

Figure 3-5a. ULB Taxa List/Metric Summary Sheet (Fall 2011)

Taxa List						
Order/Major Group	Family	Genus species	Habit	Feeding Group	Tolerance Value	Quantity
Gastropoda	Planorbidae	-	CLI	SC	7	4
Gastropoda	Physidae	-	CLI	SC	8	1
Ephemeroptera	Baetidae	Baetis sp.	SWI	CG	2	4
Odonata/Anisoptera	Coenagrionidae	Argia sp.	CLM	PR	5	2
Trichoptera	Hydropsychidae	Hydropsyche betteni	CLI	CF	5	9
Trichoptera	Hydropsychidae	Cheumatopsyche sp.	CLI	CF	6	3
Diptera	Empididae	Hemerodromia sp.	SPR	PR	6	2
Diptera	Culicidae	Aedes sp.	SWI	CF	8	1
Diptera	Stratiomyidae	-	SPR	CG	7	1
Diptera	Tipulidae	Tipula sp.	BUR	SH	4	1
Diptera	Chironomidae	-	BUR	CG	6	64
Total Organisms Collected						92

Virginia Stream Condition Index Metrics

Water Quality Metrics	Value	
Total Taxa Richness (Family)	10	
EPT Richness (Family)	2	
Percent Ephemeroptera	4.3	
Percent PT-H	0.0	
Percent Scrapers	5.4	
Percent Chironomidae	69.6	
Percent Top Two Dominant Families	82.6	(Chironomidae, Hydropsychidae)
Family Biotic Index (DEQ)	6.08	FAIR
IBI Score	24.3	SEVERE STRESS

Fairfax Index of Macroinvertebrate Biotic Integrity (Piedmont)

Water Quality Metrics	Value	
Total Taxa Richness	11	
EPT Richness	3	
Percent EPT	17.4	
Percent T - H	0.0	
Percent Coleoptera	0.0	
Family Biotic Index (VERSAR)	6.34	FAIR
Percent Dominance	69.6	(Chironomidae)
Percent Clingers and Plecoptera	18.5	
Percent Shredders	4.3	
Percent Predators	4.3	
IBI Score	45.8	FAIR

Benthic Index of Biotic Integrity for Maryland Streams (non-coastal)

Water Quality Metrics	Value	Adjusted Score	
Total Taxa Richness	11	1	
EPT Richness	3	1	
Ephemeroptera Richness	1	1	
Diptera Richness	5	1	
Percent Ephemeroptera	4.3	1	
Percent Tanytarsini	0	1	
Intolerant Taxa Richness	1	1	
Percent Tolerant Taxa	6.5	5	
Percent Collectors	75.0	5	
IBI Score		1.9	POOR

Additional Metric Computations

Water Quality Metrics	Value	
Hilsenhoff Biotic Index (HBI)	5.78	FAIR
Simpson's Index of Diversity (SID)	0.50	
Effective Number of Taxa	2.00	

Feeding Group Community Distribution

Feeding Group	Quantity	Rel. Abundance (%)
Shredders (SH)	1	1
Scrapers (SC)	5	5
Predators (PR)	4	4
Collector Gatherers (CG)	69	75
Collector Filterers (CF)	13	14

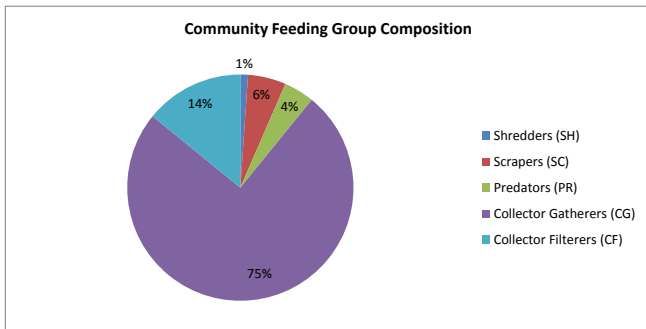


Figure 3-5b. ULB Taxa List/Metric Summary Sheet (Spring 2012)

Taxa List

Order/Major Group	Family	Genus species	Habit	Feeding Group	Tolerance Value	Quantity
Oligochaeta	Lumbriculidae	-	BUR	CG	8	4
Gastropoda	Planorbidae	-	CLI	SC	7	7
Ephemeroptera	Baetidae	Baetis sp.	SWI	CG	2	2
Isopoda	Asellidae	Caecidotea sp.	SPR	CG	8	6
Odonata/Anisoptera	Calopterygidae	Calopteryx sp.	CLM	PR	5	1
Diptera	Simuliidae	Simulium sp.	CLI	CF	3	6
Diptera	Chironomidae	-	BUR	CG	6	75
Total Organisms Collected						101

Virginia Stream Condition Index Metrics

Water Quality Metrics	Value	
Total Taxa Richness (Family)	7	
EPT Richness (Family)	1	
Percent Ephemeroptera	2.0	
Percent PT-H	0.0	
Percent Scrapers	6.9	
Percent Chironomidae	74.3	
Percent Top Two Dominant Families	81.2	(Chironomidae, Planorbidae)
Family Biotic Index (DEQ)	5.90	FAIR
IBI Score	21.3	SEVERE STRESS

Fairfax Index of Macrobenthic Biotic Integrity (Piedmont)

Water Quality Metrics	Value	
Total Taxa Richness	7	
EPT Richness	1	
Percent EPT	2.0	
Percent T - H	0.0	
Percent Coleoptera	0.0	
Family Biotic Index (VERSAR)	5.90	FAIR
Percent Dominance	74.3	(Chironomidae)
Percent Clingers and Plecoptera	12.9	
Percent Shredders	0.0	
Percent Predators	0.1	
IBI Score	20.3	POOR

Benthic Index of Biotic Integrity for Maryland Streams (non-coastal)

Water Quality Metrics	Value	Adjusted Score	
Total Taxa Richness	7	1	
EPT Richness	1	1	
Ephemeroptera Richness	1	1	
Diptera Richness	2	1	
Percent Ephemeroptera	2.0	1	
Percent Tanytarsini	0	1	
Intolerant Taxa Richness	2	1	
Percent Tolerant Taxa	16.8	5	
Percent Collectors	86.1	5	
IBI Score		1.9	POOR

Additional Metric Computations

Water Quality Metrics	Value	
Hilsenhoff Biotic Index (HBI)	5.68	FAIR
Simpson's Index of Diversity (SID)	0.44	
Effective Number of Taxa	1.77	

Feeding Group Community Distribution

Feeding Group	Quantity	Rel. Abundance (%)
Shredders (SH)	0	0
Scrapers (SC)	7	7
Predators (PR)	1	1
Collector Gatherers (CG)	87	86
Collector Filterers (CF)	6	6

