Supplementary Tables

Table S1: List of macroinvertebrate families and abbreviations.

Familiy	Abbrevation
Acanthametropodidae	Acan
Ancylidae	Ancy
Aphididae	Aphi
Asellidae	Asel
Baetidae	Baet
Belostomatidae	Belo
Blaberidae	Blabe
Calamoceratidae	Calamo
Calopterygidae	Calop
Ceratopogonidae	Cerato
Chironomidae	Chiro
Chrysomelidae	Chryso
Cicadelidae	Cica
Coenagronidae	Coena
Collembola	Collem
Corbiculidae	Corbi
Corixidae	Corix
Corydalidae	Cory
Crambidae	Cramb
Culicidae	Culi
Curculionidae	Curcu
Dixidae	Dixi
Dolichopodidae	Doli
Dryopidae	Dryo
Dytiscidae	Dyti
Ecnomidae	Ecno
Elmidae	Elmi
Empididae	Empi
Ephydridae	Ephy
Georissidae	Geor
Gerridae	Gerri
Glossiphoniidae	Glossi
Glossosomatidae	Glosso
Gomphidae	Gomph
Gyrinidae	Gyri
Haliplidae	Hali
Haplotaxida	Haplo
Hebridae	Hebri
Helicopsychidae	Heli
Heptageniidae	Hept
Hydraenidae	Hydra
Hydrobiosidae	Hydrob
Hydrometridae	Hydrom

Hydrophilidae	Hydrop
Hydropsychidae	Hydrops
Hydroptilidae	Hydropt
Hypogastruridae	Hypo
Lampyridae	Lamp
Leptoceridae	Lept
Leptohyphidae	Leptoh
Leptophlebiidae	Leptop
Libellulidae	Libell
Lumbriculidae	Lumb
Lutrochidae	Lutro
Macromiidae	Macrom
Macroveliidae	Macrov
Mesovellidae	Meso
Muscidae	Musc
Naucoridae	Nau
Nepidae	Nep
Noctuidae	Noct
Notonectidae	Noto
Octheridae	Ocht
Odontoceridae	Odon
Oligochaeta	Olig
Ostracoda	Ostr
Perlidae	Per
Philopotamidae	Phil
Physidae	Phys
Pisidiidae	Pisi
Planariidae	Plan
Planorbidae	Plano
Platystictidae	Plat
Polycentropodidae	Poly
Psephenidae	Pseph
Psychodidae	Psych
Pyralidae	Pyra
Saldidae	Sald
Scirtidae	Scirt
Simulidae	Simu
Staphylinidae	Staph
Stratiomyidae	Stra
Tabanidae	Taba
Thiaridae	Thia
Tipulidae	Tipu
Trombidiformes	Trom
Veliidae	Velii
Xiphocentronidae	Xipho

Table S2: Functional traits.

Trait	Abbreviations
Body size < 0.25 cm	BS_<0.25cm
Body size: 0.25-0.5 cm	BS_0.25-0.5cm
Body size: 0.5-1 cm	BS_0.5-1 cm
Body size: 1-2 cm	BS_1-2cm
Body size: 2-4 cm	BS_2-4cm
Body size: 4-8 cm	BS_4-8 cm
Body size > 8 cm	BS_>8cm
Life cycle < 1 year	LF_<1yr
Life cycle > 1 year	LF >1yr
Aquatic egg	SG_AE
Aquatic larva	SG_AL
Aquatic nymph	SG_AN
Aquatic adult	SG_AA
Sensitive Very Tolerant	S_Verytol
Sensitive Tolerant	S_Tol
Sensitive Sensible	S_Sens
Sensitive Very Sesible	S_Verysens
Air respiration	R_Air
Branchial respiration	R_Branch
Branchial-cutaneos respiration	R_Branch_Cuta
Cutaneos respiration	R_Cuta
Special respiration	R_Spec
Pulmonar respiration	R_Pulm
Food: Microorganisms	F_Micro
Food: Detritus (< 1mm)	F_Detri

Food: Dead plants (> 1mm)	F_Deadplants
Food: Microphytes	F_Microphy
Food: Macrophytes	F_Macrophy
Food: Dead animals (> 1mm)	F_Deadanimals
Food: Microinvertebrates	F_Microinv
Food: Macroinvertebrates	F_Macroinv
Food: Vertebrates	F_Vert
Colector	FG_Col
Predator	FG_Pr
Decomposer	FG_Dec
Detritivorous	FG_Detr
Filtering	FG_Ft
Scraper	FG_Scr
Shredder	FG_Sh
Trans. Dist.: River channel	TD_River
Trans. Dist.: Banks	TD_Banks
Trans. Dist.: Ponds, pools	TD_Ponds
Trans. Dist.: Marshes, peat bogs	TD_Marshes
Trans. Dist.: Temporary waters	TD_Temp_water
Trans. Dist.: Lakes	TD_Lakes
Trans. Dist.: Groundwaters	TD_Groundwater
Substrate	LG_Sub
Excavator	LG_Exc
Climber	LG_Clim
Swimmer	LG_Swim
Crawler	LG_Craw
Walker	LG_Walk

Table S3: Macroinvertebrate family per main stream and study period.

Family	Ex_F_17	Jal_F_17	CcaSMa_F_17	Ex_Jul_17	Jal_Jul_17	CcaSMa_Jul_17	Jal_Jun_19	SGRB
Acan	■			■	■			4
Ancy					■			13
Aphi		■	■	■	■	■		398
Asel					■			2
Baet	■	■	■	■	■	■	■	13921
Belo	■	■	■	■	■	■	■	288
Blabe		■						1
Calamo		■	■		■	■		32
Calop	■	■	■	■	■	■	■	298
Cerato	■	■	■	■	■	■	■	517
Chiro	■	■	■	■	■	■	■	10656
Chryso		■						2
Cica			■			■		13
Coena	■	■	■	■	■	■	■	845
Collem	■							1
Corbi		■	■		■	■		20
Corix	■		■		■		■	46
Cory	■	■	■	■	■	■	■	181
Cramb	■	■	■	■	■	■	■	148
Culi		■						4
Curcu			■	■		■		6
Dixi	■	■	■		■			26
Doli		■			■			10
Dryo		■	■	■	■	■		85
Dyti		■	■		■	■		14
Ecno		■						3
Elmi	■	■	■	■	■	■	■	7239
Empi	■	■	■	■	■	■		303
Ephy	■	■	■		■	■		53
Geor			■			■		10
Gerri		■	■		■	■		154
Glossi							■	1
Glosso		■	■			■		19
Gomph	■	■	■	■	■	■	■	317
Gyri		■	■		■		■	12
Hali			■		■	■	■	14
Haplo	■		■	■	■	■		66
Hebri		■	■		■	■	■	72
Heli		■	■		■	■		276
Hept		■			■		■	146


Hydra 2
Hydrob 878
Hydrom 1
Hydrop 90
Hydrops 2319
Hydropt 671
Hypo 1
Lamp 3
Lept 65
Leptoh 5294
Leptop 3832
Libell 840
Lumb 28
Lutro 335
Macrom 3
Macrov 56
Meso 9
Musc 4
Nau 415
Nep 4
Noct 1
Noto 16
Ocht 2
Odon 6
Olig 176
Ostr 13
Per 257
Phil 1381
Phys 871
Pisi 806
Plan 33
Plano 14
Plat 190
Poly 200
Pseph 190
Psych 43
Pyra 19
Sald 10
Scirt 2
Simu 3080
Staph 138
Stra 251
Taba 103
Thia 1498
Tipu 150

*Values in the SGRB column correspond to the total abundance per family, while the values at the end of each column represent the total abundance by stream and study season.