

Figure 3-4a. FMR3 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	6
Platyhelminthes	Planariidae	-	BUR	CG	8	1
Hirudinea	Glossiphoniidae	Helobdella elongata	SWI	PR	7	2
Gastropoda	Planorbidae	-	CLI	SC	7	1
Gastropoda	Physidae	-	CLI	SC	8	2
Ephemeroptera	Baetidae	Baetis sp.	SWI	CG	2	4
Odonata/Anisoptera	Calopterygidae	Calopteryx sp.	CLM	PR	5	2
Odonata/Anisoptera	Coenagrionidae	Argia sp.	CLM	PR	5	5
Odonata/Anisoptera	Coenagrionidae	Enallagma sp.	CLM	PR	8	4
Diptera	Tipulidae	Tipula sp.	BUR	SH	4	1
Diptera	Chironomidae	-	BUR	CG	6	67
Total Organisms Collected						95

Virginia Stream Condition Index Metrics

Water Quality Metrics	Value	
Total Taxa Richness (Family)	10	
EPT Richness (Family)	1	
Percent Ephemeroptera	4.2	
Percent PT-H	0.0	
Percent Scrapers	3.2	
Percent Chironomidae	70.5	
Percent Top Two Dominant Families	76.8	(Chironomidae, Lumbriculidae)
Family Biotic Index (DEQ)	6.39	FAIR
IBI Score	22.9	SEVERE STRESS

Fairfax Index of Macroinvertebrate Biotic Integrity (Piedmont)

Water Quality Metrics	Value	
Total Taxa Richness	11	
EPT Richness	1	
Percent EPT	4.2	
Percent T - H	0.0	
Percent Coleoptera	0.0	
Family Biotic Index (VERSAR)	6.90	FAIRLY POOR
Percent Dominance	70.5	(Chironomidae)
Percent Clingers and Plecoptera	3.2	
Percent Shredders	1.1	
Percent Predators	13.7	
IBI Score	30.4	POOR

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

Water Quality Metrics	Value	Adjusted Score	
Total Taxa Richness	11	1	
EPT Richness	1	1	
Ephemeroptera Richness	1	1	
Diptera Richness	2	1	
Percent Ephemeroptera	4.2	1	
Percent Tanytarsini	0	1	
Intolerant Taxa Richness	1	1	
Percent Tolerant Taxa	16.8	3	
Percent Collectors	82.1	5	
IBI Score		1.7	POOR

Additional Metric Computations

Water Quality Metrics	Value	
Hilsenhoff Biotic Index (HBI)	6.04	FAIR
Simpson's Index of Diversity (SID)	0.49	
Effective Number of Taxa	1.96	

Feeding Group Community Distribution

Feeding Group	Quantity	Rel. Abundance (%)
Shredders (SH)	1	1
Scrapers (SC)	3	3
Predators (PR)	13	14
Collector Gatherers (CG)	78	82
Collector Filterers (CF)	0	0

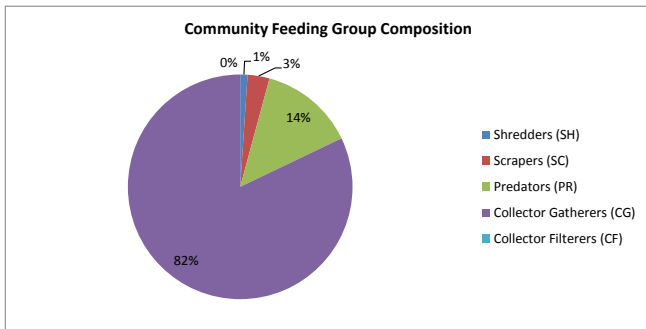


Figure 3-4b. FMR3 Taxa List/Metric Summary Sheet (Spring 2012)

Taxa List

Order/Major Group	Family	Genus species	Habit	Feeding Group	Tolerance Value	Quantity
Oligochaeta	Lumbriculidae	-	BUR	CG	8	5
Gastropoda	Planorbidae	-	CLI	SC	7	11
Gastropoda	Physidae	-	CLI	SC	8	7
Bivalvia	Sphaeriidae	Pisidium sp.	BUR	CF	8	1
Odonata/Anisoptera	Coenagrionidae	Enallagma sp.	CLM	PR	8	2
Diptera	Tipulidae	Tipula sp.	BUR	SH	4	1
Diptera	Simuliidae	Simulium sp.	CLI	CF	3	15
Diptera	Sciomyzidae	-	CLI	PR	10	1
Diptera	Chironomidae	-	BUR	CG	6	66
Total Organisms Collected						109

Virginia Stream Condition Index Metrics

Water Quality Metrics	Value	
Total Taxa Richness (Family)	9	
EPT Richness (Family)	0	
Percent Ephemeroptera	0.0	
Percent PT-H	0.0	
Percent Scrapers	16.5	
Percent Chironomidae	60.6	
Percent Top Two Dominant Families	74.3	(Chironomidae, Simuliidae)
Family Biotic Index (DEQ)	6.40	FAIR
IBI Score	25.3	SEVERE STRESS

Fairfax Index of Macroinvertebrate Biotic Integrity (Piedmont)

Water Quality Metrics	Value	
Total Taxa Richness	9	
EPT Richness	0	
Percent EPT	0.0	
Percent T - H	0.0	
Percent Coleoptera	0.0	
Family Biotic Index (VERSAR)	6.43	FAIR
Percent Dominance	60.6	(Chironomidae)
Percent Clingers and Plecoptera	31.2	
Percent Shredders	0.9	
Percent Predators	2.8	
IBI Score	32.5	POOR

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

Water Quality Metrics	Value	Adjusted Score	
Total Taxa Richness	9	1	
EPT Richness	0	1	
Ephemeroptera Richness	0	1	
Diptera Richness	4	1	
Percent Ephemeroptera	0.0	1	
Percent Tanytarsini	0.0	1	
Intolerant Taxa Richness	1	1	
Percent Tolerant Taxa	24.8	3	
Percent Collectors	65.1	5	
IBI Score		1.7	POOR

Additional Metric Computations

Water Quality Metrics	Value	
Hilsenhoff Biotic Index (HBI)	5.98	FAIR
Simpson's Index of Diversity (SID)	0.60	
Effective Number of Taxa	2.48	

Feeding Group Community Distribution

Feeding Group	Quantity	Rel. Abundance (%)
Shredders (SH)	1	1
Scrapers (SC)	18	17
Predators (PR)	1	1
Collector Gatherers (CG)	71	65
Collector Filterers (CF)	1	1

