

Figure 3-12a. LUR Taxa List/Metric Summary Sheet (Fall 2011)

Taxa List

Order/Major Group	Family	Genus species	Habit	Feeding Group	Tolerance Value	Quantity
Oligochaeta	Lumbriculidae	-	BUR	CG	8	2
Gastropoda	Planorbidae	-	CLI	SC	7	1
Ephemeroptera	Baetidae	Baetis sp.	SWI	CG	2	18
Trichoptera	Hydropsychidae	Hydropsyche betteni	CLI	CF	5	2
Diptera	Simuliidae	Simulium sp.	CLI	CF	3	1
Diptera	Empididae	Hemerodromia sp.	SPR	PR	6	4
Diptera	Chironomidae	-	BUR	CG	6	75
Total Organisms Collected						103

Virginia Stream Condition Index Metrics

Water Quality Metrics	Value	
Total Taxa Richness (Family)	7	
EPT Richness (Family)	2	
Percent Ephemeroptera	17.5	
Percent PT-H	0.0	
Percent Scrapers	1.0	
Percent Chironomidae	72.8	
Percent Top Two Dominant Families	90.3	(Chironomidae, Baetidae)
Family Biotic Index (DEQ)	5.70	FAIR
IBI Score	23.1	SEVERE STRESS

Fairfax Index of Macroinvertebrate Biotic Integrity (Piedmont)

Water Quality Metrics	Value	
Total Taxa Richness	7	
EPT Richness	2	
Percent EPT	19.4	
Percent T - H	0.0	
Percent Coleoptera	0.0	
Family Biotic Index (VERSAR)	5.91	FAIR
Percent Dominance	72.8	(Chironomidae)
Percent Clingers and Plecoptera	3.9	
Percent Shredders	0.0	
Percent Predators	3.9	
IBI Score	34.5	POOR

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

Water Quality Metrics	Value	Adjusted Score	
Total Taxa Richness	7	1	
EPT Richness	2	1	
Ephemeroptera Richness	1	1	
Diptera Richness	3	1	
Percent Ephemeroptera	17.5	3	
Percent Tanytarsini	0	1	
Intolerant Taxa Richness	2	1	
Percent Tolerant Taxa	2.9	5	
Percent Collectors	92.2	5	
IBI Score		2.1	POOR

Additional Metric Computations

Water Quality Metrics	Value	
Hilsenhoff Biotic Index (HBI)	5.30	GOOD
Simpson's Index of Diversity (SID)	0.44	
Effective Number of Taxa	1.78	

Feeding Group Community Distribution

Feeding Group	Quantity	Rel. Abundance (%)
Shredders (SH)	0	0
Scrapers (SC)	1	1
Predators (PR)	4	4
Collector Gatherers (CG)	95	92
Collector Filterers (CF)	3	3

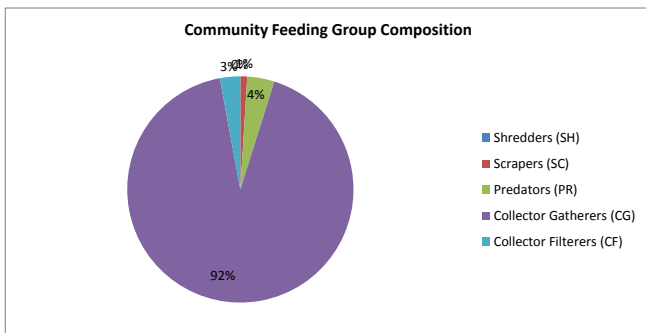


Figure 3-12b. LUR Taxa List/Metric Summary Sheet (Spring 2012)

Taxa List						
Order/Major Group	Family	Genus species	Habit	Feeding Group	Tolerance Value	Quantity
Oligochaeta	Lumbriculidae	-	BUR	CG	8	1
Gastropoda	Planorbidae	-	CLI	SC	7	27
Gastropoda	Physidae	-	CLI	SC	8	16
Gastropoda	Ancylidae	-	CLI	SC	6	1
Ephemeroptera	Baetidae	Baetis sp.	SWI	CG	2	1
Diptera	Tipulidae	Antocha sp.	BUR	CG	4	1
Diptera	Chironomidae	-	BUR	CG	6	56
Total Organisms Collected						103

Virginia Stream Condition Index Metrics

Water Quality Metrics	Value	
Total Taxa Richness (Family)	7	
EPT Richness (Family)	1	
Percent Ephemeroptera	1.0	
Percent PT-H	0.0	
Percent Scrapers	42.7	
Percent Chironomidae	54.4	
Percent Top Two Dominant Families	80.6	(Chironomidae, Planorbidae)
Family Biotic Index (DEQ)	6.54	FAIRLY POOR
IBI Score	31.2	SEVERE STRESS

Fairfax Index of Macrobenthic Biotic Integrity (Piedmont)

Water Quality Metrics	Value	
Total Taxa Richness	7	
EPT Richness	1	
Percent EPT	1.0	
Percent T - H	0.0	
Percent Coleoptera	0.0	
Family Biotic Index (VERSAR)	6.90	FAIRLY POOR
Percent Dominance	54.4	(Chironomidae)
Percent Clingers and Plecoptera	42.7	
Percent Shredders	0.0	
Percent Predators	0.0	
IBI Score	28.0	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	1.0	3	
Percent Tanytarsini	0	1	
Intolerant Taxa Richness	1	1	
Percent Tolerant Taxa	42.7	3	
Percent Collectors	57.3	5	
IBI Score		1.9	POOR

Additional Metric Computations

Water Quality Metrics	Value	
Hilsenhoff Biotic Index (HBI)	6.53	FAIRLY POOR
Simpson's Index of Diversity (SID)	0.61	
Effective Number of Taxa	2.57	

Feeding Group Community Distribution

Feeding Group	Quantity	Rel. Abundance (%)
Shredders (SH)	0	0
Scrapers (SC)	44	43
Predators (PR)	0	0
Collector Gatherers (CG)	59	57
Collector Filterers (CF)	0	0

