

## **APPENDIX C – Benthic Macroinvertebrate Data**

1. Complete taxa list of macroinvertebrate samples processed from sites in Topanga Creek, May 2003 - July 2014

Owl Falls BMI Taxa List

Order	Family	Taxon	Life Stage	Tol Val	FFG	OF 5/8/13	OF 7/1/13	OF 9/18/13	OF 4/24/14	OF 6/19/14
Coleoptera		Coleoptera n.d.					1			
Coleoptera	Dytiscidae	Agabus sp.	Larvae	5	P				1	
Coleoptera	Elmidae	Elmidae n.d.	Adults	4					1	
Coleoptera	Elmidae	Cyloopus sp.	Larvae	4	CG				2	
Coleoptera	Elmidae	Microcyloopus s	Larvae	4	CG	1				1
Coleoptera	Haliplidae	Haliplidae n.d.		7	SH	1				
Coleoptera	Haliplidae	Peltodytes sp.	Larvae	7	SH			5	6	32
Coleoptera	Haliplidae	Peltodytes sp.	Adult	7	SH			1		
Diptera	Ceratopogonida	Ceratopogonidae	Larvae	6	P			9	13	408
Diptera	Ceratopogonida	Bezzia sp.		6	P	6				
Diptera	Ceratopogonida	Atrichopogon sp.		6	CG	1		1		
Diptera	Chaoboridae	Chaoborus sp.	Pupae					2		
Diptera	Ceratopogonida	Ceratopogonidae	Pupae	6	--				6	8
Diptera	Chironomidae	Chironomidae n.	Larvae		CG	2		13	1263	465
Diptera	Chironomidae	Chironomidae n.	Pupae						27	
Diptera	Chironomidae	Chironomidae n.	Adult							3
Diptera	Empididae	Empididae n.d.			P				2	1
Diptera	Empididae	Empididae n.d.	Pupae	--	--					1
Diptera	Psychodidae	Pericoma sp.		4	CG			1		4
Diptera	Simuliidae	Simulium sp.	Larvae	6	CF				133	2
Diptera	Simuliidae	Simuliidae n.d.	Pupae	6	--				7	
Diptera	Stratiomyidae	Stratiomyidae n.d.	Larvae	8	CG			1		1
Diptera	Stratiomyidae	Euparyphus sp.		8	CG				2	1
Diptera	Tipulidae	Tipula sp.		4	OM				1	3
Ephemeropter	Baetidae	Baetidae n.d.	Larvae	4	CG					20
Ephemeropter	Baetidae	Baetis sp.		5	CG			1	81	34
Ephemeropter	Baetidae	Callibaetis sp.		9	CG			3		
Ephemeropter	Baetidae	Fallceon sp.		4	CG				1	
Ephemeropter	Caenidae	Caenis sp.		7	CG				15	237
Ephemeropter	Leptohyphidae	Leptohyphidae n.d.		4	CG				10	66
Ephemeropter	Leptohyphidae	Leptohyphes sp.	Larvae	4	CG			38		
Ephemeropter	Leptohyphidae	Tricorythodes sp.		4	CG	4				
Hemiptera	Veliidae	Veliidae n.d.			P					4
Hemiptera	Veliidae	Microvelia sp.		6	P			4	4	
Hemiptera	Gerridae	Trepobates sp.		10	P				2	
Hemiptera	Saldidae	Saldidae n.d.		10	P				1	5
Megaloptera	Sialidae	Sialidae n.d.		4	P					3
Odonata	Coenagrionidae	Argia sp.		7	P	1		2	3	41
Odonata	Libellulidae	Libellulidae n.d.		9	P					16
Trichoptera	Hydropsychidae	Hydropsychidae	Larvae	4	CF					42
Trichoptera	Hydropsychidae	Chenmatopsyche sp.			CF				2	
Trichoptera	Hydroptilidae	Hydroptilidae n.d.						10		7
Trichoptera	Hydroptilidae	Hydroptila sp.		6	PH			1	7	
Trichoptera	Philopotamidae	Wormaldia sp.		3	CF				4	
Trichoptera	Polycentropodid	Polycentropodid:	Larvae	6	P				1	5
Trichoptera	Polycentropodid	Cyrnellus sp.	Larvae		CF				2	
Trichoptera	Polycentropodid	Polycentropus sp	Larvae	6	P			2		
		Malacostraca n.d.		8	CG		3			
Amphipoda		Amphipoda n.d.		8	CG	7		450	63	1780
Decapoda	Cambaridae	Procambarus clarkii sp.		8	CG			82		282
		Ostracoda n.d.		8	CG	19			250	
		Arachnida n.d.		4	PA			2		3
		Acari		4	P				6	
		Clitellata n.d.		9	CG			3		1021
		Oligochaeta n.d.		9	CG	1			2	
Veneroida		Veneroida n.d.								2
	Physidae	Physidae n.d.		8	SC		2	24		137
	Physidae	Physa sp.		8	SC	4			13	
Neotaenioglossa		Neotaenioglossa n.d.		8	SC			1		
Viviparidae		Viviparidae n.d.		8	P					5
		Nemertea n.d.		8	P				2	
Hoplonemerte	Tertastemmatid	Prostoma sp.		8						
		Nematoda n.d.		5				7		
Tricladida	Planarian	Planarian n.d.		4	P			174		117

# Scratchy Trail Taxa List

Order	Family	Taxon	Life Stage	Tol	Val	FFG	ST 5/8/13	ST 7/1/13	ST 9/18/13	ST 4/24/14	ST 6/19/14
Coleoptera	Curculionidae	Curculionidae n.d.	larvae	X		SH					1
Coleoptera	Dytiscidae	Agabus sp.	Larvae	5		P				2	
Coleoptera	Elmidae	Elmidae n.d.	Adults	4							1
Coleoptera	Elmidae	Elmidae n.d.	Larvae	4		CG	2				
Coleoptera	Elmidae	Microcylloepus s	Larvae	4		CG				5	3
Coleoptera	Elmidae	Ordobrevia sp.	Larvae	4		SC				2	
Coleoptera	Haliplidae	Peltodytes sp.	Larvae	7		SH					1
Coleoptera	Hydraenidae	Hydraena sp.	Adults	5		SC					2
Diptera	Ceratopogonida	Ceratopogonidae	Larvae	6		P			2		2
Diptera	Ceratopogonida	Atrichopogon sp.		6		CG				2	
Diptera	Chaoboridae	Chaoborus sp.	Pupae								1
Diptera	Chironomidae	Chironomidae n.	Larvae			CG	27			564	102
Diptera	Chironomidae	Chironomini n.d.	Larvae	6		CG		2			
Diptera	Chironomidae	Chironomus sp.	Pupae	10		CG				2	
Diptera	Chironomidae	Tanytarsini n.d.		6				1			
Diptera	Chironomidae	Reotanytarsus sp	Larvae	6		CF				3	
Diptera	Chironomidae	Chironomidae n.	Pupae							6	1
Diptera	Culicidae	Culicidae n.d.		8		CG					3
Diptera	Dixidae	Dixa sp.		2		CG				1	6
Diptera	Psychodidae	Pericoma sp.		4		CG			1		1
Diptera	Simuliidae	Simulium sp.	Larvae	6		CF				2	
Diptera	Stratiomyidae	Caloparyphus sp.		8		CG				2	1
Diptera	Tipulidae	Tipulidae n.d.					1				
Diptera	Tipulidae	Tipula sp.		4		OM					3
Ephemeropter	Baetidae	Baetis sp.		5		CG	11			20	3
Ephemeropter	Baetidae	Fallceon sp.		4		CG				35	3
Ephemeropter	Caenidae	Caenis sp.		7		CG					22
Ephemeropter	Leptohyphidae	Leptohyphidae n.d.		4		CG					52
Ephemeropter	Leptohyphidae	Tricorythodes sp.		4		CG	6		1	13	
Hemiptera	Veliidae	Microvelia sp.		6		P				3	71
Hemiptera	Gerridae	Gerridae n.d.		5		P					1
Hemiptera	Gerridae	Metrobates sp.		5		P					4
Hemiptera	Gerridae	Trepobates sp.		10		P				11	5
Odonata	Aeshnidae	Aeshna sp.		5		P					1
Odonata	Coenagrionidae	Argia sp.		7		P	1	1		2	
Odonata	Coenagrionidae	Enallagma sp.		9		P					42
Trichoptera	Hydrobiosidae	Hydrobiosidae n.	Larvae			P				1	
Trichoptera	Hydroptilidae	Hydroptilidae n.d.					5			4	3
Trichoptera	Philopotamidae	Dolophilodes sp.		3		CF				5	
Trichoptera	Polycentropodid	Polycentropus sp	Larvae	6		P					6
		Malacostraca n.d.		8		CG	23				
Amphipoda		Amphipoda n.d.		8		CG			19	13	158
Decapoda	Cambaridae	Procambarus clarkii sp.		8		CG	96	12	2		
		Ostracoda n.d.		8		CG			11	81	37
		Acari		4		P				8	2
		Oligochaeta n.d.		9		CG				1	50
Basommatoph	Lymnaeidae	Lymnaea sp.		7							1
	Physidae	Physidae n.d.		8		SC	6		19		
Hoplonemerte	Tertastemmatid	Prostoma sp.		8						7	
		Platyhelminthes n.d.		4		P			6		

Topanga Bridge BMI Taxa List

Order	Family	Taxon	Life Stage	Tol Val	FFG	TB 5/8/13	TB 7/1/13	TB 9/18/13	TB 4/24/14	TB 6/19/14
Coleoptera	Dytiscidae	Agabus sp.	Larvae	5	P				5	
Coleoptera	Elmidae	Elmidae n.d.	Adults	4			1			
Coleoptera	Elmidae	Microcylloepus s	Larvae	4	CG	18		12	2	17
Coleoptera	Elmidae	Ordobrevia sp.	Larvae	4	SC	2				2
Diptera	Ceratopogonida	Ceratopogonidae	Larvae	6	P				1	
Diptera	Chironomidae	Chironomidae n.	Larvae		CG	1			180	
Diptera	Chironomidae	Chironiminae n.d.		6	CG			5		45
Diptera	Chironomidae	Chironomini n.d.	Larvae	6	CG			13	2	
Diptera	Chironomidae	Tanytarsini n.d.		6				4		
Diptera	Chironomidae	Orthoclaadiinae n	Larvae	6				3	3	3
Diptera	Chironomidae	Orthocladus sp.	Pupae	6	CG					3
Diptera	Chironomidae	Tanypodinae n.d.	Larvae	6				4	2	34
Diptera	Chironomidae	Chironomidae n.	Pupae					1	2	
Diptera	Culicidae	Culex sp.	larvae	8	CG				1	
Diptera	Dixidae	Dixa sp.		2	CG					4
Diptera	Empididae	Empididae n.d.			P				1	1
Diptera	Empididae	Metachela sp.		3.5	P					1
Diptera	Empididae	Empididae n.d.	Pupae	--	--					1
Diptera	Simuliidae	Simulium sp.	Larvae	6	CF			5	1	9
Diptera	Simuliidae	Simuliidae n.d.	Pupae	6	--					1
Diptera	Stratiomyidae	Stratiomyidae n.	Larvae	8	CG		1		2	
Diptera	Tabanidae	Tabanidae n.d.	Pupae	8	P				1	
Diptera	Tipulidae	Tipulidae n.d.							1	
Ephemeropter	Baetidae	Baetidae n.d.	Larvae	4	CG				15	
Ephemeropter	Baetidae	Baetis sp.		5	CG	1				4
Ephemeropter	Baetidae	Fallceon sp.		4	CG				3	36
Ephemeropter	Leptohiphidae	Leptohiphes sp.	Larvae	4	CG					4
Ephemeropter	Leptohiphidae	Tricorythodes sp.		4	CG			1		
Ephemeropter	Leptophlebiidae	Leptophlebiidae n.d.		4	CG				1	
Hemiptera	Veliidae	Veliidae n.d.			P			1	1	
Hemiptera	Gerridae	Gerridae n.d.		5	P				1	
Hemiptera	Gerridae	Mesovelgia sp.		5	P					1
Odonata	Coenagrionidae	Argia sp./Enallagma sp.			P				9	
Odonata	Coenagrionidae	Argia sp.		7	P	14		8	4	283
Odonata	Coenagrionidae	Enallagma sp.		9	P			2		136
Odonata	Libellulidae	Libellulidae n.d.		9	P			2		
Plecoptera	Perlodidae	Isoperla sp.		2	P					5
Trichoptera	Hydropsychidae	Hydropsychidae	Larvae	4	CF				2	
Trichoptera	Hydropsychidae	Hydropsychidae	Pupae	4	CF	4				
Trichoptera	Hydroptilidae	Hydroptilidae n.d.								2
Trichoptera	Hydroptilidae	Hydroptila sp.		6	PH			2		
Trichoptera	Leptoceridae	Nerphilus Califo	Larvae	0	SH					7
Trichoptera	Philopotamidae	Philopotamidae n.d.		3	CF				11	
Trichoptera	Philopotamidae	Wormaldia sp.		3	CF					9
Trichoptera	Polycentropodid	Polycentropodid:	Larvae	6	P				2	
Trichoptera	Psychomyiidae	Psychomyiidae n	Larvae	2	SC				2	
Amphipoda		Amphipoda n.d.		8	CG			19	55	98
Decapoda	Cambaridae	Procambarus clarkii sp.		8	CG		5	42	1	1
		Ostracoda n.d.		8	CG	5			13	147
		Acari		4	P					3
		Clitellata n.d.		9	CG			1		
		Oligochaeta n.d.		9	CG				10	2
	Physidae	Physidae n.d.		8	SC		3	5		
	Physidae	Physa sp.		8	SC	15			6	41
Neotaenioglossa		Neotaenioglossa n.d.		8	SC					
	Hydrobiidae	Hydrobiidae n.d.		8	SC	1			1	
	Hydrobiidae	Hydrobiidae n.d.		8	SC			94		
	Hydrobiidae	Potamopyrgus antipodarum		8	SC					100
Viviparidae		Viviparidae n.d.		8	P					311
Tricladida	Planarian	Planarian n.d.		4	P			3		

Brookside BMI Taxa List

Order	Family	Taxon	Life Stage	Tol Val	FFG	BR 5/8/13	BR 7/1/13	BR 4/24/14	BR 6/19/14
Coleoptera	Carabidae	Carabidae n.d.	Larvae	4	P				1
Coleoptera	Dytiscidae	Dytiscidae n.d.	Adult	5	P		1		
Coleoptera	Dytiscidae	Agabus sp.	Larvae	5	P	1		6	
Coleoptera	Elmidae	Elmidae n.d.	Adults	4					1
Coleoptera	Elmidae	Microcylloepu	Adults	4	CG			1	
Coleoptera	Elmidae	Microcylloepu	Larvae	4	CG	18			
Diptera	Ceratopogonid	Ceratopogonid	Larvae	6	P			2	
Diptera	Chironomidae	Chironomidae	Larvae		CG	251		412	10
Diptera	Chironomidae	Chironomidae	Pupae					6	1
Diptera	Culicidae	Culex sp.	larvae	8	CG				81
Diptera	Dixidae	Dixa sp.		2	CG			3	
Diptera	Empididae	Empididae n.d.			P	3		1	
Diptera	Psychodidae	Pericoma sp.		4	CG			1	
Diptera	Simuliidae	Simulium sp.	Larvae	6	CF	6		5	
Diptera	Stratiomyidae	Stratiomyidae	Larvae	8	CG			1	
Diptera	Tipulidae	Tipulidae n.d.							1
Diptera	Tipulidae	Tipula sp.		4	OM			4	3
Ephemeropter	Baetidae	Baetis sp.		5	CG	11		60	
Ephemeropter	Baetidae	Fallceon sp.		4	CG			9	
Ephemeropter	Leptophlebiid:	Leptophlebiidae n.d.		4	CG	1		9	
Hemiptera	Pleidae	Pleidae n.d.			P	2			
Hemiptera	Veliidae	Microvelia sp.		6	P			2	
Hemiptera	Saldidae	Saldidae n.d.		10	P			1	
Odonata	Coenagrionid	Argia sp.		7	P			5	
Odonata	Coenagrionid	Enallagma sp.		9	P			1	
Plecoptera	Nemouridae	Nemouridae n.d.		2	SH	5			
Trichoptera		Trichoptera n.d.					1		
Trichoptera	Hydropsychid:	Hydropsychid:	Larvae	4	CF	2			
Trichoptera	Hydroptilidae	Hydroptila sp.		6	PH			3	
Trichoptera	Philopotamida	Philopotamidae n.d.		3	CF	2			
Trichoptera	Polycentropod	Polycentropod	Larvae	6	P	11			
Trichoptera	Polycentropod	Polycentropus	Larvae	6	P			6	
Amphipoda		Amphipoda n.d.		8	CG			14	3
Decapoda	Cambaridae	Procambarus clarkii sp.		8	CG		1	2	1
		Ostracoda n.d.		8	CG	2		109	9
		Acari		4	P	2		6	4
		Oligochaeta n.d.		9	CG			6	9
Basommatoph	Lymnaeidae	Lymnaea sp.		7			3		
	Physidae	Physa sp.		8	SC	5		13	12
Valvatidae		Valvatidae n.d.						1	

## Snake Pit BMI Taxa List

Order	Family	Taxon	Life Stage	Tol Val	FFG	SP 4/25/14	SP 6/19/14
Coleoptera	Carabidae	Carabidae n.d	Larvae	4	P		1
Diptera	Ceratopogonid	Ceratopogonid	Larvae	6	P	1	17
Diptera	Chaoboridae	Chaoborus sp.	Pupae			1	
Diptera	Ceratopogonid	Ceratopogonid	Pupae	6	--	1	2
Diptera	Chironomidae	Chironomidae	Larvae		CG	462	54
Diptera	Culicidae	Culicidae n.d.		8	CG	1	
	Dixidae	Dixa sp.		2	CG		1
Diptera	Empididae	Metachela sp.		3.5	P		2
Diptera	Psychodidae	Pericoma sp.		4	CG	1	
Diptera	Simuliidae	Simulium sp.	Larvae	6	CF		1
Diptera	Tipulidae	Tipula sp.		4	OM	1	2
Hemiptera	Corixidae	Corixidae n.d.		10	P	1	7
Hemiptera	Veliidae	Microvelia sp.		6	P		3
Hemiptera	Gerridae	Trepobates sp.		10	P	1	
Hemiptera	Saldidae	Saldidae n.d.		10	P		2
Odonata	Coenagrionidae	Argia sp.		7	P		11
Odonata	Libellulidae	Libellulidae n.d.		9	P		7
Trichoptera	Hydroptilidae	Neotrichia sp.		4	SC		25
Amphipoda		Amphipoda n.d.		8	CG	5	12
Decapoda	Cambaridae	Procambarus clarkii sp.		8	CG	1	1
		Ostracoda n.d.		8	CG	7	155
		Arachnida n.d.		4	PA	1	
		Acari		4	P		26
		Oligochaeta n.d.		9	CG	4	10
		Gastropoda n.d.				3	
Basommatoph	Lymnaeidae	Lymnaea sp.		7		1	
	Physidae	Physa sp.		8	SC		13
Valvatidae		Valvatidae n.d.					1
Viviparidae		Viviparidae n.d.		8	P		1

Owl Falls BMI IBI Metrics and Scores

	OF	OF	OF	OF	OF
<b>ADDITIONAL IBI METRICS</b>	<b>5/8/13</b>	<b>7/1/13</b>	<b>9/18/13</b>	<b>4/24/14</b>	<b>6/19/14</b>
<b>Total # of Individuals</b>	47	6	837	1933	4757
<b>Total # of Taxa</b>	11	3	20	27	28
<b>Dominant Taxa</b>	Ostracod	Hyaella	Hyaella	Chironomidae	Hyaella
<b>% Dominant</b>	40.420%	50.000%	53.760%	65.300%	37.420%
<b>%CG</b>	74.468%	50.000%	70.848%	87.481%	82.237%
<b>% FC</b>	0.000%	0.000%	0.000%	7.656%	0.967%
<b>%SC</b>	8.511%	33.333%	2.987%	0.673%	2.880%
<b>%P</b>	14.894%	0.000%	24.014%	2.276%	12.781%
<b>% SH</b>	2.128%	0.000%	0.717%	0.310%	0.673%
<b>Average Tolerance Value</b>		8	6.8		
<b>Ephemeroptera Taxa</b>	1	0	3	4	3
<b>Plecoptera Taxa</b>	0	0	0	0	0
<b>Trichoptera Taxa</b>	0	0	2	4	3
<b>SCCIBI METRICS</b>					
<b>%CF+CG</b>	74.468%	50.000%	70.848%	95.137%	83.204%
<b>% Non-Insect tx</b>	36.364%	66.667%	40.000%	22.222%	28.571%
<b>% Tolerant taxa</b>	36.364%	66.667%	35.000%	29.630%	32.143%
<b>Coleoptera Taxa</b>	2	1	1	3	2
<b>Predator Taxa</b>	2	0	8	12	11
<b>% Intolerant ind.</b>	0.000%	0.000%	0.000%	0.000%	0.000%
<b>EPT Taxa</b>	1	0	5	8	6
<b>METRIC SCORES</b>					
<b>% CF+CG</b>	6	10	7	1	4
<b>% Non-Insect tx</b>	3	0	2	6	5
<b>% Tolerant taxa</b>	1	0	1	2	2
<b>Coleoptera Taxa</b>	4	2	2	5	4
<b>Predator Taxa</b>	0	0	5	9	8
<b>% Intolerant ind.</b>	0	0	0	0	0
<b>EPT Taxa</b>	0	0	3	4	3
<b>SUM (0-70)</b>	14	12	20	27	26
<b>ADJUSTED SCCIBI SCORE</b>	20.0 (VERY POOR)	17.1 (VERY POOR)	28.6 (POOR)	38.6 (POOR)	37.1 (POOR)

## Scratchy Trial BMI IBI Metrics and Scores

	ST	ST	ST	ST	ST
ADDITIONAL IBI METRICS	5/8/13	7/1/13	9/18/13	4/24/14	6/19/14
Total # of Individuals	178	13	71	788	589
Total # of Taxa	10	2	10	22	27
Dominant Taxa	Ostracoda	Ostracoda	Amphipoda/ Physa	Chironomidae	Hyalella
% Dominant	53.930%	92.310%	26.760%	72.210%	26.830%
%CG	92.697%	92.308%	50.704%	93.782%	74.873%
% FC	0.000%	0.000%	0.000%	1.269%	0.000%
%SC	3.371%	0.000%	26.761%	0.254%	0.509%
%P	0.562%	7.692%	21.127%	3.426%	22.750%
% SH	0.000%	0.000%	0.000%	0.000%	0.340%
Average Tolerance Value	7.3	7.9	7.2		
Ephemeroptera Taxa	2	0	1	3	4
Plecoptera Taxa	0	0	0	0	0
Trichoptera Taxa	1	0	0	3	2
SCCIBI METRICS					
%CF+CG	92.697%	92.308%	50.704%	95.051%	74.873%
% Non-Insect tx	30.000%	50.000%	60.000%	18.182%	18.519%
% Tolerant taxa	30.000%	50.000%	50.000%	27.273%	25.926%
Coleoptera Taxa	1	0	0	3	5
Predator Taxa	1	1	3	5	9
% Intolerant ind.	0.000%	0.000%	0.000%	0.467%	2.490%
EPT Taxa	3	0	1	6	6
METRIC SCORES					
% CF+CG	1	2	10	1	6
% Non-Insect tx	4	0	0	7	7
% Tolerant taxa	2	0	0	3	3
Coleoptera Taxa	2	0	0	5	8
Predator Taxa	0	0	0	2	6
% Intolerant ind.	0	0	0	0	1
EPT Taxa	1	0	0	3	3
SUM (0-70)	10	2	10	21	34
ADJUSTED SCCIBI SCORE	14.3 (VERY POOR)	2.9 (VERY POOR)	14.3 (VERY POOR)	30.0 (POOR)	48.6 (FAIR)



Topanga Bridge BMI IBI Metrics and Scores

	TB	TB	TB	TB	TB
ADDITIONAL IBI METRICS	5/8/13	7/1/13	9/18/13	4/24/14	6/19/14
Total # of Individuals	61	10	227	341	1311
Total # of Taxa	9	3	15	26	27
Dominant Taxa	Microcycloopus	Ostracod	Hydrobiidae	Chironomidae	Viviparidae
% Dominant	29.510%	50.000%	41.410%	52.790%	23.722%
%CG	47.541%	60.000%	40.969%	83.578%	27.536%
% FC	6.557%	0.000%	2.203%	4.106%	1.449%
%SC	29.508%	30.000%	43.612%	2.639%	10.908%
%P	22.951%	0.000%	7.930%	7.331%	56.522%
% SH	0.000%	0.000%	0.000%	0.000%	0.534%
Average Tolerance Value		8	7.3		
Ephemeroptera Taxa	1	1	1	2	3
Plecoptera Taxa	0	0	0	0	1
Trichoptera Taxa	1	0	1	4	3
SCCIBI METRICS					
%CF+CG	54.098%	60.000%	43.172%	87.683%	28.986%
% Non-Insect tx	33.333%	66.667%	40.000%	23.077%	29.630%
% Tolerant taxa	33.333%	100.000%	46.667%	34.615%	29.630%
Coleoptera Taxa	1	1	1	2	2
Predator Taxa	1	0	6	9	8
% Intolerant ind.	0.000%	0.000%	0.000%	8.844%	1.224%
EPT Taxa	2	1	2	6	7
METRIC SCORES					
% CF+CG	10	9	10	3	10
% Non-Insect tx	4	0	2	6	4
% Tolerant taxa	2	0	0	1	2
Coleoptera Taxa	2	2	2	4	4
Predator Taxa	0	0	3	6	5
% Intolerant ind.	0	0	0	3	1
EPT Taxa	1	0	1	3	4
SUM (0-70)	19	11	18	26	30
ADJUSTED SCCIBI SCORE	27.1 (POOR)	15.7 (VERY POOR)	25.7 (POOR)	37.1 (POOR)	42.9 (FAIR)

Brookside BMI IBI Metrics and Scores

	BR	BR	BR	BR
<b>ADDITIONAL IBI METRICS</b>	<b>5/8/13</b>	<b>7/1/13</b>	<b>4/24/14</b>	<b>6/19/14</b>
<b>Total # of Individuals</b>	322	6	689	136
<b>Total # of Taxa</b>	15	4	26	11
<b>Dominant Taxa</b>	Chironomidae	Physa	Chironomidae	Culicidae
<b>% Dominant</b>	77.950%	50.000%	59.800%	59.560%
<b>%CG</b>	87.888%	16.667%	91.001%	83.088%
<b>% FC</b>	6.522%	0.000%	0.726%	0.000%
<b>%SC</b>	1.553%	50.000%	1.887%	8.824%
<b>%P</b>	5.901%	16.667%	4.790%	3.676%
<b>% SH</b>	1.553%	0.000%	0.000%	0.000%
<b>Average Tolerance Value</b>		7.4		
<b>Ephemeroptera Taxa</b>	2	0	3	0
<b>Plecoptera Taxa</b>	1	0	0	0
<b>Trichoptera Taxa</b>	3	1	2	0
<b>SCCIBI METRICS</b>				
<b>%CF+CG</b>	94.410%	16.667%	91.727%	83.088%
<b>% Non-Insect tx</b>	20.000%	50.000%	26.923%	54.545%
<b>% Tolerant taxa</b>	6.667%	25.000%	30.769%	54.545%
<b>Coleoptera Taxa</b>	2	1	2	2
<b>Predator Taxa</b>	5	1	10	2
<b>% Intolerant ind.</b>	9.804%	0.000%	3.346%	0.000%
<b>EPT Taxa</b>	6	1	5	0
<b>METRIC SCORES</b>				
<b>% CF+CG</b>	1	10	2	4
<b>% Non-Insect tx</b>	7	0	5	0
<b>% Tolerant taxa</b>	9	4	2	0
<b>Coleoptera Taxa</b>	4	2	4	4
<b>Predator Taxa</b>	2	0	7	0
<b>% Intolerant ind.</b>	4	0	1	0
<b>EPT Taxa</b>	3	0	3	0
<b>SUM (0-70)</b>	30	16	24	8
<b>ADJUSTED SCCIBI SCORE</b>	42.9 (FAIR)	22.9 (POOR)	34.3 (POOR)	11.4 (VERY POOR)

## Snake Pit BMI IBI Metrics and Scores

	SP	SP
ADDITIONAL IBI METRICS	4/24/14	6/19/14
Total # of Individuals	492	354
Total # of Taxa	15	21
Dominant Taxa	Chironomidae	Ostracod
% Dominant	93.900%	43.790%
%CG	97.764%	65.819%
% FC	0.000%	0.282%
%SC	0.203%	10.734%
%P	0.813%	21.751%
% SH	0.000%	0.000%
Average Tolerance Value		
Ephemeroptera Taxa	0	0
Plecoptera Taxa	0	0
Trichoptera Taxa	0	1
SCCIBI METRICS		
%CF+CG	97.764%	66.102%
% Non-Insect tx	46.667%	38.095%
% Tolerant taxa	46.667%	42.857%
Coleoptera Taxa	0	1
Predator Taxa	4	10
% Intolerant ind.	0.000%	0.337%
EPT Taxa	0	1
METRIC SCORES		
% CF+CG	0	8
% Non-Insect tx	0	3
% Tolerant taxa	0	0
Coleoptera Taxa	0	2
Predator Taxa	1	7
% Intolerant ind.	0	0
EPT Taxa	0	0
SUM (0-70)	1	20
ADJUSTED SCCIBI SCORE	1.4 (VERY POOR)	28.6 (POOR)

Water Quality's Random Sampling (n=500) SCC-IBI Metrics and Scores

SCCIBI METRICS	OF	OF	ST	BR	ST	OF	TB
	9/18/13	4/24/14	4/24/14	4/24/14	6/19/14	6/19/14	6/19/14
<b>Individuals (n)</b>	<b>500</b>	<b>500</b>	<b>500</b>	<b>500</b>	<b>500</b>	<b>500</b>	<b>500</b>
<b>%CF+CG</b>	75	96	95	89	75	83	32
<b>% Non-Insect tx</b>	60	27	20	27	19	44	37
<b>% Tolerant taxa</b>	60	27	30	31	26	44	37
<b>Coleoptera Taxa</b>	1	1	3	2	4	1	1
<b>Predator Taxa</b>	4	7	5	10	9	10	6
<b>% Intolerant ind.</b>	0	0	1	5	2	0	1
<b>EPT Taxa</b>	3	6	4	5	6	5	4
<b>METRIC SCORES</b>							
<b>% CF+CG</b>	6	1	1	2	6	4	10
<b>% Non-Insect tx</b>	0	5	7	5	7	1	3
<b>% Tolerant taxa</b>	0	3	2	2	3	0	1
<b>Coleoptera Taxa</b>	2	2	5	4	7	2	2
<b>Predator Taxa</b>	1	4	2	7	6	7	3
<b>% Intolerant ind.</b>	0	0	1	2	1	0	1
<b>EPT Taxa</b>	1	3	2	3	3	3	2
<b>SUM (0-70)</b>	10	18	20	25	33	17	22
<b>ADJUSTED SCCIBI SCORE</b>	14.3 (VERY POOR)	25.7 (POOR)	28.6 (POOR)	35.7 (POOR)	47.1 (FAIR)	24.3 (POOR)	31.4 (POOR)



Lower Topanga BMI IBI Taxa List Continued

Order	Family	Taxon	Life Stage	Tol Val	FFG	Lower Topanga 5/13/03	Lower Topanga 5/3/04	Lower Topanga 5/27/05	Lower Topanga 5/8/06	Lower Topanga 5/1/07	Lower Topanga 4/26/10	Lower Topanga 4/28/11	Lower Topanga 4/23/12	Lower Topanga 5/2/13	Lower Topanga 5/5/14
Hemiptera	Pleidae	Pleidae n.d.			P		2								
Hemiptera	Macroveliidae	Macrovalia sp.			P		4								1
Hemiptera	Veliidae	Microvelia sp.		6	P	1	1			1					
Hemiptera	Gerridae	Trepobates sp.		10	P										1
Hemiptera	Saldidae	Saldidae n.d.		10	P			3							1
Lepidoptera	Pyralidae	Paraponyx sp.		5	SH									1	
Megaloptera	Sialidae	Sialidae n.d.		4	P		1								
Odonata	Coenagrionidae	Argia sp./Enallagma sp.			P		2								
Odonata	Coenagrionidae	Argia sp.		7	P	1			1	57			4	5	46
Odonata	Coenagrionidae	Enallagma sp.		9	P										38
Odonata	Lestidae	Lestidae n.d.		9	P					2	3				
Odonata	Lestidae	Archilestes sp.		9	P		2								
Odonata	Libellulidae	Libellulidae n.d.		9	P								1		
Plecoptera	Leuctridae	Leuctridae n.d.		0			1								
Plecoptera	Perlodidae	Perlodidae n.d.		2	P										4
Trichoptera		Trichoptera n.d.	Larvae					1							
Trichoptera	Brachycentridae	Brachycentridae n.d.		1						1					
Trichoptera	Glossosomatidae	Agapetus sp.		0	SC				1						
Trichoptera	Hydropsychidae	Hydropsychidae n.d.	Larvae	4	CF				20	165			17		
Trichoptera	Hydropsychidae	Hydropsychidae n.d.	Pupae	4	CF		19								
Trichoptera	Hydropsychidae	Hydropsyche sp.	Larvae	4	CF			5							
Trichoptera	Hydropsychidae	Chemmatopsyche sp.			CF		11								
Trichoptera	Hydroptilidae	Hydroptilidae n.d.							1	55					15
Trichoptera	Hydroptilidae	Hydroptila sp.		6	PH						2			4	
Trichoptera	Lepidostomatidae	Lepidostoma sp.		1	SH					2					
Trichoptera	Limnephilidae	Limnephilidae n.d.		1						2					
Trichoptera	Philopotamidae	Philopotamidae n.d.		3	CF		6								
Trichoptera	Philopotamidae	Dolophilodes sp.		3	CF					8	13				
Trichoptera	Philopotamidae	Wormaldia sp.		3	CF		15	9							
Trichoptera	Polycentropodidae	Polycentropodidae n.d.	Larvae	6	P					4					
Trichoptera	Polycentropodidae	Polycentropus sp.	Larvae	6	P		1		1		5	10			
Trichoptera	Psychomyiidae	Psychomyiidae n.d.	Larvae	2	SC	3			3						
Trichoptera	Psychomyiidae	Tinodes sp.		2	CG					4	3				
Amphipoda		Amphipoda n.d.		8	CG									31	98
Decapoda	Cambaridae	Procambarus clarkii sp.		8	CG		4								
		Ostracoda n.d.		8	CG					60				46	111
		Arachnida n.d.		4	PA		18								
		Acari		4	P	2		142	10	39	1		5	1	2
	Sphaeriidae	Sphaeriidae n.d.									1				
		Clitellata n.d.		9	CG		11								
		Oligochaeta n.d.		9	CG	1				20		1		23	9
		Gastropoda n.d.									4				
	Physidae	Physa sp.		8	SC					54					5
	Planorbidae	Planorbidae n.d.		8	SC										23
Neotaenioglossa		Neotaenioglossa n.d.		8	SC		1								
	Hydrobiidae	Hydrobiidae n.d.		8	SC					68					
	Hydrobiidae	Potamopyrgus antipodarum		8	SC										16
Viviparidae		Viviparidae n.d.		8	P										4
		Nemertea n.d.		8	P				46				1		
Hoplonemert	Tertastemmatidae	Prostoma sp.		8				24							
		Nematoda n.d.		5				1			1	1	4		4
Tricladida	Planarian	Planarian n.d.		4	P			170		105					3

# Upper Topanga BMI Taxa List

Order	Family	Taxon	Life Stage	Tol Val	FFG	Upper	Upper	Upper	Upper	Upper	Upper	Upper	Upper
						Topanga	Topanga	Topanga	Topanga	Topanga	Topanga	Topanga	Topanga
						5/14/03	5/17/05	5/9/06	4/22/10	4/29/11	4/24/12	4/30/13	5/6/14
Coleoptera	Dytiscidae	Agabus sp.	Larvae	5	P				3				2
Coleoptera	Elmidae	Elmidae n.d.	Adults	4		12							
Coleoptera	Elmidae	Microcylloepus sp.	Adults	4	CG		3	10				8	
Coleoptera	Elmidae	Elmidae n.d.	Larvae	4	CG				2				
Coleoptera	Elmidae	Microcylloepus sp.	Larvae	4	CG	17	2	64					6
Coleoptera	Elmidae	Ordobrevia sp.	Larvae	4	SC	7							
Coleoptera	Haliplidae	Peltodytes sp.	Larvae	7	SH								3
Coleoptera	Haliplidae	Peltodytes sp.	Adult	7	SH			1					
Diptera	Ceratopogonidae	Ceratopogonidae n	Larvae	6	P				6				
Diptera	Ceratopogonidae	Ceratopogonidae n	Larvae	6	P		1						
Diptera	Ceratopogonidae	Bezzia sp.		6	P	2							
Diptera	Ceratopogonidae	Ceratopogonidae n	Pupae	6	-	2	2		6	1	1	3	
Diptera	Chironomidae	Chironomidae n.d.	Larvae	6	CG	81	102	60	60	11	5	207	343
Diptera	Chironomidae	Chironomini n.d.	Larvae	6	CG								2
Diptera	Chironomidae	Tanytarsini n.d.		6									6
Diptera	Chironomidae	Orthocladiinae n.d.	Larvae	6		1							1
Diptera	Chironomidae	Tanypodinae n.d.	Larvae	6									4
Diptera	Chironomidae	Chironomidae n.d.	Pupae	6		4		2	2				7
Diptera	Chironomidae	Chironomidae n.d.	Adult				3						
Diptera	Drosophilidae	Melanogaster sp.										1	
Diptera	Empididae	Chelifera sp.	Larvae	6	P	1							
Diptera	Empididae	Hemerodromia sp.		6	P				1				
Diptera	Psychodidae	Psychodidae n.d.							1				
Diptera	Simuliidae	Simulium sp.	Larvae	6	CF	164	513	19	94	17	2	8	2
Diptera	Simuliidae	Simuliidae n.d.	Pupae	6	-	6	54			1			
Diptera	Stratiomyidae	Caloparyphus sp.		8	CG				2		2		
Diptera	Stratiomyidae	Euparyphus sp.		8	CG			21					
Diptera	Tipulidae	Tipula sp.		4	OM			1					
Ephemeroptera	Baetidae	Baetidae n.d.	Larvae	4	CG								3
Ephemeroptera	Baetidae	Baetis sp.		5	CG	415	362	315	303	141	73	14	42
Ephemeroptera	Baetidae	Fallecon sp.		4	CG	2		4	40		1		10
Ephemeroptera	Caenidae	Caenis sp.		7	CG						2	2	
Ephemeroptera	Leptohiphidae	Leptohiphidae n.d.		4	CG								1
Ephemeroptera	Leptohiphidae	Tricorythodes sp.		4	CG	1			5	2	20		

Upper Topanga BMI Taxa List Continued

Order	Family	Taxon	Life Stage	Tol Val	FFG	Upper Topanga 5/14/03	Upper Topanga 5/17/05	Upper Topanga 5/9/06	Upper Topanga 4/22/10	Upper Topanga 4/29/11	Upper Topanga 4/24/12	Upper Topanga 4/30/13	Upper Topanga 5/6/14
Hemiptera	Belostomatidae	Abedus sp.		8	P			1					
Hemiptera	Pleidae	Pleidae n.d.			P								
Hemiptera	Veliidae	Veliidae n.d.			P		1						
Hemiptera	Macroveliidae	Macrovalia sp.			P				1				
Hemiptera	Veliidae	Microvelia sp.		6	P			1			1		
Hemiptera	Gerridae	Trepobates sp.		10	P				2				
Odonata	Aeshnidae	Aeshna sp.		5	P						1		
Odonata	Coenagrionidae	Argia sp.		7	P	1		29	8		3	9	
Odonata	Coenagrionidae	Enallagma sp.		9	P							4	
Odonata	Lestidae	Archilestes sp.		9	P						1		
Plecoptera	Nemouridae	Nemouridae n.d.		2	SH		1						
Trichoptera	Brachycentridae	Micrasema sp.		1	MH				3				
Trichoptera	Hydropsychidae	Hydropsychidae n.d.	Larvae	4	CF							1	1
Trichoptera	Hydropsychidae	Hydropsyche sp.	Larvae	4	CF		3	46	2				
Trichoptera	Hydropsychidae	Chenmatopsyche sp.			CF	6			1				
Trichoptera	Hydroptilidae	Hydroptilidae n.d.				3		2		2		9	
Trichoptera	Hydroptilidae	Hydroptila sp.		6	PH				3				
Trichoptera	Limnephilidae	Limnephilidae n.d.		1				2					
Trichoptera	Philopotamidae	Dolophilodes sp.		3	CF	4							
Trichoptera	Philopotamidae	Wormaldia sp.		3	CF				5				
Trichoptera	Polycentropodidae	Polycentropodidae	Larvae	6	P					2			
Trichoptera	Polycentropodidae	Polycentropus sp.	Larvae	6	P		9	1					
Trichoptera	Psychomyiidae	Psychomyia sp.		2					1				
Amphipoda		Amphipoda n.d.		8	CG	1						3	39
Decapoda	Cambaridae	Procambarus clarkii sp.		8	CG							1	
		Ostracoda n.d.		8	CG			2			1	9	14
		Acari		4	P	9	18	4		1	1		
		Annelida n.d.							1			2	
		Oligochaeta n.d.		9	CG	1	25	2			1	8	9
	Physidae	Physa sp.		8	SC				2			6	1
		Nemertea n.d.		8	P			1	6			10	5
		Nematoda n.d.		5			1						1
Tricladida	Planarian	Planarian n.d.		4	P	4	1	13			2	3	



Lower Topanga BMI IBI Metrics and Scores

	Lower Topanga	Lower Topanga	Lower Topanga	Lower Topanga	Lower Topanga	Lower Topanga	Lower Topanga	Lower Topanga	Lower Topanga	Lower Topanga
<b>ADDITIONAL IBI METRICS</b>	5/13/03	5/3/04	5/27/05	5/8/06	5/1/07	4/26/10	4/28/11	4/23/12	5/2/13	5/5/14
<b>Total # of Individuals</b>	104	464	3516	398	2654	296	255	208	371	1156
<b>Total # of Taxa</b>	11	28	18	16	41	17	9	12	15	32
<b>Dominant Taxa</b>	Baetis	Baetidae	Baetis	Baetis	Chironomidae	Baetis	Baetis	Baetis	Chironomidae	Chironomidae
<b>% Dominant</b>	65.390	39.871	82.990	63.568	27.807	63.180	66.280	54.810	65.230	58.820
<b>%CG</b>	82.692	64.655	64.733	76.382	55.840	75.676	76.078	62.500	94.879	81.142
<b>% FC</b>	8.654	10.991	22.412	6.533	21.816	13.851	14.118	28.365	0.000	0.519
<b>%SC</b>	2.885	0.216	0.000	1.005	5.087	0.000	0.784	0.000	0.270	3.806
<b>%P</b>	4.808	9.052	9.670	15.327	8.176	8.446	4.314	7.212	3.235	9.256
<b>% SH</b>	0.000	0.216	0.313	0.000	0.716	0.000	0.000	0.000	0.270	0.173
<b>Average Tolerance Value</b>	5.032	4.749	5.190	5.295	5.444	5.176	5.300	5.255	6.558	6.538
<b>Ephemeroptera Taxa</b>	2		1	2		3	2	2	4	3
<b>Plecoptera Taxa</b>	0		0	0		0	0	0	0	1
<b>Trichoptera Taxa</b>	1	2	2	4	5	4	1	1	1	1
<b>SCCIBI METRICS</b>										
<b>%CF+CG</b>	91.346	75.647	87.144	82.915	77.656	89.527	90.196	90.865	94.879	81.661
<b>% Non-Insect tx</b>	18.182	14.286	22.222	12.500	14.634	23.529	22.222	25.000	26.667	31.250
<b>% Tolerant taxa</b>	9.091	25.000	5.556	18.750	14.634	11.765	11.111	25.000	20.000	31.250
<b>Coleoptera Taxa</b>	1	2	1	2	6	0	1	1	2	1
<b>Predator Taxa</b>	4	11	5	5	11	6	2	5	4	13
<b>% Intolerant ind.</b>	0.032	0.022	0.000	0.013	0.000	0.030	0.045	0.000	0.000	0.011
<b>EPT Taxa</b>	3	2	3	6	5	7	3	3	5	5
<b>METRIC SCORES</b>										
<b>% CF+CG</b>	2	5	3	4	5	2	2	2	1	4
<b>% Non-Insect tx</b>	7	8	6	8	8	6	6	6	5	4
<b>% Tolerant taxa</b>	8	4	9	6	7	8	8	4	5	2
<b>Coleoptera Taxa</b>	2	4	2	4	10	0	2	2	4	2
<b>Predator Taxa</b>	1	8	2	2	8	3	0	2	1	10
<b>% Intolerant ind.</b>	1	1	0	1	0	1	2	0	0	1
<b>EPT Taxa</b>	1	1	1	3	3	4	1	1	3	3
<b>SUM (0-70)</b>	22	31	23	28	41	24	21	17	19	26
<b>ADJUSTED SCCIBI SCORE</b>	31.4 (POOR)	44.3 (FAIR)	32.9 (POOR)	40.0 (POOR)	58.6 (FAIR)	34.3 (POOR)	30.0 (POOR)	24.3 (POOR)	27.1 (POOR)	37.1 (POOR)

Upper Topanga BMI IBI Metrics and Scores

	Upper Topanga	Upper Topanga	Upper Topanga	Upper Topanga	Upper Topanga	Upper Topanga	Upper Topanga	Upper Topanga
<b>ADDITIONAL IBI METRICS</b>	<b>5/14/03</b>	<b>5/17/05</b>	<b>5/9/06</b>	<b>4/22/10</b>	<b>4/29/11</b>	<b>4/24/12</b>	<b>4/30/13</b>	<b>5/6/14</b>
<b>Total # of Individuals</b>	744	1101	601	560	178	117	308	502
<b>Total # of Taxa</b>	19	17	22	23	8	16	18	19
<b>Dominant Taxa</b>	Baetis	Simulium	Baetis	Baetis	Baetis	Baetis	Chironomidae	Chironomidae
<b>% Dominant</b>	55.780	46.594	52.413	54.120	79.210	62.390	67.210	71.120
<b>%CG</b>	70.430	44.868	79.534	73.929	86.517	89.744	82.468	93.426
<b>% FC</b>	24.194	51.771	10.815	18.214	10.112	1.709	2.922	0.598
<b>%SC</b>	0.941	0.000	0.000	0.357	0.000	0.000	1.948	0.199
<b>%P</b>	2.285	2.816	8.319	5.357	1.685	7.692	8.442	1.594
<b>% SH</b>	0.000	0.091	0.166	0.000	0.000	0.000	0.000	0.598
<b>Average Tolerance Value</b>	5.286	5.685	5.127	5.277	5.165	5.103	6.226	6.122
<b>Ephemeroptera Taxa</b>	3			3	2	4	2	3
<b>Plecoptera Taxa</b>	0			0	0	0	0	0
<b>Trichoptera Taxa</b>	3	4	5	6	2	0	2	1
<b>SCCIBI METRICS</b>								
<b>%CF+CG</b>	94.624	96.639	90.349	92.143	96.629	91.453	85.390	94.024
<b>% Non-Insect tx</b>	21.053	23.529	22.727	13.043	12.500	25.000	44.444	31.579
<b>% Tolerant taxa</b>	10.526	5.882	22.727	17.391	0.000	25.000	38.889	26.316
<b>Coleoptera Taxa</b>	2	2	2	2	0	0	1	3
<b>Predator Taxa</b>	5	6	7	8	2	6	4	3
<b>% Intolerant ind.</b>	0	0.010	0.006	0.008	0	0	0	0
<b>EPT Taxa</b>	6	4	5	9	4	4	4	4
<b>METRIC SCORES</b>								
<b>% CF+CG</b>	1	0	2	2	0	2	3	1
<b>% Non-Insect tx</b>	7	6	6	8	8	6	1	4
<b>% Tolerant taxa</b>	8	9	4	6	10	4	0	3
<b>Coleoptera Taxa</b>	4	4	4	4	0	0	2	5
<b>Predator Taxa</b>	2	3	4	5	0	3	1	0
<b>% Intolerant ind.</b>	0	1	1	1	0	0	0	0
<b>EPT Taxa</b>	3	2	3	5	2	2	2	2
<b>SUM (0-70)</b>	25	25	24	31	20	17	9	15
<b>ADJUSTED SCCIBI SCORE</b>	35.7 (POOR)	35.7 (POOR)	34.3 (POOR)	44.3 (FAIR)	28.6 (POOR)	24.3 (POOR)	12.9 (VERY POOR)	21.4 (POOR)

Annual Stream Survey's Random Sampling (n=500) SCCL IBI Metrics and Scores

SCCIBI METRICS	Lower Topanga	Lower Topanga	Lower Topanga	Upper Topanga	Upper Topanga	Upper Topanga	Upper Topanga	Upper Topanga
	5/27/05	5/1/07	5/5/14	5/14/03	5/17/05	5/9/06	4/22/10	5/6/14
Individuals (n)	500	500	500	500	500	500	500	500
%CF+CG	87	77	82	94	98	93	92	94
% Non-Insect tx	36	19	42	15	27	28	13	32
% Tolerant taxa	9	13	33	0	9	22	17	26
Coleoptera Taxa	0	4	1	2	2	2	1	3
Predator Taxa	4	7	9	4	3	5	8	3
% Intolerant ind.	0	0	1	0	1	0	1	0
EPT Taxa	2	8	4	4	3	5	9	4
METRIC SCORES								
% CF+CG	3	5	4	1	0	1	2	1
% Non-Insect tx	3	7	2	8	5	5	8	4
% Tolerant taxa	8	7	2	10	8	5	6	3
Coleoptera Taxa	0	7	2	4	4	4	2	5
Predator Taxa	1	4	6	1	0	2	5	0
% Intolerant ind.	0	0	1	0	1	0	1	0
EPT Taxa	1	10	2	2	5	8	5	2
SUM (0-70)	16	40	19	26	23	25	29	15
ADJUSTED SCCIBI SCORE	22.9 (POOR)	57.1 (FAIR)	27.1 (POOR)	37.1 (POOR)	32.9 (POOR)	35.7 (POOR)	41.4 (FAIR)	21.4 (POOR)

### Crayfish Project BMI Taxa List

Order	Family	Taxon	Life Stage	Tot Val	FFG	NRR	RR	NRR	RR	NRR	RR	NRR	RR
						11/20/13	11/20/13	12/6/13	12/5/13	2/20/14	2/20/14	4/24/14	4/24/14
Coleoptera		Coleoptera n.d.					2						
Coleoptera	Dytiscidae	Agabus sp.	Larvae	5	P		3		1			5	2
Coleoptera	Elmidae	Elmidae n.d.	Larvae	4	CG		3						
Coleoptera	Elmidae	Microcylloepus	Larvae	4	CG		3		8		10	2	16
Coleoptera	Elmidae	Zaitzevia sp.	Larvae	4	SC				1				
Coleoptera	Elmidae	Ordobrevia sp.	Larvae	4	SC				3				
Coleoptera	Georyssidae	Georyssus sp.	Larvae					1					
Diptera	Ceratopogonidae	Ceratopogonida	Adult	-	-						2		
Diptera	Ceratopogonidae	Ceratopogonida	Larvae	6	P		4		9		13		3
Diptera	Ceratopogonidae	Ceratopogonida	Larvae	6	P							1	
Diptera	Ceratopogonidae	Ceratopogonida	Pupae	6	--		3		2	6	32		
Diptera	Chironomidae	Chironomidae n	Larvae		CG	9	89	6	41	9	140	180	602
Diptera	Chironomidae	Chironomini n.c	Larvae	6	CG							2	
Diptera	Chironomidae	Orthocladiinae	Larvae	6								3	
Diptera	Chironomidae	Tanypodinae n.c	Larvae	6								2	
Diptera	Chironomidae	Chironomidae n	Pupae				5		1		14	2	3
Diptera	Chironomidae	Chironomidae n	Adult								1		
Diptera	Culicidae	Culicidae n.d.		8	CG								1
Diptera	Culicidae	Culicidae n.d.	Adult		CG			1					
Diptera	Culicidae	Culex sp.	larvae	8	CG		1					1	
Diptera	Dixidae	Dixidae n.d.		2	CG								
Diptera	Dixidae	Dixidae n.d.	Larvae	2	CG		4		3		11		
Diptera	Dixidae	Dixa sp.		2	CG			1					
Diptera	Empididae	Empididae n.d.			P							1	11
Diptera	Simuliidae	Simulium sp.	Larvae	6	CF		2		4		2	1	63
Diptera	Simuliidae	Simulium sp.	Larvae	6							3		
Diptera	Stratiomyidae	Stratiomyidae n	Larvae	8	CG						1	2	
Diptera	Tabanidae	Tabanidae n.d.	Pupae	8	P							1	
Diptera	Tipulidae	Tipulidae n.d.					1		2	1		1	
Diptera	Tipulidae	Prionocera sp.		4									2
Diptera	Tipulidae	Tipula sp.		4	OM								1
Ephemeroptera	Baetidae	Baetidae n.d.	Larvae	4	CG							15	4
Ephemeroptera	Baetidae	Baetis sp.		5	CG		1		6		16		35
Ephemeroptera	Baetidae	Callibaetis sp.		9	CG	1							
Ephemeroptera	Baetidae	Fallceon sp.		4	CG		1					3	2
Ephemeroptera	Leptohiphidae	Leptohiphidae n.d.		4	CG				3				
Ephemeroptera	Leptohiphidae	Leptohiphes sp.	Larvae	4	CG						1		
Ephemeroptera	Leptophlebiidae	Leptophlebiidae n.d.		4	CG							1	
Ephemeroptera	Leptophlebiidae	Paraleptophlebia sp.		4	CG	1							

Crayfish Project BMI Taxa List Continued

Order	Family	Taxon	Life Stage	Tol Val	FFG	NRR 11/20/13	RR 11/20/13	NRR 12/6/13	RR 12/5/13	NRR 2/20/14	RR 2/20/14	NRR 4/24/14	RR 4/24/14
Hemiptera	Corixidae	Corixidae n.d.		10	P					3	2		
Hemiptera	Pleidae	Pleidae n.d.			P					6			
Hemiptera	Veliidae	Veliidae n.d.			P				4		4	1	
Hemiptera	Gerridae	Gerridae n.d.		5	P							1	1
Hemiptera	Gerridae	Metrobates sp.		5	P						1		
Hemiptera	Gerridae	Mesovelia sp.		5	P				1				
Hemiptera	Saldidae	Saldidae n.d.		10	P								2
Lepidoptera	Cosmopterigidae	Cosmopterigidae n.d.		5	SH						2		
Neurotera	Sisyridae	Sisyridae n.d.	Larvae			1							
Odonata		Odonata n.d.			P				2				
Odonata	Aeshnidae	Aeshna sp.		5	P			1	1				
Odonata	Coenagrionidae	Argia sp./Enallagma sp.			P		14		112	12		9	
Odonata	Coenagrionidae	Argia sp.		7	P						25	4	113
Odonata	Lestidae	Archilestes sp.		9	P				1				
Plecoptera	Leuctridae	Leuctridae n.d.		0							2		
Trichoptera		Trichoptera n.d.	Larvae										2
Trichoptera	Brachycentridae	Micrasema sp.		1	MH				2				
Trichoptera	Hydropsychidae	Hydropsychidae	Larvae	4	CF					2		2	10
Trichoptera	Hydropsychidae	Hydropsyche sp.	Larvae	4	CF				5				
Trichoptera	Hydroptilidae	Hydroptilidae n.d.											5
Trichoptera	Hydroptilidae	Hydroptila sp.		6	PH						3		
Trichoptera	Philopotamidae	Philopotamidae n.d.		3	CF					1		11	43
Trichoptera	Polycentropodida	Polycentropodida	Larvae	6	P							2	3
Trichoptera	Polycentropodida	Polycentropus sp	Larvae	6	P		1		8	4	13		
Trichoptera	Psychomyiidae	Psychomyiidae n	Larvae	2	SC							2	
Trichoptera	Psychomyiidae	Tinodes sp.		2	CG				2				
Amphipoda		Amphipoda n.d.		8	CG	6	22	27	454	28	172	55	33
Decapoda	Cambaridae	Procambarus clarkii sp.		8	CG	11	4	6	2	2		1	1
		Ostracoda n.d.		8	CG			20	59	111	131	13	28
		Acari		4	P		1		2	1	6		2
		Annelida n.d.					12	3	3				
		Oligochaeta n.d.		9	CG						2	10	11
		Gastropoda n.d.							1				
Basommatophora	Lymnaeidae	Lymnaea sp.		7			15		2	1	3		
	Physidae	Physa sp.		8	SC		19	2	69	25	105	6	8
Neotaenioglossa	Hydrobiidae	Hydrobiidae n.d.		8	SC		1	1	448	14	287	1	160
Valvatidae		Valvatidae n.d.											4
Viviparidae		Viviparidae n.d.		8	P		1			1	4		
		Nematoda n.d.		5		1							

## Crayfish Project's BMI IBI Metrics and Scores

	NON-REMOVAL	REMOVAL	NON-REMOVAL	REMOVAL	NON-REMOVAL	REMOVAL	NON-REMOVAL	REMOVAL
ADDITIONAL IBI METRICS	11/20/13	11/20/13	12/6/13	12/5/13	2/20/14	2/20/14	4/24/14	4/24/14
Total # of Individuals	30	212	69	1263	227	1008	341	1171
Total # of Taxa	7	21	11	32	17	24	26	27
Dominant Taxa	<i>P. clarkii</i>	Chironomidae	Hyalella	Hyalella/ Hydrobiidae	Ostracod	Hydrobiidae	Chironomidae	Chironomidae
% Dominant	36.67	44.13	39.13	35 (each)	48.9	28.47	52.75	51.92
%CG	93.333	66.038	92.754	46.002	66.079	48.016	83.578	62.596
% FC	0	0.943	0	0.793	1.322	0.496	4.106	9.906
%SC	0	16.509	4.348	41.409	17.621	39.187	2.639	14.347
%P	3.333	11.321	1.449	11.164	11.894	7.044	7.331	11.699
% SH	0	0	0	0	0	1.984	0	0
Average Tolerance Value	7.700	6.690	7.731	8.228	7.760	7.406	6.471	7.940
Ephemeroptera Taxa	2	2	0	2	0	2	2	2
Plecoptera Taxa	0	0	0	0	0	1	0	0
Trichoptera Taxa	0	1	0	5	3	2	4	4
SCCIBI METRICS								
%CF+CG	93.333	66.981	92.754	46.714	67.401	48.512	87.683	72.502
% Non-Insect Taxa	42.857	38.095	54.545	28.125	47.059	33.333	23.077	29.629
% Tolerant Taxa	42.857	28.571	54.545	18.75	41.176	33.333	34.615	29.629
Coleoptera Taxa	0	2	1	4	0	1	2	2
Predator Taxa	1	6	1	10	6	9	9	8
% Intolerant Individuals	0	5.102	1.639	1.456	2.591	3.19	8.844	7.904
EPT Taxa	2	3	0	7	3	5	6	6
METRIC SCORES								
% CF+CG	1	8	1	10	8	10	3	6
% Non-Insect Taxa	1	8	0	5	0	4	6	4
% Tolerant Taxa	0	3	0	6	0	2	1	2
Coleoptera Taxa	0	4	2	7	0	2	4	4
Predator Taxa	0	3	0	7	3	6	6	5
% Intolerant Individuals	0	2	1	1	1	1	3	3
EPT Taxa	1	1	0	4	1	3	3	3
SUM (0-70)	3	24	4	40	13	28	26	27
ADJUSTED SCCIBI SCORE	4.3 (VERY POOR)	34.3 (POOR)	5.7 (POOR)	57.1 (FAIR)	8.6 (VERY POOR)	40.0 (POOR)	37.1 (POOR)	38.6 (POOR)

Crayfish Project Pooled Samples' (n=500) SCC-IBI Metrics and Scores

	<b>NON-REMOVAL</b>	<b>REMOVAL</b>
<b>ADDITIONAL IBI METRICS</b>	<b>11/13-4/14</b>	<b>11/13-4/14</b>
<b>Individuals (n)</b>	<b>500</b>	<b>500</b>
<b>SCCIBI METRICS</b>		
<b>%CF+CG</b>	60.6	79
<b>% Non-Insect Taxa</b>	28.571	28.947
<b>% Tolerant Taxa</b>	25	34.211
<b>Coleoptera Taxa</b>	2	2
<b>Predator Taxa</b>	10	16
<b>% Intolerant Individuals</b>	5.797	3.692
<b>EPT Taxa</b>	6	8
<b>METRIC SCORES</b>		
<b>% CF+CG</b>	9	5
<b>% Non-Insect Taxa</b>	5	5
<b>% Tolerant Taxa</b>	4	1
<b>Coleoptera Taxa</b>	4	4
<b>Predator Taxa</b>	7	10
<b>% Intolerant Individuals</b>	2	2
<b>EPT Taxa</b>	3	4
<b>SUM (0-70)</b>	31	34
<b>ADJUSTED SCCIBI SCORE</b>	<b>44.3 (FAIR)</b>	<b>48.6 (FAIR)</b>