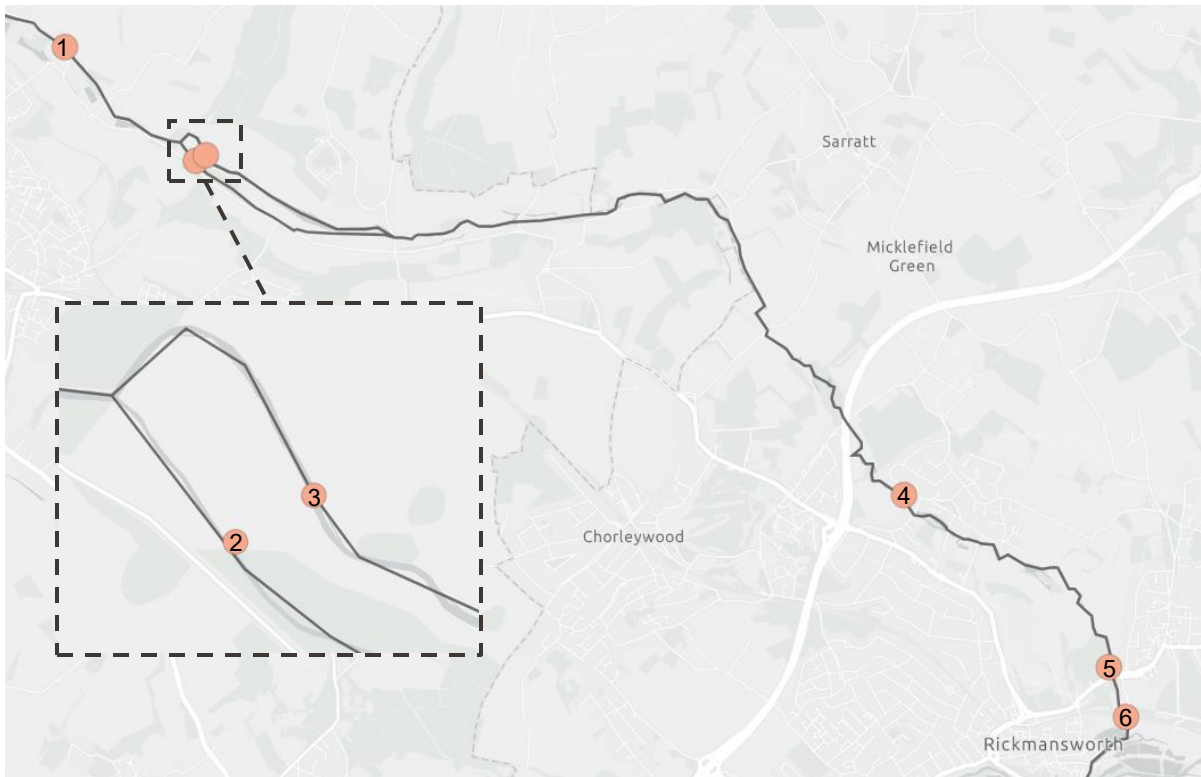


Chilterns AONB: River Chess

Spring Survey 2025



Ordnance Survey data © Crown copyright and database right 2023

Sites

1: Broadwater Bridge

2: Main River (Marshfield)

3: Little Chess

4: Trout Rise

5: Scotsbridge Mill

6: Caravan Lane

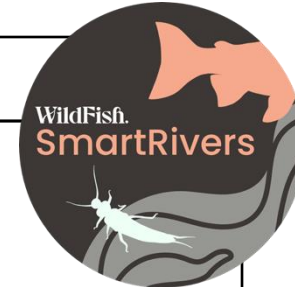
Summary

Water Quality Scores:

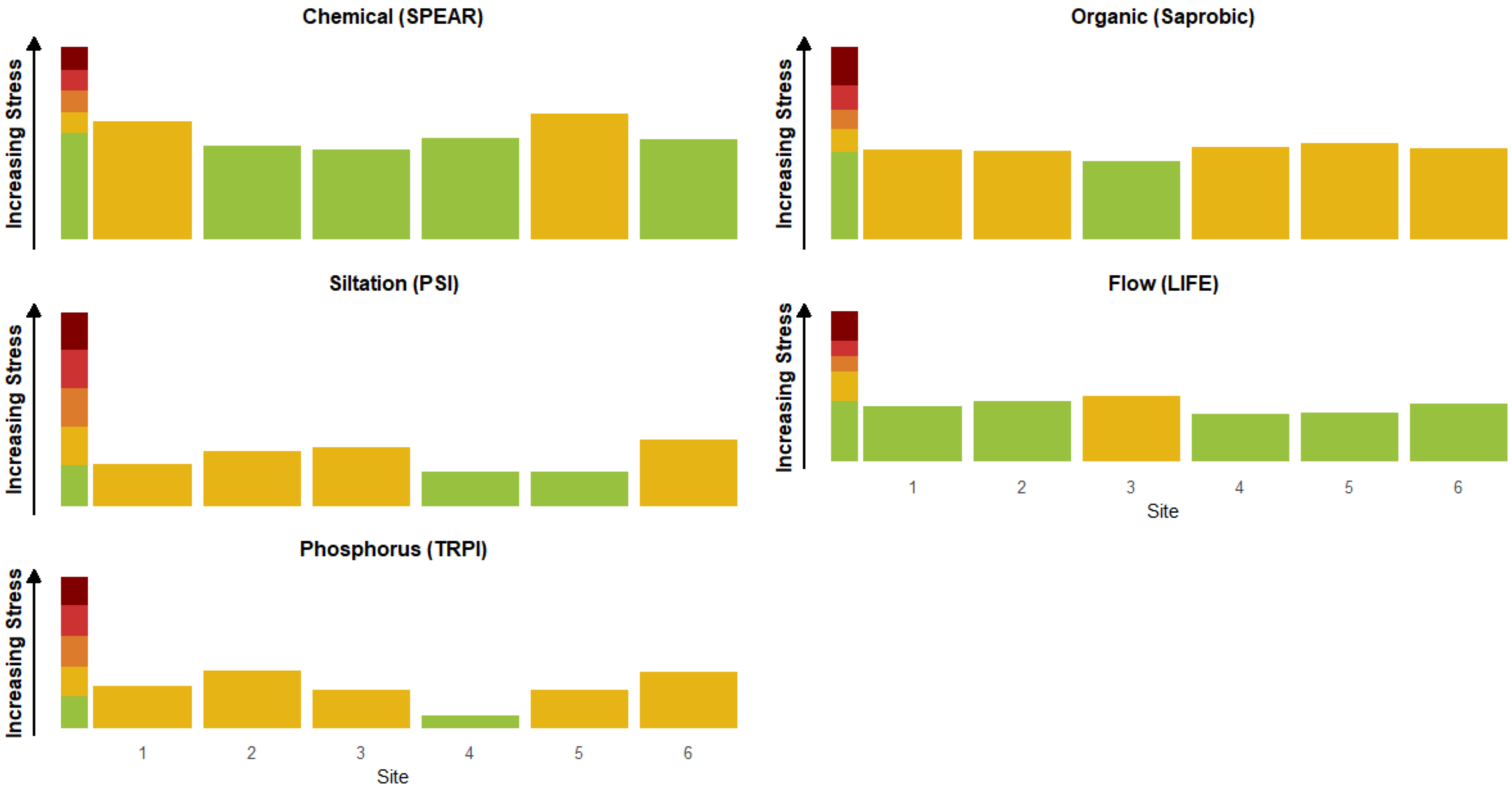
- Chemical Pressure: Unimpacted scores at sites 2, 3, 4, and 6. Low impact at sites 1 and 5.
- Organic Pressure: Unimpacted score at site 3. Low impact scores at other sites.
- Sediment Pressure: Unimpacted scores at site 4 and 5. Low impact scores at other sites.
- Flow Pressure: Low impact at site 3. Unimpacted scores at other sites.
- Phosphorus Pressure: Unimpacted score at site 4. Low impact at other sites.

Invertebrates:

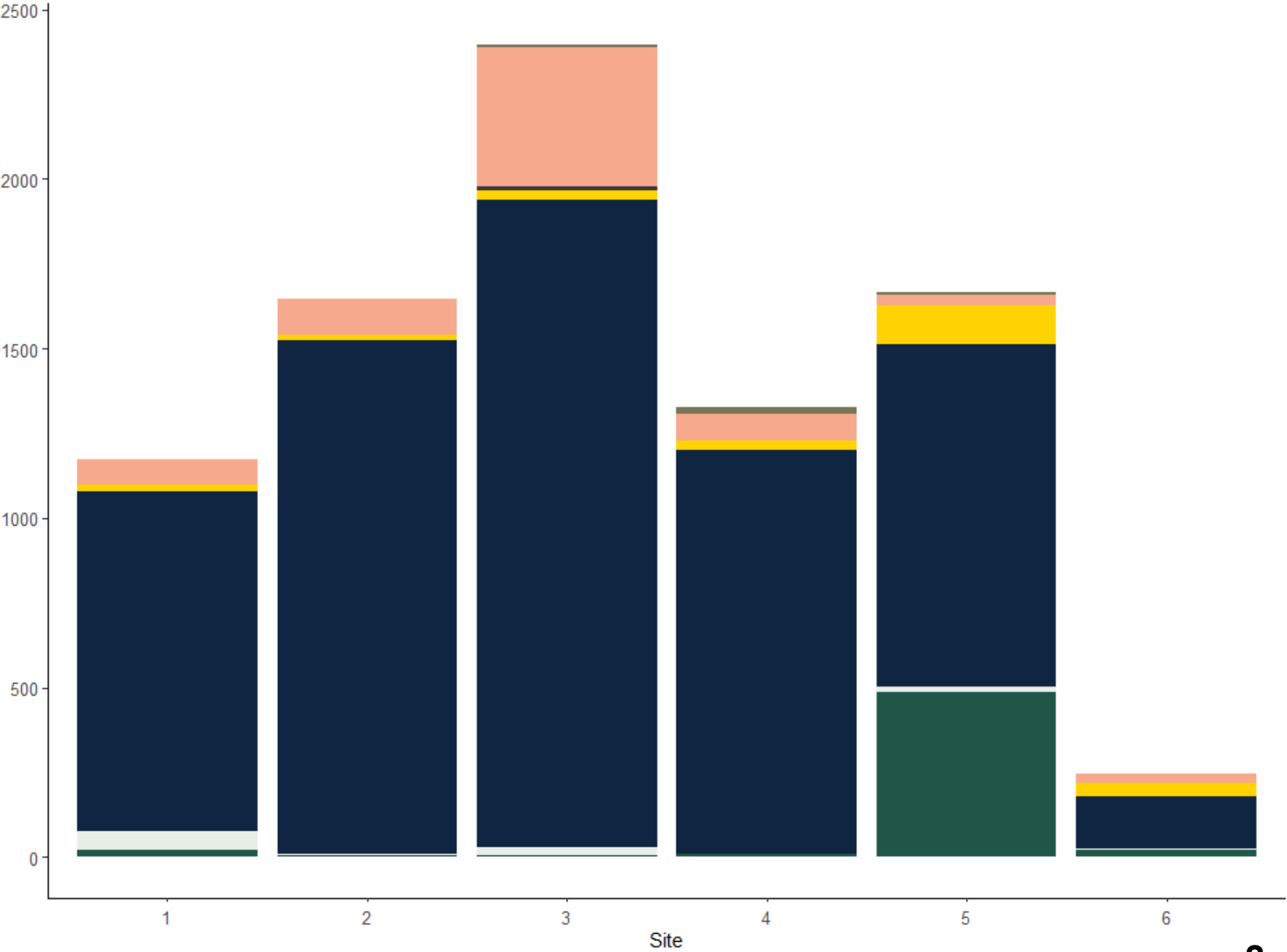
- Total species richness was highest at site 3 (33) and lowest at site 2 (20). Site 3 had the highest leech, caddisfly, and mollusc diversity. With the latter being notable compared to other sites.
- Total abundance was highest at site 3 (2397) and lowest at site 6 (245). Freshwater shrimp dominated numbers within samples at all sites (highest numbers at site 3). Site 5 had high relative numbers of true flies (*Simulium* sp.) compared to other sites. Lower total abundance at site 6 very distinct from other sites.
- Riverfly species richness was highest at site 3 (19) and lowest at sites 2 and 6 (12). High caddisfly diversity (14) at site 3 the key contributor, although two observations were at genus level. Site 5 had the highest mayfly diversity (6, 1 genus obs.).
- Riverfly abundance was highest at site 3 (439) and lowest at site 6 (66). Greater riverfly abundance at site 3 due to higher relative numbers of tiny grey sedge (*Agapetus fuscipes*), a gregarious cased species. Mayfly numbers higher at site 5 with large dark olives (*Baetis rhodani/atlanticus*) being the dominant species.



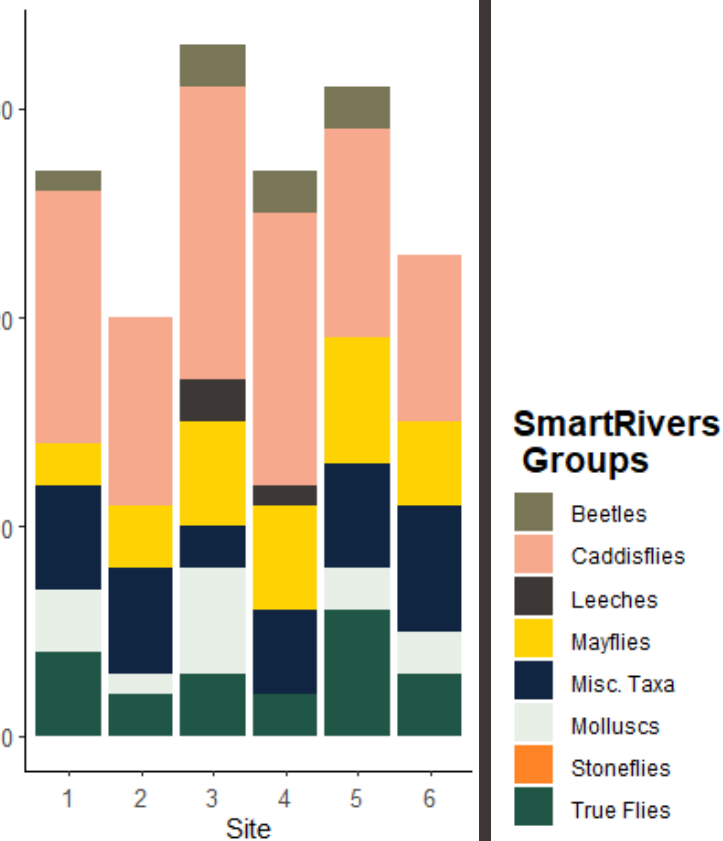
Water Quality Scores



Total Abundance



Total Species



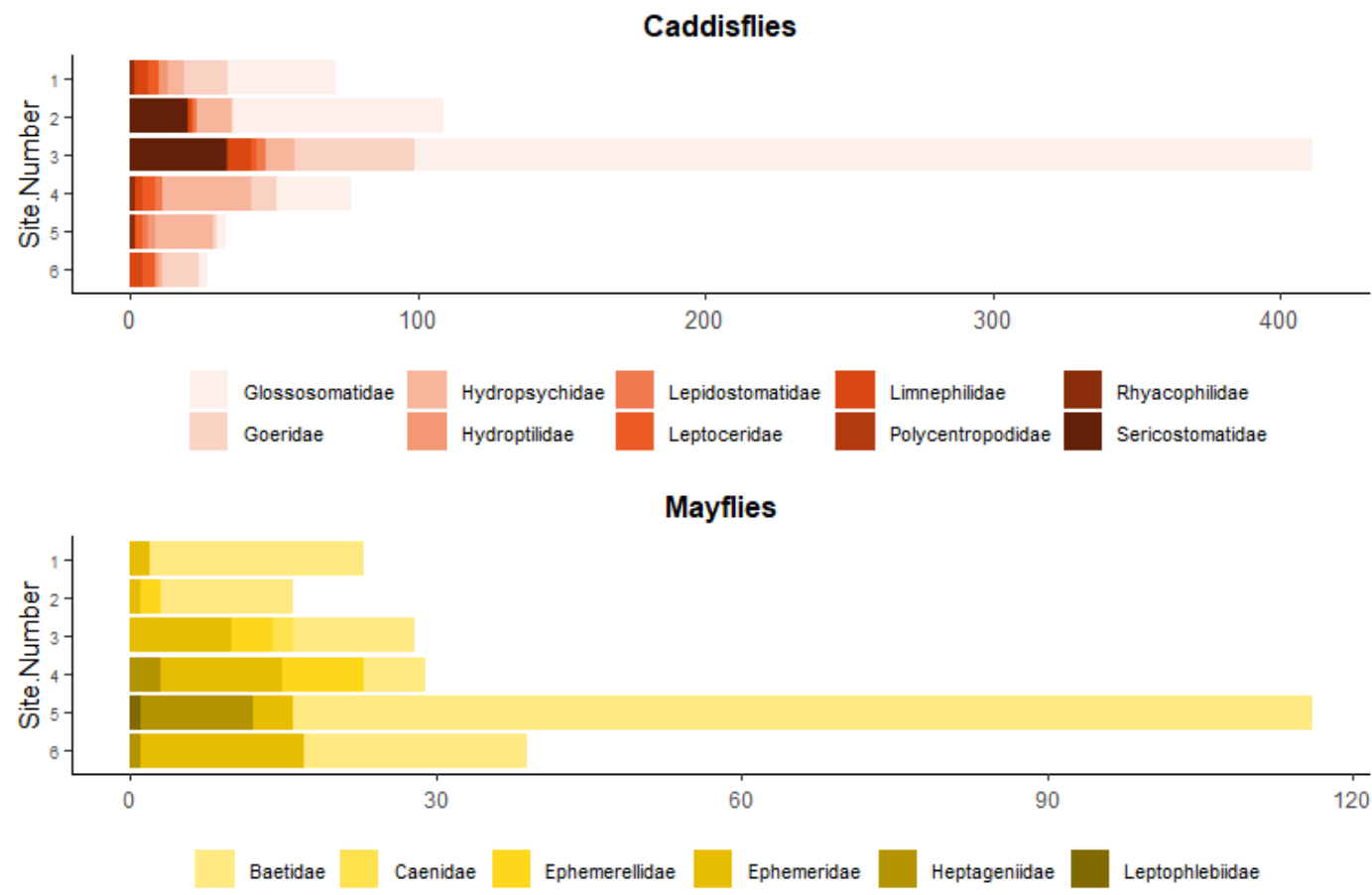
SmartRivers Groups

- Beetles
- Caddisflies
- Leeches
- Mayflies
- Misc. Taxa
- Molluscs
- Stoneflies
- True Flies

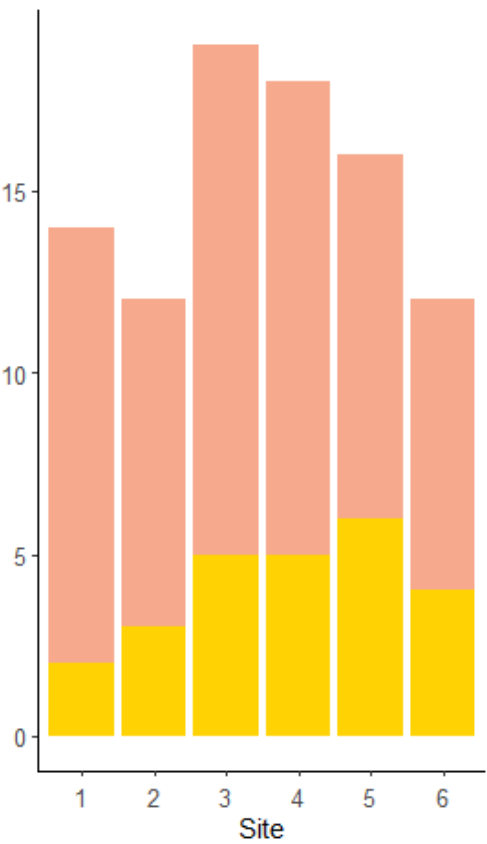
Site	Total Species		Total Abundance
1	27	4	1173
2	20	2	1648
3	33	3	2397
4	27	4	1326
5	31	6	1668
6	23	3	245

X shows potential repeat observations.
These are highlighted grey on pg.4.

EPT Abundance



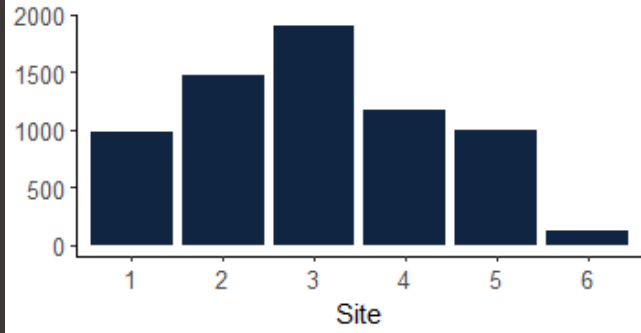
EPT Species



Site	EPT Species		EPT Abundance
1	14	4	95
2	12	1	125
3	19	3	439
4	18	4	106
5	16	3	149
6	12	2	66

X shows potential repeat observations.
These are highlighted grey on pg.4.

Gammarus Abundance



Invertebrate Samples

SmartRivers Group	Order	Family	Taxon	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Beetles	Coleoptera	Elmidae	Elmis aenea	1	0	3	10	6	0
			Limnius volckmari	0	0	0	9	2	0
		Gyrinidae	Orectochilus villosus	0	0	4	0	0	0

SmartRivers Group	Order	Family	Taxon	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Caddisflies	Trichoptera	Glossosomatidae	Agapetus	2	4	0	9	1	0
			Agapetus fuscipes	35	69	312	17	1	3
			Glossosomatidae	1	0	0	0	1	0
		Goeridae	Goeridae	0	0	9	0	0	6
			Silo	11	0	18	3	1	0
			Silo nigricornis	4	1	15	6	0	7
		Hydropsychidae	Hydropsyche pellucidula	0	1	1	14	1	1
			Hydropsyche siltalai	6	11	9	17	19	0
		Hydroptilidae	Hydroptila	3	0	0	0	3	1
		Lepidostomatidae	Lepidostoma hirtum	0	1	3	2	2	0
		Leptoceridae	Athripsodes	3	1	2	2	2	4
			Athripsodes albifrons	1	0	0	3	0	1
		Limnephilidae	Chaetopteryx villosa	0	0	1	0	0	0
			Drusus annulatus	0	0	1	0	0	0
			Halesus radiatus	0	0	0	1	0	0
			Limnephilidae	0	0	3	0	0	0
			Limnephilus lunatus	4	1	3	1	0	4
		Polycentropodidae	Polycentropus	1	0	0	0	0	0
		Rhyacophilidae	Rhyacophila	1	0	0	1	0	0
			Rhyacophila dorsalis	0	0	1	1	2	0
		Sericostomatidae	Sericostoma personatum	0	20	33	0	0	0

SmartRivers Group	Order	Family	Taxon	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Leeches	Arhynchobdellida	Erpobdellidae	Erpobdella octoculata	0	0	5	0	0	0
			Trocheta subviridis	0	0	0	1	0	0
	Rhynchobdellida	Glossiphoniidae	Helobdella stagnalis	0	0	6	0	0	0
Total				0	0	11	1	0	0

SmartRivers Group	Order	Family	Taxon	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Mayflies	Ephemeroptera	Baetidae	Baetis rhodani	0	0	0	0	0	15
			Baetis rhodani/atlanticus	21	13	12	5	96	0
			Baetis scambus	0	0	0	0	1	7
			Baetis scambus/fuscatus	0	0	0	1	3	0
		Caenidae	Caenis luctuosa	0	0	1	0	0	0
			Caenis luctuosa/macrura	0	0	1	0	0	0
		Ephemerellidae	Serratella ignita	0	2	4	8	0	0
		Ephemeridae	Ephemera danica	2	1	10	12	4	16
		Heptageniidae	Heptagenia sulphurea	0	0	0	3	11	1
		Leptophlebiidae	Paraleptophlebia	0	0	0	0	1	0
Total				23	16	28	29	116	39

SmartRivers Group	Order	Family	Taxon	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Misc. Taxa	Amphipoda	Gammaridae	Gammarus pulex/fossarum	990	1480	1909	1177	996	119
	Decapoda	Astaciidae	Pacifastacus leniusculus	0	3	0	1	2	1
	Isopoda	Asellidae	Asellus aquaticus	0	1	0	0	0	0
	Odonata	Calopterygidae	Calopteryx	0	16	0	0	6	3
			Calopteryx splendens	0	14	1	0	3	1
			Calopteryx virgo	1	0	0	0	0	0
	Oligochaeta	Oligochaeta	Eiseniella tetraeda	5	0	0	1	0	1
			Oligochaeta	2	0	0	12	2	29
	Tricladida	Planariidae	Polycelis felina	1	0	0	0	0	0
Total				999	1514	1910	1191	1009	154

SmartRivers Group	Order	Family	Taxon	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Molluscs	Ph. Mollusca	Ancylidae	Ancylus fluviatilis	4	0	9	0	0	0
		Hydrobiidae	Potamopyrgus antipodarum	51	0	0	0	0	0
		Lymnaeidae	Ampullaceana balthica	0	0	3	0	0	0
		Neritidae	Theodoxus fluviatilis	0	0	0	0	16	2
		Planorbidae	Anisus vortex	1	0	11	0	0	0
			Gyraulus albus	0	0	1	0	0	0
			Planorbis carinatus	0	0	1	0	0	0
	Veneroida	Sphaeriidae	Pisidium	0	0	0	0	0	1
			Sphaerium corneum	0	3	0	0	1	0
Total				56	3	25	0	17	3

SmartRivers Group	Order	Family	Taxon	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Stoneflies	Stoneflies			0	0	0	0	0	0
Total				0	0	0	0	0	0

SmartRivers Group	Order	Family	Taxon	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
True Flies	Diptera	Ceratopogonidae	Ceratopogonidae	0	0	0	0	0	2
		Chironomidae	Chironomidae	5	3	2	0	6	18
		Limoniidae	Antocha vitripennis	0	0	0	8	8	0
			Eloeophila	1	0	0	0	0	0
		Pediciidae	Dicranota	0	0	1	0	0	0
		Simuliidae	Simulium	15	3	2	0	348	2
			Simulium equinum	0	0	0	0	18	0
			Simulium equinum/lineatum/pseudequinum	0	0	0	0	55	0
			Simulium ornatum gp.	0	0	0	0	50	0
		Stratiomyidae	Odontomyia	0	0	0	1	0	0
			Oxycera	1	0	0	0	0	0
		Total			22	6	5	9	485