

Table S1. Values of the four dispersal modes and the standardized species dispersal capacity metric (*sDCM*), based on the weight of aerial dispersal mode calculated with abundance data, i.e., 2, as well as the group information for 528 species of benthic invertebrates using a quartile approach. A positive integer, ranging from 0 (no affinity) to 3 (high affinity), is assigned to each taxon and describes the affinity to each dispersal mode. The *sDCM* ranges between 0 and 1 and is produced using the minimum-maximum rescaling approach. Gen. refers to general family group; Ad. refers to the adult; and Lv. refers to the larval. All information is available in the attached Adobe Acrobat file.

Code	Dispersal mode				Dispersal metric	Quartile group
	Aquatic active	Aquatic passive	Aerial active	Aerial passive		
Spe001	0	1	0	0	0.00	Q1
Spe002	0	1	0	0	0.00	Q1
Spe003	0	1	0	0	0.00	Q1
Spe004	2	0	0	0	0.08	Q1
Spe005	2	0	0	0	0.08	Q1
Spe006	1	1	0	0	0.08	Q1
Spe007	2	0	0	0	0.08	Q1
Spe008	0	0	1	0	0.08	Q1
Spe009	1	1	0	0	0.08	Q1
Spe010	1	1	0	0	0.08	Q1
Spe011	1	1	0	0	0.08	Q1
Spe012	1	1	0	0	0.08	Q1
Spe013	1	1	0	0	0.08	Q1
Spe014	0	2	0	0	0.08	Q1
Spe015	1	1	0	0	0.08	Q1
Spe016	0	2	0	0	0.08	Q1
Spe017	0	0	1	0	0.08	Q1
Spe018	2	0	0	0	0.08	Q1
Spe019	2	0	0	0	0.08	Q1
Spe020	2	0	0	0	0.08	Q1
Spe021	2	0	0	0	0.08	Q1
Spe022	2	0	0	0	0.08	Q1
Spe023	2	0	0	0	0.08	Q1
Spe024	0	3	0	0	0.17	Q1
Spe025	0	3	0	0	0.17	Q1
Spe026	0	3	0	0	0.17	Q1
Spe027	0	3	0	0	0.17	Q1
Spe028	1	0	1	0	0.17	Q1
Spe029	1	0	1	0	0.17	Q1
Spe030	1	0	1	0	0.17	Q1
Spe031	1	2	0	0	0.17	Q1
Spe032	1	2	0	0	0.17	Q1
Spe033	1	2	0	0	0.17	Q1
Spe034	1	2	0	0	0.17	Q1
Spe035	1	2	0	0	0.17	Q1
Spe036	1	2	0	0	0.17	Q1
Spe037	1	2	0	0	0.17	Q1
Spe038	1	2	0	0	0.17	Q1
Spe039	1	2	0	0	0.17	Q1
Spe040	1	2	0	0	0.17	Q1
Spe041	1	2	0	0	0.17	Q1
Spe042	1	2	0	0	0.17	Q1
Spe043	1	2	0	0	0.17	Q1
Spe044	1	2	0	0	0.17	Q1
Spe045	1	2	0	0	0.17	Q1
Spe046	1	2	0	0	0.17	Q1
Spe047	1	2	0	0	0.17	Q1
Spe048	1	2	0	0	0.17	Q1

Spe049	1	2	0	0	0.17	Q1
Spe050	1	2	0	0	0.17	Q1
Spe051	1	2	0	0	0.17	Q1
Spe052	1	2	0	0	0.17	Q1
Spe053	1	2	0	0	0.17	Q1
Spe054	1	2	0	0	0.17	Q1
Spe055	1	2	0	0	0.17	Q1
Spe056	1	2	0	0	0.17	Q1
Spe057	1	2	0	0	0.17	Q1
Spe058	1	2	0	0	0.17	Q1
Spe059	1	2	0	0	0.17	Q1
Spe060	1	2	0	0	0.17	Q1
Spe061	1	2	0	0	0.17	Q1
Spe062	1	2	0	0	0.17	Q1
Spe063	1	2	0	0	0.17	Q1
Spe064	1	2	0	0	0.17	Q1
Spe065	1	2	0	0	0.17	Q1
Spe066	1	2	0	0	0.17	Q1
Spe067	1	2	0	0	0.17	Q1
Spe068	1	0	1	0	0.17	Q1
Spe069	3	0	0	0	0.17	Q1
Spe070	3	0	0	0	0.17	Q1
Spe071	3	0	0	0	0.17	Q1
Spe072	3	0	0	0	0.17	Q1
Spe073	2	1	0	0	0.17	Q1
Spe074	2	1	0	0	0.17	Q1
Spe075	2	1	0	0	0.17	Q1
Spe076	2	1	0	0	0.17	Q1
Spe077	1	3	0	0	0.25	Q1
Spe078	1	3	0	0	0.25	Q1
Spe079	2	2	0	0	0.25	Q1
Spe080	1	3	0	0	0.25	Q1
Spe081	1	3	0	0	0.25	Q1
Spe082	1	3	0	0	0.25	Q1
Spe083	1	3	0	0	0.25	Q1
Spe084	1	1	1	0	0.25	Q1
Spe085	1	1	1	0	0.25	Q1
Spe086	1	1	1	0	0.25	Q1
Spe087	0	0	1	1	0.25	Q1
Spe088	1	3	0	0	0.25	Q1
Spe089	1	3	0	0	0.25	Q1
Spe090	2	2	0	0	0.25	Q1
Spe091	2	2	0	0	0.25	Q1
Spe092	1	1	0	1	0.25	Q1
Spe093	1	1	0	1	0.25	Q1
Spe094	1	1	0	1	0.25	Q1
Spe095	1	1	0	1	0.25	Q1
Spe096	1	1	0	1	0.25	Q1
Spe097	1	1	0	1	0.25	Q1
Spe098	1	1	0	1	0.25	Q1
Spe099	1	1	0	1	0.25	Q1
Spe100	1	3	0	0	0.25	Q1
Spe101	1	1	0	1	0.25	Q1
Spe102	2	0	1	0	0.25	Q1
Spe103	2	0	1	0	0.25	Q1
Spe104	2	0	1	0	0.25	Q1
Spe105	2	0	1	0	0.25	Q1

Spe106	2	2	0	0	0.25	Q1
Spe107	0	0	1	1	0.25	Q1
Spe108	2	3	0	0	0.33	Q1
Spe109	2	3	0	0	0.33	Q1
Spe110	2	3	0	0	0.33	Q1
Spe111	2	3	0	0	0.33	Q1
Spe112	2	3	0	0	0.33	Q1
Spe113	1	2	1	0	0.33	Q1
Spe114	1	2	1	0	0.33	Q1
Spe115	1	2	1	0	0.33	Q1
Spe116	1	2	1	0	0.33	Q1
Spe117	1	2	1	0	0.33	Q1
Spe118	1	2	1	0	0.33	Q1
Spe119	1	2	1	0	0.33	Q1
Spe120	1	0	1	1	0.33	Q1
Spe121	2	3	0	0	0.33	Q1
Spe122	1	2	0	1	0.33	Q1
Spe123	1	2	0	1	0.33	Q1
Spe124	2	1	1	0	0.33	Q1
Spe125	2	1	1	0	0.33	Q1
Spe126	2	1	1	0	0.33	Q1
Spe127	2	1	1	0	0.33	Q1
Spe128	2	1	1	0	0.33	Q1
Spe129	2	1	1	0	0.33	Q1
Spe130	2	1	1	0	0.33	Q1
Spe131	2	1	1	0	0.33	Q1
Spe132	2	1	1	0	0.33	Q1
Spe133	2	1	1	0	0.33	Q1
Spe134	2	1	1	0	0.33	Q1
Spe135	1	0	1	1	0.33	Q1
Spe136	1	0	1	1	0.33	Q1
Spe137	1	3	0	1	0.42	Q2
Spe138	1	3	0	1	0.42	Q2
Spe139	1	3	0	1	0.42	Q2
Spe140	1	3	0	1	0.42	Q2
Spe141	1	3	0	1	0.42	Q2
Spe142	1	3	0	1	0.42	Q2
Spe143	1	3	0	1	0.42	Q2
Spe144	1	3	0	1	0.42	Q2
Spe145	1	3	1	0	0.42	Q2
Spe146	1	1	1	1	0.42	Q2
Spe147	1	1	1	1	0.42	Q2
Spe148	1	1	1	1	0.42	Q2
Spe149	3	3	0	0	0.42	Q2
Spe150	2	2	1	0	0.42	Q2
Spe151	2	2	1	0	0.42	Q2
Spe152	2	2	1	0	0.42	Q2
Spe153	2	2	1	0	0.42	Q2
Spe154	2	2	1	0	0.42	Q2
Spe155	2	2	1	0	0.42	Q2
Spe156	2	2	1	0	0.42	Q2
Spe157	2	2	1	0	0.42	Q2
Spe158	2	2	1	0	0.42	Q2
Spe159	2	2	1	0	0.42	Q2
Spe160	1	1	1	1	0.42	Q2
Spe161	1	1	1	1	0.42	Q2
Spe162	1	1	1	1	0.42	Q2

Spe163	1	1	1	1	0.42	Q2
Spe164	1	1	1	1	0.42	Q2
Spe165	2	0	2	0	0.42	Q2
Spe166	2	0	2	0	0.42	Q2
Spe167	2	0	2	0	0.42	Q2
Spe168	2	0	2	0	0.42	Q2
Spe169	2	0	2	0	0.42	Q2
Spe170	2	0	2	0	0.42	Q2
Spe171	1	1	1	1	0.42	Q2
Spe172	1	1	1	1	0.42	Q2
Spe173	1	1	1	1	0.42	Q2
Spe174	1	1	1	1	0.42	Q2
Spe175	1	1	1	1	0.42	Q2
Spe176	1	1	1	1	0.42	Q2
Spe177	1	1	1	1	0.42	Q2
Spe178	1	2	2	0	0.50	Q2
Spe179	1	2	2	0	0.50	Q2
Spe180	1	2	2	0	0.50	Q2
Spe181	1	2	2	0	0.50	Q2
Spe182	1	2	2	0	0.50	Q2
Spe183	1	2	2	0	0.50	Q2
Spe184	1	2	2	0	0.50	Q2
Spe185	1	2	2	0	0.50	Q2
Spe186	1	2	2	0	0.50	Q2
Spe187	1	2	2	0	0.50	Q2
Spe188	1	2	2	0	0.50	Q2
Spe189	1	2	2	0	0.50	Q2
Spe190	1	2	2	0	0.50	Q2
Spe191	1	2	2	0	0.50	Q2
Spe192	1	2	2	0	0.50	Q2
Spe193	1	2	2	0	0.50	Q2
Spe194	1	2	2	0	0.50	Q2
Spe195	1	2	2	0	0.50	Q2
Spe196	1	2	2	0	0.50	Q2
Spe197	1	2	2	0	0.50	Q2
Spe198	1	2	2	0	0.50	Q2
Spe199	1	2	2	0	0.50	Q2
Spe200	1	2	2	0	0.50	Q2
Spe201	1	2	2	0	0.50	Q2
Spe202	1	2	1	1	0.50	Q2
Spe203	1	2	1	1	0.50	Q2
Spe204	1	0	1	2	0.50	Q2
Spe205	1	0	1	2	0.50	Q2
Spe206	1	0	1	2	0.50	Q2
Spe207	1	0	1	2	0.50	Q2
Spe208	1	0	1	2	0.50	Q2
Spe209	1	2	1	1	0.50	Q2
Spe210	1	2	1	1	0.50	Q2
Spe211	1	2	1	1	0.50	Q2
Spe212	1	2	1	1	0.50	Q2
Spe213	1	2	1	1	0.50	Q2
Spe214	1	2	1	1	0.50	Q2
Spe215	1	2	1	1	0.50	Q2
Spe216	1	2	1	1	0.50	Q2
Spe217	1	2	1	1	0.50	Q2
Spe218	1	2	1	1	0.50	Q2
Spe219	1	2	1	1	0.50	Q2

Spe220	1	2	1	1	0.50	Q2
Spe221	1	2	2	0	0.50	Q2
Spe222	1	2	2	0	0.50	Q2
Spe223	1	2	2	0	0.50	Q2
Spe224	2	3	1	0	0.50	Q2
Spe225	2	3	1	0	0.50	Q2
Spe226	2	3	1	0	0.50	Q2
Spe227	1	0	2	1	0.50	Q2
Spe228	1	0	2	1	0.50	Q2
Spe229	1	0	2	1	0.50	Q2
Spe230	1	0	2	1	0.50	Q2
Spe231	1	0	2	1	0.50	Q2
Spe232	2	1	1	1	0.50	Q2
Spe233	2	1	1	1	0.50	Q2
Spe234	2	1	1	1	0.50	Q2
Spe235	2	1	1	1	0.50	Q2
Spe236	2	1	1	1	0.50	Q2
Spe237	2	1	1	1	0.50	Q2
Spe238	2	1	1	1	0.50	Q2
Spe239	2	1	1	1	0.50	Q2
Spe240	2	1	1	1	0.50	Q2
Spe241	2	1	1	1	0.50	Q2
Spe242	1	2	1	1	0.50	Q2
Spe243	1	2	1	1	0.50	Q2
Spe244	1	2	1	1	0.50	Q2
Spe245	1	2	1	1	0.50	Q2
Spe246	1	2	1	1	0.50	Q2
Spe247	1	2	1	1	0.50	Q2
Spe248	1	2	1	1	0.50	Q2
Spe249	1	2	1	1	0.50	Q2
Spe250	1	0	3	0	0.50	Q2
Spe251	1	0	3	0	0.50	Q2
Spe252	1	0	3	0	0.50	Q2
Spe253	1	0	3	0	0.50	Q2
Spe254	1	0	3	0	0.50	Q2
Spe255	1	0	3	0	0.50	Q2
Spe256	1	0	3	0	0.50	Q2
Spe257	1	0	3	0	0.50	Q2
Spe258	1	0	3	0	0.50	Q2
Spe259	1	0	3	0	0.50	Q2
Spe260	1	0	3	0	0.50	Q2
Spe261	1	0	3	0	0.50	Q2
Spe262	1	0	3	0	0.50	Q2
Spe263	1	0	3	0	0.50	Q2
Spe264	1	0	3	0	0.50	Q2
Spe265	1	0	3	0	0.50	Q2
Spe266	1	0	3	0	0.50	Q2
Spe267	1	0	3	0	0.50	Q2
Spe268	1	0	3	0	0.50	Q2
Spe269	1	0	3	0	0.50	Q2
Spe270	1	0	3	0	0.50	Q2
Spe271	1	0	3	0	0.50	Q2
Spe272	1	0	3	0	0.50	Q2
Spe273	1	0	3	0	0.50	Q2
Spe274	1	0	3	0	0.50	Q2
Spe275	1	0	3	0	0.50	Q2
Spe276	1	0	3	0	0.50	Q2

Spe277	1	0	3	0	0.50	Q2
Spe278	1	0	3	0	0.50	Q2
Spe279	1	0	3	0	0.50	Q2
Spe280	1	0	3	0	0.50	Q2
Spe281	1	3	0	2	0.58	Q3
Spe282	1	3	0	2	0.58	Q3
Spe283	1	3	0	2	0.58	Q3
Spe284	1	3	0	2	0.58	Q3
Spe285	1	3	0	2	0.58	Q3
Spe286	1	3	0	2	0.58	Q3
Spe287	1	3	0	2	0.58	Q3
Spe288	1	1	3	0	0.58	Q3
Spe289	1	1	3	0	0.58	Q3
Spe290	1	1	3	0	0.58	Q3
Spe291	1	1	3	0	0.58	Q3
Spe292	1	1	3	0	0.58	Q3
Spe293	1	1	3	0	0.58	Q3
Spe294	1	1	3	0	0.58	Q3
Spe295	1	1	3	0	0.58	Q3
Spe296	1	1	3	0	0.58	Q3
Spe297	1	1	3	0	0.58	Q3
Spe298	1	1	3	0	0.58	Q3
Spe299	2	0	3	0	0.58	Q3
Spe300	1	1	3	0	0.58	Q3
Spe301	1	1	3	0	0.58	Q3
Spe302	1	1	3	0	0.58	Q3
Spe303	1	1	3	0	0.58	Q3
Spe304	1	1	3	0	0.58	Q3
Spe305	1	1	3	0	0.58	Q3
Spe306	1	1	3	0	0.58	Q3
Spe307	1	1	3	0	0.58	Q3
Spe308	1	1	3	0	0.58	Q3
Spe309	1	1	3	0	0.58	Q3
Spe310	1	1	3	0	0.58	Q3
Spe311	1	1	3	0	0.58	Q3
Spe312	1	1	3	0	0.58	Q3
Spe313	1	1	3	0	0.58	Q3
Spe314	1	1	3	0	0.58	Q3
Spe315	1	1	3	0	0.58	Q3
Spe316	1	1	3	0	0.58	Q3
Spe317	1	3	2	0	0.58	Q3
Spe318	1	1	3	0	0.58	Q3
Spe319	3	1	2	0	0.58	Q3
Spe320	2	0	3	0	0.58	Q3
Spe321	1	1	3	0	0.58	Q3
Spe322	0	2	3	0	0.58	Q3
Spe323	0	2	3	0	0.58	Q3
Spe324	0	2	3	0	0.58	Q3
Spe325	0	2	3	0	0.58	Q3
Spe326	0	2	3	0	0.58	Q3
Spe327	0	2	3	0	0.58	Q3
Spe328	0	2	3	0	0.58	Q3
Spe329	1	1	3	0	0.58	Q3
Spe330	1	1	3	0	0.58	Q3
Spe331	2	2	2	0	0.58	Q3
Spe332	2	2	2	0	0.58	Q3
Spe333	2	2	2	0	0.58	Q3

Spe334	2	2	2	0	0.58	Q3
Spe335	1	1	2	1	0.58	Q3
Spe336	1	1	2	1	0.58	Q3
Spe337	1	1	2	1	0.58	Q3
Spe338	1	1	2	1	0.58	Q3
Spe339	1	1	2	1	0.58	Q3
Spe340	1	1	2	1	0.58	Q3
Spe341	1	1	2	1	0.58	Q3
Spe342	1	1	1	2	0.58	Q3
Spe343	1	1	1	2	0.58	Q3
Spe344	1	1	2	1	0.58	Q3
Spe345	1	1	2	1	0.58	Q3
Spe346	1	1	2	1	0.58	Q3
Spe347	1	1	2	1	0.58	Q3
Spe348	1	1	2	1	0.58	Q3
Spe349	1	1	2	1	0.58	Q3
Spe350	2	0	3	0	0.58	Q3
Spe351	1	1	3	0	0.58	Q3
Spe352	1	1	2	1	0.58	Q3
Spe353	1	1	2	1	0.58	Q3
Spe354	1	1	2	1	0.58	Q3
Spe355	1	1	2	1	0.58	Q3
Spe356	1	1	1	2	0.58	Q3
Spe357	1	2	3	0	0.67	Q3
Spe358	1	2	3	0	0.67	Q3
Spe359	1	2	3	0	0.67	Q3
Spe360	1	2	3	0	0.67	Q3
Spe361	1	2	3	0	0.67	Q3
Spe362	1	2	3	0	0.67	Q3
Spe363	1	2	3	0	0.67	Q3
Spe364	1	2	3	0	0.67	Q3
Spe365	1	2	3	0	0.67	Q3
Spe366	1	2	3	0	0.67	Q3
Spe367	1	2	3	0	0.67	Q3
Spe368	1	2	3	0	0.67	Q3
Spe369	1	2	3	0	0.67	Q3
Spe370	1	2	3	0	0.67	Q3
Spe371	1	2	3	0	0.67	Q3
Spe372	1	2	3	0	0.67	Q3
Spe373	1	2	3	0	0.67	Q3
Spe374	1	2	3	0	0.67	Q3
Spe375	1	2	3	0	0.67	Q3
Spe376	1	2	3	0	0.67	Q3
Spe377	1	2	3	0	0.67	Q3
Spe378	1	2	3	0	0.67	Q3
Spe379	1	2	3	0	0.67	Q3
Spe380	1	2	3	0	0.67	Q3
Spe381	1	2	3	0	0.67	Q3
Spe382	1	2	3	0	0.67	Q3
Spe383	1	2	3	0	0.67	Q3
Spe384	1	0	3	1	0.67	Q3
Spe385	2	1	2	1	0.67	Q3
Spe386	2	1	2	1	0.67	Q3
Spe387	2	1	2	1	0.67	Q3
Spe388	2	1	2	1	0.67	Q3
Spe389	2	1	2	1	0.67	Q3
Spe390	1	2	2	1	0.67	Q3

Spe391	1	2	3	0	0.67	Q3
Spe392	1	2	3	0	0.67	Q3
Spe393	1	2	3	0	0.67	Q3
Spe394	2	3	2	0	0.67	Q3
Spe395	1	2	2	1	0.67	Q3
Spe396	2	3	2	0	0.67	Q3
Spe397	2	3	2	0	0.67	Q3
Spe398	2	3	2	0	0.67	Q3
Spe399	2	3	2	0	0.67	Q3
Spe400	2	1	3	0	0.67	Q3
Spe401	1	2	2	1	0.67	Q3
Spe402	2	2	3	0	0.75	Q4
Spe403	2	2	3	0	0.75	Q4
Spe404	1	1	1	3	0.75	Q4
Spe405	1	1	3	1	0.75	Q4
Spe406	3	1	2	1	0.75	Q4
Spe407	2	2	2	1	0.75	Q4
Spe408	1	1	3	1	0.75	Q4
Spe409	1	1	3	1	0.75	Q4
Spe410	1	1	3	1	0.75	Q4
Spe411	1	3	2	1	0.75	Q4
Spe412	1	1	3	1	0.75	Q4
Spe413	1	1	3	1	0.75	Q4
Spe414	1	1	3	1	0.75	Q4
Spe415	1	1	3	1	0.75	Q4
Spe416	1	1	3	1	0.75	Q4
Spe417	1	3	2	1	0.75	Q4
Spe418	1	3	2	1	0.75	Q4
Spe419	2	3	2	1	0.83	Q4
Spe420	2	3	2	1	0.83	Q4
Spe421	2	3	2	1	0.83	Q4
Spe422	2	3	2	1	0.83	Q4
Spe423	2	3	2	1	0.83	Q4
Spe424	2	3	2	1	0.83	Q4
Spe425	2	3	2	1	0.83	Q4
Spe426	2	3	2	1	0.83	Q4
Spe427	2	3	2	1	0.83	Q4
Spe428	2	3	2	1	0.83	Q4
Spe429	2	3	2	1	0.83	Q4
Spe430	2	3	2	1	0.83	Q4
Spe431	2	3	2	1	0.83	Q4
Spe432	1	2	1	3	0.83	Q4
Spe433	1	2	1	3	0.83	Q4
Spe434	1	2	1	3	0.83	Q4
Spe435	1	2	1	3	0.83	Q4
Spe436	1	2	3	1	0.83	Q4
Spe437	1	2	3	1	0.83	Q4
Spe438	1	2	3	1	0.83	Q4
Spe439	1	2	3	1	0.83	Q4
Spe440	1	2	3	1	0.83	Q4
Spe441	1	2	3	1	0.83	Q4
Spe442	1	2	3	1	0.83	Q4
Spe443	1	2	3	1	0.83	Q4
Spe444	1	2	3	1	0.83	Q4
Spe445	2	1	3	1	0.83	Q4
Spe446	2	1	3	1	0.83	Q4
Spe447	1	2	3	1	0.83	Q4

Spe448	1	2	3	1	0.83	Q4
Spe449	1	2	3	1	0.83	Q4
Spe450	1	2	3	1	0.83	Q4
Spe451	1	2	3	1	0.83	Q4
Spe452	1	2	3	1	0.83	Q4
Spe453	1	2	3	1	0.83	Q4
Spe454	1	2	3	1	0.83	Q4
Spe455	1	2	3	1	0.83	Q4
Spe456	1	2	3	1	0.83	Q4
Spe457	1	2	3	1	0.83	Q4
Spe458	1	2	3	1	0.83	Q4
Spe459	2	3	3	0	0.83	Q4
Spe460	2	3	3	0	0.83	Q4
Spe461	2	2	1	3	0.92	Q4
Spe462	2	2	1	3	0.92	Q4
Spe463	2	2	1	3	0.92	Q4
Spe464	2	2	1	3	0.92	Q4
Spe465	2	2	1	3	0.92	Q4
Spe466	2	2	1	3	0.92	Q4
Spe467	2	2	1	3	0.92	Q4
Spe468	2	2	1	3	0.92	Q4
Spe469	2	2	1	3	0.92	Q4
Spe470	1	3	3	1	0.92	Q4
Spe471	1	3	3	1	0.92	Q4
Spe472	1	3	3	1	0.92	Q4
Spe473	1	3	3	1	0.92	Q4
Spe474	1	3	3	1	0.92	Q4
Spe475	1	3	3	1	0.92	Q4
Spe476	1	3	3	1	0.92	Q4
Spe477	1	3	3	1	0.92	Q4
Spe478	1	3	3	1	0.92	Q4
Spe479	1	3	3	1	0.92	Q4
Spe480	1	3	3	1	0.92	Q4
Spe481	1	3	3	1	0.92	Q4
Spe482	1	3	3	1	0.92	Q4
Spe483	3	1	3	1	0.92	Q4
Spe484	1	3	3	1	0.92	Q4
Spe485	1	3	3	1	0.92	Q4
Spe486	2	2	3	1	0.92	Q4
Spe487	2	3	3	1	1.00	Q4
Spe488	2	3	3	1	1.00	Q4
Spe489	2	3	3	1	1.00	Q4
Spe490	2	3	3	1	1.00	Q4
Spe491	2	3	3	1	1.00	Q4
Spe492	2	3	3	1	1.00	Q4
Spe493	2	3	3	1	1.00	Q4
Spe494	2	3	3	1	1.00	Q4
Spe495	2	3	3	1	1.00	Q4
Spe496	2	3	3	1	1.00	Q4
Spe497	2	3	3	1	1.00	Q4
Spe498	2	3	3	1	1.00	Q4
Spe499	2	3	3	1	1.00	Q4
Spe500	2	3	3	1	1.00	Q4
Spe501	2	3	3	1	1.00	Q4
Spe502	2	3	3	1	1.00	Q4
Spe503	2	3	3	1	1.00	Q4
Spe504	2	3	3	1	1.00	Q4

Spe505	2	3	3	1	1.00	Q4
Spe506	3	2	3	1	1.00	Q4
Spe507	3	2	3	1	1.00	Q4
Spe508	3	2	3	1	1.00	Q4
Spe509	3	2	3	1	1.00	Q4
Spe510	3	2	3	1	1.00	Q4
Spe511	2	3	3	1	1.00	Q4
Spe512	2	3	3	1	1.00	Q4
Spe513	2	3	3	1	1.00	Q4
Spe514	2	3	3	1	1.00	Q4
Spe515	2	3	3	1	1.00	Q4
Spe516	2	3	3	1	1.00	Q4
Spe517	2	3	3	1	1.00	Q4
Spe518	2	3	3	1	1.00	Q4
Spe519	2	3	3	1	1.00	Q4
Spe520	2	3	3	1	1.00	Q4
Spe521	2	3	3	1	1.00	Q4
Spe522	2	3	3	1	1.00	Q4
Spe523	2	3	3	1	1.00	Q4
Spe524	2	3	3	1	1.00	Q4
Spe525	2	3	3	1	1.00	Q4
Spe526	2	3	3	1	1.00	Q4
Spe527	2	3	3	1	1.00	Q4
Spe528	2	3	3	1	1.00	Q4

Table S1. Continued

Code	Taxa group	Family	Genus	Species
Spe001	Crustacea	Crangonyctidae	Crangonyx	pseudogracilis
Spe002	Oligochaeta	Lumbriculidae	Stylodrilus	heringianus
Spe003	Oligochaeta	Tubificidae	Branchiura	sowerbyi
Spe004	Crustacea	Astacidae	Astacus	torrentium
Spe005	Crustacea	Astacidae	Pacifastacus	leniusculus
Spe006	Crustacea	Atyidae	Atyaephyra	desmaresti
Spe007	Crustacea	Cambaridae	Orconectes	limosus
Spe008	Diptera	Ephydriidae	Gen.	sp.
Spe009	Hirudinea	Erpobdellidae	Dina	lineata
Spe010	Hirudinea	Erpobdellidae	Dina	punctata
Spe011	Hirudinea	Erpobdellidae	Dina	sp.
Spe012	Hirudinea	Glossiphoniidae	Glossiphonia	sp.
Spe013	Hirudinea	Glossiphoniidae	Helobdella	stagnalis
Spe014	Oligochaeta	Enchytraeidae	Gen.	sp.
Spe015	Oligochaeta	Haplotaxidae	Haplotaxis	gordioides
Spe016	Oligochaeta	Lumbricidae	Eiseniella	tetraedra
Spe017	Planipennia	Osmylidae	Osmylus	fulvicephalus
Spe018	Turbellaria	Dugesidae	Dugesia	gonocephala
Spe019	Turbellaria	Dugesidae	Dugesia	lugubris/polychroa
Spe020	Turbellaria	Dugesidae	Dugesia	sp.
Spe021	Turbellaria	Dugesidae	Dugesia	tigrina
Spe022	Turbellaria	Planariidae	Planaria	torva
Spe023	Turbellaria	Turbellaria	Gen.	sp.
Spe024	Crustacea	Asellidae	Asellus	aquaticus
Spe025	Crustacea	Asellidae	Proasellus	coxalis
Spe026	Crustacea	Asellidae	Proasellus	meridianus
Spe027	Crustacea	Asellidae	Proasellus	sp.
Spe028	Diptera	Athericidae	Atherix	ibis
Spe029	Diptera	Tipulidae	Dolichopeza	albipes
Spe030	Diptera	Tipulidae	Tipula	sp.
Spe031	Gastropoda	Acroloxidae	Acroloxus	lacustris
Spe032	Gastropoda	Bithyniidae	Bithynia	leachii leachii
Spe033	Gastropoda	Bithyniidae	Bithynia	sp.
Spe034	Gastropoda	Bithyniidae	Bithynia	tentaculata
Spe035	Gastropoda	Lymnaeidae	Galba	truncatula
Spe036	Gastropoda	Lymnaeidae	Radix	auricularia
Spe037	Gastropoda	Lymnaeidae	Radix	balthica
Spe038	Gastropoda	Lymnaeidae	Radix	balthica/labiata
Spe039	Gastropoda	Lymnaeidae	Radix	sp.
Spe040	Gastropoda	Lymnaeidae	Stagnicola	sp.
Spe041	Gastropoda	Neritidae	Theodoxus	fluviatilis ssp.
Spe042	Gastropoda	Physidae	Aplexa	hypnorum
Spe043	Gastropoda	Physidae	Physa	fontinalis
Spe044	Gastropoda	Physidae	Physella	sp.
Spe045	Gastropoda	Planorbidae	Anisus	septemgyratus
Spe046	Gastropoda	Planorbidae	Anisus	sp.
Spe047	Gastropoda	Planorbidae	Anisus	spirorbis
Spe048	Gastropoda	Planorbidae	Anisus	vortex
Spe049	Gastropoda	Planorbidae	Bathyomphalus	contortus
Spe050	Gastropoda	Planorbidae	Gyraulus	albus
Spe051	Gastropoda	Planorbidae	Gyraulus	crista
Spe052	Gastropoda	Planorbidae	Hippeutis	complanatus
Spe053	Gastropoda	Planorbidae	Planorbarius	corneus
Spe054	Gastropoda	Planorbidae	Planorbis	carinatus

Spe055	Gastropoda	Planorbidae	Planorbis	planorbis
Spe056	Gastropoda	Planorbidae	Planorbis	sp.
Spe057	Gastropoda	Planorbidae	Segmentina	nitida
Spe058	Gastropoda	Valvatidae	Valvata	cristata
Spe059	Gastropoda	Valvatidae	Valvata	sp.
Spe060	Gastropoda	Viviparidae	Viviparus	contectus
Spe061	Gastropoda	Viviparidae	Viviparus	sp.
Spe062	Gastropoda	Viviparidae	Viviparus	viviparus
Spe063	Hirudinea	Glossiphoniidae	Glossiphonia	complanata
Spe064	Hirudinea	Glossiphoniidae	Glossiphonia	concolor
Spe065	Hirudinea	Glossiphoniidae	Glossiphonia	paludosa
Spe066	Hirudinea	Glossiphoniidae	Theromyzon	sp.
Spe067	Hirudinea	Glossiphoniidae	Theromyzon	tessulatum
Spe068	Trichoptera	Limnephilidae	Ironoquia	dubia
Spe069	Turbellaria	Dendrocoelidae	Bdellocephala	punctata
Spe070	Turbellaria	Dendrocoelidae	Dendrocoelum	lacteum
Spe071	Turbellaria	Dendrocoelidae	Dendrocoelum	romanodanubiale
Spe072	Turbellaria	Dendrocoelidae	Dendrocoelum	sp.
Spe073	Turbellaria	Planariidae	Crenobia	alpina
Spe074	Turbellaria	Planariidae	Polycelis	felina
Spe075	Turbellaria	Planariidae	Polycelis	nigra/tenuis
Spe076	Turbellaria	Planariidae	Polycelis	sp.
Spe077	Bivalvia	Corbiculidae	Corbicula	sp.
Spe078	Bivalvia	Dreissenidae	Dreissena	polymorpha
Spe079	Crustacea	Corophiidae	Corophium	curvispinum
Spe080	Crustacea	Gammaridae	Echinogammarus	berilloni
Spe081	Crustacea	Gammaridae	Echinogammarus	ischnus
Spe082	Crustacea	Gammaridae	Echinogammarus	sp.
Spe083	Crustacea	Gammaridae	Echinogammarus	trichiatus
Spe084	Diptera	Athericidae	Atherix/Ibisia	sp.
Spe085	Diptera	Athericidae	Atrichops	crassipes
Spe086	Diptera	Athericidae	Ibisia	marginata
Spe087	Diptera	Dolichopodidae	Gen.	sp.
Spe088	Gastropoda	Hydrobiidae	Bythinella	sp.
Spe089	Gastropoda	Hydrobiidae	Lithoglyphus	naticoides
Spe090	Gastropoda	Lymnaeidae	Lymnaea	stagnalis
Spe091	Gastropoda	Planorbidae	Gyraulus	sp.
Spe092	Hirudinea	Erpobdellidae	Erpobdella	nigricollis
Spe093	Hirudinea	Erpobdellidae	Erpobdella	octoculata
Spe094	Hirudinea	Erpobdellidae	Erpobdella	sp.
Spe095	Hirudinea	Erpobdellidae	Erpobdella	testacea
Spe096	Hirudinea	Erpobdellidae	Erpobdella	vilnensis
Spe097	Hirudinea	Erpobdellidae	Trocheta	bykowskii
Spe098	Hirudinea	Erpobdellidae	Trocheta	pseudodina
Spe099	Hirudinea	Erpobdellidae	Trocheta	sp.
Spe100	Hirudinea	Glossiphoniidae	Hemiclepsis	marginata
Spe101	Hirudinea	Haemopidae	Haemopis	sanguisuga
Spe102	Megaloptera	Sialidae	Sialis	fuliginosa
Spe103	Megaloptera	Sialidae	Sialis	lutaria
Spe104	Megaloptera	Sialidae	Sialis	nigripes
Spe105	Megaloptera	Sialidae	Sialis	sp.
Spe106	Oligochaeta	Naididae	Stylaria	lacustris
Spe107	Trichoptera	Molannidae	Molanna	angustata
Spe108	Crustacea	Gammaridae	Gammarus	fossarum
Spe109	Crustacea	Gammaridae	Gammarus	pulex
Spe110	Crustacea	Gammaridae	Gammarus	roeselii
Spe111	Crustacea	Gammaridae	Gammarus	sp.

Spe112	Crustacea	Gammaridae	Gammarus	tigrinus
Spe113	Diptera	Blephariceridae	Liponeura	brevirostris/decipiens/vimmeri
Spe114	Diptera	Blephariceridae	Liponeura	cinerascens minor
Spe115	Diptera	Blephariceridae	Liponeura	sp.
Spe116	Diptera	Pediciidae	Dicranota	sp.
Spe117	Diptera	Pediciidae	Pedicia	sp.
Spe118	Diptera	Pediciidae	Tricyphona	sp.
Spe119	Diptera	Ptychopteridae	Ptychoptera	sp.
Spe120	Diptera	Sciomyzidae	Gen.	sp.
Spe121	Gastropoda	Hydrobiidae	Potamopyrgus	antipodarum
Spe122	Gastropoda	Planorbidae	Ancylus	fluviatilis
Spe123	Gastropoda	Planorbidae	Ferrissia	clessiniana
Spe124	Plecoptera	Capniidae	Capnia	sp.
Spe125	Plecoptera	Perlidae	Dinocras	sp.
Spe126	Plecoptera	Perlidae	Perla	abdominalis
Spe127	Plecoptera	Perlidae	Perla	bipunctata/grandis
Spe128	Plecoptera	Perlidae	Perla	marginata
Spe129	Plecoptera	Perlidae	Perla	sp.
Spe130	Plecoptera	Perlidae	Gen.	sp.
Spe131	Plecoptera	Perlodidae	Dictyogenus	sp.
Spe132	Plecoptera	Perlodidae	Diura	bicaudata
Spe133	Plecoptera	Perlodidae	Perlodes	sp.
Spe134	Plecoptera	Perlodidae	Gen.	sp.
Spe135	Trichoptera	Beraeidae	Beraea	pullata
Spe136	Trichoptera	Beraeidae	Beraeodes	minutus
Spe137	Bivalvia	Sphaeriidae	Pisidium	amicum
Spe138	Bivalvia	Sphaeriidae	Pisidium	henslowanum
Spe139	Bivalvia	Sphaeriidae	Pisidium	sp.
Spe140	Bivalvia	Sphaeriidae	Pisidium	supinum
Spe141	Bivalvia	Sphaeriidae	Sphaerium	corneum
Spe142	Bivalvia	Sphaeriidae	Sphaerium	rivicola
Spe143	Bivalvia	Sphaeriidae	Sphaerium	sp.
Spe144	Diptera	Dixidae	Dixa	sp.
Spe145	Diptera	Psychodidae	Gen.	sp.
Spe146	Ephemeroptera	Leptophlebiidae	Habrophlebia	fusca
Spe147	Ephemeroptera	Leptophlebiidae	Habrophlebia	lauta
Spe148	Ephemeroptera	Leptophlebiidae	Habrophlebia	sp.
Spe149	Heteroptera	Aphelocheiridae	Aphelocheirus	aestivalis
Spe150	Plecoptera	Chloroperlidae	Siphonoperla	sp.
Spe151	Plecoptera	Leuctridae	Leuctra	braueri
Spe152	Plecoptera	Leuctridae	Leuctra	geniculata
Spe153	Plecoptera	Leuctridae	Leuctra	nigra
Spe154	Plecoptera	Leuctridae	Leuctra	sp.
Spe155	Plecoptera	Nemouridae	Amphinemura	sp.
Spe156	Plecoptera	Nemouridae	Protonemura	sp.
Spe157	Plecoptera	Taeniopterygidae	Brachyptera	risi
Spe158	Plecoptera	Taeniopterygidae	Brachyptera	seticornis
Spe159	Plecoptera	Taeniopterygidae	Brachyptera	sp.
Spe160	Trichoptera	Ecnomidae	Ecnomus	tenellus
Spe161	Trichoptera	Hydroptilidae	Agraylea	multipunctata
Spe162	Trichoptera	Hydroptilidae	Allotrichia	pallicornis
Spe163	Trichoptera	Lepidostomatidae	Crunoecia	irrorata irrorata
Spe164	Trichoptera	Lepidostomatidae	Lepidostoma	basale
Spe165	Trichoptera	Limnephilidae	Anomalopterygella	chauviniana
Spe166	Trichoptera	Limnephilidae	Ecclisopteryx	dalecarlica
Spe167	Trichoptera	Limnephilidae	Ecclisopteryx	guttulata
Spe168	Trichoptera	Limnephilidae	Ecclisopteryx	madida

Spe169	Trichoptera	Limnephilidae	Ecclisopteryx	sp.
Spe170	Trichoptera	Limnephilidae	Hydatophylax	infumatus
Spe171	Trichoptera	Philopotamidae	Chimarra	marginata
Spe172	Trichoptera	Philopotamidae	Philopotamus	ludificatus
Spe173	Trichoptera	Philopotamidae	Philopotamus	montanus montanus
Spe174	Trichoptera	Philopotamidae	Philopotamus	sp.
Spe175	Trichoptera	Philopotamidae	Philopotamus	variegatus variegatus
Spe176	Trichoptera	Psychomyiidae	Lype	sp.
Spe177	Trichoptera	Psychomyiidae	Psychomyia	pusilla
Spe178	Coleoptera	Elmidae	Elmis	aenea/mauguetii/rietscheli/riolooides Ad.
Spe179	Coleoptera	Elmidae	Elmis	latreillei Ad.
Spe180	Coleoptera	Elmidae	Elmis	obscura Ad.
Spe181	Coleoptera	Elmidae	Elmis	sp. Ad.
Spe182	Coleoptera	Elmidae	Elmis	sp. Lv.
Spe183	Coleoptera	Elmidae	Esolus	angustatus Ad.
Spe184	Coleoptera	Elmidae	Esolus	parallelepipedus Ad.
Spe185	Coleoptera	Elmidae	Esolus	sp. Ad.
Spe186	Coleoptera	Elmidae	Esolus	sp. Lv.
Spe187	Coleoptera	Elmidae	Limnius	muelleri/opacus Ad.
Spe188	Coleoptera	Elmidae	Limnius	perrisi Ad.
Spe189	Coleoptera	Elmidae	Limnius	sp. Ad.
Spe190	Coleoptera	Elmidae	Limnius	sp. Lv.
Spe191	Coleoptera	Elmidae	Limnius	volckmari Ad.
Spe192	Coleoptera	Elmidae	Oulimnius	sp. Ad.
Spe193	Coleoptera	Elmidae	Oulimnius	sp. Lv.
Spe194	Coleoptera	Elmidae	Oulimnius	tuberculatus Ad.
Spe195	Coleoptera	Elmidae	Riolus	cupreus Ad.
Spe196	Coleoptera	Elmidae	Riolus	sp. Ad.
Spe197	Coleoptera	Elmidae	Riolus	sp. Lv.
Spe198	Coleoptera	Elmidae	Riolus	subviolaceus Ad.
Spe199	Coleoptera	Elmidae	Stenelmis	canaliculata Ad.
Spe200	Coleoptera	Elmidae	Stenelmis	sp. Ad.
Spe201	Coleoptera	Elmidae	Stenelmis	sp. Lv.
Spe202	Diptera	Chironomidae	Prodiamesa	olivacea
Spe203	Diptera	Chironomidae	Tanypodinae	Gen. sp.
Spe204	Diptera	Limoniidae	Antocha	sp.
Spe205	Diptera	Limoniidae	Eloeophila	sp.
Spe206	Diptera	Limoniidae	Pilaria	sp.
Spe207	Diptera	Limoniidae	Rhypholophus	sp.
Spe208	Diptera	Limoniidae	Scleroprocta	sp.
Spe209	Ephemeroptera	Caenidae	Caenis	beskidensis/pseudorivulorum
Spe210	Ephemeroptera	Caenidae	Caenis	horaria
Spe211	Ephemeroptera	Caenidae	Caenis	lactea
Spe212	Ephemeroptera	Caenidae	Caenis	luctuosa
Spe213	Ephemeroptera	Caenidae	Caenis	luctuosa/macrura
Spe214	Ephemeroptera	Caenidae	Caenis	macrura
Spe215	Ephemeroptera	Caenidae	Caenis	pusilla
Spe216	Ephemeroptera	Caenidae	Caenis	rivulorum
Spe217	Ephemeroptera	Caenidae	Caenis	robusta
Spe218	Ephemeroptera	Caenidae	Caenis	sp.
Spe219	Ephemeroptera	Leptophlebiidae	Habroleptoides	confusa
Spe220	Ephemeroptera	Leptophlebiidae	Habroleptoides	sp.
Spe221	Odonata	Calopterygidae	Calopteryx	sp.
Spe222	Odonata	Calopterygidae	Calopteryx	splendens
Spe223	Odonata	Calopterygidae	Calopteryx	virgo
Spe224	Plecoptera	Chloroperlidae	Chloroperla	sp.
Spe225	Plecoptera	Chloroperlidae	Gen.	sp.

Spe226	Plecoptera	Nemouridae	Nemurella	pictetii
Spe227	Trichoptera	Brachycentridae	Brachycentrus	montanus
Spe228	Trichoptera	Brachycentridae	Brachycentrus	sp.
Spe229	Trichoptera	Brachycentridae	Brachycentrus	subnubilus
Spe230	Trichoptera	Brachycentridae	Micrasema	longulum
Spe231	Trichoptera	Brachycentridae	Micrasema	minimum
Spe232	Trichoptera	Glossosomatidae	Agapetus	fuscipes
Spe233	Trichoptera	Glossosomatidae	Agapetus	ochripes
Spe234	Trichoptera	Glossosomatidae	Agapetus	sp.
Spe235	Trichoptera	Glossosomatidae	Glossosoma	boltoni
Spe236	Trichoptera	Glossosomatidae	Glossosoma	conformis
Spe237	Trichoptera	Glossosomatidae	Glossosoma	intermedium
Spe238	Trichoptera	Glossosomatidae	Glossosoma	sp.
Spe239	Trichoptera	Glossosomatidae	Synagapetus	iridipennis/moselyi
Spe240	Trichoptera	Glossosomatidae	Synagapetus	sp.
Spe241	Trichoptera	Philopotamidae	Wormaldia	sp.
Spe242	Trichoptera	Polycentropodidae	Cyrnus	sp.
Spe243	Trichoptera	Polycentropodidae	Cyrnus	trimaculatus
Spe244	Trichoptera	Psychomyiidae	Tinodes	sp.
Spe245	Trichoptera	Psychomyiidae	Tinodes	unicolor
Spe246	Trichoptera	Psychomyiidae	Tinodes	waeneri waeneri
Spe247	Trichoptera	Sericostomatidae	Notidobia	ciliaris
Spe248	Trichoptera	Sericostomatidae	Oecismus	monedula monedula
Spe249	Trichoptera	Sericostomatidae	Sericostoma	sp.
Spe250	Coleoptera	Dryopidae	Dryops	sp. Ad.
Spe251	Coleoptera	Dryopidae	Dryops	sp. Lv.
Spe252	Coleoptera	Dryopidae	Pomatinus	substriatus Ad.
Spe253	Coleoptera	Dytiscidae	Dytiscus	sp. Ad.
Spe254	Coleoptera	Dytiscidae	Dytiscus	sp. Lv.
Spe255	Coleoptera	Dytiscidae	Hydaticus	sp. Ad.
Spe256	Coleoptera	Dytiscidae	Hydroporus	sp. Ad.
Spe257	Coleoptera	Dytiscidae	Hygrotus	sp. Ad.
Spe258	Coleoptera	Dytiscidae	Hyphydrus	ovatus Ad.
Spe259	Coleoptera	Dytiscidae	Ilybius	sp. Ad.
Spe260	Coleoptera	Dytiscidae	Rhantus	sp. Ad.
Spe261	Coleoptera	Dytiscidae	Scarodytes	halensis Lv.
Spe262	Coleoptera	Haliplidae	Peltodytes	caesus Ad.
Spe263	Coleoptera	Hydrophilidae	Anacaena	bipustulata Ad.
Spe264	Coleoptera	Hydrophilidae	Anacaena	globulus Ad.
Spe265	Coleoptera	Hydrophilidae	Anacaena	limbata Ad.
Spe266	Coleoptera	Hydrophilidae	Anacaena	lutescens Ad.
Spe267	Coleoptera	Hydrophilidae	Anacaena	sp. Ad.
Spe268	Coleoptera	Hydrophilidae	Anacaena	sp. Lv.
Spe269	Coleoptera	Hydrophilidae	Cymbiodyta	marginella Lv.
Spe270	Coleoptera	Hydrophilidae	Enochrus	sp. Ad.
Spe271	Coleoptera	Hydrophilidae	Helochares	sp. Ad.
Spe272	Coleoptera	Hydrophilidae	Helochares	sp. Lv.
Spe273	Coleoptera	Hydrophilidae	Hydrobius	fuscipes Ad.
Spe274	Coleoptera	Hydrophilidae	Hydrobius	fuscipes Lv.
Spe275	Coleoptera	Noteridae	Noterus	crassicornis Ad.
Spe276	Coleoptera	Scirtidae	Scirtes	sp. Ad.
Spe277	Diptera	Tabanidae	Gen.	sp.
Spe278	Odonata	Corduliidae	Somatochlora	sp.
Spe279	Odonata	Lestidae	Chalcolestes	viridis
Spe280	Odonata	Libellulidae	Libellula	depressa
Spe281	Bivalvia	Unionidae	Anodonta	anatina
Spe282	Bivalvia	Unionidae	Anodonta	cygnea ssp.

Spe283	Bivalvia	Unionidae	Anodonta	sp.
Spe284	Bivalvia	Unionidae	Unio	pictorum pictorum
Spe285	Bivalvia	Unionidae	Unio	sp.
Spe286	Bivalvia	Unionidae	Unio	tumidus tumidus
Spe287	Bivalvia	Unionidae	Unionidae	Gen. sp.
Spe288	Coleoptera	Dytiscidae	Agabus	didymus Ad.
Spe289	Coleoptera	Dytiscidae	Agabus	guttatus Ad.
Spe290	Coleoptera	Dytiscidae	Agabus	sp. Ad.
Spe291	Coleoptera	Dytiscidae	Agabus	sp. Lv.
Spe292	Coleoptera	Dytiscidae	Laccophilus	hyalinus Ad.
Spe293	Coleoptera	Dytiscidae	Laccophilus	minutus Ad.
Spe294	Coleoptera	Dytiscidae	Laccophilus	sp. Ad.
Spe295	Coleoptera	Dytiscidae	Laccophilus	sp. Lv.
Spe296	Coleoptera	Dytiscidae	Stictotarsus	duodecimpustulatus Ad.
Spe297	Coleoptera	Dytiscidae	Stictotarsus	sp. Ad.
Spe298	Coleoptera	Dytiscidae	Stictotarsus	sp. Lv.
Spe299	Coleoptera	Gyrinidae	Gyrinus	sp. Ad.
Spe300	Coleoptera	Haliplidae	Haliplus	(Haliplus) sp. Ad.
Spe301	Coleoptera	Haliplidae	Haliplus	(Liaphlus) sp. Ad.
Spe302	Coleoptera	Haliplidae	Haliplus	laminatus Ad.
Spe303	Coleoptera	Haliplidae	Haliplus	lineatocollis Ad.
Spe304	Coleoptera	Haliplidae	Haliplus	sp. Ad.
Spe305	Coleoptera	Haliplidae	Haliplus	sp. Lv.
Spe306	Coleoptera	Helophoridae	Helophorus	arvernicus Ad.
Spe307	Coleoptera	Helophoridae	Helophorus	brevipalpis Ad.
Spe308	Coleoptera	Helophoridae	Helophorus	sp. Ad.
Spe309	Coleoptera	Hydrophilidae	Laccobius	(Dimorpholaccobius) sp. Ad.
Spe310	Coleoptera	Hydrophilidae	Laccobius	(Laccobius) sp. Ad.
Spe311	Coleoptera	Hydrophilidae	Laccobius	sp. Ad.
Spe312	Coleoptera	Scirtidae	Elodes	marginata Ad.
Spe313	Coleoptera	Scirtidae	Elodes	minuta-Gr. Ad.
Spe314	Coleoptera	Scirtidae	Elodes	minuta-Gr. Lv.
Spe315	Coleoptera	Scirtidae	Elodes	sp. Ad.
Spe316	Coleoptera	Scirtidae	Elodes	sp. Lv.
Spe317	Diptera	Ceratopogonidae	Ceratopogoninae/Palpomyiinae	Gen. sp.
Spe318	Diptera	Empididae	Clinocerinae	Gen. sp.
Spe319	Heteroptera	Nepidae	Nepa	cinerea
Spe320	Heteroptera	Notonectidae	Notonectidae	Gen. sp.
Spe321	Odonata	Aeshnidae	Aeshna	sp.
Spe322	Odonata	Cordulegastridae	Cordulegaster	bidentata
Spe323	Odonata	Cordulegastridae	Cordulegaster	boltonii
Spe324	Odonata	Cordulegastridae	Cordulegaster	sp.
Spe325	Odonata	Gomphidae	Gomphus	pulchellus
Spe326	Odonata	Gomphidae	Gomphus	sp.
Spe327	Odonata	Gomphidae	Gomphus	vulgatissimus
Spe328	Odonata	Gomphidae	Ophiogomphus	cecilia
Spe329	Odonata	Libellulidae	Orthetrum	sp.
Spe330	Odonata	Platycnemididae	Platycnemis	pennipes
Spe331	Planipennia	Sisyridae	Sisyra	sp.
Spe332	Plecoptera	Nemouridae	Nemoura	sp.
Spe333	Plecoptera	Nemouridae	Nemoura/Nemurella	sp.
Spe334	Plecoptera	Perlodidae	Isoperla	sp.
Spe335	Trichoptera	Goeridae	Goera	pilosa
Spe336	Trichoptera	Goeridae	Lithax	niger
Spe337	Trichoptera	Goeridae	Lithax	obscurus
Spe338	Trichoptera	Goeridae	Silo	nigricornis
Spe339	Trichoptera	Goeridae	Silo	nigricornis/piceus

Spe340	Trichoptera	Goeridae	Silo	pallipes
Spe341	Trichoptera	Goeridae	Silo	piceus
Spe342	Trichoptera	Hydroptilidae	Hydroptila	sp.
Spe343	Trichoptera	Hydroptilidae	Ithytrichia	lamellaris
Spe344	Trichoptera	Lepidostomatidae	Lepidostoma	hirtum
Spe345	Trichoptera	Leptoceridae	Adicella	reducta
Spe346	Trichoptera	Leptoceridae	Mystacides	azurea
Spe347	Trichoptera	Leptoceridae	Mystacides	longicornis/nigra
Spe348	Trichoptera	Leptoceridae	Mystacides	sp.
Spe349	Trichoptera	Leptoceridae	Setodes	punctatus
Spe350	Trichoptera	Limnephilidae	Allogamus	auricollis
Spe351	Trichoptera	Limnephilidae	Glyphotaelius	pellucidus
Spe352	Trichoptera	Polycentropodidae	Holocentropus	sp.
Spe353	Trichoptera	Polycentropodidae	Polycentropus	flavomaculatus flavomaculatus
Spe354	Trichoptera	Polycentropodidae	Polycentropus	irroratus
Spe355	Trichoptera	Polycentropodidae	Polycentropus	sp.
Spe356	Trichoptera	Ptilocolepidae	Ptilocolepus	granulatus granulatus
Spe357	Coleoptera	Dytiscidae	Deronectes	latus Ad.
Spe358	Coleoptera	Dytiscidae	Deronectes	platynotus Ad.
Spe359	Coleoptera	Dytiscidae	Deronectes	sp. Lv.
Spe360	Coleoptera	Dytiscidae	Nebrioporus	depressus/elegans Ad.
Spe361	Coleoptera	Dytiscidae	Nebrioporus	sp. Ad.
Spe362	Coleoptera	Dytiscidae	Oreodytes	sanmarkii Ad.
Spe363	Coleoptera	Dytiscidae	Oreodytes	sp. Ad.
Spe364	Coleoptera	Dytiscidae	Oreodytes	sp. Lv.
Spe365	Coleoptera	Dytiscidae	Platambus	maculatus Ad.
Spe366	Coleoptera	Dytiscidae	Platambus	maculatus Lv.
Spe367	Coleoptera	Halipidae	Brychius	elevatus Ad.
Spe368	Coleoptera	Halipidae	Brychius	elevatus Lv.
Spe369	Coleoptera	Hydraenidae	Hydraena	assimilis Ad.
Spe370	Coleoptera	Hydraenidae	Hydraena	dentipes Ad.
Spe371	Coleoptera	Hydraenidae	Hydraena	excisa Ad.
Spe372	Coleoptera	Hydraenidae	Hydraena	gracilis Ad.
Spe373	Coleoptera	Hydraenidae	Hydraena	melas Ad.
Spe374	Coleoptera	Hydraenidae	Hydraena	minutissima Ad.
Spe375	Coleoptera	Hydraenidae	Hydraena	nigrita Ad.
Spe376	Coleoptera	Hydraenidae	Hydraena	pygmaea Ad.
Spe377	Coleoptera	Hydraenidae	Hydraena	reyi Ad.
Spe378	Coleoptera	Hydraenidae	Hydraena	riparia Ad.
Spe379	Coleoptera	Hydraenidae	Hydraena	saga Ad.
Spe380	Coleoptera	Hydraenidae	Hydraena	sp. Ad.
Spe381	Coleoptera	Hydraenidae	Limnebius	truncatellus Ad.
Spe382	Coleoptera	Scirtidae	Hydrocyphon	deflexicollis Ad.
Spe383	Coleoptera	Scirtidae	Hydrocyphon	deflexicollis Lv.
Spe384	Diptera	Syrphidae	Syrphidae	Gen. sp.
Spe385	Ephemeroptera	Baetidae	Cloeon	dipterum
Spe386	Ephemeroptera	Baetidae	Cloeon	simile
Spe387	Ephemeroptera	Baetidae	Cloeon	sp.
Spe388	Ephemeroptera	Baetidae	Procloeon	bifidum
Spe389	Ephemeroptera	Baetidae	Procloeon	sp.
Spe390	Ephemeroptera	Ephemerellidae	Torleya	major
Spe391	Odonata	Coenagrionidae	Pyrrhosoma	nymphula
Spe392	Odonata	Gomphidae	Onychogomphus	forcipatus forcipatus
Spe393	Odonata	Gomphidae	Onychogomphus/Ophiogomphus	sp.
Spe394	Trichoptera	Apataniidae	Apatania	sp.
Spe395	Trichoptera	Leptoceridae	Ylodes	sp.
Spe396	Trichoptera	Limnephilidae	Drusus	annulatus/biguttatus

Spe397	Trichoptera	Limnephilidae	Drusus	discolor
Spe398	Trichoptera	Limnephilidae	Drusus	monticola
Spe399	Trichoptera	Limnephilidae	Drusus	sp.
Spe400	Trichoptera	Limnephilidae	Halesus	sp.
Spe401	Trichoptera	Polycentropodidae	Plectrocnemia	sp.
Spe402	Coleoptera	Gyrinidae	Orectochilus	villosus Ad.
Spe403	Coleoptera	Gyrinidae	Orectochilus	villosus Lv.
Spe404	Diptera	Chironomidae	Tanytarsini	Gen. sp.
Spe405	Diptera	Stratiomyiidae	Stratiomyiidae	Gen. sp.
Spe406	Ephemeroptera	Ameletidae	Metreletus	balcanicus
Spe407	Ephemeroptera	Baetidae	Centropilum	luteolum
Spe408	Ephemeroptera	Ephemeridae	Ephemera	danica
Spe409	Ephemeroptera	Ephemeridae	Ephemera	sp.
Spe410	Ephemeroptera	Ephemeridae	Ephemera	vulgata
Spe411	Ephemeroptera	Oligoneuriidae	Oligoneuriella	rhenana
Spe412	Trichoptera	Leptoceridae	Oecetis	lacustris
Spe413	Trichoptera	Leptoceridae	Oecetis	notata
Spe414	Trichoptera	Leptoceridae	Oecetis	ochracea
Spe415	Trichoptera	Leptoceridae	Oecetis	sp.
Spe416	Trichoptera	Leptoceridae	Oecetis	testacea
Spe417	Trichoptera	Odontoceridae	Odontocerum	albicorne
Spe418	Trichoptera	Polycentropodidae	Neureclipsis	bimaculata
Spe419	Trichoptera	Rhyacophilidae	Rhyacophila	(Hyperhyacophila) sp.
Spe420	Trichoptera	Rhyacophilidae	Rhyacophila	(Hyporhyacophila) sp.
Spe421	Trichoptera	Rhyacophilidae	Rhyacophila	(Rhyacophila) sp.
Spe422	Trichoptera	Rhyacophilidae	Rhyacophila	evoluta
Spe423	Trichoptera	Rhyacophilidae	Rhyacophila	fasciata fasciata
Spe424	Trichoptera	Rhyacophilidae	Rhyacophila	glareosa
Spe425	Trichoptera	Rhyacophilidae	Rhyacophila	nubila
Spe426	Trichoptera	Rhyacophilidae	Rhyacophila	obliterata
Spe427	Trichoptera	Rhyacophilidae	Rhyacophila	polonica/praemorsa
Spe428	Trichoptera	Rhyacophilidae	Rhyacophila	praemorsa
Spe429	Trichoptera	Rhyacophilidae	Rhyacophila	sp.
Spe430	Trichoptera	Rhyacophilidae	Rhyacophila	torrentium
Spe431	Trichoptera	Rhyacophilidae	Rhyacophila	tristis
Spe432	Diptera	Chironomidae	Chironomini	Gen. sp.
Spe433	Diptera	Simuliidae	Prosimulium	hirtipes
Spe434	Diptera	Simuliidae	Prosimulium	sp.
Spe435	Diptera	Simuliidae	Prosimulium	tomosvaryi
Spe436	Ephemeroptera	Heptageniidae	Epeorus	alpicola
Spe437	Ephemeroptera	Heptageniidae	Epeorus	assimilis
Spe438	Ephemeroptera	Leptophlebiidae	Leptophlebia	marginata
Spe439	Ephemeroptera	Leptophlebiidae	Leptophlebia	sp.
Spe440	Ephemeroptera	Leptophlebiidae	Leptophlebiidae	Gen. sp.
Spe441	Ephemeroptera	Leptophlebiidae	Paraleptophlebia	cincta
Spe442	Ephemeroptera	Leptophlebiidae	Paraleptophlebia	sp.
Spe443	Ephemeroptera	Leptophlebiidae	Paraleptophlebia	submarginata
Spe444	Ephemeroptera	Potamanthidae	Potamanthus	luteus
Spe445	Ephemeroptera	Siphonuridae	Siphonurus	lacustris
Spe446	Ephemeroptera	Siphonuridae	Siphonurus	sp.
Spe447	Trichoptera	Leptoceridae	Athripsodes	albifrons
Spe448	Trichoptera	Leptoceridae	Athripsodes	aterrimus
Spe449	Trichoptera	Leptoceridae	Athripsodes	bilineatus bilineatus
Spe450	Trichoptera	Leptoceridae	Athripsodes	cinereus
Spe451	Trichoptera	Leptoceridae	Athripsodes	sp.
Spe452	Trichoptera	Leptoceridae	Ceraclea	albimacula
Spe453	Trichoptera	Leptoceridae	Ceraclea	annulicornis

Spe454	Trichoptera	Leptoceridae	Ceraclea	dissimilis
Spe455	Trichoptera	Leptoceridae	Ceraclea	fulva
Spe456	Trichoptera	Leptoceridae	Ceraclea	nigronervosa
Spe457	Trichoptera	Leptoceridae	Ceraclea	senilis
Spe458	Trichoptera	Leptoceridae	Ceraclea	sp.
Spe459	Trichoptera	Limnephilidae	Anabolia	brevipennis
Spe460	Trichoptera	Limnephilidae	Anabolia	nervosa
Spe461	Diptera	Simuliidae	Simulium	argyreatum
Spe462	Diptera	Simuliidae	Simulium	equinum
Spe463	Diptera	Simuliidae	Simulium	erythrocephalum
Spe464	Diptera	Simuliidae	Simulium	lundstromi
Spe465	Diptera	Simuliidae	Simulium	morsitans
Spe466	Diptera	Simuliidae	Simulium	reptans
Spe467	Diptera	Simuliidae	Simulium	sp.
Spe468	Diptera	Simuliidae	Simulium	variegatum
Spe469	Diptera	Simuliidae	Simulium	vernum
Spe470	Ephemeroptera	Heptageniidae	Ecdyonurus	dispar
Spe471	Ephemeroptera	Heptageniidae	Ecdyonurus	helveticus-Gr.
Spe472	Ephemeroptera	Heptageniidae	Ecdyonurus	insignis
Spe473	Ephemeroptera	Heptageniidae	Ecdyonurus	sp.
Spe474	Ephemeroptera	Heptageniidae	Ecdyonurus	venosus-Gr.
Spe475	Ephemeroptera	Heptageniidae	Electrogena	affinis
Spe476	Ephemeroptera	Heptageniidae	Electrogena	lateralis
Spe477	Ephemeroptera	Heptageniidae	Electrogena	sp.
Spe478	Ephemeroptera	Heptageniidae	Electrogena	ujhelyii
Spe479	Ephemeroptera	Heptageniidae	Heptagenia	flava
Spe480	Ephemeroptera	Heptageniidae	Heptagenia	longicauda
Spe481	Ephemeroptera	Heptageniidae	Heptagenia	sp.
Spe482	Ephemeroptera	Heptageniidae	Heptagenia	sulphurea
Spe483	Ephemeroptera	Polymitarciidae	Ephoron	virgo
Spe484	Trichoptera	Hydropsychidae	Cheumatopsyche	lepida
Spe485	Trichoptera	Hydropsychidae	Diplectrona	felix
Spe486	Trichoptera	Phryganeidae	Phryganea	sp.
Spe487	Ephemeroptera	Baetidae	Baetis	alpinus
Spe488	Ephemeroptera	Baetidae	Baetis	alpinus/lutheri/melanonyx/vardarensis
Spe489	Ephemeroptera	Baetidae	Baetis	buceratus
Spe490	Ephemeroptera	Baetidae	Baetis	buceratus/liebenauae/pentapleobodes
Spe491	Ephemeroptera	Baetidae	Baetis	digitatus
Spe492	Ephemeroptera	Baetidae	Baetis	fuscatus
Spe493	Ephemeroptera	Baetidae	Baetis	fuscatus/scambus
Spe494	Ephemeroptera	Baetidae	Baetis	liebenauae
Spe495	Ephemeroptera	Baetidae	Baetis	lutheri
Spe496	Ephemeroptera	Baetidae	Baetis	melanonyx
Spe497	Ephemeroptera	Baetidae	Baetis	muticus
Spe498	Ephemeroptera	Baetidae	Baetis	nexus
Spe499	Ephemeroptera	Baetidae	Baetis	niger
Spe500	Ephemeroptera	Baetidae	Baetis	rhodani
Spe501	Ephemeroptera	Baetidae	Baetis	scambus
Spe502	Ephemeroptera	Baetidae	Baetis	sp.
Spe503	Ephemeroptera	Baetidae	Baetis	tracheatus
Spe504	Ephemeroptera	Baetidae	Baetis	vardarensis
Spe505	Ephemeroptera	Baetidae	Baetis	vernus
Spe506	Ephemeroptera	Ephemerellidae	Ephemerella	mucronata
Spe507	Ephemeroptera	Ephemerellidae	Ephemerella	notata
Spe508	Ephemeroptera	Ephemerellidae	Ephemerella	sp.
Spe509	Ephemeroptera	Ephemerellidae	Serratella	ignita
Spe510	Ephemeroptera	Ephemerellidae	Serratella	sp.

Spe511	Ephemeroptera	Heptageniidae	Rhithrogena	diaphana-Gr.
Spe512	Ephemeroptera	Heptageniidae	Rhithrogena	hybrida-Gr.
Spe513	Ephemeroptera	Heptageniidae	Rhithrogena	semicolorata-Gr.
Spe514	Ephemeroptera	Heptageniidae	Rhithrogena	sp.
Spe515	Trichoptera	Hydropsychidae	Hydropsyche	angustipennis angustipennis
Spe516	Trichoptera	Hydropsychidae	Hydropsyche	bulbifera
Spe517	Trichoptera	Hydropsychidae	Hydropsyche	bulgaromanorum
Spe518	Trichoptera	Hydropsychidae	Hydropsyche	contubernalis contubernalis
Spe519	Trichoptera	Hydropsychidae	Hydropsyche	dinarica
Spe520	Trichoptera	Hydropsychidae	Hydropsyche	exocellata
Spe521	Trichoptera	Hydropsychidae	Hydropsyche	fulvipes
Spe522	Trichoptera	Hydropsychidae	Hydropsyche	guttata
Spe523	Trichoptera	Hydropsychidae	Hydropsyche	instabilis
Spe524	Trichoptera	Hydropsychidae	Hydropsyche	pellucidula-Gr.
Spe525	Trichoptera	Hydropsychidae	Hydropsyche	saxonica
Spe526	Trichoptera	Hydropsychidae	Hydropsyche	siltalai
Spe527	Trichoptera	Hydropsychidae	Hydropsyche	sp.
Spe528	Trichoptera	Hydropsychidae	Hydropsyche	tenuis

Table S2. Statistical results (R^2) of the standardized community dispersal capacity metric of benthic invertebrates in the restored, unrestored, and surrounding sites based on the following weights of aerial dispersal modes: 1–10, 15, 20, 25, and 30. Instead of all weights of 10–30, only 15, 20, 25, and 30 are involved in the table because there are no significant changes when the different weights are incorporated. Rest. = Restored, Unre = Unrestored, Surr = Surrounding, Q1 = weak, Q2 = weak to medium, Q3 = strong to medium, and Q4 = strong dispersers. The results of the four dispersal groups in these three river treatment types are identical when the weight exceeds 4. **indicates $P < 0.01$ and *indicates $P < 0.05$.

Weight	Entire community (Fig. 5)			Restored (Fig. 6)				Unrestored				Surrounding			
	Rest.	Unre.	Surr.	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	0.164	0.018	0.060	0.001	0.136	0.009	0.229*	0.029	0.000	0.002	0.001	0.010	0.017	0.000	0.051
2	0.204*	0.008	0.047	0.185*	0.063	0.006	0.150	0.000	0.015	0.001	0.005	0.042	0.022	0.000	0.040
3	0.199*	0.005	0.042	0.155	0.025	0.000	0.150	0.000	0.031	0.030	0.005	0.045	0.034	0.003	0.040
4	0.195*	0.004	0.039	0.155	0.024	0.000	0.150	0.000	0.031	0.030	0.005	0.045	0.034	0.003	0.040
5	0.192*	0.004	0.038	0.155	0.024	0.000	0.150	0.000	0.031	0.030	0.005	0.045	0.034	0.003	0.040
6	0.190*	0.004	0.037	0.155	0.024	0.000	0.150	0.000	0.031	0.030	0.005	0.045	0.034	0.003	0.040
7	0.188*	0.003	0.036	0.155	0.024	0.000	0.150	0.000	0.031	0.030	0.005	0.045	0.034	0.003	0.040
8	0.187*	0.003	0.036	0.155	0.024	0.000	0.150	0.000	0.031	0.030	0.005	0.045	0.034	0.003	0.040
9	0.186*	0.003	0.035	0.155	0.024	0.000	0.150	0.000	0.031	0.030	0.005	0.045	0.034	0.003	0.040
10	0.185*	0.003	0.035	0.155	0.024	0.000	0.150	0.000	0.031	0.030	0.005	0.045	0.034	0.003	0.040
15	0.183*	0.003	0.034	0.155	0.024	0.000	0.150	0.000	0.031	0.030	0.005	0.045	0.034	0.003	0.040
20	0.183*	0.003	0.034	0.155	0.024	0.000	0.150	0.000	0.031	0.030	0.005	0.045	0.034	0.003	0.040
25	0.181*	0.003	0.033	0.155	0.024	0.000	0.150	0.000	0.031	0.030	0.005	0.045	0.034	0.003	0.040
30	0.182*	0.003	0.033	0.155	0.024	0.000	0.150	0.000	0.031	0.030	0.005	0.045	0.034	0.003	0.040

Table S3. Characteristics of 23 restored sites in the low mountain and lowland areas of Germany.

Site	Code	Parameter			
		Years after restoration	Stream order	Elevation (m)	Catchment area (km ²)
Birkigsbach	A	5	4	120	25
Dill	B	2	6	217	314
Fallbach	C	4	2	127	30
Fauerbach	D	2	3	205	14
Fulda_Mecklar	E	2	7	196	2375
Fulda_Niederaula	F	2	6	207	1290
Gersprenz	G	1	6	162	154
Horloff	H	4	4	121	173
Josbach	I	5	3	268	29
Kinzig	J	7	6	134	885
Lache	K	3	3	104	11
Lahn	L	7	6	188	650
Nidda Bad Vilbel	M	6	6	96	1200
Nidda Ilbenstadt	N	1	6	104	1168
Nidda Ranstadt	O	3	5	129	226
Nidder	P	5	5	112	153
Niers	Q	7	5	26	658
Rodau	R	5	4	111	71
Ruhr	S	3	7	159	1000
Salz	T	3	5	144	83
Schwalm	U	10	4	28	250
Sulzbach	V	8	4	96	33
Ulster	W	1	5	242	384

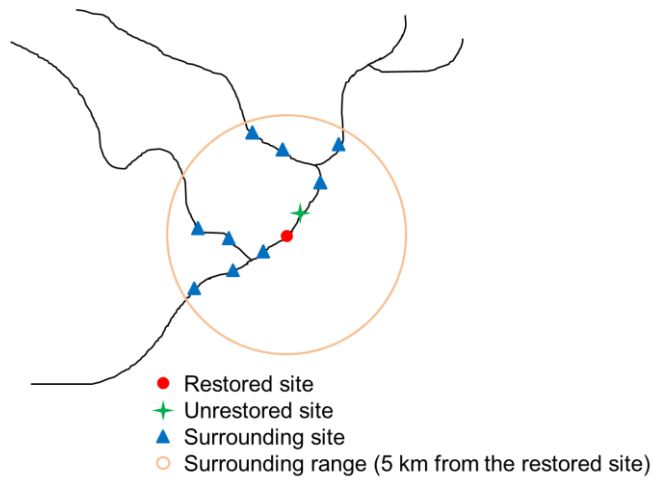


Fig. S1. Sketch map of the relative localities of the restored, unrestored, and surrounding sites.