

Figure 3-8a. LPR 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	3
Decapoda	Cambaridae	Cambarus carinirostris	SPR	CG	6	1
Ephemeroptera	Baetidae	Baetis sp.	SWI	CG	2	15
Trichoptera	Hydropsychidae	Hydropsyche betteni	CLI	CF	5	34
Trichoptera	Hydropsychidae	Cheumatopsyche sp.	CLI	CF	6	2
Diptera	Simuliidae	Simulium sp.	CLI	CF	3	1
Diptera	Culicidae	Aedes sp.	SWI	CF	8	1
Diptera	Tabanidae	-	SPR	PR	7	1
Diptera	Tipulidae	Tipula sp.	BUR	SH	4	4
Diptera	Chironomidae	-	BUR	CG	6	39
<b>Total Organisms Collected</b>						<b>101</b>

**Virginia Stream Condition Index Metrics**

Water Quality Metrics	Value	
Total Taxa Richness (Family)	9	
EPT Richness (Family)	2	
Percent Ephemeroptera	14.9	
Percent PT-H	0.0	
Percent Scrapers	0.0	
Percent Chironomidae	38.6	
Percent Top Two Dominant Families	72.3	(Chironomidae, Hydropsychidae)
Family Biotic Index (DEQ)	5.65	FAIR
<b>IBI Score</b>	<b>31.1</b>	<b>SEVERE STRESS</b>

**Fairfax Index of Macroinvertebrate Biotic Integrity (Piedmont)**

Water Quality Metrics	Value	
Total Taxa Richness	10	
EPT Richness	3	
Percent EPT	50.5	
Percent T - H	0.0	
Percent Coleoptera	0.0	
Family Biotic Index (VERSAR)	5.58	FAIR
Percent Dominance	38.6	(Chironomidae)
Percent Clingers and Plecoptera	36.6	
Percent Shredders	4.0	
Percent Predators	1.0	
<b>IBI Score</b>	<b>51.7</b>	<b>FAIR</b>

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

Water Quality Metrics	Value	Adjusted Score	
Total Taxa Richness	10	1	
EPT Richness	3	1	
Ephemeroptera Richness	1	1	
Diptera Richness	5	1	
Percent Ephemeroptera	14.9	3	
Percent Tanytarsini	0	1	
Intolerant Taxa Richness	2	1	
Percent Tolerant Taxa	4.0	5	
Percent Collectors	57.4	5	
<b>IBI Score</b>		<b>2.1</b>	<b>POOR</b>

**Additional Metric Computations**

Water Quality Metrics	Value	
Hilsenhoff Biotic Index (HBI)	5.05	GOOD
Simpson's Index of Diversity (SID)	0.71	
Effective Number of Taxa	3.48	

**Feeding Group Community Distribution**

Feeding Group	Quantity	Rel. Abundance (%)
Shredders (SH)	4	4
Scrapers (SC)	0	0
Predators (PR)	1	1
Collector Gatherers (CG)	58	57
Collector Filterers (CF)	38	38

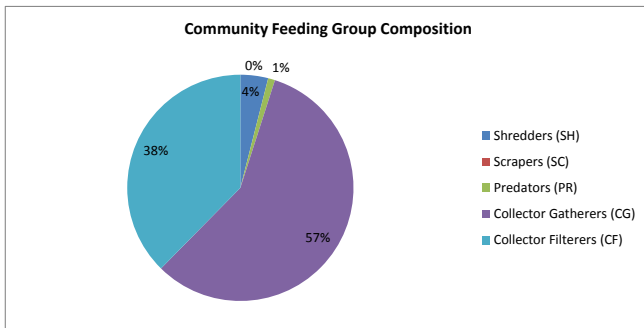


Figure 3-8b. LPR Taxa List/Metric Summary Sheet (Spring 2012)

Taxa List						
Order/Major Group	Family	Genus species	Habit	Feeding Group	Tolerance Value	Quantity
Oligochaeta	Lumbriculidae	-	BUR	CG	8	3
Platyhelminthes	Planariidae	-	BUR	CG	8	6
Amphipoda	Crangonyctidae	Crangonyx sp.	SWI	CG	6	2
Ephemeroptera	Baetidae	Baetis sp.	SWI	CG	2	8
Trichoptera	Hydropsychidae	Hydropsyche betteni	CLI	CF	5	3
Trichoptera	Hydropsychidae	Cheumatopsyche sp.	CLI	CF	6	5
Diptera	Simuliidae	Simulium sp.	CLI	CF	3	48
Diptera	Tipulidae	Antocha sp.	BUR	CG	4	1
Diptera	Chironomidae	-	BUR	CG	6	34
<b>Total Organisms Collected</b>						<b>110</b>

**Virginia Stream Condition Index Metrics**

Water Quality Metrics	Value	
Total Taxa Richness (Family)	8	
EPT Richness (Family)	2	
Percent Ephemeroptera	7.3	
Percent PT-H	0.0	
Percent Scrapers	0.0	
Percent Chironomidae	30.9	
Percent Top Two Dominant Families	74.5	(Simuliidae, Chironomidae)
Family Biotic Index (DEQ)	5.99	FAIR
<b>IBI Score</b>	<b>28.9</b>	<b>SEVERE STRESS</b>

**Fairfax Index of Macroinvertebrate Biotic Integrity (Piedmont)**

Water Quality Metrics	Value	
Total Taxa Richness	9	
EPT Richness	3	
Percent EPT	14.5	
Percent T - H	0.0	
Percent Coleoptera	0.0	
Family Biotic Index (VERSAR)	4.91	GOOD
Percent Dominance	43.6	(Simulium sp.)
Percent Clingers and Plecoptera	50.9	
Percent Shredders	0.0	
Percent Predators	0.0	
<b>IBI Score</b>	<b>41.4</b>	<b>FAIR</b>

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

Water Quality Metrics	Value	Adjusted Score	
Total Taxa Richness	9	1	
EPT Richness	3	1	
Ephemeroptera Richness	1	1	
Diptera Richness	3	1	
Percent Ephemeroptera	7.3	3	
Percent Tanytarsini	0	1	
Intolerant Taxa Richness	2	1	
Percent Tolerant Taxa	8.2	5	
Percent Collectors	49.1	5	
<b>IBI Score</b>		<b>2.1</b>	<b>POOR</b>

**Additional Metric Computations**

Water Quality Metrics	Value	
Hilsenhoff Biotic Index (HBI)	4.52	GOOD
Simpson's Index of Diversity (SID)	0.70	
Effective Number of Taxa	3.35	

**Feeding Group Community Distribution**

Feeding Group	Quantity	Rel. Abundance (%)
Shredders (SH)	0	0
Scrapers (SC)	0	0
Predators (PR)	1	1
Collector Gatherers (CG)	54	49
Collector Filterers (CF)	56	51

