Online Appendix C – Site descriptions and taxonomic and functional trait community composition data for benthic macroinvertebrates of the southern Blue Ridge.

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Table C1. Site descriptions.

Site	Study	Stream name (notes)	UTM-Zone	UTM-East (m)	UTM-North (m)	Elevation (m)	Aspect*	Drainage area (km^2)
Cook1	(Cook 2003)	Ref 1	17 S	561405	4077533	761	117	0.13
Cook2	(Cook 2003)	Ref 2	17 S	559096	4076252	864	74	0.49
Cook3	(Cook 2003)	Ref 3	17 S	559530	4076621	832	113	0.32
Harding1	(Harding *et al.* 1998)	Ball Creek	17 S	278328	3882138	687	165	7.25
Harding2	(Harding *et al.* 1998)	Culasaja River (upper)	17 S	290945	3891164	634	301	151.88
Harding3	(Harding *et al.* 1998)	Lower Davidson River	17 S	343692	3905584	652	180	101.15
Harding4	(Harding *et al.* 1998)	Dryman	17 S	280425	3881300	654	22	8.25
Harding5	(Harding *et al.* 1998)	Big Laurel Creek	17 S	342653	3978126	510	313	138.75
Harding6	(Harding *et al.* 1998)	Shelton Laurel Creek	17 S	342231	3979824	540	195	31.57
Harding7	(Harding *et al.* 1998)	Looking Glass Creek	17 S	338676	3908238	744	189	19.08
Harding8	(Harding *et al.* 1998)	Culasaja River (lower)	17 S	289388	3891780	626	90	163.19
Harding9	(Harding *et al.* 1998)	Nantahala River	17 S	264451	3888741	1187	247	9.5
Harding10	(Harding *et al.* 1998)	Oconaluftee River	17 S	290892	3932758	618	306	135.03
Harding11	(Harding *et al.* 1998)	Shope Fork	17 S	277655	3882879	755	265	7.57
Harding12	(Harding *et al.* 1998)	South Toe River	17 S	390908	3958292	885	360	37.8
Harding13	(Harding *et al.* 1998)	Tellico Creek	17 S	273352	3907864	577	325	31.58

Site	Study	Stream name (notes)	UTM-Zone	UTM-East (m)	UTM-North (m)	Elevation (m)	Aspect*	Drainage area (km^2)
Harding14	(Harding *et al.* 1998)	Upper Davidson River	17 S	334235	3905694	810	12	2.98
Sokol1	(Sokol unpublished)	Ray Branch Ref.	17 S	273071	3896878	896	151	0.23
Sokol2	(Sokol unpublished)	Ray Branch RB100	17 S	272426	3897192	869	334	0.69
Sokol3	(Sokol unpublished)	Ray Branch RB30	17 S	268494	3898361	830	304	0.31
Sokol4	(Sokol unpublished)	Ray Branch RB0	17 S	273717	3897898	819	151	0.45
Sponseller1	(Sponseller *et al.* 2001)	Powers	17 S	571907	4103427	551	315	6.08
Sponseller2	(Sponseller *et al.* 2001)	Sugar Run	17 S	570824	4105425	520	137	4.05
Sponseller3	(Sponseller *et al.* 2001)	Purgatory	17 S	565266	4104858	489	64	2.72

Note: *Degrees counter clockwise from East

Table C1. (Continued)

Site	Mean channel gradient (%)	Canopy cover (%)	Reach length (m)	No. samples	Sampling density (no. m^{-2})	Sampling device	Samling device area (m^2)
Cook1	7.3	57	100	11	0.11	Surber sampler	0.09
Cook2	5.7	66	100	11	0.11	Surber sampler	0.09
Cook3	4.6	76	100	11	0.11	Surber sampler	0.09
Harding1	14.8	97	50	5	0.1	Modified kick net	0.40
Harding2	10	86	50	5	0.1	Modified kick net	0.40
Harding3	12.6	96	50	5	0.1	Modified kick net	0.40

Site	Mean channel gradient (%)	Canopy cover (%)	Reach length (m)	No. samples	Sampling density (no. m^{-2})	Sampling device	Samling device area (m^2)
Harding4	13.7	95	50	5	0.1	Modified kick net	0.40
Harding5	13.5	92	50	5	0.1	Modified kick net	0.40
Harding6	13.5	95	50	5	0.1	Modified kick net	0.40
Harding7	11.9	94	50	5	0.1	Modified kick net	0.40
Harding8	10.2	86	50	5	0.1	Modified kick net	0.40
Harding9	13.7	99	50	5	0.1	Modified kick net	0.40
Harding10	17	97	50	5	0.1	Modified kick net	0.40
Harding11	15.4	98	50	5	0.1	Modified kick net	0.40
Harding12	15.4	96	50	5	0.1	Modified kick net	0.40
Harding13	14.9	94	50	5	0.1	Modified kick net	0.40
Harding14	7.4	90	50	5	0.1	Modified kick net	0.40
Sokol1	12.3	100	250	20	0.08	Surber sampler	0.09
Sokol2	12.2	100	250	20	0.08	Surber sampler	0.09
Sokol3	16.7	99	250	20	0.08	Surber sampler	0.09
Sokol4	17.1	100	250	20	0.08	Surber sampler	0.09
Sponseller1	9.8	93	50	5	0.1	Hess sampler	0.08
Sponseller2	9.8	89	50	5	0.1	Hess sampler	0.08
Sponseller3	11.3	85	50	5	0.1	Hess sampler	0.08

Table C2. Estimates of benthic macroinvertebrate densities (no. m^{-2}) from 24 headwater streams in the southern Blue Ridge Physiographic Province.

Order	Family	Genus	Cook1	Cook2	Cook3	Harding1	Harding2	Harding3	Harding4
Coleoptera	Elmidae	*Elmidae*	62.0	55.0	36.0	6.2	14.3	11.0	9.2
Coleoptera	Psephenidae	*Ectopria*	1.0	0.0	0.0	0.0	1.1	0.0	0.0
Coleoptera	Psephenidae	*Psephenus*	0.0	0.0	0.0	0.0	1.1	1.0	0.0
Diptera	Athericidae	*Atherix*	0.0	0.0	0.0	0.0	1.1	0.0	0.0
Diptera	Blephariceridae	*Blepharicera*	0.0	0.0	0.0	0.0	0.0	0.5	1.2
Diptera	Ceratopogonidae	*Ceratopogonidae*	28.0	22.0	24.0	2.9	2.1	2.0	0.4
Diptera	Deuterophlebiidae	*Deuterophlebia*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diptera	Empididae	*Empididae*	45.0	107.0	20.0	2.1	6.1	23.0	0.0
Diptera	Psychodidae	*Pericoma*	4.0	0.0	4.0	0.0	0.0	0.0	0.0
Diptera	Simuliidae	*Simuliidae*	0.0	0.0	0.0	4.6	1.4	16.0	2.1
Diptera	Tipulidae	Tipulidae I	206.0	142.0	194.0	5.8	13.9	20.0	3.3
Ephemeroptera	Ameletidae	*Ameletus*	8.0	22.0	36.0	0.0	0.0	0.5	2.1
Ephemeroptera	Baetidae	*Acentrella*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ephemeroptera	Baetidae	*Baetis*	0.0	0.0	0.0	12.1	10.4	52.5	6.7
Ephemeroptera	Caenidae	*Caenis*	0.0	0.0	0.0	0.8	0.0	0.0	0.0
Ephemeroptera	Ephemerellidae	*Attenella*	0.0	0.0	0.0	0.0	0.0	0.0	11.3
Ephemeroptera	Ephemerellidae	*Drunella*	0.0	0.0	0.0	1.7	14.6	1.5	0.8
Ephemeroptera	Ephemerellidae	*Ephemerella*	153.0	167.0	454.0	42.1	91.8	99.0	15.8
Ephemeroptera	Ephemerellidae	*Eurylophella*	9.0	0.0	2.0	0.4	0.0	2.0	0.0
Ephemeroptera	Ephemerellidae	*Serratella*	0.0	3.0	0.0	0.0	0.0	0.0	0.0
Ephemeroptera	Ephemeridae	*Ephemera*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ephemeroptera	Heptageniidae	*Cinygmula*	0.0	0.0	0.0	16.7	0.0	14.0	0.0
Ephemeroptera	Heptageniidae	*Epeorus*	2.0	2.0	4.0	20.8	27.1	40.5	29.2
Ephemeroptera	Heptageniidae	*Heptagenia*	0.0	0.0	0.0	1.2	0.0	0.0	0.0
Ephemeroptera	Heptageniidae	*Rhithrogena*	0.0	1.0	0.0	4.2	1.1	21.0	0.0

Order	Family	Genus	Cook1	Cook2	Cook3	Harding1	Harding2	Harding3	Harding4
Ephemeroptera	Heptageniidae	*Stenacron*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ephemeroptera	Heptageniidae	*Stenonema/ Maccaffertium*	13.0	31.0	16.0	0.8	17.5	17.5	8.3
Ephemeroptera	Isonychiidae	*Isonychia*	0.0	6.0	0.0	0.8	9.6	22.0	0.0
Ephemeroptera	Leptophlebiidae	*Habrophlebia*	0.0	0.0	0.0	0.4	0.0	0.0	0.8
Ephemeroptera	Leptophlebiidae	*Leptophlebia*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ephemeroptera	Leptophlebiidae	*Paraleptophlebia*	301.0	151.0	166.0	2.9	7.1	5.0	0.0
Hemiptera	Gerridae	*Trepobates*	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Hemiptera	Veliidae	*Microvelia*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hemiptera	Veliidae	*Rhagovelia*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lepidoptera	Pyralidae	*Petrophila*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Megaloptera	Corydalidae	*Corydalus*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Megaloptera	Corydalidae	*Nigronia*	0.0	0.0	0.0	0.0	1.8	0.0	0.0
Megaloptera	Sialidae	*Sialis*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Odonata	Cordulegastridae	*Cordulegaster*	21.0	1.0	8.0	0.0	0.0	0.0	0.0
Odonata	Gomphidae	*Dromogomphus*	0.0	0.0	0.0	0.0	0.0	0.5	0.0
Odonata	Gomphidae	*Gomphus*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Odonata	Gomphidae	*Lanthus*	0.0	0.0	0.0	0.8	0.0	0.5	0.0
Odonata	Gomphidae	*Stylogomphus*	0.0	0.0	0.0	0.0	1.1	0.0	0.0
Plecoptera	Capniidae	*Allocapnia*	0.0	0.0	0.0	0.0	0.0	0.0	3.3
Plecoptera	Chloroperlidae	*Alloperla*	0.0	0.0	0.0	0.0	0.0	2.0	0.0
Plecoptera	Chloroperlidae	*Haploperla*	0.0	0.0	0.0	0.0	6.4	0.0	0.0
Plecoptera	Chloroperlidae	*Sweltsa*	4.0	0.0	62.0	0.0	1.4	0.0	0.0
Plecoptera	Chloroperlidae	*Utaperla*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plecoptera	Leuctridae	*Leuctra*	16.0	4.0	4.0	0.0	0.0	0.0	0.0
Plecoptera	Nemouridae	*Amphinemura*	37.0	23.0	46.0	0.8	3.2	0.0	0.0
Plecoptera	Nemouridae	*Paranemoura*	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Order	Family	Genus	Cook1	Cook2	Cook3	Harding1	Harding2	Harding3	Harding4
Plecoptera	Nemouridae	*Soyedina*	0.0	0.0	0.0	0.8	0.0	0.0	0.0
Plecoptera	Peltoperlidae	*Peltoperlidae*	343.0	137.0	100.0	3.7	0.7	4.5	6.7
Plecoptera	Perlidae	*Acroneuria*	0.0	0.0	0.0	8.3	5.0	3.0	0.8
Plecoptera	Perlidae	*Agnetina*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plecoptera	Perlidae	*Beloneuria*	1.0	2.0	0.0	0.0	12.5	0.0	0.0
Plecoptera	Perlidae	*Hansonoperla*	17.0	8.0	0.0	0.0	0.0	0.0	0.0
Plecoptera	Perlidae	*Paragnetina*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plecoptera	Perlidae	*Perlesta*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plecoptera	Perlodidae	*Clioperla*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plecoptera	Perlodidae	*Cultus*	0.0	0.0	0.0	0.0	6.1	2.0	0.0
Plecoptera	Perlodidae	*Helopicus*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plecoptera	Perlodidae	*Hydroperla*	67.0	248.0	30.0	0.0	52.9	6.5	0.8
Plecoptera	Perlodidae	*Isogenoides*	0.0	0.0	0.0	0.0	0.0	2.5	0.0
Plecoptera	Perlodidae	*Isoperla*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plecoptera	Perlodidae	*Kogotus*	81.0	2.0	20.0	0.0	0.0	0.0	0.0
Plecoptera	Perlodidae	*Remenus*	0.0	52.0	18.0	0.0	0.0	0.0	0.0
Plecoptera	Perlodidae	*Yugus*	0.0	0.0	0.0	0.0	0.0	0.0	3.3
Plecoptera	Pteronarcyidae	*Pteronarcys*	0.0	0.0	0.0	2.1	1.1	0.0	3.7
Plecoptera	Taeniopterygidae	*Oemopteryx*	0.0	0.0	0.0	9.6	47.9	0.0	15.4
Plecoptera	Taeniopterygidae	*Taeniopteryx*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trichoptera	Brachycentridae	*Brachycentrus*	0.0	0.0	0.0	0.8	0.0	0.5	0.0
Trichoptera	Glossosomatidae	*Agapetus*	0.0	0.0	0.0	0.0	0.0	3.5	0.8
Trichoptera	Glossosomatidae	*Glossosoma*	0.0	1.0	0.0	0.8	0.0	0.0	0.0
Trichoptera	Glossosomatidae	*Matrioptila*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trichoptera	Hydropsychidae	*Arctopsyche*	0.0	0.0	0.0	0.0	0.0	0.0	0.8
Trichoptera	Hydropsychidae	*Ceratopsyche*	0.0	0.0	0.0	80.0	11.4	0.0	0.0

Order	Family	Genus	Cook1	Cook2	Cook3	Harding1	Harding2	Harding3	Harding4
Trichoptera	Hydropsychidae	*Cheumatopsyche*	0.0	0.0	0.0	0.8	0.0	0.0	0.0
Trichoptera	Hydropsychidae	*Diplectrona*	0.0	0.0	0.0	14.6	0.0	0.5	4.2
Trichoptera	Hydropsychidae	*Hydropsyche*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trichoptera	Hydropsychidae	*Parapsyche*	0.0	0.0	0.0	0.8	0.0	0.0	6.2
Trichoptera	Hydroptilidae	*Hydroptila*	0.0	0.0	0.0	0.4	0.0	0.5	0.0
Trichoptera	Hydroptilidae	*Leucotrichia*	220.0	48.0	162.0	0.0	50.0	0.0	0.0
Trichoptera	Lepidostomatidae	*Lepidostoma*	0.0	0.0	0.0	0.0	0.0	6.5	0.0
Trichoptera	Lepidostomatidae	*Theliopsyche*	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Trichoptera	Limnephilidae	*Pycnopsyche*	59.0	20.0	10.0	2.1	0.0	3.0	0.0
Trichoptera	Odontoceridae	*Psilotreta*	1.0	1.0	6.0	0.0	0.0	0.0	0.0
Trichoptera	Philopotamidae	*Dolophilodes*	0.0	0.0	0.0	0.8	0.0	0.0	0.0
Trichoptera	Philopotamidae	*Wormaldia*	0.0	0.0	0.0	0.0	0.0	11.0	0.0
Trichoptera	Polycentropodidae	*Cyrnellus*	0.0	0.0	2.0	0.4	0.0	1.0	0.0
Trichoptera	Polycentropodidae	*Neureclipsis*	0.0	0.0	0.0	0.4	0.0	0.0	0.0
Trichoptera	Polycentropodidae	*Polycentropus*	4.0	0.0	0.0	0.4	0.7	0.0	1.7
Trichoptera	Psychomyiidae	*Lype*	0.0	0.0	0.0	0.4	0.0	0.0	0.8
Trichoptera	Rhyacophilidae	*Rhyacophila*	25.0	50.0	40.0	1.7	7.9	10.0	5.0
Trichoptera	Uenoidae	*Neophylax*	22.0	10.0	2.0	0.0	0.0	1.0	0.0

Table C2. (Continued)

Order	Family	Genus	Harding5	Harding6	Harding7	Harding8	Harding9	Harding10	Harding11	Harding12	Harding13
Coleoptera	Elmidae	*Elmidae*	1.7	4.5	21.8	6.4	11.1	26.4	15.0	16.4	7.5
Coleoptera	Psephenidae	*Ectopria*	0.0	0.0	0.4	0.0	0.0	0.0	1.1	0.0	0.0
Coleoptera	Psephenidae	*Psephenus*	0.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.7
Diptera	Athericidae	*Atherix*	0.0	0.0	0.7	0.0	1.4	2.9	0.7	0.0	0.4
Diptera	Blephariceridae	*Blepharicera*	10.8	11.5	0.0	1.4	6.1	9.3	0.4	0.0	2.5
Diptera	Ceratopogonidae	*Ceratopogonidae*	2.5	0.0	0.4	5.4	0.7	1.1	5.7	1.8	7.5

Order	Family	Genus	Harding5	Harding6	Harding7	Harding8	Harding9	Harding10	Harding11	Harding12	Harding13
Diptera	Deuterophlebiidae	*Deuterophlebia*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diptera	Empididae	*Empididae*	2.1	3.5	0.7	6.1	0.4	1.4	4.6	0.4	0.4
Diptera	Psychodidae	*Pericoma*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diptera	Simuliidae	*Simuliidae*	0.8	1.5	12.9	67.1	29.6	62.5	12.5	20.0	19.6
Diptera	Tipulidae	Tipulidae I	2.9	2.5	20.7	28.6	15.4	17.5	7.9	16.1	3.2
Ephemeroptera	Ameletidae	*Ameletus*	0.4	0.5	1.4	0.0	1.1	7.1	6.8	3.9	0.0
Ephemeroptera	Baetidae	*Acentrella*	0.0	0.0	0.0	0.0	0.0	0.7	73.2	0.0	0.0
Ephemeroptera	Baetidae	*Baetis*	27.1	7.0	68.9	203.6	51.1	200.0	2.5	16.4	112.1
Ephemeroptera	Caenidae	*Caenis*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ephemeroptera	Ephemerellidae	*Attenella*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ephemeroptera	Ephemerellidae	*Drunella*	0.0	1.0	5.7	7.9	0.7	3.6	3.2	2.9	0.4
Ephemeroptera	Ephemerellidae	*Ephemerella*	40.8	593.5	199.6	127.9	126.1	325.0	58.9	108.6	117.9
Ephemeroptera	Ephemerellidae	*Eurylophella*	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0
Ephemeroptera	Ephemerellidae	*Serratella*	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0
Ephemeroptera	Ephemeridae	*Ephemera*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ephemeroptera	Heptageniidae	*Cinygmula*	0.0	0.5	129.6	0.0	0.0	0.0	9.3	149.6	41.1
Ephemeroptera	Heptageniidae	*Epeorus*	3.3	46.0	30.0	18.6	42.5	53.9	26.1	83.9	37.5
Ephemeroptera	Heptageniidae	*Heptagenia*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ephemeroptera	Heptageniidae	*Rhithrogena*	57.1	49.0	11.4	40.4	80.4	5.0	0.0	0.0	14.6
Ephemeroptera	Heptageniidae	*Stenacron*	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Ephemeroptera	Heptageniidae	*Stenonema/ Maccaffertium*	7.1	54.0	6.4	7.9	14.6	6.8	8.9	1.1	11.8
Ephemeroptera	Isonychiidae	*Isonychia*	22.1	38.0	12.1	0.7	0.0	2.5	4.6	10.0	5.7
Ephemeroptera	Leptophlebiidae	*Habrophlebia*	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0
Ephemeroptera	Leptophlebiidae	*Leptophlebia*	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0
Ephemeroptera	Leptophlebiidae	*Paraleptophlebia*	3.3	4.0	6.4	0.7	35.4	0.0	6.4	38.6	2.1
Hemiptera	Gerridae	*Trepobates*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Order	Family	Genus	Harding5	Harding6	Harding7	Harding8	Harding9	Harding10	Harding11	Harding12	Harding13
Hemiptera	Veliidae	*Microvelia*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hemiptera	Veliidae	*Rhagovelia*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lepidoptera	Pyralidae	*Petrophila*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Megaloptera	Corydalidae	*Corydalus*	0.4	1.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0
Megaloptera	Corydalidae	*Nigronia*	0.0	0.0	0.7	0.0	0.0	4.3	0.0	0.0	0.7
Megaloptera	Sialidae	*Sialis*	0.4	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0
Odonata	Cordulegastridae	*Cordulegaster*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Odonata	Gomphidae	*Dromogomphus*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Odonata	Gomphidae	*Gomphus*	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0
Odonata	Gomphidae	*Lanthus*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0
Odonata	Gomphidae	*Stylogomphus*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plecoptera	Capniidae	*Allocapnia*	0.0	1.0	0.7	0.0	5.4	0.0	0.0	0.7	0.0
Plecoptera	Chloroperlidae	*Alloperla*	5.4	2.0	3.2	1.4	0.0	0.0	0.0	0.0	0.0
Plecoptera	Chloroperlidae	*Haploperla*	12.9	8.0	0.4	0.4	0.0	0.0	0.0	0.0	0.0
Plecoptera	Chloroperlidae	*Sweltsa*	0.0	0.0	1.8	0.0	6.1	3.2	0.0	31.4	1.4
Plecoptera	Chloroperlidae	*Utaperla*	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0
Plecoptera	Leuctridae	*Leuctra*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plecoptera	Nemouridae	*Amphinemura*	0.0	0.0	3.2	0.4	1.8	1.4	0.7	2.9	1.4
Plecoptera	Nemouridae	*Paranemoura*	0.0	9.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plecoptera	Nemouridae	*Soyedina*	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.7	0.0
Plecoptera	Peltoperlidae	*Peltoperlidae*	0.0	1.5	4.3	0.0	16.4	6.8	3.2	2.5	1.8
Plecoptera	Perlidae	*Acroneuria*	2.9	3.5	2.1	71.4	11.1	10.0	2.1	3.6	1.8
Plecoptera	Perlidae	*Agnetina*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plecoptera	Perlidae	*Beloneuria*	0.0	0.5	1.8	0.0	0.0	7.1	0.0	1.8	5.0
Plecoptera	Perlidae	*Hansonoperla*	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
Plecoptera	Perlidae	*Paragnetina*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Order	Family	Genus	Harding5	Harding6	Harding7	Harding8	Harding9	Harding10	Harding11	Harding12	Harding13
Plecoptera	Perlidae	*Perlesta*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plecoptera	Perlodidae	*Clioperla*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plecoptera	Perlodidae	*Cultus*	0.0	0.5	0.4	0.0	0.0	0.0	1.8	0.0	9.3
Plecoptera	Perlodidae	*Helopicus*	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Plecoptera	Perlodidae	*Hydroperla*	7.9	23.5	3.2	0.0	6.4	39.5	0.7	0.4	30.7
Plecoptera	Perlodidae	*Isogenoides*	0.0	0.0	0.0	8.9	0.0	0.7	0.0	1.4	1.1
Plecoptera	Perlodidae	*Isoperla*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
Plecoptera	Perlodidae	*Kogotus*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plecoptera	Perlodidae	*Remenus*	0.0	0.0	0.4	0.0	0.0	0.0	4.6	0.0	0.0
Plecoptera	Perlodidae	*Yugus*	0.0	0.0	2.9	0.0	3.9	4.6	0.0	2.1	2.9
Plecoptera	Pteronarcyidae	*Pteronarcys*	0.0	1.0	5.0	0.0	4.6	0.0	6.4	0.4	3.9
Plecoptera	Taeniopterygidae	*Oemopteryx*	5.0	0.0	17.1	27.1	19.6	1.4	98.9	5.7	6.4
Plecoptera	Taeniopterygidae	*Taeniopteryx*	0.0	0.0	0.0	0.0	0.0	0.0	7.1	0.0	0.0
Trichoptera	Brachycentridae	*Brachycentrus*	0.4	0.0	0.0	0.0	2.5	4.3	3.2	0.0	0.4
Trichoptera	Glossosomatidae	*Agapetus*	0.0	0.0	0.4	0.0	0.0	0.4	0.0	0.0	0.0
Trichoptera	Glossosomatidae	*Glossosoma*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trichoptera	Glossosomatidae	*Matrioptila*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trichoptera	Hydropsychidae	*Arctopsyche*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trichoptera	Hydropsychidae	*Ceratopsyche*	0.4	0.0	5.0	29.6	6.1	1.4	25.0	8.6	0.0
Trichoptera	Hydropsychidae	*Cheumatopsyche*	0.4	1.0	6.8	0.0	1.1	0.4	0.4	0.7	86.1
Trichoptera	Hydropsychidae	*Diplectrona*	0.0	0.0	0.7	0.0	0.0	0.0	0.4	0.0	0.0
Trichoptera	Hydropsychidae	*Hydropsyche*	0.0	0.0	0.0	0.7	0.0	0.7	0.0	0.0	0.0
Trichoptera	Hydropsychidae	*Parapsyche*	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0
Trichoptera	Hydroptilidae	*Hydroptila*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trichoptera	Hydroptilidae	*Leucotrichia*	0.0	0.0	7.5	0.0	0.0	0.4	0.0	0.0	0.0
Trichoptera	Lepidostomatidae	*Lepidostoma*	0.0	0.0	1.8	0.0	0.0	0.0	0.0	11.8	0.0

Order	Family	Genus	Harding5	Harding6	Harding7	Harding8	Harding9	Harding10	Harding11	Harding12	Harding13
Trichoptera	Lepidostomatidae	*Theliopsyche*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trichoptera	Limnephilidae	*Pycnopsyche*	0.0	0.0	0.7	0.0	0.4	0.0	2.9	0.0	0.0
Trichoptera	Odontoceridae	*Psilotreta*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
Trichoptera	Philopotamidae	*Dolophilodes*	0.0	0.0	0.4	24.6	2.9	116.8	3.6	0.0	0.4
Trichoptera	Philopotamidae	*Wormaldia*	0.0	0.0	0.0	0.0	0.0	18.9	0.0	0.0	0.0
Trichoptera	Polycentropodidae	*Cyrnellus*	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0
Trichoptera	Polycentropodidae	*Neureclipsis*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trichoptera	Polycentropodidae	*Polycentropus*	0.0	2.0	5.7	0.0	1.1	0.0	0.0	0.4	1.8
Trichoptera	Psychomyiidae	*Lype*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trichoptera	Rhyacophilidae	*Rhyacophila*	0.0	0.5	22.5	0.0	25.4	44.6	11.1	4.6	3.9
Trichoptera	Uenoidae	*Neophylax*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table C2. (Continued)

Order	Family	Genus	Harding14	Sokol1	Sokol2	Sokol3	Sokol4	Sponseller1	Sponseller2	Sponseller3
Coleoptera	Elmidae	*Elmidae*	4.3	43.6	65.7	60.6	49.0	2451.14	648.84	295.58
Coleoptera	Psephenidae	*Ectopria*	0.4	5.4	15.1	34.0	10.8	11.63	30.23	0
Coleoptera	Psephenidae	*Psephenus*	0.0	0.0	0.0	0.0	0.0	9.3	46.51	72.09
Diptera	Athericidae	*Atherix*	1.1	0.0	0.0	0.0	0.0	11.63	13.95	0
Diptera	Blephariceridae	*Blepharicera*	0.0	0.0	0.0	0.0	0.0	455.81	267.44	83.72
Diptera	Ceratopogonidae	*Ceratopogonidae*	0.7	17.8	13.5	6.8	40.9	25.58	16.28	106.98
Diptera	Deuterophlebiidae	*Deuterophlebia*	0.0	0.5	0.0	0.0	0.0	0	0	0
Diptera	Empididae	*Empididae*	0.7	14.5	2.2	2.3	3.8	39.53	58.14	16.28
Diptera	Psychodidae	*Pericoma*	0.0	0.0	0.0	0.0	0.0	0	0	0
Diptera	Simuliidae	*Simuliidae*	10.7	5.9	10.2	192.6	12.9	786.05	1772.09	9.3
Diptera	Tipulidae	Tipulidae I	7.1	37.1	26.4	10.2	38.8	65.13	32.56	193.03
Ephemeroptera	Ameletidae	*Ameletus*	0.7	0.0	0.0	0.0	0.0	0	0	0
Ephemeroptera	Baetidae	*Acentrella*	0.0	0.0	0.0	0.0	0.0	0	0	0

Order	Family	Genus	Harding14	Sokol1	Sokol2	Sokol3	Sokol4	Sponseller1	Sponseller2	Sponseller3
Ephemeroptera	Baetidae	*Baetis*	22.5	26.4	58.1	106.5	54.4	148.84	23.26	125.58
Ephemeroptera	Caenidae	*Caenis*	0.0	0.0	0.0	0.0	0.0	0	0	0
Ephemeroptera	Ephemerellidae	*Attenella*	0.4	0.0	0.0	0.0	0.0	0	0	0
Ephemeroptera	Ephemerellidae	*Drunella*	7.9	0.0	2.2	2.3	1.1	165.12	153.49	60.47
Ephemeroptera	Ephemerellidae	*Ephemerella*	58.2	0.5	1.6	1.1	1.6	476.74	1402.33	251.16
Ephemeroptera	Ephemerellidae	*Eurylophella*	0.0	0.0	0.0	0.0	0.0	0	0	0
Ephemeroptera	Ephemerellidae	*Serratella*	1.8	0.0	0.0	0.0	0.0	0	0	0
Ephemeroptera	Ephemeridae	*Ephemera*	0.0	0.0	0.0	0.6	0.0	27.91	0	0
Ephemeroptera	Heptageniidae	*Cinygmula*	78.9	0.0	0.0	0.0	0.0	0	0	0
Ephemeroptera	Heptageniidae	*Epeorus*	61.1	3.2	4.8	2.3	7.5	393.02	111.63	1174.42
Ephemeroptera	Heptageniidae	*Heptagenia*	0.4	0.0	0.0	0.0	0.0	0	0	0
Ephemeroptera	Heptageniidae	*Rhithrogena*	0.0	0.0	0.0	0.0	0.0	0	0	0
Ephemeroptera	Heptageniidae	*Stenacron*	0.0	0.0	1.6	2.3	0.5	0	0	0
Ephemeroptera	Heptageniidae	*Stenonema/ Maccaffertium*	4.3	0.0	0.0	0.0	0.5	13.95	39.53	446.51
Ephemeroptera	Isonychiidae	*Isonychia*	4.6	0.0	0.0	0.0	0.0	41.86	34.88	18.6
Ephemeroptera	Leptophlebiidae	*Habrophlebia*	2.9	0.0	0.0	0.0	0.0	0	0	0
Ephemeroptera	Leptophlebiidae	*Leptophlebia*	0.0	0.0	0.0	0.0	0.0	0	0	0
Ephemeroptera	Leptophlebiidae	*Paraleptophlebia*	5.4	0.0	0.0	0.0	1.1	0	2.33	30.23
Hemiptera	Gerridae	*Trepobates*	0.0	0.0	0.0	0.0	0.0	0	0	0
Hemiptera	Veliidae	*Microvelia*	0.0	0.0	0.0	1.7	0.0	0	0	0
Hemiptera	Veliidae	*Rhagovelia*	0.0	0.0	0.0	0.6	0.0	0	0	0
Lepidoptera	Pyralidae	*Petrophila*	0.0	1.6	0.0	0.6	0.0	0	0	0
Megaloptera	Corydalidae	*Corydalus*	0.0	0.0	0.0	0.0	0.0	0	0	4.65
Megaloptera	Corydalidae	*Nigronia*	0.0	0.0	0.0	0.0	0.0	2.33	0	0
Megaloptera	Sialidae	*Sialis*	0.0	0.0	0.0	0.0	0.0	0	0	0
Odonata	Cordulegastridae	*Cordulegaster*	0.0	0.0	0.0	0.0	0.0	0	0	2.33

Order	Family	Genus	Harding14	Sokol1	Sokol2	Sokol3	Sokol4	Sponseller1	Sponseller2	Sponseller3
Odonata	Gomphidae	*Dromogomphus*	0.0	0.0	0.0	0.0	0.0	0	0	0
Odonata	Gomphidae	*Gomphus*	0.0	7.0	3.8	3.4	0.5	0	0	0
Odonata	Gomphidae	*Lanthus*	0.7	2.2	0.5	0.0	0.5	0	0	0
Odonata	Gomphidae	*Stylogomphus*	0.0	0.0	0.0	0.0	0.0	0	0	0
Plecoptera	Capniidae	*Allocapnia*	0.0	0.0	0.0	0.0	0.0	151.16	0	0
Plecoptera	Chloroperlidae	*Alloperla*	0.0	0.0	0.0	0.0	0.0	0	0	0
Plecoptera	Chloroperlidae	*Haploperla*	0.0	0.0	0.0	0.0	0.0	0	0	0
Plecoptera	Chloroperlidae	*Sweltsa*	8.2	13.5	4.8	1.7	1.1	0	9.3	467.46
Plecoptera	Chloroperlidae	*Utaperla*	0.0	0.0	0.0	0.0	0.0	0	0	0
Plecoptera	Leuctridae	*Leuctra*	0.0	1.6	0.0	0.0	0.0	0	0	0
Plecoptera	Nemouridae	*Amphinemura*	8.6	21.0	2.2	3.4	5.9	18.6	313.95	23.26
Plecoptera	Nemouridae	*Paranemoura*	0.0	0.0	0.0	0.0	0.0	0	0	0
Plecoptera	Nemouridae	*Soyedina*	0.0	0.0	0.0	0.0	0.0	0	0	0
Plecoptera	Peltoperlidae	*Peltoperlidae*	1.8	128.1	47.4	45.9	30.7	9.3	65.12	6.98
Plecoptera	Perlidae	*Acroneuria*	5.4	31.8	23.1	2.8	28.0	9.3	18.61	27.91
Plecoptera	Perlidae	*Agnetina*	0.0	0.5	0.0	0.0	0.0	0	0	0
Plecoptera	Perlidae	*Beloneuria*	0.0	1.6	0.0	0.0	0.0	0	0	0
Plecoptera	Perlidae	*Hansonoperla*	2.9	0.0	0.0	0.0	0.0	0	0	0
Plecoptera	Perlidae	*Paragnetina*	0.0	0.0	0.0	0.0	0.0	0	0	2.33
Plecoptera	Perlidae	*Perlesta*	0.0	0.0	1.1	0.6	0.5	0	0	0
Plecoptera	Perlodidae	*Clioperla*	0.0	5.9	8.6	0.0	4.3	0	0	0
Plecoptera	Perlodidae	*Cultus*	1.8	0.0	0.0	0.0	0.0	0	0	0
Plecoptera	Perlodidae	*Helopicus*	0.4	0.0	0.0	0.0	0.0	0	0	0
Plecoptera	Perlodidae	*Hydroperla*	3.2	0.0	0.0	0.0	0.0	0	0	0
Plecoptera	Perlodidae	*Isogenoides*	0.0	9.7	1.6	23.8	1.6	0	0	0
Plecoptera	Perlodidae	*Isoperla*	0.0	0.0	0.0	0.0	0.0	0	0	0

Order	Family	Genus	Harding14	Sokol1	Sokol2	Sokol3	Sokol4	Sponseller1	Sponseller2	Sponseller3
Plecoptera	Perlodidae	*Kogotus*	0.0	0.0	0.0	0.0	0.0	0	0	0
Plecoptera	Perlodidae	*Remenus*	0.0	0.0	0.0	0.0	0.0	0	0	0
Plecoptera	Perlodidae	*Yugus*	0.0	0.0	0.0	0.0	0.0	0	0	4.65
Plecoptera	Pteronarcyidae	*Pteronarcys*	2.1	0.0	0.0	0.0	0.0	65.12	162.79	6.98
Plecoptera	Taeniopterygidae	*Oemopteryx*	10.0	0.0	0.0	0.0	0.0	20.93	0	2.33
Plecoptera	Taeniopterygidae	*Taeniopteryx*	0.0	0.0	0.0	0.0	0.0	0	0	0
Trichoptera	Brachycentridae	*Brachycentrus*	0.0	0.0	0.0	0.0	0.0	0	0	16.28
Trichoptera	Glossosomatidae	*Agapetus*	0.0	0.0	0.0	0.0	0.0	0	23.26	0
Trichoptera	Glossosomatidae	*Glossosoma*	0.0	1.6	3.8	3.4	5.4	9.3	6.98	18.6
Trichoptera	Glossosomatidae	*Matrioptila*	0.0	0.0	0.0	0.0	0.0	9.3	2.33	0
Trichoptera	Hydropsychidae	*Arctopsyche*	0.0	14.0	8.1	138.8	19.4	0	0	0
Trichoptera	Hydropsychidae	*Ceratopsyche*	2.5	0.0	0.0	0.0	0.0	0	0	0
Trichoptera	Hydropsychidae	*Cheumatopsyche*	0.7	0.0	0.0	0.0	0.0	32.56	11.63	23.26
Trichoptera	Hydropsychidae	*Diplectrona*	0.0	40.4	38.2	32.3	19.9	44.19	65.12	6.98
Trichoptera	Hydropsychidae	*Hydropsyche*	0.0	0.5	0.5	0.0	0.0	0	0	0
Trichoptera	Hydropsychidae	*Parapsyche*	0.0	2.7	0.5	0.0	2.2	0	0	0
Trichoptera	Hydroptilidae	*Hydroptila*	0.0	0.0	0.0	0.0	0.0	0	0	0
Trichoptera	Hydroptilidae	*Leucotrichia*	0.0	13.5	19.4	10.8	19.9	0	13.95	13.95
Trichoptera	Lepidostomatidae	*Lepidostoma*	0.0	0.0	0.0	0.0	0.0	0	0	0
Trichoptera	Lepidostomatidae	*Theliopsyche*	0.0	0.0	0.0	0.0	0.0	0	0	0
Trichoptera	Limnephilidae	*Pycnopsyche*	0.0	4.3	0.5	0.0	0.5	0	0	0
Trichoptera	Odontoceridae	*Psilotreta*	0.0	0.5	0.5	2.3	0.0	0	0	0
Trichoptera	Philopotamidae	*Dolophilodes*	0.0	0.5	3.2	0.6	0.0	13.95	4.65	0
Trichoptera	Philopotamidae	*Wormaldia*	0.0	4.3	1.6	0.0	4.8	0	0	0
Trichoptera	Polycentropodidae	*Cyrnellus*	0.0	0.0	0.0	0.0	0.0	0	0	0
Trichoptera	Polycentropodidae	*Neureclipsis*	0.0	0.0	0.5	0.6	0.0	0	0	0

Order	Family	Genus	Harding14	Sokol1	Sokol2	Sokol3	Sokol4	Sponseller1	Sponseller2	Sponseller3
Trichoptera	Polycentropodidae	*Polycentropus*	0.4	0.0	0.0	0.0	0.0	0	30.23	13.95
Trichoptera	Psychomyiidae	*Lype*	0.0	14.0	14.5	1.1	16.7	0	0	0
Trichoptera	Rhyacophilidae	*Rhyacophila*	7.1	14.5	11.8	5.7	17.2	32.56	44.19	6.98
Trichoptera	Uenoidae	*Neophylax*	0.0	0.0	0.0	0.6	1.1	2.33	6.98	0

Table C3. Functional trait scores for North American benthic macroinvertebrates, modified from Poff et al. (2006). See Table C4 for trait descriptions. Note: we excluded the traits Habit-Climb and Habit-Skate from our analysis in this study.

			ECOLOGY													LIFE HISTORY							MOBILITY					MORPHOLOGY				
			Functional Feeding Group					*Habit*																									
Order	Family	Genus	*CG*	*CF*	*SC*	*Pred*	*SH*	*Burrow*	*Climb*	*Sprawl*	*Cling*	*Swim*	*Skate*	*Rheo*	*Ther*	*Desi*	*Devl*	*Exit*	*Life*	*Sync*	*Volt*	*Crwl*	*Disp*	*Drft*	*Flgt*	*Swim*	*Armr*	*Atch*	*Resp*	*Shpe*	*Size*
Coleoptera	Dryopidae	*Helichus*	0	0	1	0	0	0	0	0	1	0	0	1	0.5	0	0.5	0	1	0	0	0	0	0	0	0	1	0	1	1	0
Coleoptera	Dryopidae	*Pelonomus*	0	0	1	0	0	0	1	0	0	0	0	0.5	0.5	0	1	0	1	0	0	0	0	0	0	0	1	0	1	1	0
Coleoptera	Dytiscidae	*Agabus*	0	0	0	1	0	0	0	0	0	1	0	0.5	0.5	0	0.5	1	1	0	0	1	1	0	1	1	1	0	1	0	0.5
Coleoptera	Dytiscidae	*Hydroporus*	0	0	0	1	0	0	0	0	0	1	0	0	0.5	0	0.5	1	1	0	0	1	1	0	1	1	1	0	1	0	0.5
Coleoptera	Dytiscidae	*Oreodytes*	0	0	0	1	0	0	0	0	0	1	0	0	0.5	0	0.5	1	1	0	0	1	1	0	1	1	1	0	1	0	0.5
Coleoptera	Elmidae	*Elmidae*	1	0	0	0	0	0	0	0	1	0	0	0.5	0.5	1	1	0	1	0	0	0.5	0	0.5	0	0	0.5	0	0	1	0
Coleoptera	Haliplidae	*Brychius*	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0.5	1	1	1	0.5	0.5	0	0	1	0.5	1	0	0.5	1	0
Coleoptera	Psephenidae	*Ectopria*	0	0	1	0	0	0	0	0	1	0	0	1	0.5	0	0.5	0	0.5	1	0	0	0	0	0	0	1	0.5	0.5	0	0.5
Coleoptera	Psephenidae	*Psephenus*	0	0	1	0	0	0	0	0	1	0	0	1	0.5	0	0.5	0	0.5	1	0	0	0	0	0	0	0.5	0.5	0.5	0	0.5
Diptera	Athericidae	*Atherix*	0	0	0	1	0	0	0	1	0	0	0	0.5	0.5	0	0.5	0	0	1	0.5	0.5	0	0	0	0	0.5	0	0	1	0.5
Diptera	Blephariceridae	*Agathon*	0	0	1	0	0	0	0	0	1	0	0	0.5	0	0	0.5	0	0	1	0.5	0	0	0	0	0	1	0.5	0.5	0	0
Diptera	Blephariceridae	*Bibiocephala*	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0.5	0	0	1	0.5	0	0	0	0	0	1	0.5	0.5	0	0.5
Diptera	Blephariceridae	*Blepharicera*	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0.5	0	0	1	0.5	0	0	0	0	0	1	0.5	0.5	0	0
Diptera	Blephariceridae	*Philorus*	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0.5	0	0	1	0.5	0	0	0	0	0	1	0.5	0.5	0	0
Diptera	Ceratopogonidae	*gen1*	0	0	0	1	0	0	0	1	0	0	0	0.5	0.5	0	0	0	0	0	0.5	0	0	0	0	0	0.5	0	0	1	0
Diptera	Deuterophlebiidae	*Deuterophlebia*	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0.5	0	0	1	0.5	0	0	0	0	0	1	0.5	0	0	0
Diptera	Empididae	*Empididae*	0	0	0	1	0	0	0	1	0	0	0	0.5	0.5	0	0.5	1	0	1	0.5	0.5	0	0	0	0	0	0	0	1	0.5
Diptera	Psychodidae	*Maruina*	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0.5	0	0	0	0	0	0.5	0.5	0	0	0
Diptera	Psychodidae	*Pericoma*	1	0	0	0	0	1	0	0	0	0	0	0	0.5	0	0	0	0	0	0.5	0	0	0	0	0	0.5	0	0	1	0
Diptera	Simuliidae	*Simuliidae*	0	1	0	0	0	0	0	0	1	0	0	1	0.5	0	0	0	0	1	1	0.5	0	0.5	1	0	0	0.5	0	1	0
Diptera	Tipulidae	*gen1*	0	0	0	0	1	0	0	1	0	0	0	0.5	0.5	1	0.5	0	0.5	0	0.5	0.5	0	0	0	0	0	0	0.5	1	0.5
Diptera	Tipulidae	*gen2*	0	0	0	0	1	1	0	0	0	0	0	0.5	0.5	1	0.5	0	0.5	0	0.5	0.5	0	0	0	0	0	0	0.5	1	0.5
Ephemeroptera	Acanthametropodidae	*Acanthametropus*	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0.5	0	0.5	1	0.5	1	0	0	0	0.5	0	0	0.5	1	0
Ephemeroptera	Ameletidae	*Ameletus*	1	0	0	0	0	0	0	0	0	1	0	0.5	0	0	0	0	0.5	1	0.5	1	0	0	0	1	0	0	0.5	0	0
Ephemeroptera	Ametropodidae	*Ametropus*	0	1	0	0	0	1	0	0	0	0	0	0.5	0	0	0	0	0	1	0.5	0	0	0.5	0	0	0	0	0.5	0	0
Ephemeroptera	Baetidae	*Acentrella*	1	0	0	0	0	0	0	0	0	1	0	0.5	0.5	0	0	0	0	0	1	0	0	0.5	0	1	0	0	0.5	0	0
Ephemeroptera	Baetidae	*Acerpenna*	1	0	0	0	0	0	0	0	0	1	0	0.5	0.5	0	0	0	0	0	1	0	0	1	0	1	0	0	0.5	0	0
Ephemeroptera	Baetidae	*Apobaetis*	1	0	0	0	0	0	0	0	0	1	0	0.5	0.5	0	0	0	0	0	1	0	0	0	0	1	0	0	0.5	0	0
Ephemeroptera	Baetidae	*Baetis*	1	0	0	0	0	0	0	0	0	1	0	0.5	0.5	0	0	0	0	0	1	0	0	1	0	1	0	0	0.5	0	0
Ephemeroptera	Baetidae	*Callibaetis*	1	0	0	0	0	0	0	0	0	1	0	0	0.5	0	0	0	0	0	1	0.5	0	0	0	1	0	0	0.5	0	0
Ephemeroptera	Baetidae	*Camelobaetidius*	1	0	0	0	0	0	0	0	0	1	0	0	0.5	0	0	0	0	0	1	0.5	0	1	0	1	0	0	0.5	0	0
Ephemeroptera	Baetidae	*Centroptilum/ Procloeon*	1	0	0	0	0	0	0	0	0	1	0	0.5	0.5	0	0	0	0	0	1	0.5	0	0	0	1	0	0	0.5	0	0

			ECOLOGY													LIFE HISTORY							MOBILITY					MORPHOLOGY				
			Functional Feeding Group					Habit																								
Order	Family	Genus	CG	CF	SC	Pred	SH	Burrow	Climb	Sprawl	Cling	Swim	Skate	Rheo	Ther	Desi	Devl	Exit	Life	Sync	Volt	Crwl	Disp	Drft	Flgt	Swim	Armr	Atch	Resp	Shpe	Size
Ephemeroptera	Baetidae	*Cloeodes*	1	0	0	0	0	0	0	0	0	1	0	0.5	0.5	0	0	0	0	0	1	0.5	0	0	0	1	0	0	0.5	0	0
Ephemeroptera	Baetidae	*Diphetor*	1	0	0	0	0	0	0	0	0	1	0	0.5	0.5	0	0	0	0	0	1	0.5	0	0	0	1	0	0	0.5	0	0
Ephemeroptera	Baetidae	*Fallceon*	1	0	0	0	0	0	0	0	0	1	0	0.5	0.5	0	0	0	0	0	1	0.5	0	1	0	1	0	0	0.5	0	0
Ephemeroptera	Baetidae	*Heterocloeon*	0	0	1	0	0	0	0	0	0	1	0	1	0.5	0	0	0	0	0	1	0.5	0	0	0	1	0	0	0.5	0	0
Ephemeroptera	Baetidae	*Paracloeodes*	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0.5	0	0	0	1	0	0	0.5	0	0
Ephemeroptera	Baetidae	*Pseudocloeon*	1	0	0	0	0	0	0	0	0	1	0	0.5	0.5	0	0	0	0	0	1	0.5	0	1	0	0.5	0	0	0.5	0	0
Ephemeroptera	Baetiscidae	*Baetisca*	1	0	0	0	0	0	0	1	0	0	0	0	0.5	0	0	0	0	1	0.5	0	0	0	0	0	0.5	0	0.5	1	0.5
Ephemeroptera	Caenidae	*Amercaenis*	0	1	0	0	0	0	0	1	0	0	0	0	0.5	0	0	0	0	1	0.5	0.5	0	0	0	0.5	0	0	0.5	1	0
Ephemeroptera	Caenidae	*Brachycercus*	1	0	0	0	0	0	0	1	0	0	0	0	0.5	0	0.5	0	0	1	0.5	0.5	0	0	0	0.5	0	0	0.5	1	0
Ephemeroptera	Caenidae	*Caenis*	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0.5	0	0	1	1	0.5	0	0	0	0.5	0	0	0.5	1	0
Ephemeroptera	Ephemerellidae	*Attenella*	1	0	0	0	0	0	0	0	1	0	0	1	0.5	0	0.5	0	0	1	0.5	0.5	0	0	0	0.5	0	0	0.5	1	0.5
Ephemeroptera	Ephemerellidae	*Caudatella*	1	0	0	0	0	0	0	0	1	0	0	0.5	0	0	0.5	0	0	1	0.5	0.5	0	0	0	0.5	0	0	0.5	1	0.5
Ephemeroptera	Ephemerellidae	*Caurinella*	1	0	0	0	0	0	0	0	1	0	0	0.5	0	0	0.5	0	0	1	0.5	0.5	0	0	0	0.5	0	0	0.5	1	0.5
Ephemeroptera	Ephemerellidae	*Drunella*	0	0	1	0	0	0	0	0	1	0	0	0.5	0.5	0	0.5	0	0	1	0.5	0.5	0	0	0	0.5	0	0	0.5	1	0.5
Ephemeroptera	Ephemerellidae	*Ephemerella*	1	0	0	0	0	0	0	0	1	0	0	0.5	0.5	0	0.5	0	0	1	0.5	0.5	0	0.5	0	0.5	0	0	0.5	1	0.5
Ephemeroptera	Ephemerellidae	*Eurylophella*	1	0	0	0	0	0	0	0	1	0	0	0.5	0.5	0	0.5	0	0	1	0.5	0.5	0	0.5	0	0.5	0	0	0.5	1	0.5
Ephemeroptera	Ephemerellidae	*Serratella*	1	0	0	0	0	0	0	0	1	0	0	0.5	0.5	0	0.5	0	0	1	0.5	0.5	0	0.5	0	0.5	0	0	0.5	1	0.5
Ephemeroptera	Ephemerellidae	*Timpanoga*	1	0	0	0	0	0	0	0	1	0	0	0.5	0	0	0.5	0	0	1	0.5	0.5	0	0.5	0	0.5	0	0	0.5	1	0
Ephemeroptera	Ephemeridae	*Ephemera*	1	0	0	0	0	1	0	0	0	0	0	0	0.5	0	0.5	0	0	0	0	0.5	0	0	0	0.5	0	0	0.5	1	0.5
Ephemeroptera	Ephemeridae	*Hexagenia*	1	0	0	0	0	1	0	0	0	0	0	0	0.5	0	0.5	0	0	0	0	0.5	0	0	0	0.5	0	0	0.5	1	0.5
Ephemeroptera	Ephemeridae	*Litobrancha*	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0.5	0	0	0	0.5	0	0	0.5	1	0.5
Ephemeroptera	Ephemeridae	*Pentagenia*	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0.5	0	0	0	0	0.5	0	0	0	0.5	0	0	0.5	1	0.5
Ephemeroptera	Heptageniidae	*Cinygma*	0	0	1	0	0	0	0	0	1	0	0	0.5	0	0	0	0	0	1	0.5	0.5	0	0.5	0	0.5	0	0	0.5	0	0.5
Ephemeroptera	Heptageniidae	*Cinygmula*	0	0	1	0	0	0	0	0	1	0	0	0.5	0	0	0	0	0	1	0.5	0.5	0	0.5	0	0.5	0	0	0.5	0	0
Ephemeroptera	Heptageniidae	*Epeorus*	1	0	0	0	0	0	0	0	1	0	0	0.5	0	0	0	0	0	1	0.5	0.5	0	0	0	0.5	0	0	0.5	0	0.5
Ephemeroptera	Heptageniidae	*Heptagenia*	0	0	1	0	0	0	0	0	1	0	0	0.5	0	0	0	0	0	1	0.5	0.5	0	0.5	0	0.5	0	0	0.5	0	0.5
Ephemeroptera	Heptageniidae	*Ironodes*	0	0	1	0	0	0	0	0	1	0	0	0.5	0.5	0	0	0	0	1	0.5	0.5	0	0.5	0	0.5	0	0	0.5	0	0.5
Ephemeroptera	Heptageniidae	*Leucrocuta*	0	0	1	0	0	0	0	0	1	0	0	0.5	0	0	0	0	0	1	0.5	0.5	0	0.5	0	0.5	0	0	0.5	0	0.5
Ephemeroptera	Heptageniidae	*Macdunnoa*	0	0	1	0	0	0	0	0	1	0	0	0.5	0.5	0	0	0	0	1	0.5	0.5	0	0.5	0	0.5	0	0	0.5	0	0
Ephemeroptera	Heptageniidae	*Nixe*	0	0	1	0	0	0	0	0	1	0	0	0.5	0.5	0	0	0	0	1	0.5	0.5	0	0.5	0	0.5	0	0	0.5	0	0
Ephemeroptera	Heptageniidae	*Raptoheptagenia*	0	0	0	1	0	0	0	0	0	1	0	0.5	0	0	0	0	0	1	0.5	0.5	0	0	0	0.5	0	0	0.5	0	0
Ephemeroptera	Heptageniidae	*Rhithrogena*	1	0	0	0	0	0	0	0	1	0	0	0.5	0	0	0	0	0	1	0.5	0.5	0	0.5	0	0.5	0	0	0.5	0	0.5
Ephemeroptera	Heptageniidae	*Stenacron*	1	0	0	0	0	0	0	0	1	0	0	0.5	0.5	0	0	0	0	1	0.5	0.5	0	0.5	0	0.5	0	0	0.5	0	0.5
Ephemeroptera	Heptageniidae	*Stenonema/ Maccaffertium*	0	0	1	0	0	0	0	0	1	0	0	0.5	0.5	0	0	0	0.5	0	0.5	0.5	0	0.5	0	0.5	0	0	0.5	0	0.5
Ephemeroptera	Isonychiidae	*Isonychia*	0	1	0	0	0	0	0	0	0	1	0	1	0.5	0	0.5	0	0	0	0.5	1	0	1	0	1	0	0	0.5	0	0.5

			ECOLOGY													LIFE HISTORY							MOBILITY					MORPHOLOGY				
			Functional Feeding Group					Habit																								
Order	Family	Genus	CG	CF	SC	Pred	SH	Burrow	Climb	Sprawl	Cling	Swim	Skate	Rheo	Ther	Desi	Devl	Exit	Life	Sync	Volt	Crwl	Disp	Drft	Flgt	Swim	Armr	Atch	Resp	Shpe	Size
Ephemeroptera	Leptohyphidae	*Leptohyphes*	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0.5	0.5	0	0.5	0	0.5	0	0	0.5	1	0
Ephemeroptera	Leptohyphidae	*Tricorythodes*	1	0	0	0	0	0	0	1	0	0	0	0	0.5	0	0	0	0	0	0.5	0.5	0	1	0	0.5	0	0	0.5	1	0
Ephemeroptera	Leptophlebiidae	*Choroterpes*	1	0	0	0	0	0	0	0	1	0	0	0.5	1	0	0	0	0.5	0	0.5	0.5	0	0.5	0	0.5	0	0	0.5	0	0
Ephemeroptera	Leptophlebiidae	*Habrophlebia*	1	0	0	0	0	0	0	0	0	1	0	0.5	0	0	0	0	0	1	0.5	0	0	0.5	0	0.5	0	0	0.5	0	0
Ephemeroptera	Leptophlebiidae	*Habrophlebiodes*	0	0	1	0	0	0	0	0	0	1	0	0.5	0	0	0	0	0	1	0.5	0	0	0.5	0	0.5	0	0	0.5	0	0
Ephemeroptera	Leptophlebiidae	*Leptophlebia*	1	0	0	0	0	0	0	0	0	1	0	1	0.5	0	0.5	0	0	0	0.5	0.5	0	0.5	0	0.5	0	0	0.5	0	0
Ephemeroptera	Leptophlebiidae	*Neochoroterpes*	1	0	0	0	0	0	0	0	1	0	0	0.5	1	0	0	0	0	0	0.5	0.5	0	0.5	0	0.5	0	0	0.5	0	0
Ephemeroptera	Leptophlebiidae	*Paraleptophlebia*	1	0	0	0	0	0	0	0	0	1	0	0.5	0.5	0	0	0	0	0	0.5	0.5	0	0.5	0	0.5	0	0	0.5	0	0.5
Ephemeroptera	Leptophlebiidae	*Thraulodes*	1	0	0	0	0	0	0	0	1	0	0	0.5	1	0	0	0	0	0	0.5	0.5	0	0.5	0	0.5	0	0	0.5	0	0.5
Ephemeroptera	Leptophlebiidae	*Traverella*	0	1	0	0	0	0	0	0	1	0	0	0.5	1	0	0	0	0	0	0.5	0.5	0	0.5	0	0.5	0	0	0.5	0	0.5
Ephemeroptera	Metretopodidae	*Siphloplecton*	1	0	0	0	0	0	0	0	0	1	0	0.5	0.5	0	0	0	0	1	0.5	1	0	0	0	1	0	0	0.5	0	0.5
Ephemeroptera	Oligoneuriidae	*Homoeoneuria*	0	1	0	0	0	1	0	0	0	0	0	0	0.5	0	0.5	0	0	1	0.5	1	0	0	0	1	0	0	0.5	0	0
Ephemeroptera	Polymitarcyidae	*Ephoron*	1	0	0	0	0	1	0	0	0	0	0	0.5	1	0	0.5	0	0	0	0.5	0.5	0	0	0	0.5	0	0	0.5	0	0.5
Ephemeroptera	Polymitarcyidae	*Tortopus*	1	0	0	0	0	1	0	0	0	0	0	1	0.5	0	0.5	0	0	0	0.5	0.5	0	0	0	0.5	0	0	0.5	0	0.5
Ephemeroptera	Potamanthidae	*Anthopotamus*	0	1	0	0	0	1	0	0	0	0	0	0	0.5	0	0.5	0	0	0	0.5	0.5	0	0	0	0.5	0	0	0.5	1	0.5
Ephemeroptera	Pseudironidae	*Pseudiron*	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0.5	0	0	1	0.5	0.5	0	0	0	0.5	0	0	0.5	1	0.5
Ephemeroptera	Siphlonuridae	*Siphlonurus*	1	0	0	0	0	0	0	0	0	1	0	0	0.5	0	0.5	0	0	0	0.5	1	0	0.5	0	1	0	0	0.5	0	0.5
Hemiptera	Belostomatidae	*Abedus*	0	0	0	1	0	0	1	0	0	0	0	0	1	1	0	1	0.5	1	0.5	1	1	0	1	1	1	0	1	0	1
Hemiptera	Belostomatidae	*Belostoma*	0	0	0	1	0	0	1	0	0	0	0	0	1	1	0	1	1	1	0.5	1	1	0	1	1	1	0	1	0	1
Hemiptera	Corixidae	*Corixidae*	0	0	1	0	0	0	0	0	0	1	0	0	0.5	1	0	1	1	1	1	1	1	0	1	1	1	0	1	0	0
Hemiptera	Gerridae	*Aquarius*	0	0	0	1	0	0	0	0	0	0	1	0	0.5	1	0	1	1	1	1	1	0	0	0	1	0	0	1	1	0.5
Hemiptera	Gerridae	*Gerris*	0	0	0	1	0	0	0	0	0	0	1	0	0.5	1	0	1	1	1	1	1	0	0	0	1	0	0	1	1	0.5
Hemiptera	Gerridae	*Metrobates*	0	0	0	1	0	0	0	0	0	0	1	0.5	0.5	1	0	1	1	1	0.5	1	0	0	0	1	0	0	1	1	0
Hemiptera	Gerridae	*Rheumatobates*	0	0	0	1	0	0	0	0	0	0	1	0	0.5	1	0	1	1	1	0.5	1	0	0	0	1	0	0	1	1	0
Hemiptera	Gerridae	*Trepobates*	0	0	0	1	0	0	0	0	0	0	1	0	0.5	1	0	1	1	1	0.5	1	0	0	0	1	0	0	1	1	0
Hemiptera	Nepidae	*Curicta*	0	0	0	1	0	0	1	0	0	0	0	0	0.5	1	0.5	1	1	0	1	1	0	0	0	0	0.5	0	1	1	1
Hemiptera	Nepidae	*Nepa*	0	0	0	1	0	0	1	0	0	0	0	0	0.5	1	0.5	1	1	0	1	1	0	0	0	0	0.5	0	1	1	1
Hemiptera	Veliidae	*Microvelia*	0	0	0	1	0	0	0	0	0	0	1	0	0.5	1	0	1	1	1	1	1	0	0	0	1	0	0	1	1	0
Hemiptera	Veliidae	*Rhagovelia*	0	0	0	1	0	0	0	0	0	0	1	0.5	0.5	1	0	1	1	1	1	1	0	0	0	1	0	0	1	1	0
Lepidoptera	Pyralidae	*Petrophila*	0	0	1	0	0	0	0	0	1	0	0	1	0.5	0	0.5	0	0	1	0.5	0	0	0	0	0	0.5	0.5	0.5	1	0.5
Megaloptera	Corydalidae	*Corydalus*	0	0	0	1	0	0	0	0	1	0	0	0.5	0.5	0	0.5	0	0.5	1	0	1	0	0	0	0	0.5	0	0	1	1
Megaloptera	Corydalidae	*Nigronia*	0	0	0	1	0	0	0	0	1	0	0	0.5	0.5	0	0.5	0	0.5	1	0	1	0	0	0	0	0.5	0	0	1	1
Megaloptera	Sialidae	*Sialis*	0	0	0	1	0	1	0	0	0	0	0	0.5	0.5	0	0.5	0	0.5	1	0.5	1	0	0	0	0	0.5	0	0	1	0.5
Neuroptera	Sisyridae	*Climacia*	0	0	0	1	0	0	1	0	0	0	0	0.5	0.5	0	0.5	0	0.5	1	0.5	1	0	0	0	0	0.5	0	0	1	0
Neuroptera	Sisyridae	*Sisyra*	0	0	0	1	0	0	1	0	0	0	0	0.5	0.5	0	0.5	0	0.5	1	0.5	1	0	0	0	0	0.5	0	0	1	0

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Order	Family	Genus	CG	CF	SC	Pred	SH	Burrow	Climb	Sprawl	Cling	Swim	Skate	Rheo	Ther	Desi	Devl	Exit	Life	Sync	Volt	Crwl	Disp	Drft	Flgt	Swim	Armr	Atch	Resp	Shpe	Size
Odonata	Aeshnidae	*Aeshna*	0	0	0	1	0	0	1	0	0	0	0	0.5	0.5	0	0.5	0	1	1	0	1	1	0	1	1	0.5	0	0.5	1	1
Odonata	Aeshnidae	*Basiaeschna*	0	0	0	1	0	0	1	0	0	0	0	0	0.5	0	0.5	0	1	1	0	1	1	0	1	1	0.5	0	0.5	1	1
Odonata	Aeshnidae	*Boyeria*	0	0	0	1	0	0	1	0	0	0	0	0.5	0.5	0	0.5	0	1	1	0	1	1	0	1	1	0.5	0	0.5	1	1
Odonata	Aeshnidae	*Epiaeschna*	0	0	0	1	0	0	1	0	0	0	0	0.5	0.5	0	0.5	0	1	1	0	1	1	0	1	1	0.5	0	0.5	1	1
Odonata	Aeshnidae	*Nasiaeschna*	0	0	0	1	0	0	1	0	0	0	0	1	0.5	0	0.5	0	1	1	0	1	1	0	1	1	0.5	0	0.5	1	1
Odonata	Calopterygidae	*Calopteryx*	0	0	0	1	0	0	1	0	0	0	0	0.5	0.5	0	0.5	0	0.5	1	0	1	0	0	1	0.5	0	0	0.5	0	1
Odonata	Calopterygidae	*Hetaerina*	0	0	0	1	0	0	1	0	0	0	0	0.5	0.5	0	0.5	0	0.5	1	0	1	0	0	1	0.5	0	0	0.5	0	1
Odonata	Coenagrionidae	*Argia*	0	0	0	1	0	0	0	0	1	0	0	0.5	0.5	0	0.5	0	0.5	1	0.5	1	0	0	0	0.5	0	0	0	0	0.5
Odonata	Coenagrionidae	*Chromagrion*	0	0	0	1	0	0	1	0	0	0	0	1	0.5	0	0.5	0	0.5	1	0.5	1	0	0	0	0.5	0	0	0	0	0.5
Odonata	Coenagrionidae	*Coenagion*	0	0	0	1	0	0	1	0	0	0	0	0.5	0.5	0	0.5	0	0.5	1	0.5	1	0	0	0	0.5	0	0	0	0	0.5
Odonata	Coenagrionidae	*Enallagma*	0	0	0	1	0	0	1	0	0	0	0	0	0.5	0	0.5	0	0.5	1	0.5	1	0	0	0	0.5	0	0	0	0	0.5
Odonata	Coenagrionidae	*Hesperagrion*	0	0	0	1	0	0	1	0	0	0	0	0	0.5	0	0.5	0	0.5	1	0.5	1	0	0	0	0.5	0	0	0	0	0.5
Odonata	Coenagrionidae	*Ischnura*	0	0	0	1	0	0	1	0	0	0	0	0	0.5	0	0.5	0	0.5	1	0.5	1	0	0	0	0.5	0	0	0	0	0.5
Odonata	Cordulegastridae	*Cordulegaster*	0	0	0	1	0	1	0	0	0	0	0	0	0.5	0	0.5	0	1	1	0.5	1	1	0	1	0.5	0.5	0	0.5	1	0.5
Odonata	Corduliidae	*Didymops*	0	0	0	1	0	0	0	1	0	0	0	0.5	0.5	0	0.5	0	1	1	0	1	1	0	1	0	0.5	0	0.5	1	1
Odonata	Corduliidae	*Epicordulia*	0	0	0	1	0	0	0	1	0	0	0	0	0.5	0	0.5	0	1	1	0	1	1	0	1	0.5	0.5	0	0.5	1	1
Odonata	Corduliidae	*Epitheca*	0	0	0	1	0	0	1	0	0	0	0	0	0.5	0	0.5	0	1	1	0	1	1	0	1	0.5	0.5	0	0.5	1	1
Odonata	Corduliidae	*Helocordulia*	0	0	0	1	0	0	0	1	0	0	0	0	0.5	0	0.5	0	1	1	0	1	1	0	1	0.5	0.5	0	0.5	1	0.5
Odonata	Corduliidae	*Macromia*	0	0	0	1	0	0	0	1	0	0	0	0.5	0.5	0	0.5	0	1	1	0	1	1	0	1	0	0.5	0	0.5	1	1
Odonata	Corduliidae	*Neurocordulia*	0	0	0	1	0	0	1	0	0	0	0	0	0.5	0	0.5	0	1	1	0	1	1	0	1	0.5	0.5	0	0.5	1	0.5
Odonata	Corduliidae	*Somatochlora*	0	0	0	1	0	0	0	1	0	0	0	0	0.5	0	0.5	0	1	1	0	1	1	0	1	0.5	0.5	0	0.5	1	1
Odonata	Gomphidae	*Aphylla*	0	0	0	1	0	1	0	0	0	0	0	0.5	0.5	0	0.5	0	1	1	0	1	1	0	1	0.5	0.5	0	0.5	1	1
Odonata	Gomphidae	*Arigomphus*	0	0	0	1	0	1	0	0	0	0	0	0	0.5	0	0.5	0	1	1	0	1	0	0	1	0.5	0.5	0	0.5	1	0.5
Odonata	Gomphidae	*Dromogomphus*	0	0	0	1	0	1	0	0	0	0	0	0	0.5	0	0.5	0	1	1	0	1	0	0	1	0.5	0.5	0	0.5	1	0.5
Odonata	Gomphidae	*Erpetogomphus*	0	0	0	1	0	1	0	0	0	0	0	0	0.5	0	0.5	0	1	1	0	1	0	0	1	0.5	0.5	0	0.5	1	1
Odonata	Gomphidae	*Gomphus*	0	0	0	1	0	1	0	0	0	0	0	0	0.5	0	0.5	0	1	1	0	1	0	0	1	0.5	0.5	0	0.5	1	0.5
Odonata	Gomphidae	*Hagenius*	0	0	0	1	0	0	0	1	0	0	0	0	0.5	0	0.5	0	1	1	0	1	0	0	1	0.5	0.5	0	0.5	1	0.5
Odonata	Gomphidae	*Lanthus*	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0.5	0	1	1	0	1	0	0	1	0.5	0.5	0	0.5	1	0.5
Odonata	Gomphidae	*Octogomphus*	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0.5	0	1	1	0	1	0	0	1	0.5	0.5	0	0.5	1	1
Odonata	Gomphidae	*Ophiogomphus*	0	0	0	1	0	1	0	0	0	0	0	0	0.5	0	0.5	0	1	1	0	1	0	0	1	0.5	0.5	0	0.5	1	0.5
Odonata	Gomphidae	*Phyllogomphoides*	0	0	0	1	0	1	0	0	0	0	0	0	0.5	0	0.5	0	1	1	0	1	0	0	1	0.5	0.5	0	0.5	1	1
Odonata	Gomphidae	*Progomphus*	0	0	0	1	0	1	0	0	0	0	0	0	0.5	0	0.5	0	1	1	0	1	0	0	1	0.5	0.5	0	0.5	1	0.5
Odonata	Gomphidae	*Stylogomphus*	0	0	0	1	0	1	0	0	0	0	0	0	0.5	0	0.5	0	1	1	0	1	0	0	1	0.5	0.5	0	0.5	1	0.5
Odonata	Gomphidae	*Stylurus*	0	0	0	1	0	1	0	0	0	0	0	0	0.5	0	0.5	0	1	1	0	1	0	0	1	0.5	0.5	0	0.5	1	0.5
Odonata	Lestidae	*Archilestes*	0	0	0	1	0	0	1	0	0	0	0	0	0.5	0	0	0	0.5	1	0.5	1	0	0	0	0.5	0	0	0	0	1

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Odonata	Lestidae	*Lestes*	0	0	0	1	0	0	1	0	0	0	0	0	0.5	0	0	0	0.5	1	0.5	1	0	0	0	0.5	0	0	0	0	1
Plecoptera	Capniidae	*Allocapnia*	0	0	0	0	1	0	0	0	1	0	0	0.5	0.5	1	0	0	0	1	0.5	0.5	0	0.5	0	0.5	0	0	0	1	0
Plecoptera	Capniidae	*Capnia*	0	0	0	0	1	0	0	1	0	0	0	0.5	0	1	0	0	0	1	0.5	0.5	0	0.5	0	0.5	0	0	0	1	0
Plecoptera	Capniidae	*Capnura*	0	0	0	0	1	0	0	1	0	0	0	0.5	0.5	1	0	0	0	1	0.5	0.5	0	0	0	0.5	0	0	0	1	0
Plecoptera	Capniidae	*Eucapnopsis*	0	0	0	0	1	0	0	1	0	0	0	0.5	0	1	0	0	0	1	0.5	0.5	0	0	0	0.5	0	0	0	1	0
Plecoptera	Capniidae	*Isocapnia*	0	0	0	0	1	0	0	1	0	0	0	1	0	1	0	0	0	1	0.5	0.5	0	0	0	0.5	0	0	0	1	0
Plecoptera	Capniidae	*Mesocapnia*	0	0	0	0	1	0	0	1	0	0	0	0.5	0.5	1	0	0	0	1	0.5	0.5	0	0	0	0.5	0	0	0	1	0
Plecoptera	Capniidae	*Nemocapnia*	0	0	0	0	1	0	0	1	0	0	0	0.5	1	1	0	0	0	1	0.5	0.5	0	0	0	0.5	0	0	0	1	0
Plecoptera	Capniidae	*Paracapnia*	0	0	0	0	1	0	0	1	0	0	0	0.5	0	1	0	0	0	1	0.5	0.5	0	0	0	0.5	0	0	0	1	0
Plecoptera	Capniidae	*Utacapnia*	0	0	0	0	1	0	0	1	0	0	0	0.5	0	1	0	0	0	1	0.5	0.5	0	0	0	0.5	0	0	0	1	0
Plecoptera	Chloroperlidae	*Alaskaperla*	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0.5	0	0	0	1	0.5
Plecoptera	Chloroperlidae	*Alloperla*	1	0	0	0	0	0	0	0	1	0	0	0.5	0	0	0.5	0	0.5	1	0.5	0.5	0	0.5	0	0.5	0	0	0	1	0.5
Plecoptera	Chloroperlidae	*Bisancora*	1	0	0	0	0	0	0	0	1	0	0	0.5	0.5	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0.5	0	0	0	1	0
Plecoptera	Chloroperlidae	*Haploperla*	0	0	0	1	0	0	0	0	1	0	0	0.5	0.5	0	0.5	0	0.5	1	0.5	0.5	0	1	0	0.5	0	0	0	1	0
Plecoptera	Chloroperlidae	*Kathroperla*	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0.5	0.5	0	0	1	1
Plecoptera	Chloroperlidae	*Paraperla*	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0.5	0.5	0	0	1	0.5
Plecoptera	Chloroperlidae	*Plumiperla*	1	0	0	0	0	0	0	0	1	0	0	0.5	0	0	0.5	0	0.5	1	0.5	0.5	0	0.5	0	0.5	0	0	0	1	0
Plecoptera	Chloroperlidae	*Suwallia*	0	0	0	1	0	0	0	0	1	0	0	0.5	0.5	0	0.5	0	0.5	1	0.5	0.5	0	0.5	0	0.5	0	0	0	1	0.5
Plecoptera	Chloroperlidae	*Sweltsa*	0	0	0	1	0	0	0	0	1	0	0	0.5	0.5	0	0.5	0	0.5	1	0	0.5	0	0.5	0	0.5	0	0	0	1	0.5
Plecoptera	Chloroperlidae	*Triznaka*	0	0	0	1	0	0	0	0	1	0	0	0.5	0	0	0.5	0	0.5	1	0.5	0.5	0	0.5	0	0.5	0	0	0	1	0.5
Plecoptera	Chloroperlidae	*Utaperla*	0	0	0	1	0	0	0	0	1	0	0	0.5	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0.5	0	0	0	1	0.5
Plecoptera	Leuctridae	*Despaxia*	0	0	0	0	1	0	0	1	0	0	0	0.5	0	0	0	0	0	1	0.5	0.5	0	0.5	0	0.5	0	0	0	1	0
Plecoptera	Leuctridae	*Leuctra*	0	0	0	0	1	0	0	1	0	0	0	0.5	0.5	0	0	0	0	1	0.5	0.5	0	0.5	0	0.5	0	0	0	1	0
Plecoptera	Leuctridae	*Moselia*	0	0	0	0	1	0	0	1	0	0	0	0.5	0.5	0	0	0	0	1	0.5	0.5	0	0.5	0	0.5	0	0	0	1	0
Plecoptera	Leuctridae	*Paraleuctra*	0	0	0	0	1	0	0	1	0	0	0	0.5	0.5	1	0	0	0	1	0.5	1	0	0.5	0	0.5	0	0	0	1	0
Plecoptera	Leuctridae	*Perlomyia*	0	0	0	0	1	0	0	1	0	0	0	0.5	0	1	0	0	0	1	0.5	0.5	0	0.5	0	0.5	0	0	0	1	0
Plecoptera	Leuctridae	*Zealeuctra*	0	0	0	0	1	0	0	1	0	0	0	0.5	0	1	0	0	0	1	0.5	0.5	0	0.5	0	0.5	0	0	0	1	0
Plecoptera	Nemouridae	*Amphinemura*	0	0	0	0	1	0	0	1	0	0	0	0.5	0.5	1	0	0	0	1	0.5	0	0	0.5	0	0.5	0	0	0.5	1	0
Plecoptera	Nemouridae	*Malenka*	0	0	0	0	1	0	0	1	0	0	0	0.5	0.5	0	0	0	0	1	0.5	0	0	0.5	0	0.5	0	0	0.5	1	0
Plecoptera	Nemouridae	*Nemoura*	0	0	0	0	1	0	0	1	0	0	0	0.5	0	1	0	0	0	1	0	0	0	0.5	0	0.5	0	0	0	1	0
Plecoptera	Nemouridae	*Paranemoura*	0	0	0	0	1	0	0	1	0	0	0	0.5	0	0	0	0	0	1	0.5	0	0	0.5	0	0.5	0	0	0	1	0
Plecoptera	Nemouridae	*Podmosta*	0	0	0	0	1	0	0	1	0	0	0	0.5	0	0	0	0	0	1	0.5	0	0	0	0	0.5	0	0	0	1	0
Plecoptera	Nemouridae	*Prostoia*	0	0	0	0	1	0	0	1	0	0	0	0.5	0	1	0	0	0	1	0.5	0	0	0.5	0	0.5	0	0	0	1	0
Plecoptera	Nemouridae	*Shipsa*	0	0	0	0	1	0	0	1	0	0	0	0.5	0.5	1	0	0	0	1	0.5	0	0	0.5	0	0.5	0	0	0	1	0
Plecoptera	Nemouridae	*Soyedina*	0	0	0	0	1	0	0	1	0	0	0	0.5	0	1	0	0	0	1	0.5	0	0	0	0	0.5	0	0	0	1	0

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Plecoptera	Nemouridae	*Visoka*	0	0	0	0	1	0	0	1	0	0	0	0.5	0	0	0	0	0	1	0.5	0	0	0	0	0.5	0	0	0.5	1	0
Plecoptera	Nemouridae	*Zapada*	0	0	0	0	1	0	0	1	0	0	0	0.5	0	0	0	0	0	1	0	0	0	0.5	0	0.5	0	0	0.5	1	0
Plecoptera	Peltoperlidae	*Peltoperlidae*	0	0	0	0	1	0	0	0	0	0	0	0.5	0.5	1	0.5	1	0.5	0	0	1	1	0.5	1	0.5	0.5	0	0.5	1	0.5
Plecoptera	Perlidae	*Acroneuria*	0	0	0	1	0	0	0	0	1	0	0	1	0.5	0	0.5	0	0.5	0	0.5	1	1	0	1	0.5	0.5	0	0.5	0	1
Plecoptera	Perlidae	*Agnetina*	0	0	0	1	0	0	0	0	1	0	0	1	0.5	0	1	0	0.5	0	0	1	1	0	1	0.5	0.5	0	0.5	0	1
Plecoptera	Perlidae	*Attaneuria*	0	0	0	1	0	0	0	0	1	0	0	1	1	0	1	0	0.5	1	0	1	1	0	1	0.5	0.5	0	0.5	0	1
Plecoptera	Perlidae	*Beloneuria*	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0	1	1	0	0	0.5	0.5	0	0.5	0	1
Plecoptera	Perlidae	*Calineuria*	0	0	0	1	0	0	0	0	1	0	0	1	0.5	0	1	0	0.5	0	0	1	1	0	1	0.5	0.5	0	0.5	0	1
Plecoptera	Perlidae	*Claassenia*	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	0	0	1	1	0	1	0.5	0.5	0	0.5	0	1
Plecoptera	Perlidae	*Doroneuria*	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0	1	1	0	0	0.5	0.5	0	0.5	0	1
Plecoptera	Perlidae	*Eccoptura*	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	1	1	0	1	0.5	0.5	0	0.5	0	1
Plecoptera	Perlidae	*Hansonoperla*	0	0	0	1	0	0	0	0	1	0	0	1	0	1	1	0	0.5	1	0.5	1	0	0	0	0.5	0.5	0	0.5	0	1
Plecoptera	Perlidae	*Hesperoperla*	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0	1	1	0	1	0.5	0.5	0	0.5	0	1
Plecoptera	Perlidae	*Neoperla*	0	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0.5	0	0.5	1	1	0	1	0.5	0.5	0	0.5	0	0.5
Plecoptera	Perlidae	*Paragnetina*	0	0	0	1	0	0	0	0	1	0	0	1	0.5	1	0.5	0	0.5	0	0	1	1	0	1	0.5	0.5	0	0.5	0	0.5
Plecoptera	Perlidae	*Perlesta*	0	0	0	1	0	0	0	0	1	0	0	0.5	0.5	0	0.5	0	0.5	0	0.5	1	1	0	1	0.5	0.5	0	0.5	0	1
Plecoptera	Perlidae	*Perlinella*	0	0	0	1	0	0	0	0	1	0	0	0.5	0.5	1	0.5	0	0.5	1	0.5	1	1	0	1	0.5	0.5	0	0.5	0	1
Plecoptera	Perlodidae	*Calliperla*	0	0	0	1	0	0	0	0	1	0	0	0.5	0.5	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0.5	0.5	0	0	0	0.5
Plecoptera	Perlodidae	*Cascadoperla*	0	0	0	1	0	0	0	0	1	0	0	1	0.5	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0.5	0.5	0	0	0	0.5
Plecoptera	Perlodidae	*Clioperla*	0	0	0	1	0	0	0	0	1	0	0	0.5	0	0	0.5	0	0.5	1	0.5	0.5	1	0	0	0.5	0.5	0	0	0	0.5
Plecoptera	Perlodidae	*Cultus*	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	1	0	0	0	0.5	0.5	0	0	0	0.5
Plecoptera	Perlodidae	*Diploperla*	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	1	0	0	0	0.5	0.5	0	0	0	0.5
Plecoptera	Perlodidae	*Diura*	0	0	1	0	0	0	0	0	1	0	0	1	0.5	0	0.5	0	0.5	1	0.5	1	0	0	0	0.5	0.5	0	0	0	0.5
Plecoptera	Perlodidae	*Frisonia*	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	1	0	0	0	0.5	0.5	0	0	0	0.5
Plecoptera	Perlodidae	*Helopicus*	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	1	1	0	0	0.5	0.5	0	0	0	1
Plecoptera	Perlodidae	*Hydroperla*	0	0	0	1	0	0	0	0	1	0	0	0.5	0	0	0.5	0	0.5	1	0.5	1	1	0	0	0.5	0.5	0	0	0	1
Plecoptera	Perlodidae	*Isogenoides*	0	0	0	1	0	0	0	0	1	0	0	0.5	0.5	0	0.5	0	0.5	1	0.5	1	1	0	0	0.5	0.5	0	0	0	1
Plecoptera	Perlodidae	*Isoperla*	0	0	0	1	0	0	0	0	1	0	0	0.5	0.5	1	0.5	0	0	1	0.5	1	0	0.5	0	0.5	0.5	0	0	1	0.5
Plecoptera	Perlodidae	*Kogotus*	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	1	0	0	0	0.5	0.5	0	0	0	0.5
Plecoptera	Perlodidae	*Malirekus*	0	0	0	1	0	0	0	0	1	0	0	0.5	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0.5	0.5	0	0	0	1
Plecoptera	Perlodidae	*Megarcys*	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0.5	0.5	0	0.5	0	1
Plecoptera	Perlodidae	*Oroperla*	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0.5	0.5	0	0.5	0	1
Plecoptera	Perlodidae	*Osobenus*	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0.5	0.5	0	0	0	0.5
Plecoptera	Perlodidae	*Perlinodes*	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0.5	0.5	0	0.5	0	1
Plecoptera	Perlodidae	*Pictetiella*	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0.5	0.5	0	0	0	1

			ECOLOGY													LIFE HISTORY							MOBILITY					MORPHOLOGY				
			Functional Feeding Group					*Habit*																								
Order	Family	Genus	*CG*	*CF*	*SC*	*Pred*	*SH*	*Burrow*	*Climb*	*Sprawl*	*Cling*	*Swim*	*Skate*	*Rheo*	*Ther*	*Desi*	*Devl*	*Exit*	*Life*	*Sync*	*Volt*	*Crwl*	*Disp*	*Drft*	*Flgt*	*Swim*	*Armr*	*Atch*	*Resp*	*Shpe*	*Size*
Plecoptera	Perlodidae	*Remenus*	0	0	0	1	0	0	0	0	1	0	0	0.5	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0.5	0.5	0	0	0	0.5
Plecoptera	Perlodidae	*Rickera*	0	0	0	1	0	0	0	0	1	0	0	0.5	0	1	0.5	0	0.5	1	0.5	0.5	0	0	0	0.5	0.5	0	0	1	0.5
Plecoptera	Perlodidae	*Setvena*	0	0	0	1	0	0	0	0	1	0	0	0.5	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0.5	0.5	0	0	0	1
Plecoptera	Perlodidae	*Skwala*	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0.5	0.5	0	0	0	1
Plecoptera	Perlodidae	*Susulus*	0	0	0	1	0	0	0	0	1	0	0	0.5	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0.5	0.5	0	0	0	1
Plecoptera	Perlodidae	*Yugus*	0	0	0	1	0	0	0	0	1	0	0	0.5	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0.5	0.5	0	0	0	1
Plecoptera	Pteronarcyidae	*Pteronarcella*	0	0	0	0	1	0	0	0	1	0	0	0.5	0.5	0	0.5	0	0.5	1	0	0.5	0	0	0	0	0.5	0	0.5	1	0.5
Plecoptera	Pteronarcyidae	*Pteronarcys*	0	0	0	0	1	0	0	0	1	0	0	0.5	0	0	0.5	0	1	1	0	1	1	0.5	1	0	1	0	0.5	1	1
Plecoptera	Taeniopterygidae	*Bolotoperla*	0	0	1	0	0	0	0	1	0	0	0	0.5	0.5	1	0	0	0	1	0.5	0	0	0	0	0.5	0	0	0	1	0.5
Plecoptera	Taeniopterygidae	*Doddsia*	0	0	1	0	0	0	0	1	0	0	0	0.5	0	1	0	0	0	1	0.5	0.5	0	0	0	0.5	0	0	0	1	0.5
Plecoptera	Taeniopterygidae	*Oemopteryx*	0	0	1	0	0	0	0	1	0	0	0	0.5	0	1	0	0	0	1	0.5	0.5	0	0.5	0	0.5	0	0	0	1	0.5
Plecoptera	Taeniopterygidae	*Strophopteryx*	0	0	1	0	0	0	0	1	0	0	0	0.5	0	1	0	0	0	1	0.5	0.5	0	0.5	0	0.5	0	0	0	1	0.5
Plecoptera	Taeniopterygidae	*Taenionema*	0	0	1	0	0	0	0	1	0	0	0	0.5	0	1	0	0	0	1	0.5	0.5	0	0.5	0	0.5	0	0	0	1	0.5
Plecoptera	Taeniopterygidae	*Taeniopteryx*	0	0	0	0	1	0	0	1	0	0	0	0.5	0.5	1	0	0	0	1	0.5	0	0	0	0	0.5	0	0	0.5	1	0.5
Trichoptera	Apataniidae	*Allomyia*	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0	1	0.5	0	1	0.5
Trichoptera	Apataniidae	*Moselyana*	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0	1	0.5	0	1	0.5
Trichoptera	Apataniidae	*Pedomoecus*	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0	1	0.5	0.5	1	0.5
Trichoptera	Brachycentridae	*Adicrophleps*	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	0	0	0	0	0	1	1	0	1	0.5
Trichoptera	Brachycentridae	*Amiocentrus*	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	0	0	0	0	0	1	1	0.5	1	0.5
Trichoptera	Brachycentridae	*Brachycentrus*	0	1	0	0	0	0	0	0	1	0	0	1	0.5	0	0.5	0	0.5	1	0.5	0	0	0	0	0	1	1	0.5	1	0.5
Trichoptera	Brachycentridae	*Micrasema*	0	0	1	0	0	0	0	0	1	0	0	1	0.5	0	0.5	0	0.5	1	0.5	0	0	0	0	0	1	1	0.5	1	0
Trichoptera	Calamoceratidae	*Heteroplectron*	0	0	0	0	1	0	0	1	0	0	0	0.5	0	0	0.5	0	0.5	1	0.5	0	0	0	0	0	1	0.5	0.5	1	0.5
Trichoptera	Calamoceratidae	*Phylloicus*	0	0	0	0	1	0	0	1	0	0	0	0.5	0	0	0.5	0	0.5	1	0.5	0	0	0	0	0	0.5	0.5	0.5	1	0.5
Trichoptera	Glossosomatidae	*Agapetus*	0	0	1	0	0	0	0	0	1	0	0	1	0	1	0.5	0	0.5	1	0.5	0.5	0	0	0	0	1	0	0	1	0
Trichoptera	Glossosomatidae	*Anagapetus*	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0	1	0	0	1	0
Trichoptera	Glossosomatidae	*Culoptila*	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0	1	0	0	1	0
Trichoptera	Glossosomatidae	*Glossosoma*	0	0	1	0	0	0	0	0	1	0	0	1	0.5	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0	1	0	0	1	0
Trichoptera	Glossosomatidae	*Matrioptila*	0	0	1	0	0	0	0	0	1	0	0	1	0.5	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0	1	0	0	1	0
Trichoptera	Glossosomatidae	*Protoptila*	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0	1	0	0	1	0
Trichoptera	Goeridae	*Goera*	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	0	0	0	0	0	1	0	0.5	1	0.5
Trichoptera	Goeridae	*Goeracea*	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	0	0	0	0	0	1	0	0	1	0.5
Trichoptera	Helicopsychidae	*Helicopsyche*	0	0	1	0	0	0	0	0	1	0	0	1	0.5	1	0.5	0	0.5	1	0.5	0.5	1	0	0	0	1	0.5	0.5	1	0
Trichoptera	Hydropsychidae	*Arctopsyche*	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0	0	0.5	0.5	1	0.5
Trichoptera	Hydropsychidae	*Ceratopsyche*	0	1	0	0	0	0	0	0	1	0	0	1	0.5	0	0.5	1	0.5	1	0.5	0.5	1	0.5	1	0	0	0.5	0.5	1	0.5
Trichoptera	Hydropsychidae	*Cheumatopsyche*	0	1	0	0	0	0	0	0	1	0	0	1	0.5	0	0.5	0	0.5	1	0.5	0.5	1	0.5	1	0	0	0.5	0.5	1	0.5

			ECOLOGY													LIFE HISTORY							MOBILITY					MORPHOLOGY				
			Functional Feeding Group					Habit																								
Order	Family	Genus	CG	CF	SC	Pred	SH	Burrow	Climb	Sprawl	Cling	Swim	Skate	Rheo	Ther	Desi	Devl	Exit	Life	Sync	Volt	Crwl	Disp	Drft	Flgt	Swim	Armr	Atch	Resp	Shpe	Size
Trichoptera	Hydropsychidae	*Diplectrona*	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0	0	0.5	0.5	1	0.5
Trichoptera	Hydropsychidae	*Homoplectra*	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0	0	0.5	0.5	1	0.5
Trichoptera	Hydropsychidae	*Hydropsyche*	0	1	0	0	0	0	0	0	1	0	0	1	0.5	0	0.5	1	0.5	1	0.5	0.5	1	0.5	1	0	0	0.5	0.5	1	0.5
Trichoptera	Hydropsychidae	*Macrostemum*	0	1	0	0	0	0	0	0	1	0	0	1	1	0	0.5	0	0.5	1	0.5	0.5	1	0.5	1	0	0	0.5	0.5	1	0.5
Trichoptera	Hydropsychidae	*Oropsyche*	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0	0	0.5	0.5	1	0.5
Trichoptera	Hydropsychidae	*Parapsyche*	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0	0	0.5	0.5	1	0.5
Trichoptera	Hydropsychidae	*Potamyia*	0	1	0	0	0	0	0	0	1	0	0	1	0.5	0	0.5	0	0.5	1	0.5	0.5	1	0.5	1	0	0	0.5	0.5	1	0.5
Trichoptera	Hydropsychidae	*Smicridea*	0	1	0	0	0	0	0	0	1	0	0	1	1	0	0.5	0	0.5	1	0.5	0.5	1	0.5	1	0	0	0.5	0.5	1	0.5
Trichoptera	Hydroptilidae	*Agraylea*	0	0	1	0	0	0	1	0	0	0	0	0.5	0.5	0	0.5	0	0	1	0.5	0	1	0	0	0	0.5	0.5	0	0	0
Trichoptera	Hydroptilidae	*Alisotrichia*	0	0	1	0	0	0	0	0	1	0	0	0.5	0.5	0	0.5	0	0	1	0.5	0	1	0	0	0	0.5	0.5	0.5	0	0
Trichoptera	Hydroptilidae	*Dibusa*	0	0	1	0	0	0	0	0	1	0	0	0.5	0.5	0	0.5	0	0	1	0.5	0	1	0	0	0	0.5	0.5	0	0	0
Trichoptera	Hydroptilidae	*Hydroptila*	0	0	1	0	0	0	0	0	1	0	0	0.5	0.5	0	0.5	0	0	1	0.5	0	1	0.5	0	0	0.5	0.5	0.5	0	0
Trichoptera	Hydroptilidae	*Ithytrichia*	0	0	1	0	0	0	0	0	1	0	0	1	0.5	0	0.5	0	0	1	0.5	0	1	0	0	0	0.5	0.5	0	0	0
Trichoptera	Hydroptilidae	*Leucotrichia*	0	0	1	0	0	0	0	0	1	0	0	1	0.5	0	0.5	0	0	1	0.5	0	1	0	0	0	0.5	0.5	0	0	0
Trichoptera	Hydroptilidae	*Mayatrichia*	0	0	1	0	0	0	0	0	1	0	0	1	1	0	0.5	0	0	1	0.5	0	1	0.5	0	0	0.5	0.5	0	0	0
Trichoptera	Hydroptilidae	*Neotrichia*	0	0	1	0	0	0	0	0	1	0	0	1	0.5	0	0.5	0	0	1	0.5	0	1	0	0	0	0.5	0.5	0	0	0
Trichoptera	Hydroptilidae	*Ochrotrichia*	1	0	0	0	0	0	0	0	1	0	0	0.5	0.5	0	0.5	0	0	1	0.5	0	1	0	0	0	0.5	0.5	0	0	0
Trichoptera	Hydroptilidae	*Orthotrichia*	0	0	1	0	0	0	0	0	1	0	0	0.5	0.5	0	0.5	0	0	1	0.5	0	1	0	0	0	0.5	0.5	0	0	0
Trichoptera	Hydroptilidae	*Oxyethira*	0	0	1	0	0	0	1	0	0	0	0	0.5	0.5	0	0.5	0	0	1	0.5	0	1	0	0	0	0.5	0.5	0	0	0
Trichoptera	Hydroptilidae	*Paucicalcaria*	0	0	1	0	0	0	0	0	1	0	0	0.5	0.5	0	0.5	0	0	1	0.5	0	1	0	0	0	0.5	0.5	0.5	0	0
Trichoptera	Hydroptilidae	*Stactobiella*	0	0	0	0	1	0	0	0	1	0	0	0.5	0.5	0	0.5	0	0	1	0.5	0	1	0	0	0	0.5	0.5	0	0	0
Trichoptera	Hydroptilidae	*Zumatrichia*	0	0	1	0	0	0	0	0	1	0	0	0.5	0.5	0	0.5	0	0	1	0.5	0	1	0	0	0	0.5	0.5	0	0	0
Trichoptera	Lepidostomatidae	*Lepidostoma*	0	0	0	0	1	0	1	0	0	0	0	0.5	0	0	0.5	0	0.5	1	0.5	0	0	0	0	0	0	0	0.5	1	0.5
Trichoptera	Lepidostomatidae	*Theliopsyche*	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0.5	0	0.5	1	0.5	0	0	0	0	0	0	0	0.5	1	0
Trichoptera	Leptoceridae	*Ceraclea*	1	0	0	0	0	0	0	1	0	0	0	0.5	0.5	0	0.5	0	0.5	1	0.5	0	1	0	0	0.5	0.5	0.5	0.5	1	0.5
Trichoptera	Leptoceridae	*Nectopsyche*	0	0	1	0	0	0	1	0	0	0	0	0.5	0.5	0	0.5	0	0.5	1	0.5	0	1	0	0	0.5	0.5	0.5	0.5	1	0.5
Trichoptera	Leptoceridae	*Oecetis*	0	0	0	1	0	0	0	0	1	0	0	0.5	0.5	0	0.5	0	0.5	1	0.5	0	1	0	0	0.5	0.5	0.5	0.5	1	0.5
Trichoptera	Leptoceridae	*Setodes*	1	0	0	0	0	0	0	1	0	0	0	0.5	0	0	0.5	0	0.5	1	0.5	0	1	0	0	0.5	0.5	0.5	0.5	1	0
Trichoptera	Limnephilidae	*Allocosmoecus*	0	0	1	0	0	0	0	1	0	0	0	0.5	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0	1	0.5	0.5	1	1
Trichoptera	Limnephilidae	*Amphicosmoecus*	0	0	0	0	1	0	0	1	0	0	0	0.5	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0	1	0.5	0.5	1	1
Trichoptera	Limnephilidae	*Apatania*	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0	1	0.5	0.5	1	0.5
Trichoptera	Limnephilidae	*Asynarchus*	0	0	0	0	1	0	1	0	0	0	0	0.5	0	1	0.5	0	0	1	0.5	0	0	0	0	0	0.5	0.5	0.5	1	0.5
Trichoptera	Limnephilidae	*Chyranda*	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0	1	0.5	0.5	1	0.5
Trichoptera	Limnephilidae	*Cryptochia*	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0	1	0.5	0.5	1	0.5
Trichoptera	Limnephilidae	*Dicosmoecus*	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0.5	0	0.5	1	0	0.5	0	0	0	0	1	0.5	0.5	1	1

			ECOLOGY													LIFE HISTORY							MOBILITY					MORPHOLOGY				
			Functional Feeding Group					Habit																								
Order	Family	Genus	CG	CF	SC	Pred	SH	Burrow	Climb	Sprawl	Cling	Swim	Skate	Rheo	Ther	Desi	Devl	Exit	Life	Sync	Volt	Crwl	Disp	Drft	Flgt	Swim	Armr	Atch	Resp	Shpe	Size
Trichoptera	Limnephilidae	*Ecclisocosmoecus*	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0.5	0	0.5	1	0	0.5	0	0	0	0	1	0.5	0.5	1	0.5
Trichoptera	Limnephilidae	*Ecclisomyia*	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0	0.5	0	0	0	0	1	0.5	0.5	1	0.5
Trichoptera	Limnephilidae	*Eocosmoecus*	0	0	0	0	1	0	0	1	0	0	0	0.5	0	0	0.5	0	0.5	1	0	0.5	0	0	0	0	1	0.5	0.5	1	0.5
Trichoptera	Limnephilidae	*Hesperophylax*	0	0	0	0	1	0	0	1	0	0	0	0.5	0.5	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0	1	0.5	0.5	1	1
Trichoptera	Limnephilidae	*Homophylax*	0	0	0	0	1	0	0	0	1	0	0	0.5	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0	1	0.5	0.5	1	1
Trichoptera	Limnephilidae	*Hydatophylax*	0	0	0	0	1	0	0	1	0	0	0	0	0.5	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0	1	0.5	0.5	1	1
Trichoptera	Limnephilidae	*Onocosmoecus*	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0	1	0.5	0.5	1	1
Trichoptera	Limnephilidae	*Philocasca*	0	0	0	0	1	0	0	0	1	0	0	0.5	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0	1	0.5	0.5	1	0.5
Trichoptera	Limnephilidae	*Platycentropus*	0	0	0	0	1	0	1	0	0	0	0	0	0.5	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0	1	0.5	0.5	1	1
Trichoptera	Limnephilidae	*Pseudostenophylax*	0	0	0	0	1	0	0	1	0	0	0	0.5	0.5	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0	1	0.5	0.5	1	1
Trichoptera	Limnephilidae	*Psychoglypha*	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0.5	0	1	1	0.5	0.5	0	0	0	0	1	0.5	0.5	1	1
Trichoptera	Limnephilidae	*Psychoronia*	0	0	0	0	1	0	0	1	0	0	0	0.5	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0	1	0.5	0.5	1	0.5
Trichoptera	Limnephilidae	*Pycnopsyche*	0	0	0	0	1	0	0	1	0	0	0	0.5	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0	1	0.5	0.5	1	1
Trichoptera	Odontoceridae	*Pseudogoera*	0	0	0	1	0	0	0	1	0	0	0	0.5	0	0	0.5	0	0.5	1	0.5	0	0	0	0	0	1	0.5	0.5	1	0.5
Trichoptera	Odontoceridae	*Psilotreta*	0	0	1	0	0	0	0	1	0	0	0	0.5	1	0	0.5	0	0.5	1	0.5	0	0	0	0	0	1	0.5	0.5	1	0.5
Trichoptera	Philopotamidae	*Chimarra*	0	1	0	0	0	0	0	0	1	0	0	1	0.5	0	0.5	0	0.5	1	0.5	0	0	0	0	0	0	0.5	0	1	0
Trichoptera	Philopotamidae	*Dolophilodes*	0	1	0	0	0	0	0	0	1	0	0	1	0.5	0	0.5	0	0.5	1	0.5	0	0	0	0	0	0	0.5	0	1	0
Trichoptera	Philopotamidae	*Wormaldia*	0	1	0	0	0	0	0	0	1	0	0	1	0.5	0	0.5	0	0.5	1	0.5	0	0	0	0	0	0	0.5	0	1	0
Trichoptera	Polycentropodidae	*Cyrnellus*	0	1	0	0	0	0	0	0	1	0	0	1	0.5	0	0.5	0	0.5	1	0.5	0	1	0	0	0	0	0.5	0	1	0.5
Trichoptera	Polycentropodidae	*Neureclipsis*	0	1	0	0	0	0	0	0	1	0	0	1	0.5	0	0.5	0	0.5	1	1	0	1	0	0	0	0	0.5	0	1	0.5
Trichoptera	Polycentropodidae	*Nyctiophylax*	0	0	0	1	0	0	0	0	1	0	0	0.5	0.5	0	0.5	0	0.5	1	0.5	0	1	0	0	0	0	0.5	0	1	0.5
Trichoptera	Polycentropodidae	*Polycentropus*	0	0	0	1	0	0	0	0	1	0	0	1	0.5	0	0.5	0	0.5	1	0.5	0	1	0	0	0	0	0.5	0	1	0.5
Trichoptera	Psychomyiidae	*Lype*	0	0	1	0	0	0	0	0	1	0	0	1	0.5	0	0.5	0	0.5	1	0.5	0	0	0	0	0	0	0.5	0	1	0
Trichoptera	Psychomyiidae	*Psychomyia*	1	0	0	0	0	0	0	0	1	0	0	1	0.5	0	0.5	0	0.5	1	0.5	0	1	0	0	0	0	0.5	0	1	0
Trichoptera	Rhyacophilidae	*Rhyacophila*	0	0	0	1	0	0	0	0	1	0	0	1	0.5	0	0.5	0	0.5	1	0.5	1	0	0	0	0.5	0.5	0.5	0	1	0.5
Trichoptera	Rossianidae	*Rossiana*	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0.5	1	1	0.5	1	0.5
Trichoptera	Sericostomatidae	*Gumaga*	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0.5	0	0.5	1	0.5	0.5	0	0	0	0	0.5	0.5	0.5	1	0.5
Trichoptera	Uenoidae	*Farula*	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	0	0	0	0	0.5	0.5	0.5	0.5	1	0
Trichoptera	Uenoidae	*Neophylax*	0	0	1	0	0	0	0	0	1	0	0	1	0.5	0	0.5	0	0.5	1	0.5	0	0	0	0	0.5	1	0.5	0.5	1	0.5
Trichoptera	Uenoidae	*Neothremma*	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	0	0	0	0	0.5	0.5	0.5	0.5	1	0
Trichoptera	Uenoidae	*Oligophlebodes*	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0.5	0	0.5	1	0.5	0	0	0	0	0.5	1	0.5	0.5	1	0.5

Table C4. Trait code descriptions (see Poff et al. 2006 for more details).

Trait Class	Trait	Trait Code
ECOLOGY	Functional Feeding Group, Collector-filterer (proportion collector filterers)	FFG.CF
	Functional Feeding Group, Collector-gatherer (proportion collector gatherers)	FFG.CG
	Functional Feeding Group, Predator (proportion predators)	FFG.PR
	Functional Feeding Group, Scraper or herbivore (proportion scrapers or herbivores)	FFG.SC
	Functional Feeding Group, Shredder (proportion shredders)	FFG.SH
	Habit, Burrow (proportion burrowers)	Hab.Bur
	Habit, Cling (proportion clingers)	Hab.Cli
	Habit, Sprawl (proportion sprawlers)	Hab.Spr
	Habit, Swim (proportion swimmers)	Hab.Swi
	Rheophily (correlates with preferences for running water)	Rheo
	Thermal preference (correlates with thermal tolerance)	Ther
LIFE HISTORY	Desiccation resistance (correlates with resistance to desiccation)	Desi
	Development time (0 indicates fast seasonal, 1 indicates slow/nonseasonal)	Devl
	Adult ability to exit (correlates with ability/affinity to exit water)	Exit
	Adult life span (correlates with life span length)	Life
	Synchronized emergence (0 indicates poor synchronization, 1 indicates highly synchronized emergence)	Sync
	Voltinism (generations/year, 0 indicates semivoltine, 1 indicates multivoltine)	Volt
MOBILITY	Crawl ability (correlates with crawling ability)	Crwl
	Dispersal of females before oviposition (0 indicates < 1km, 1 indicates greater than 1 km)	Disp

Trait Class	Trait	Trait Code
	Drift Occurrence (correlates with occurrence in drift)	Drft
	Adult flight ability (correlates with flight ability)	Flgt
	Swimming ability (correlates with swimming ability)	Swim
MORPHOLOGY	Armoring (0 indicates membranous, 1 indicates highly sclerotized)	Armr
	Attachment (correlates with affinity to attach to substrate)	Atch
	Respiration (0 indicates preference for high DO habitats, 1 indicates tolerance of hypoxia)	Resp
	Shape (0 indicates fusiform, 1 indicates high drag)	Shpe
	Size (correlates with size as an adult)	Size

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