psectrocladius sp.	
Rheocricotopus spp.	
Synorthocladius semivirens	
Thienemanniella spp.	
Tvetenia spp.	
Ablabesmyia spp.	
Conchapelopia spp.	
Nilotanypus spp.	
Procladius sp.	
Rheotanytarsus spp.	
Tanytarsus spp.	
Baetis spp.	
Stenonema spp.	
Tricorythodes spp.	
Corydalus cornutus	
Nigronia serricornis	
Acroneuria abnormis	
Paragentina immarginata	
Pteronarcys dorsata	
Brachycentrus numerosus	
Cheumatopsyche spp.	
Chimarra spp.	
Hydropsyche spp.	
Mayatrichia ayama	
Oecetis spp.	

Seq	Taxon	TAXC	NCBI	FG	(for BI)	Sampler Da/A	B	C	D	E	Rel Abd
1	Rheocricotopus spp.	DOR	7.3 CG	452.6	7	4	20	4	27	4	15.57789
2	Polypedium spp.	DCC	6.9 CG	255.3	5	4	5	4	15	8	9.296482
3	Stenelmis crenatus	CO	5.4 CG	194.4	3	6	7	6	5	15	9.045226
4	Thienemanniella spp.	DOR	6 CG	186	6	6	5	6	17	2	7.788945
5	Stenonema spp.	EP	3.4 SC	95.2	4	4	5	4	14	5	7.035176
6	Macronychus glabratus	CO	4.7 CG	108.1	5	2	2	2	7	7	5.778894
7	Cricotopus/Ortho spp.	DOR	8.8 CG	184.8	1	6	2	6	12		5.276382

SECTION IV ASH FREE DRY WEIGHT DATA

STATION #	FG	REPLICATE #1	REPLICATE #2	REPLICATE #3	REPLICATE #4	REPLICATE #5	TOTAL	%RELATIVE ABUNDANCE	STATION MEAN G/M2
#1	CG	0.0012	0.0020	0.0018	0.0003	0.0015	0.0068	5.7500	0.0077
	CF	0.0008	0.0001	NA	0.0001	0.0030	0.0040	3.3800	0.0045
	P	0.0243	0.0218	0.0536	NA	0.0039	0.1036	87.6500	0.1158
	SC	0.0011	NA	0.0000	0.0009	0.0018	0.0038	3.2100	0.0042
	SH	NA	NA	0.0000	NA	NA	0.0000	0.0000	0.0000
	PH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
TOTAL							0.1183		0.1321
#2	CG	0.0019	0.0015	0.0019	0.0032	0.0022	0.0107	40.84	0.012
	CF	NA	0.0008	0.0009	0.0039	0.0007	0.0069	26.34	0.0077
	P	NA	NA	NA	0.0002	0.0059	0.0061	23.28	0.0068
	SC	NA	0.0001	NA	NA	NA	0.0001	0.38	0.0001
	SH	NA	0.0005	0.0003	0.0006	0.0008	0.0023	8.78	0.0027
	PH	0	0	NA	0.0001	0	0.0001	0.38	0.0001
TOTAL							0.0262		0.0293
#3	CG	0.0075	0.0063	0.0128	0.0069	0.0046	0.0381	25.69	0.0426
	CF	0.0001	0.002	0.0016	0.0007	0.0006	0.005	3.37	0.0056
	P	0.0348	0.0285	0.0148	0.0037	0.0005	0.0823	55.5	0.092
	SC	0.0014	0.0033	0.0014	0.0014	0.0009	0.0084	5.66	0.0094
	SH	0.0002	0.0006	0.0001	0.0013	0.0123	0.0145	9.78	0.0162
	PH	0	0	0	0	0	0	0	0
TOTAL							0.1483		0.1657
#4	CG	0.0026	0.0021	0.0032	0.0015	0.0025	0.0119	1.57	0.0133
	CF	0.0008	0.0025	0.0011	0.0006	0.0014	0.0064	0.84	0.0072
	P	0.2902	0.0635	0.1899	0.0925	0.0909	0.727	95.9	0.8123
	SC	0.0022	0	0.0003	0.0003	0.0018	0.0046	0.61	0.0051
	SH	0.0016	0.0003	0.0005	0.0049	0.0009	0.0082	1.08	0.0092
	PH	0	0	0	0	0	0	0	0
TOTAL							0.7581		0.847
#5	CG	0.0019	0.0058	0.0029	0.007	0.0048	0.0224	4.8	0.025
	CF	0.0023	0.0014	0.0109	0.0132	0.0044	0.0324	6.95	0.0362
	P	0.1623	0.0055	0.1912	0.0078	0.0016	0.3684	79.02	0.4116
	SC	0.0054	0.0021	0.0067	0.0072	0.0195	0.0409	8.77	0.0457
	SH	0	0.0009	0.0007	0.0005	0	0.0021	0.45	0.0023
	PH	0	0	0	0	0	0	0	0
TOTAL							0.4662		0.5209

NA = less than 0.0001g

ASH FREE DRY WEIGHT DATA

166

STATION #	FG	REPLICATE #1	REPLICATE #2	REPLICATE #3	REPLICATE #4	REPLICATE #5	TOTAL	%RELATIVE ABUNDANCE	STATION MEAN G/M2
#6	CG	0.0476	0.0151	0.0117	0.0254	0.0141	0.1139	46.85	0.1273
	CF	0.0007	NA	0.0005	NA	0.0003	0.0015	0.62	0.0017
	P	0.0424	0.0119	0.015	0.0115	0.0194	0.1002	41.22	0.112
	SC	0.0001	0.003	0.001	0.0003	0	0.0017	0.7	0.0019
	SH	0.0083	NA	0.0002	0.0044	0.0129	0.0258	10.61	0.0288
	PH	0	0	0	0	0	0	0	0
TOTAL							0.2431		0.2716
#7	CG	0.0076	0.0081	0.0035	0.0063	0.0111	0.0366	57.37	0.0409
	CF	0.0024	0.0022	0.0002	0.0009	0.0005	0.0062	9.72	0.0069
	P	0.0012	0.0011	0.0006	0.0012	0.0028	0.0068	10.66	0.0076
	SC	0.0017	0.0009	0.0009	0.0013	0.0029	0.0077	12.07	0.0086
	SH	0.001	0.0008	0	0.0019	0.0026	0.0063	9.87	0.007
	PH	0.0002	0	0	0	0	0.0002	0.31	0.0002
TOTAL							0.0638		0.0713
#8	CG	0.0095	0.0038	0.01	0.0038	0.0043	0.0314	38.81	0.0351
	CF	0.0018	0.0031	0.0027	0.0036	0.0013	0.0125	15.45	0.014
	P	0.0079	0.0019	0.0019	0.0014	0.0088	0.0219	27.07	0.0245
	SC	0.0057	0.0009	0.002	0.0023	0.0008	0.0117	14.46	0.0131
	SH	0.001	0.0009	0.0007	0	0.0004	0.003	3.71	0.0034
	PH	0	0	0.0004	0	0	0.0004	0.49	0.0004
TOTAL							0.0809		0.0904
#9	CG	0.0015	0.0026	0.0005	0.002	0.0025	0.0091	27.25	0.0102
	CF	0	0	0	0	0	0	0	0
	P	0.0009	0.0029	0.0019	0.0039	0.0015	0.0111	33.23	0.0124
	SC	0	0.0008	0	0.0006	0.0006	0.002	5.99	0.0022
	SH	0.0024	0.0028	0.0004	0.004	0.0016	0.0112	33.53	0.0125
	PH	0	0	0	0	0	0	0	0
TOTAL							0.0334		0.0373
#10	CG	0.0193	0.0323	0.0098	0.0178	0.0255	0.1047	86.03	0.117
	CF	0.0009	0.0004	0.0002	0.0005	0.0067	0.0087	7.15	0.0097
	P	0.0005	0.0012	0.0017	0.0029	0.0006	0.0069	5.67	0.0077
	SC	0	0	0	0	0	0	0	0
	SH	0	0.0011	0.0002	0.0001	NA	0.0014	1.15	0.0016
	PH	0	0	0	0	0	0	0	0
TOTAL							0.1217		0.136

NA = less than 0.0001g

ASH FREE DRY WEIGHT DATA

STATION #	FG	REPLICATE #1	REPLICATE #2	REPLICATE #3	REPLICATE #4	REPLICATE #5	TOTAL	%RELATIVE ABUNDANCE	STATION MEAN G/M2
#11	CG	0.213	0.0114	0.0088	0.0046	0.0059	0.052	36.83	0.0581
	CF	0	0.0016	0.0009	0.0019	0.0007	0.0051	3.61	0.0057
	P	0.013	0.0207	0.0005	0.0014	0.0155	0.0511	36.19	0.0571
	SC	0.0014	0.0014	0.0015	0.0037	0.002	0.01	7.08	0.0112
	SH	0.0006	0.0005	0.0206	0.0009	0.0004	0.023	16.29	0.0257
	PH	0	0	0	0	0	0	0	
TOTAL							0.1412		0.1578
#12	CG	0.0035	0.0006	0.0035	0.0056	0.0032	0.0164	88.65	0.0183
	CF	0	0	0.0002	0	0	0.0002	1.08	0.0002
	P	0	0.0005	0.0005	0.0005	0.0004	0.0019	10.27	0.0021
	SC	0	0	0	0	0	0	0	
	SH	0	0	0	0	0	0	0	
	PH	0	0	0	0	0	0	0	
TOTAL							0.0185		0.0207
#13	CG	0.0029	0.0066	0.007	0.0034	0.0065	0.0264	10.29	0.0295
	CF	0.0004	0.0019	0.0008	0.0024	0.0028	0.0083	3.23	0.0093
	P	0.0239	0.0182	0.0354	0.0379	0.076	0.1914	74.59	0.2139
	SC	0.0015	0.0003	0.0008	0.0013	0.001	0.0049	1.91	0.0055
	SH	0.0237	0.0003	0.0002	0	0.0004	0.0246	9.59	0.0275
	PH	0	0	0.0006	0	0.0004	0.001	0.39	0.0011
TOTAL							0.2566		0.2867
#14	CG	0.0161	0.026	0.002	0.0067	0.0003	0.0511	29.2	0.0571
	CF	0.0007	0.0024	0	0	NA	0.0031	1.77	0.0035
	P	0.0017	0.0019	0.0006	0.001	0.0002	0.0054	3.09	0.006
	SC	0	0.0016	0.0009	0.1107	0	0.1132	64.69	0.0127
	SH	0.0008	0.0004	0.0005	0.0005	0	0.0022	1.25	0.0026
	PH	0	0	0	0	0	0	0	0
TOTAL							0.175		0.1955
#15	CG	NA	0	NA	0	0	0	0	0
	CF	0	0	0	0	0	0	0	0
	P	NA	0	0	0	0	0	0	0
	SC	0.0003	NA	0.0009	NA	0	0.0012	100	0.0013
	SH	0	0	0	0	0	0	0	0
	PH	0	0	0	0	0	0	0	0
TOTAL							0.0012		0.0013

NA = less than 0.0001g

ASH FREE DRY WEIGHT DATA

168

STATION #	FG	REPLICATE #1	REPLICATE #2	REPLICATE #3	REPLICATE #4	REPLICATE #5	TOTAL	%RELATIVE ABUNDANCE	STATION MEAN G/M2
#16	CG	0.0016	0.0029	0.0009	0.0012	0.001	0.0076	33.63	0.0085
	CF	0.0002	0	0.0001	0.0004	0	0.0007	3.1	0.0008
	P	0.0006	0.0011	0.0017	0.0038	0.0024	0.0096	42.48	0.0107
	SC	0.0005	0.0013	0.0009	0.0004	0.0005	0.0036	15.93	0.004
	SH	0	0.0008	0	0.0003	0	0.0011	4.87	0.0012
	PH	0	0	0	0	0	0	0	0
TOTAL							0.0226		0.0253
#17	CG	0.0018	0.0021	0.0014	0.0004	0.001	0.0067	51.54	0.0075
	CF	0	0	0	0	0	0	0	0
	P	0.0014	0.001	0.0007	0.0007	0.0005	0.0043	33.08	0.0048
	SC	0.0009	0.0005	0	0	0	0.0014	10.77	0.0016
	SH	0	0	0.0003	0.0003	0	0.0006	4.62	0.0007
	PH	0	0	0	0	0	0	0	0
TOTAL							0.013		0.0145
#18	CG	0.001	0.0005	NA	0.0001	0.0014	0.003	11.32	0.0034
	CF	0.0006	NA	NA	NA	0.0002	0.0008	3.02	0.0009
	P	0.0014	0.0015	0.0042	0.0048	0.001	0.0129	48.68	0.0144
	SC	0.0002	0.002	NA	NA	0.0011	0.0033	12.45	0.0037
	SH	0.0002	0.0001	NA	0.0052	0.001	0.0065	24.53	0.0073
	PH	NA	0	0	0		0	0	
TOTAL							0.0267		0.0296
#19	CG	0.0015	0.0011	0.0023	0.0022	0.0012	0.0083	32.94	0.0093
	CF	0.0021	0.0003	0.0042	0.0004	0.0011	0.0081	32.14	0.0091
	P	0.0012	0.0002	0.0002	NA	0.001	0.0026	10.32	0.0029
	SC	0.0014	0.0005	0.0017	0.0002	0.0014	0.0052	20.63	0.0058
	SH	0.0002	NA	0	0.0001	0.0001	0.0004	1.59	0.0004
	PH	0.0001	0.0001	0.0004	NA	NA	0.0006	2.38	0.0007
TOTAL							0.0252		0.0278
#20	CG	0.0002	0.002	0.002	0.002	0.0071	0.0133	21.38	0.0149
	CF	0.0007	0.0011	0.0019	0.0022	0.0111	0.017	27.33	0.019
	P	0.0013	0.001	0.0009	0.0056	0.0018	0.0106	17.04	0.0118
	SC	0.0013	0.0022	0.0022	0.0035	0.0092	0.0184	29.58	0.0206
	SH	0	0.0003	0.0008	0	0.0004	0.0015	2.41	0.0017
	PH	NA	0.0006	0.0002	0.0002	0.0004	0.0014	2.25	0.0016
TOTAL							0.0622		0.695

NA = less than 0.0001g

ASH FREE DRY WEIGHT DATA

169

STATION #	FG	REPLICATE #1	REPLICATE #2	REPLICATE #3	REPLICATE #4	REPLICATE #5	TOTAL	%RELATIVE ABUNDANCE	STATION MEAN G/M2
#21	CG	0.0028	0.0011	0.0025	0.0014	0.0012	0.009	5.5	0.0101
	CF	0.0042	0.0107	0.0146	0.0101	0.0173	0.0569	34.78	0.0636
	P	0.0011	0.0009	0.0024	0.0063	0.0075	0.0182	11.12	0.0203
	SC	0.0132	0.0153	0.0134	0.0203	0.0144	0.0766	46.82	0.0856
	SH	0	0	0	0	0	0	0	0
	PH	0.0003	0.0004	0.001	NA	0.0012	0.0029	1.77	0.0032
TOTAL							0.1636		0.0183
#22	CG	0.0033	0.043	0.0095	0.0053	0.0023	0.0634	52.92	0.708
	CF	0.0019	0.0053	0.0046	0.0003	0.0003	0.0124	10.35	0.0139
	P	0.0041	0.001	0.0011	0.0092	0.0011	0.0165	13.77	0.0184
	SC	0.0047	0.0033	0.009	0.0024	0.0072	0.0266	22.2	0.0297
	SH	0.0001	0	0.0004	0.0003	0	0.0008	0.67	0.0009
	PH	0	0	0	0.0001	0	0.0001	0.08	0.0001
TOTAL							0.1198		0.1339
#23	CG	0.0076	0.007	0.0054	0.0064	0.0051	0.0315	17.94	0.0352
	CF	0.0067	0.0017	0.0014	0.0025	0.0146	0.0269	15.32	0.0301
	P	0.0111	0.0318	0.0058	0.004	0.0043	0.057	32.46	0.0637
	SC	0.0135	0.0043	0.0084	0.0127	0.0128	0.517	29.44	0.0578
	SH	0.001	0.0028	0.0006	0.0011	0.0015	0.007	3.99	0.0078
	PH	0.0007	0	0.0003	0.0003	0.0002	0.0015	0.85	0.0017
TOTAL							0.1754		0.1962
#24	CG	0.0114	0.0047	0.01	0.0234	0.0123	0.0618	15.05	0.0691
	CF	0.0149	0.006	0.0115	0.0322	0.012	0.0766	18.66	0.856
	P	0.0383	0.0909	0.0514	0.0185	0.0199	0.219	53.34	0.2447
	SC	0.0026	0.0057	0.0128	0.013	0.0123	0.0464	11.3	0.0518
	SH	0.0002	0.0007	0.0012	0.0002	0.0001	0.0024	0.58	0.0028
	PH	0.0005	0.0013	0.001	0.0009	0.0007	0.0044	1.07	0.0049
TOTAL							0.4106		0.4648
#25	CG	0	0	0	0	0.0003	0.0003	37.5	0.0003
	CF	0	0	0	0	0	0	0	0
	P	0	NA	0.0002	0.0002	0	0.0004	50	0.0004
	SC	0	0	0	0	0	0	0	0
	SH	0	0	0	0	0	0	0	0
	PH	0	0	0	0	0.0001	0.0001	12.5	0.0001
TOTAL							0.0008		0.0008

NA = less than 0.0001g

ASH FREE DRY WEIGHT DATA

170

STATION #	FG	REPLICATE #1	REPLICATE #2	REPLICATE #3	REPLICATE #4	REPLICATE #5	TOTAL	%RELATIVE ABUNDANCE	STATION MEAN G/M2
#26	CG	0.0029	0.002	0.0024	0.0021	0.0003	0.0097	91.51	0.0108
	CF	0	0	0	0	0	0	0	0
	P	0.0004	0	0	0.0001	0.0002	0.0007	6.6	0.0008
	SC	0	0	0	0	0	0	0	0
	SH	0.0002	0	0	0	0	0.0002	1.89	0.0002
	PH	0	0	0	0	0	0	0	0
TOTAL							0.0106		0.0118
#27	CG	0.0112	0.0037	0.0081	0.0123	0.0049	0.0402	78.82	0.0448
	CF	0.0005	0.0012	NA	0.001	0.0001	0.0028	5.49	0.0031
	P	0.001	0.0014	0.0009	0.0032	0.0013	0.0078	15.29	0.0087
	SC	0	0	0	0	0	0	0	0
	SH	0	0	0	0	0	0	0	0
	PH	0.0001	0.0001	NA	NA	NA	0.0002	0.39	0.0002
TOTAL							0.051		0.057
#28	CG	0.0016	0.0042	0.0046	0.0034	0.0031	0.0169	16.38	0.0189
	CF	0.0037	0.0017	0.0013	0.0036	0.0009	0.0112	10.85	0.0125
	P	0.0007	0.0012	0.002	0.006	0.0014	0.0113	10.95	0.0126
	SC	0.0131	0.0113	0.0101	0.0118	0.0135	0.0598	57.95	0.0668
	SH	0	0	0.0011	0	0.0004	0.0015	1.45	0.0017
	PH	0.0004	NA	0	0.0021	0	0.0025	2.42	0.0028
TOTAL							0.1032		0.1153
#29	CG	0.0031	0.0015	0.0014	0.0003	0.0008	0.0071	44.65	0.0079
	CF	0.0004	0	0.0006	0	0.0008	0.0018	11.32	0.002
	P	0.0004	0.0017	0.001	0.0011	0.0015	0.0057	35.85	0.0064
	SC	0	0.0004	0.0003	0	0	0.0007	4.4	0.0008
	SH	0	0	0.0001	0	0	0.0001	0.63	0.0001
	PH	0.0002	0.0003	0	0	0	0.0005	3.14	0.0006
TOTAL							0.0159		0.0178
#30	CG	0.0028	0.0043	0.0022	0.0044	0.0022	0.0159	5.58	0.0178
	CF	0.0165	0.0249	0.0237	0.0666	0.0151	0.1468	51.53	0.164
	P	0.0285	0.0189	0.002	0.0153	0.0297	0.0944	33.13	0.1055
	SC	0.0022	0.0062	0.009	0.0053	0.004	0.0267	9.37	0.0298
	SH	NA	0.0002	0.0001	0.0003	0.0003	0.0009	0.32	0.001
	PH	NA	0.0002	0	0	0	0.0002	0.07	0.0002
TOTAL							0.2849		0.3183

NA = less than 0.0001g

ASH FREE DRY WEIGHT DATA

171

STATION #	FG	REPLICATE #1	REPLICATE #2	REPLICATE #3	REPLICATE #4	REPLICATE #5	TOTAL	%RELATIVE ABUNDANCE	STATION MEAN G/M2
#31	CG	0.005	0.006	0.0067	0.0043	0.0081	0.0301	23.57	0.0336
	CF	0.0007	0.0043	0.0113	0.0044	0.0017	0.0224	17.54	0.025
	P	0.0011	0.0015	0.0019	0.0162	0.114	0.0321	25.14	0.0359
	SC	0.003	0.0041	0.0091	0.0028	0.0056	0.0246	19.26	0.0275
	SH	0.0002	0.0004	0.0002	0.0059	NA	0.0067	5.25	0.0075
	PH	0	0	0	0	0.0118	0.0118	9.24	0.0132
TOTAL							0.1277		0.1427
#32	CG	0.0013	0.0035	0.0038	0.0032	0.0036	0.0154	9.57	0.0172
	CF	0.0004	0.0084	0.0046	0.0009	0.004	0.0183	11.37	0.0204
	P	NA	0.013	0.0077	0.0418	0.0041	0.0666	41.39	0.0737
	SC	0.0029	0.0032	0.0052	0.0019	0.0051	0.0183	11.37	0.0204
	SH	0.0084	0.0143	0.0004	0.0052	0.0127	0.041	25.48	0.0458
	PH	0	0.0002	0.0002	0.0007	0.0002	0.0013	0.81	0.0015
TOTAL							0.1609		0.1789
#33	CG	0.0043	0.0043	0.0002	0.008	0.0143	0.0311	33.99	0.0347
	CF	0.0009	0.0004	0.0002	0.0022	0.0007	0.0044	4.81	0.0049
	P	0.0062	0.0051	0.0041	0.0015	0.0118	0.0287	31.37	0.0321
	SC	0.0027	0	0.0009	0.0112	0.0049	0.0197	21.53	0.022
	SH	0.0035	0.0001	0	0.0037	0.0003	0.0076	8.31	0.0085
	PH	0	0	0	0	0	0	0	0
TOTAL							0.0915		0.1022

NA = less than 0.0001g