Appendix – supplementary Figures and Tables

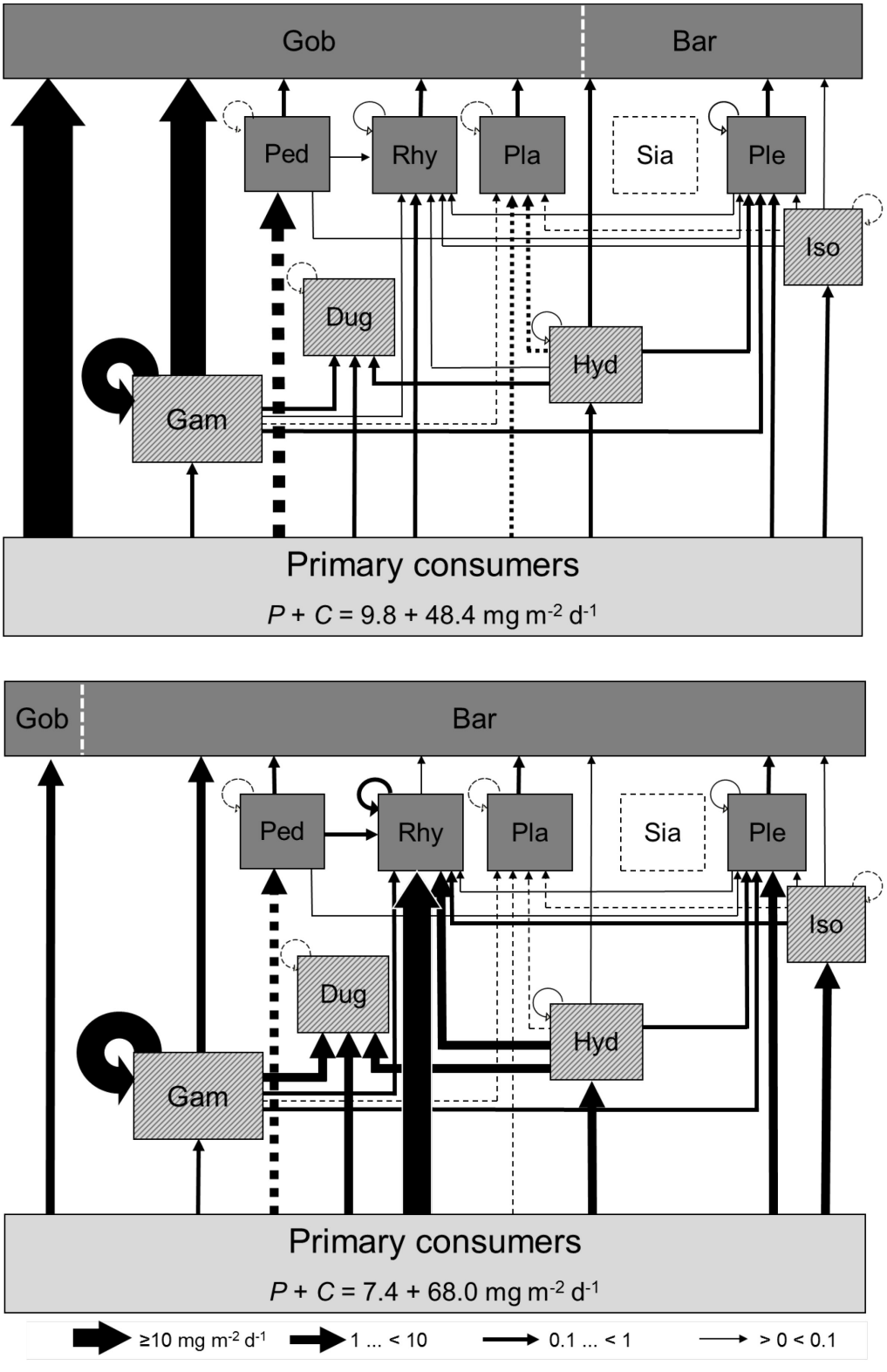
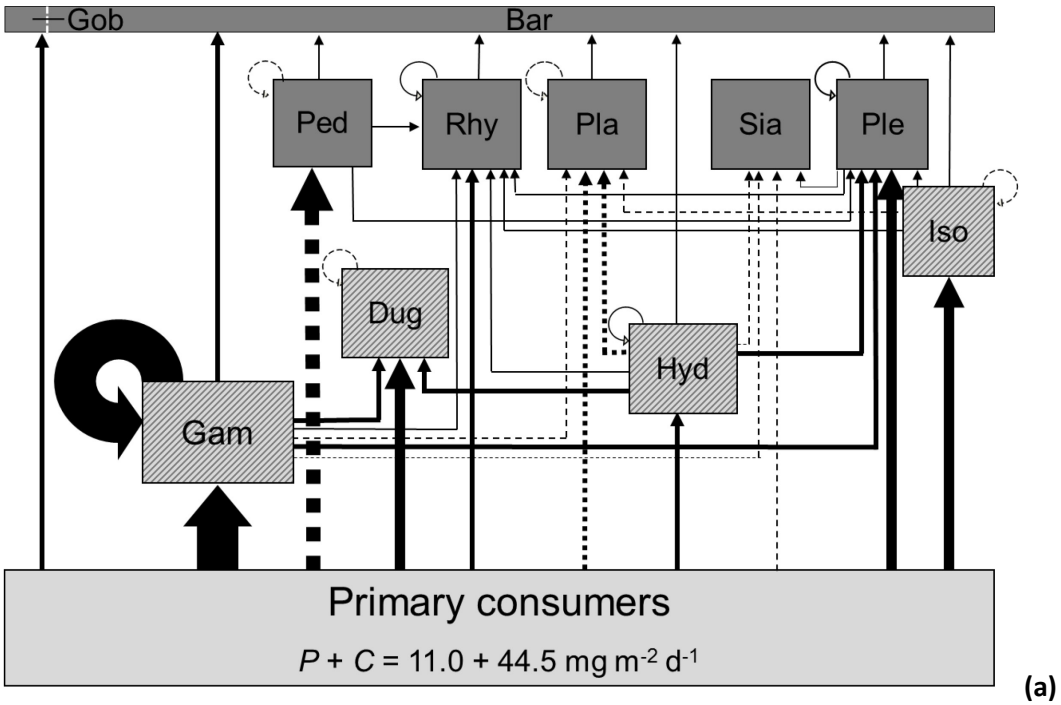
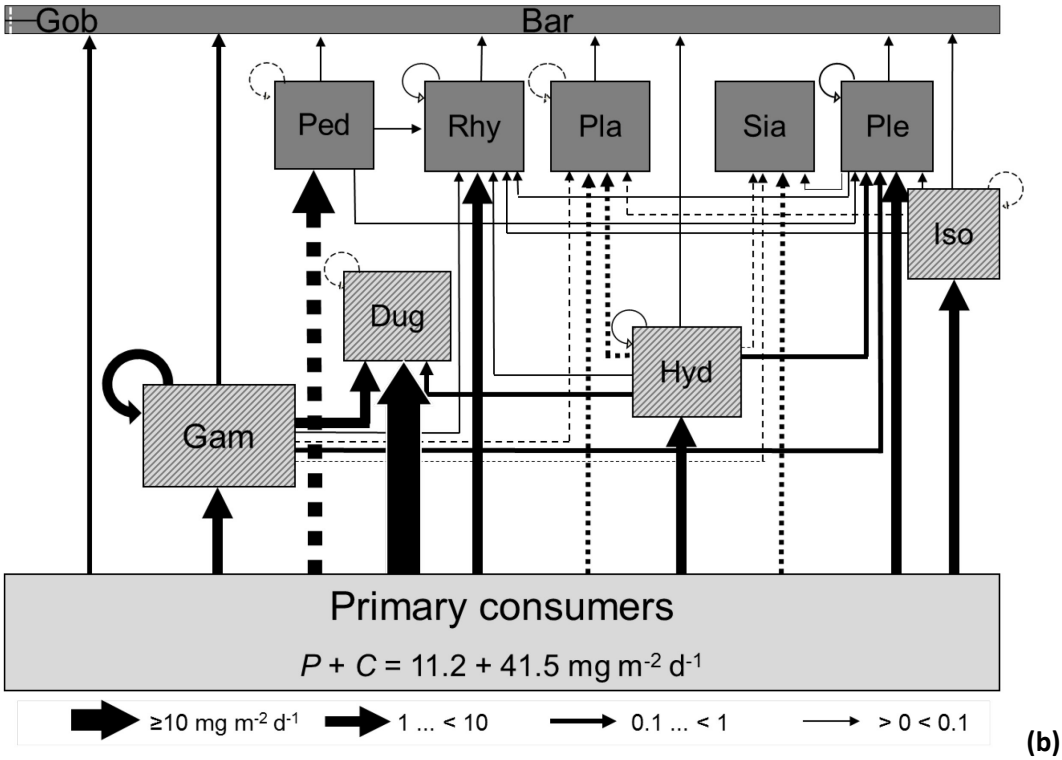


Fig. A1 Simplified food web of (a) pool and (b) riffle habitats in Gauernitzbach as average of the experimental years with fish (2005, 2006, and 2010). All values in mg dry mass m^{-2} d^{-1}. Arrows represent the amount of daily consumption (mass flux, dashed = assumptions). For abbreviations of predator names see Table 1. Dark grey rectangles: strict predators, hatched rectangles: omnivores, light grey rectangle: primary consumers, white rectangle: predator absent during the years shown but present during the years 'without' fish. For better readability, both predatory fish species are shown in a combined rectangle.



(a)



(b)

Fig. A2 Simplified food web of (a) pool and (b) riffle habitats in Gauernitzbach as average of the experimental years 'without' fish (2007 - 2009). All values in mg dry mass m^{-2} d^{-1}. Arrows represent the amount of daily consumption (mass flux, dashed = assumptions). For abbreviations of predator names see Table 1. Dark grey rectangles: strict predators, hatched rectangles: omnivores, light grey rectangle: primary consumers. For better readability, both predatory fish species are shown in a combined rectangle.

Table A1 Taxa list, abundance and biomass of benthic invertebrates in Gauernitzbach and Tännichtgrundbach, mean ± SD of all samples with fish present in the streams (Mar 2005 - Oct 2006 and Oct 2009 – Jul/Oct 2010 (Gau./Tän.)).

Order / Class	Taxon	Abundance (Ind m^{-2})		Biomass (mg m^{-2})	
		Gauernitzbach	Tännichtgrundbach	Gauernitzbach	Tännichtgrundbach
Turbellaria	*Dugesia gonocephala*	35.59 ± 56.73	42.22 ± 55.51	31.22 ± 42.31	40.73 ± 69.68
Oligochaeta	*Eiseniella tetraedra*	4.13 ± 2.82	4.18 ± 3.31	11.59 ± 7.23	13.82 ± 16.87
	Oligochaeta [a]	55.99 ± 60.85	77.00 ± 113.40	3.93 ± 5.15	6.60 ± 9.54
Gastropoda	*Ancylus fluviatilis*	4.32 ± 8.53	1.74 ± 2.86	4.47 ± 7.65	0.88 ± 1.87
	Gastropoda	0.41 ± 0.85	3.50 ± 4.05	0.04 ± 0.09	0.35 ± 0.40
Bivalvia	*Pisidium* spp.	11.61 ± 13.41	7.19 ± 8.97	0.74 ± 0.95	0.62 ± 1.18
Amphipoda	*Gammarus fossarum* [G]	0.00 ± 0.00	1133.54 ± 689.67	0.00 ± 0.00	909.64 ± 1013.51
	Gammarus pulex [T]	311.46 ± 277.08	0.00 ± 0.00	255.93 ± 173.70	0.00 ± 0.00
Malacostraca	Ostracoda	22.85 ± 58.02	5.50 ± 18.65	0.85 ± 2.15	0.20 ± 0.69
Ephemeroptera	*Baetis muticus*	230.63 ± 219.91	127.61 ± 134.55	21.21 ± 18.87	13.61 ± 17.05
	Baetis rhodani	91.84 ± 102.99	115 ± 106.79	18.62 ± 19.09	19.70 ± 18.86
	Centroptilum luteolum	0.36 ± 1.00	1.24 ± 5.87	0.46 ± 2.10	0.40 ± 1.67
	Ecdyonurus spp.	7.91 ± 12.65	19.46 ± 16.72	7.02 ± 11.11	20.25 ± 21.01
	Electrogena ujhelyii	65.02 ± 108.73	60.94 ± 71.29	11.67 ± 13.25	11.36 ± 17.74
	Ephemera danica	77.93 ± 94.44	24.78 ± 28.99	143.00 ± 144.31	37.54 ± 57.63
	Rhithrogena semicolorata	201.38 ± 317.55	30.26 ± 42.02	55.69 ± 68.03	19.26 ± 43.64
	Seratella ignita	1.73 ± 3.31	28.57 ± 83.60	0.64 ± 1.35	5.60 ± 10.68
Plecoptera	*Amphinemura* spp. [G,T]	0.20 ± 0.64	0.05 ± 0.26	0.03 ± 0.10	0.01 ± 0.03
	Capnia bifrons	86 ± 229.669	46.99 ± 117.97	17.49 ± 41.58	23.56 ± 80.21
	Isoperla grammatica	16.80 ± 20.85	0.18 ± 0.48	3.34 ± 3.80	0.03 ± 0.09
	Leuctra spp.	120.18 ± 128.06	159.22 ± 182.07	9.86 ± 10.53	16.33 ± 21.57
	Nemoura cambrica	97.79 ± 122.42	141.65 ± 186.73	5.15 ± 11.05	14.49 ± 28.43
	Protonemura spp.	5.79 ± 13.12	57.69 ± 142.47	0.47 ± 1.03	5.34 ± 9.58
Trichoptera	*Agapetus fuscipes* [G,T]	0.00 ± 0.00	0.32 ± 1.14	0.00 ± 0.00	0.17 ± 0.55
	Hydropsyche spp.	172.56 ± 234.93	69.65 ± 109.85	49.60 ± 42.39	25.75 ± 36.48

[a] Abundance of Oligochaeta overestimated due to body fragmentation

[G] Rare taxa (occurring in 0 – 3 samples only) in Gauernitzbach

[T] Rare taxa (occurring in 0 – 3 samples only) in Tännichtgrundbach

Table A1 (continued) Taxa list, abundance and biomass of benthic invertebrates in Gauernitzbach and Tännichtgrundbach, mean ± SD of all samples with fish present in the streams (Mar 2005 - Oct 2006 and Oct 2009 – Jul/Oct 2010 (Gau./Tän.)).

Order / Class	Taxon	Abundance (Ind m^{-2})		Biomass (mg m^{-2})	
		Gauernitzbach	Tännichtgrundbach	Gauernitzbach	Tännichtgrundbach
Trichoptera	*Hydroptila* sp. [G,T]	0.00 ± 0.00	0.05 ± 0.26	0.00 ± 0.00	0.01 ± 0.07
	Lepidostoma sp. [G,T]	0.05 ± 0.27	1.10 ± 5.62	0.00 ± 0.01	0.03 ± 0.15
	Limnephilidae	20.23 ± 18.99	24.19 ± 46.31	113.24 ± 135.56	171.25 ± 379.18
	Odontocerum albicorne	9.52 ± 17.15	34.35 ± 48.34	40.41 ± 77.10	117.85 ± 124.63
	Philopotamus montanus [G]	0.10 ± 0.54	33.96 ± 68.42	0.02 ± 0.10	35.22 ± 86.41
	Plectrocnemia conspersa	4.43 ± 13.55	6.32 ± 8.17	4.55 ± 12.53	3.89 ± 5.65
	Polycentropus flavomaculatus [G,T]	0.00 ± 0.00	0.96 ± 3.99	0.00 ± 0.00	1.65 ± 7.62
	Rhyacophila sensu stricto	13.15 ± 14.31	10.84 ± 11.87	21.68 ± 25.96	25.33 ± 40.34
	Rhyacophila tristis	1.27 ± 1.99	2.52 ± 3.55	0.28 ± 0.56	1.10 ± 1.54
	Sericostoma spp.	16.50 ± 19.65	14.42 ± 12.64	55.19 ± 76.44	30.58 ± 33.67
	Silo pallipes	7.16 ± 9.81	1.56 ± 2.33	4.79 ± 8.84	1.14 ± 3.54
	Tinodes rostocki	3.60 ± 6.07	5.32 ± 9.84	1.88 ± 3.63	1.67 ± 2.87
Coleoptera	Dytiscidae	1.78 ± 4.52	1.15 ± 2.99	2.10 ± 5.91	0.39 ± 1.15
	Elmis sp.	20.13 ± 18.90	12.99 ± 11.56	2.56 ± 2.49	1.49 ± 1.43
	Hydraena sp.	135.67 ± 112.02	58.66 ± 55.81	24.82 ± 23.41	9.14 ± 9.04
	Scirtidae	6.19 ± 9.38	5.56 ± 5.96	1.62 ± 2.75	2.13 ± 4.66
Diptera	Ceratopogonidae	50.35 ± 37.63	30.19 ± 30.36	9.29 ± 7.71	6.73 ± 7.21
	Chironomidae	1029.85 ± 1808.13	991.22 ± 1308.81	58.43 ± 120.72	30.82 ± 42.61
	Dixa sp.	0.46 ± 1.16	0.18 ± 0.48	0.02 ± 0.05	0.01 ± 0.03
	Empididae	0.51 ± 1.11	2.34 ± 3.70	0.02 ± 0.06	0.13 ± 0.31
	Limoniidae	19.62 ± 17.95	13.97 ± 10.53	29.52 ± 32.77	11.75 ± 8.43
	Prosimulium spp.	7.36 ± 29.40	7.84 ± 28.42	0.86 ± 3.38	0.81 ± 3.07
	Psychodidae	8.68 ± 13.92	4.70 ± 6.18	9.30 ± 44.66	0.73 ± 1.03
	Ptychopteridae	2.92 ± 4.96	1.02 ± 2.25	9.02 ± 17.21	2.86 ± 9.06
	Simulium spp.	75.82 ± 249.81	220.54 ± 625.91	4.98 ± 11.54	14.15 ± 26.02
	Stratiomyidae [G,T]	0.05 ± 0.27	0.00 ± 0.00	0.11 ± 0.60	0.00 ± 0.00
	Tipula sp.	0.66 ± 1.25	1.14 ± 1.54	21.38 ± 59.33	29.42 ± 51.22
Others	Copepoda	3.20 ± 11.25	0.95 ± 3.18	0.00 ± 0.01	0.00 ± 0.00
	Erpobdella octoculata [G,T]	0.05 ± 0.27	0.00 ± 0.00	0.23 ± 1.20	0.00 ± 0.00
	Nematomorpha	10.76 ± 12.81	7.77 ± 7.86	3.71 ± 5.09	6.97 ± 9.18
	Sialis fuliginosa	0.51 ± 1.41	0.65 ± 1.71	0.05 ± 0.15	2.92 ± 8.29
	Others	8.44 ± 19.49	1.94 ± 3.36	3.02 ± 8.54	0.40 ± 0.68

[G] Rare taxon (occurring in 0-3 samples only) in Gauernitzbach

[T] Rare taxon (occurring in 0-3 samples only) in Tännichtgrundbach

Table A2 Prey taxa and fuzzy-coded traits used in the FPCA and electivity calculation for gudgeon and stone loach in the streams Gauernitzbach and Tännichtgrundbach. Trait abbreviations see Table 3.1 in chapter 3.

Order	Taxon	abu			fty					loc				mha						size					vel		
		a1	a2	a3	fse	fsh	fg	ff	fp	lsw	lc	ld	lse	mst	msa	ma	mw	ml	mm	s1	s2	s3	s4	s5	v1	v2	v3
Turbellaria	*Dugesia gonocephala*	0.30	0.56	0.14	0	0	0	0	1.00	0.17	0.83	0	0	0.44	0	0.11	0.22	0	0.22	0	0.02	0.81	0.18	0	0.43	0.43	0.14
Oligochaeta	*Eiseniella tetraedra*	0.97	0.03	0	1.00	0	0	0	0	0	0	1.00	0	0.19	0.19	0.25	0.13	0.13	0.13	0	0	0	1.00	0	0.17	0.50	0.33
	Oligochaeta	0.25	0.50	0.25	0	0.60	0.40	0	0	0.33	0	0.50	0.17	0.27	0.20	0.33	0	0.07	0.13	0	0.98	0.02	0	0	0.33	0.33	0.33
Gastropoda	*Ancylus* sp.	0.94	0.06	0	0	0	1.00	0	0	0	0.67	0	0.33	0.42	0.33	0	0.17	0.08	0	0	0.20	0.44	0.36	0	0.20	0.20	0.60
	Gastropoda	0.94	0.06	0	0	0.25	0.75	0	0	0	1.00	0	0	0.23	0.08	0.23	0.31	0.15	0	0	1.00	0	0	0	0.25	0.25	0.50
Bivalvia	*Pisidium*	0.67	0.31	0.02	0	0	0	1.00	0	0	0.14	0.57	0.29	0.06	0.25	0.25	0.19	0.06	0.19	0	0.87	0.13	0	0	0.40	0.40	0.20
Amphipoda	*Gammarus* spp.	0	0.14	0.86	0	0.75	0	0	0.25	0.33	0.50	0.17	0	0.25	0.15	0.05	0.15	0.20	0.20	0	0	0.95	0.05	0	0.17	0.33	0.50
Malacostraca	Ostracoda	0.80	0.16	0.05	0.60	0	0	0.20	0.20	0.20	0.60	0.20	0	0	0.75	0.25	0	0	0	0	1.00	0	0	0	0.40	0.40	0.20
Ephemeroptera	*Baetis* spp.	0	0.19	0.81	0.25	0	0.75	0	0	0.38	0.50	0.13	0	0.27	0.13	0	0.33	0.20	0.07	0	0.65	0.35	0	0	0	0.40	0.60
	Ecdyonurus spp.	0.61	0.39	0	0	0.40	0.60	0	0	0.17	0.83	0	0	0.57	0.14	0.14	0	0.14	0	0	0.04	0.67	0.29	0	0.17	0.33	0.50
	Electrogena ujhelyii	0.31	0.47	0.22	0	0	1.00	0	0	0.17	0.83	0	0	0.57	0	0.14	0	0.14	0.14	0.02	0.53	0.45	0	0	0	1.00	0
	Ephemera danica	0.25	0.63	0.13	0.13	0.38	0	0.38	0.13	0	0.20	0.80	0	0	0.45	0.27	0.09	0.09	0.09	0.03	0.32	0.27	0.35	0.03	0.17	0.50	0.33
	Rhithrogena semicolorata	0.34	0.41	0.25	0.25	0	0.75	0	0	0.14	0.71	0.14	0	0.63	0.25	0	0	0	0.13	0	0.38	0.44	0.19	0	0	0	1.00
	Seratella ignita	0.88	0.09	0.03	0.17	0.33	0.33	0	0.17	0.17	0.83	0	0	0.21	0.14	0.07	0.36	0.14	0.07	0	0.30	0.61	0.09	0	0	0.50	0.50
Plecoptera	*Capnia bifrons*	0.73	0.13	0.14	0	1.00	0	0	0	0	0.83	0.17	0	0.60	0.20	0	0	0	0.20	0.07	0.39	0.54	0	0	0	0	1.00
	Isoperla grammatica	0.80	0.20	0	0	0.20	0.20	0	0.60	0	0.80	0.20	0	0.27	0.18	0	0.27	0.09	0.18	0	0.61	0.39	0	0	0	0.25	0.75
	Leuctra spp.	0.13	0.33	0.55	0.20	0.60	0.20	0	0	0	0.71	0.29	0	0.21	0.16	0.11	0.21	0.21	0.11	0	0.66	0.34	0	0	0.20	0.40	0.40
	Nemouridae	0.17	0.39	0.44	0	1.00	0	0	0	0	1.00	0	0	0.15	0.08	0.08	0.38	0.08	0.23	0.24	0.54	0.22	0	0	0.25	0.25	0.50
Trichoptera	*Hydropsyche* spp.	0.06	0.67	0.27	0	0	0	0.75	0.25	0	0.40	0	0.60	0.36	0.14	0	0.21	0.29	0	0	0.24	0.73	0.03	0	0	0.25	0.75
	Limnephilidae	0.69	0.28	0.03	0	1.00	0	0	0	0	1.00	0	0	0.43	0.29	0	0	0.14	0.14	0	0.13	0.37	0.41	0.09	0	0.40	0.60
	Odontocerum albicorne	0.58	0.38	0.05	0	0.50	0	0	0.50	0	0.60	0.40	0	0.14	0.29	0.29	0.14	0	0.14	0	0.07	0.52	0.29	0.13	0	0	1.00
	Philopotamus montanus	0.80	0.14	0.06	0	0	0.33	0.50	0.17	0	0.40	0	0.60	0.50	0.17	0.17	0.17	0	0	0	0.13	0.58	0.29	0	0	0	1.00
	Plectrocnemia conspersa	0.86	0.14	0	0	0	0	0.25	0.75	0.20	0.20	0	0.60	0.36	0.09	0.09	0.27	0.09	0.09	0.05	0.41	0.32	0.16	0.05	0.40	0.60	0
	Rhyacophila spp.	0.53	0.47	0	0	0	0	0	1.00	0.33	0.50	0	0.17	0.50	0.10	0	0.10	0.20	0.10	0	0.20	0.53	0.24	0.03	0	0.25	0.75
	Sericostoma spp.	0.50	0.50	0	0	0.75	0.25	0	0	0	0.80	0.20	0	0.17	0.11	0.11	0.11	0.22	0.28	0.02	0.11	0.46	0.37	0.05	0	0.60	0.40
	Silo pallipes	0.89	0.11	0	0	0.25	0.75	0	0	0	0.67	0	0.33	0.50	0.20	0	0.20	0	0.10	0.13	0.34	0.42	0.08	0.03	0	0.25	0.75
	Tinodes rostocki	0.86	0.14	0	0.14	0	0.43	0.29	0.14	0	0.40	0	0.60	0.40	0.20	0	0.20	0.20	0	0.04	0.15	0.74	0.07	0	0.20	0.60	0.20
Coleoptera	*Elmis* sp.	0.47	0.53	0	0	0.25	0.75	0	0	0	0.80	0.20	0	0.33	0.33	0	0.33	0	0	0	0.62	0.38	0	0	0	0.50	0.50
	Hydraena sp.	0.14	0.53	0.33	0	0.25	0.75	0	0	0.50	0.50	0	0	0.50	0.17	0	0.33	0	0	0	0	1.00	0	0	0.17	0.33	0.50
	Platambus maculatus	0.97	0.03	0	0	1.00	0	0	0	0.50	0.50	0	0	0	0.20	0.20	0.40	0	0.20	0	0.21	0.57	0.14	0.07	0.50	0.50	0
	Scirtidae	0.72	0.28	0	0	0.25	0.75	0	0	0	1.00	0	0	0	0	0.33	0.33	0	0.33	0	0.40	0.60	0	0	1.00	0	0
Diptera	Ceratopogonidae	0.16	0.78	0.06	0.20	0.20	0	0	0.60	0.43	0.14	0.43	0	0.12	0.24	0.24	0.18	0.18	0.06	0	0.20	0.80	0	0	0.60	0.20	0.20
	Chironomidae	0	0.09	0.91	0.22	0.07	0.42	0.16	0.13	0.16	0.44	0.24	0.16	0.29	0.16	0.08	0.30	0.03	0.13	0.13	0.86	0.02	0	0	0.36	0.38	0.27
	Empididae	0.98	0.02	0	0	0	0	0	1.00	0	0.67	0.33	0	0.25	0.14	0.14	0.25	0.14	0.07	0.10	0.81	0.10	0	0	0	0.33	0.67
	Limoniidae	0.95	0.05	0	0.30	0.70	0	0	0	0	0.40	0.60	0	0.29	0.14	0.07	0.21	0.07	0.21	0	0.11	0.66	0.24	0	0.25	0.25	0.50
	Pediciidae	0.55	0.45	0	0	0	0	0	1.00	0	0.50	0.50	0	0.17	0.25	0.17	0.08	0.08	0.25	0.02	0.09	0.63	0.26	0	0.25	0.50	0.25
	Psychodidae	0.78	0.22	0	0.33	0.50	0.17	0	0	0.33	0.67	0	0	0.19	0.10	0.14	0.24	0.14	0.19	0	0.51	0.49	0	0	0.33	0.50	0.17
	Ptychopteridae	0.94	0.06	0	0.60	0.40	0	0	0	0.14	0.29	0.57	0	0	0.09	0.36	0.09	0	0.45	0	0.18	0.45	0.27	0.09	0.50	0.50	0
	Simuliidae	0.31	0.50	0.19	0	0	0.38	0.62	0	0	0.29	0.14	0.57	0.32	0.08	0	0.36	0.16	0.08	0	0.63	0.37	0	0	0	0.29	0.71
	Tipula sp.	1.00	0	0	0.29	0.43	0	0	0.29	0	0.20	0.80	0	0.13	0.13	0.13	0.25	0.13	0.25	0	0	0.06	0.33	0.61	0.50	0.33	0.17
Others	Others	0.45	0.53	0.02	0.14	0.31	0.21	0.11	0.23	0.12	0.50	0.24	0.15	0.25	0.19	0.13	0.20	0.09	0.14	0	0.16	0.71	0.11	0.02	0.24	0.35	0.41

Table A3: Diet composition and prey selectivity of gudgeon and stone loach in the streams Gauernitzbach (Gau) and Tännichtgrundbach (Tän) 2005-2006 and 2009-2010, shown as abundance proportions of macroinvertebrate taxa in the diet and relativized electivity index *E** (Vanderploeg et al., 1979) all values: mean ± *SD.*

Class or Order	Taxon	Gudgeon				Stone loach			
		Proportion in diet (%)		Electivity index *E**		Proportion in diet (%)		Electivity index *E**	
		Gau	Tän	Gau	Tän	Gau	Tän	Gau	Tän
Turbellaria	*Dugesia gonocephala*	0 ± 0	0 ± 0	-1 ± 0	-1 ± 0	0 ± 0	0.02 ± 0.06	-1 ± 0	-0.98 ± 0.08
Oligochaeta	*Eiseniella tetraedra*	0.3 ± 0.6	0.2 ± 0.6	-0.67 ± 0.68	-0.77 ± 0.55	2.1 ± 3.4	1.1 ± 2.7	0.16 ± 0.75	-0.16 ± 0.88
	Oligochaeta	0 ± 0	0 ± 0	-1 ± 0	-1 ± 0	0 ± 0	0.23 ± 0.62	-1 ± 0	-0.80 ± 0.39
Gastropoda	*Ancylus fluviatilis*	0 ± 0	0 ± 0	-1 ± 0	-1 ± 0	0 ± 0	0 ± 0	-1 ± 0	-1 ± 0
	Gastropoda	0 ± 0	0 ± 0	-1 ± 0	-1 ± 0	0 ± 0	0.01 ± 0.05	-1 ± 0	-0.93 ± 0.25
Bivalvia	*Pisidium* spp.	0.7 ± 1.1	0.5 ± 1.6	-0.50 ± 0.63	-0.80 ± 0.55	0 ± 0	0 ± 0	-1 ± 0	-1 ± 0
Amphipoda	*Gammarus* spp.[a]	6.9 ± 5.5	20.5 ± 18.2	-0.35 ± 0.30	-0.65 ± 0.42	11.9 ± 12.3	15.7 ± 14.2	-0.33 ± 0.43	-0.74 ± 0.21
Malacostraca	Ostracoda	0.7 ± 1.4	0.7 ± 2.2	-0.73 ± 0.59	-0.69 ± 0.73	0.02 ± 0.06	0 ± 0	-0.97 ± 0.10	-1 ± 0
Ephemeroptera	*Baetis* spp.	4.9 ± 6.9	1.6 ± 2.8	-0.46 ± 0.50	-0.84 ± 0.19	15.0 ± 14.4	17.9 ± 14.7	-0.45 ± 0.54	-0.04 ± 0.53
	Ecdyonurus spp.	0 ± 0	0 ± 0	-1 ± 0	-1 ± 0	0 ± 0	0.76 ± 1.48	-1 ± 0	-0.55 ± 0.60
	Electrogena ujhelyii	0.5 ± 0.9	0.5 ± 1.6	-0.48 ± 0.72	-0.74 ± 0.61	2.2 ± 3.2	2.6 ± 2.9	-0.40 ± 0.66	-0.33 ± 0.61
	Ephemera danica	0.6 ± 1.8	0.7 ± 2.2	-0.96 ± 0.12	-0.91 ± 0.21	0.6 ± 0.9	0.1 ± 0.3	-0.84 ± 0.26	-0.81 ± 0.43
	Rhithrogena semicolorata	0.04 ± 0.11	0 ± 0	-0.97 ± 0.10	-1 ± 0	1.4 ± 1.9	0.1 ± 0.3	-0.73 ± 0.43	-0.87 ± 0.29
	Seratella ignita	0 ± 0	0 ± 0	-1 ± 0	-1 ± 0	0 ± 0	0 ± 0	-1 ± 0	-1 ± 0
Plecoptera	*Capnia bifrons*	0.2 ± 0.5	0 ± 0	-0.81 ± 0.56	-1 ± 0	3.5 ± 10.6	0.6 ± 0.9	-0.89 ± 0.33	-0.67 ± 0.64
	Isoperla grammatica	0 ± 0	0 ± 0	-1 ± 0	-1 ± 0	0 ± 0	0.14 ± 0.29	-1 ± 0	-0.69 ± 0.60
	Leuctra spp.	0.05 ± 0.14	1.66 ± 5.22	-0.92 ± 0.24	-0.92 ± 0.23	1.0 ± 1.8	2.6 ± 3.3	-0.76 ± 0.45	-0.71 ± 0.35
	Nemouridae	1.2 ± 3.4	0.12 ± 0.28	-0.73 ± 0.54	-0.99 ± 0.02	2.6 ± 4.6	6.0 ± 13.0	-0.65 ± 0.53	-0.66 ± 0.51

[a] *G. pulex* in Gauernitzbach, *G. fossarum* in Tännichtgrundbach

Vanderploeg, H.A., Scavia, D., 1979. Two electivity indices for feeding with special reference to zooplankton grazing. J Fish Res Board Can 36, 362-365.

Table A3 (continued): Diet composition and prey selectivity of gudgeon and stone loach.

Class or Order	Taxon	Gudgeon				Stone loach			
		Proportion in diet (%)		Electivity index *E**		Proportion in diet (%)		Electivity index *E**	
		Gau	Tän	Gau	Tän	Gau	Tän	Gau	Tän
Trichoptera	*Hydropsyche spp.*	0.2 ± 0.5	0.06 ± 0.16	-0.76 ± 0.62	-0.84 ± 0.48	2.1 ± 2.7	0.4 ± 0.7	-0.79 ± 0.29	-0.92 ± 0.13
	Limnephilidae	0.09 ± 0.17	1.0 ± 2.3	-0.84 ± 0.43	-0.50 ± 0.76	1.7 ± 1.7	1.1 ± 2.7	-0.14 ± 0.76	-0.41 ± 0.77
	Odontocerum albicorne	0.3 ± 0.9	0.5 ± 1.6	-0.81 ± 0.57	-0.97 ± 0.10	0 ± 0	0.08 ± 0.26	-1 ± 0	-0.99 ± 0.03
	Philopotamus montanus	0 ± 0	0.3 ± 0.8	-1 ± 0	-0.83 ± 0.44	0 ± 0	1.1 ± 3.1	-1 ± 0	-0.49 ± 0.66
	Plectrocnemia conspersa	0.3 ± 0.9	1.8 ± 3.7	-0.80 ± 0.60	-0.39 ± 0.85	0.8 ± 1.3	0.8 ± 1.1	-0.25 ± 0.90	-0.25 ± 0.87
	Rhyacophila spp.	0.3 ± 1.0	2.2 ± 5.5	-0.81 ± 0.57	-0.74 ± 0.60	0.5 ± 1.0	1.4 ± 2.8	-0.87 ± 0.27	-0.55 ± 0.53
	Sericostoma spp.	0 ± 0	0 ± 0	-1 ± 0	-1 ± 0	0.2 ± 0.6	0.03 ± 0.07	-0.97 ± 0.10	-0.96 ± 0.09
	Silo pallipes	0.04 ± 0.11	0 ± 0	-0.86 ± 0.42	-1 ± 0	0 ± 0	0 ± 0	-1 ± 0	-1 ± 0
	Tinodes rostocki	0.1 ± 0.3	0.06 ± 0.22	-0.82 ± 0.53	-0.84 ± 0.56	0 ± 0	0.6 ± 1.9	-1 ± 0	-0.83 ± 0.40
Coleoptera	*Elmis* sp.	0 ± 0	0 ± 0	-1 ± 0	-1 ± 0	0 ± 0	0.03 ± 0.07	-1 ± 0	-0.97 ± 0.07
	Hydraena sp.	1.4 ± 2.2	0.08 ± 0.22	-0.51 ± 0.76	-0.86 ± 0.42	0.03 ± 0.10	0 ± 0	-1.00 ± 0.01	-1 ± 0
	Platambus maculatus	1.1 ± 2.0	0 ± 0	-0.44 ± 0.86	-1 ± 0	1.0 ± 2.4	0 ± 0	-0.62 ± 0.76	-1 ± 0
	Scirtidae	0 ± 0	0 ± 0	-1 ± 0	-1 ± 0	2.7 ± 5.6	0.2 ± 0.6	-0.57 ± 0.84	-0.87 ± 0.47
Diptera	Ceratopogonidae	1.7 ± 1.5	1.8 ± 2.3	-0.24 ± 0.61	-0.57 ± 0.57	0.5 ± 0.9	0.7 ± 1.3	-0.77 ± 0.40	-0.59 ± 0.48
	Chironomidae	74.2 ± 18.6	61.0 ± 32.3	0.43 ± 0.37	-0.20 ± 0.70	46.5 ± 24.6	32.0 ± 25.2	0.04 ± 0.63	-0.20 ± 0.58
	Empididae	0 ± 0	0 ± 0	-1 ± 0	-1 ± 0	0 ± 0	0 ± 0	-1 ± 0	-1 ± 0
	Limoniidae	0.3 ± 0.9	0.8 ± 2.6	-0.46 ± 0.82	-0.60 ± 0.75	0.2 ± 0.6	0 ± 0	-0.89 ± 0.33	-1 ± 0
	Pediciidae	0 ± 0	0.16 ± 0.29	-1 ± 0	-0.93 ± 0.17	0.08 ± 0.25	0.02 ± 0.05	-0.96 ± 0.11	-0.98 ± 0.07
	Psychodidae	0.3 ± 0.9	0.3 ± 0.8	-0.83 ± 0.50	-0.52 ± 0.87	0 ± 0	0.08 ± 0.26	-1 ± 0	-0.91 ± 0.33
	Ptychopteridae	1.9 ± 2.7	0.04 ± 0.15	-0.29 ± 0.88	-0.86 ± 0.50	0 ± 0	0.04 ± 0.13	-1 ± 0	-0.88 ± 0.43
	Simuliidae	0.2 ± 0.6	2.0 ± 3.9	-0.69 ± 0.63	-0.43 ± 0.70	1.9 ± 2.6	13.0 ± 16.9	-0.38 ± 0.68	0.24 ± 0.72
	Tipula sp.	0 ± 0	0 ± 0	-1 ± 0	-1 ± 0	0.3 ± 0.7	0 ± 0	-0.62 ± 0.75	-1 ± 0
Others	others	1.2 ± 2.7	0.4 ± 0.8	-0.63 ± 0.74	-0.77 ± 0.49	1.0 ± 2.1	0.2 ± 0.3	-0.77 ± 0.46	-0.57 ± 0.70
	terrestrial	0.2 ± 0.6	1.2 ± 2.6	-	-	0.4 ± 0.9	0.4 ± 0.9	-	-