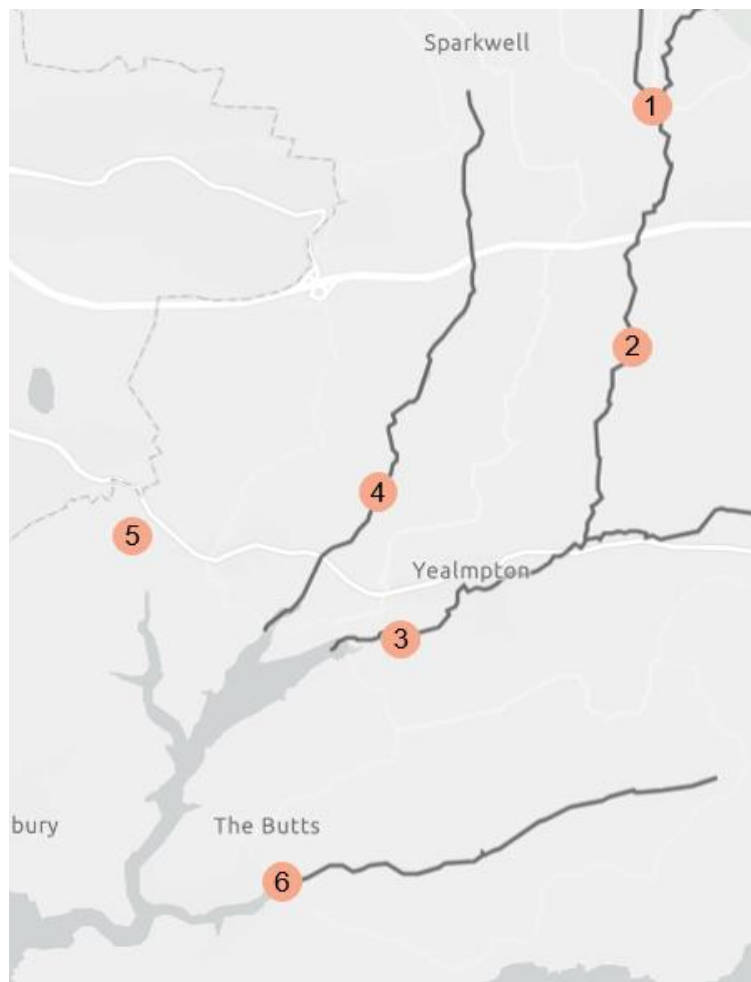


Yealm Estuary to Moor:

River Yealm *Autumn Survey 2025*



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Sites

- 1: Piall at Marks Bridge
- 2: Popples Bridge
- 3: Puslinch Bridge
- 4: Silverbridge Stream
- 5: Cofflete Stream
- 6: Newton Stream

Summary

Water Quality Scores:

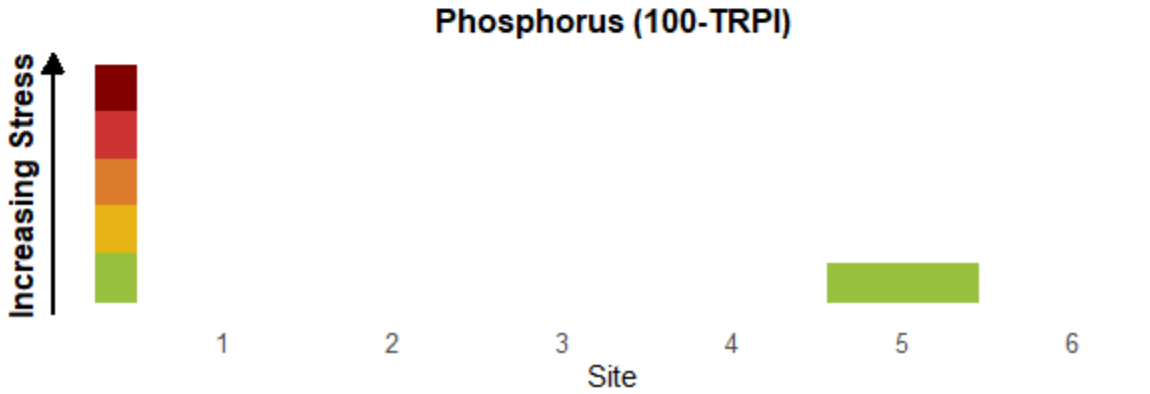
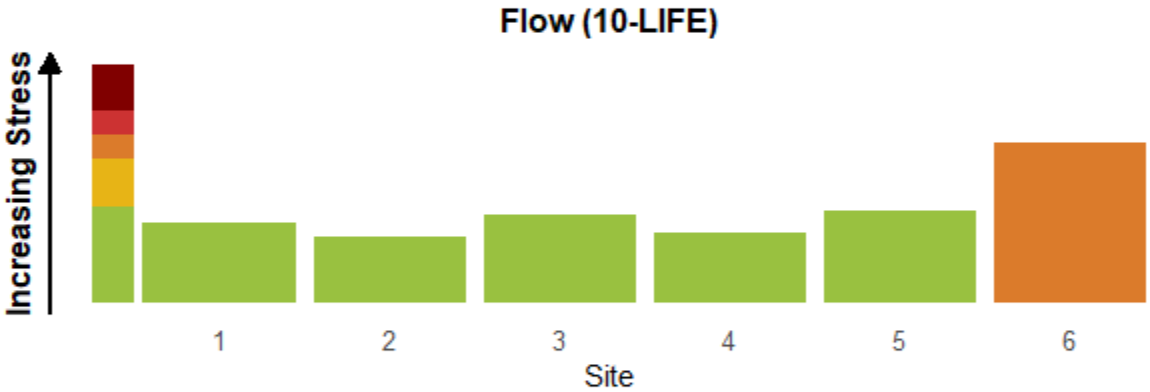
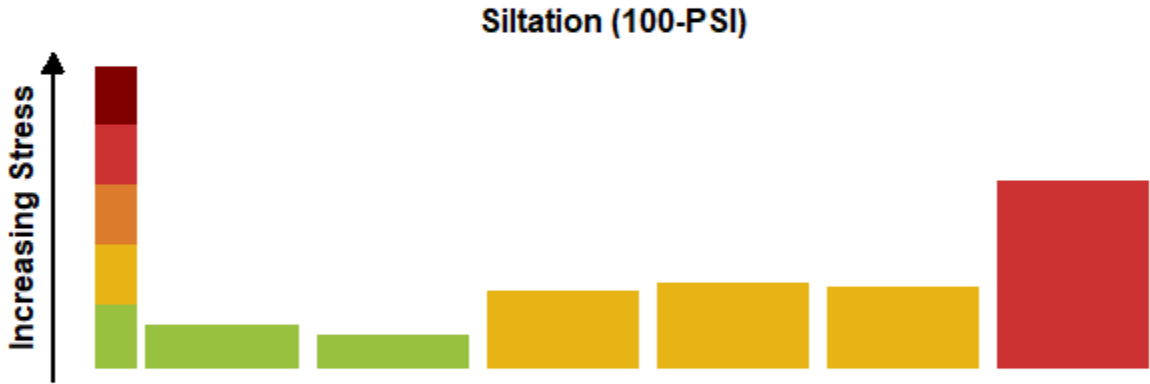
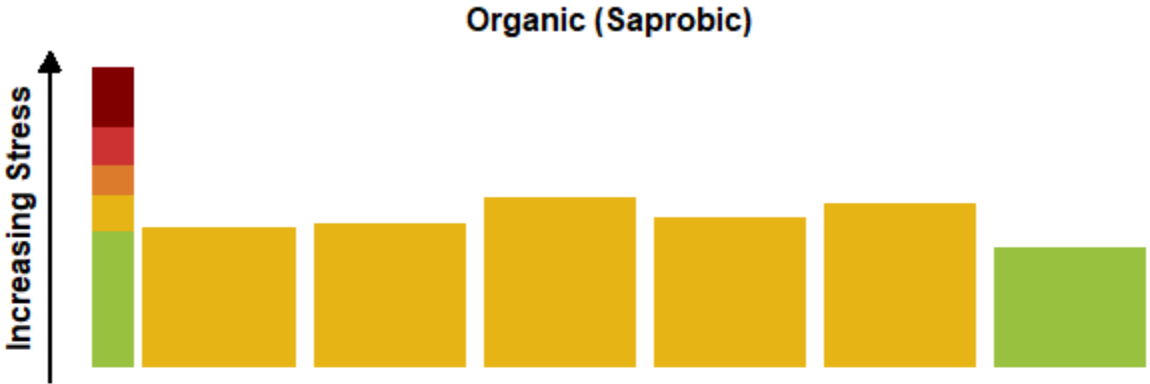
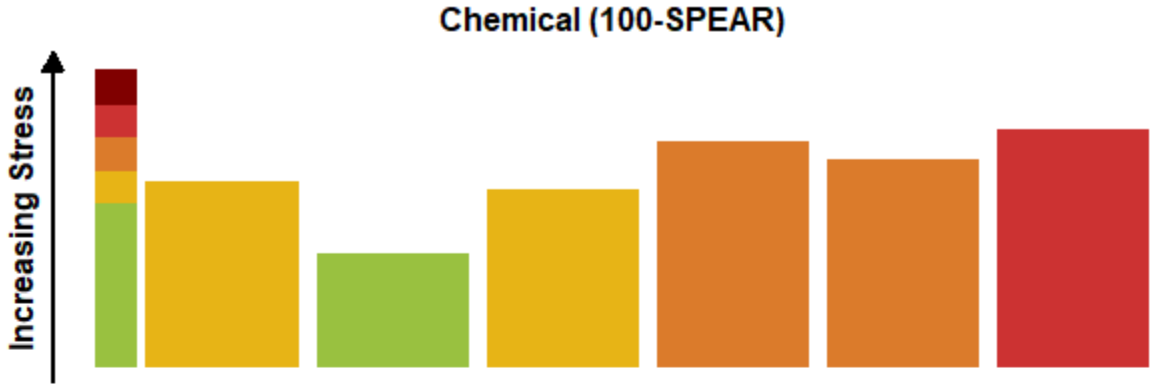
- Chemical Pressure: high impact at site 6; moderate impact at sites 4 and 5; low impact at sites 1 and 3; very low impact at site 2.
- Organic Pressure: very low impact at site 6; low impact at the rest of the sites.
- Sediment Pressure: high impact at site 6; moderate impact at sites 3, 4 and 5; very low impact at sites 1 and 2.
- Flow Pressure: moderate impact at site 6; very low impact at the rest of the sites.
- Phosphorus Pressure: very low impact at all sites.

Invertebrates:

- Total species richness was highest at site 5 (26) and lowest at site 6 (5). At site 5, caddisflies were the group with the highest number of species (6 confirmed).
- Total abundance was highest at site 5 (1,252) and lowest at site 1 (101). At site 5, molluscs clearly dominated in number (912 specimens, 72.8% of the total).
- Riverfly species richness was highest at site 2 (17) and lowest at site 6 (2). At site 2, caddisflies had the highest number of species (7), followed by mayflies (5) and stoneflies (2).
- Riverfly abundance was highest at site 2 (193) and lowest at site 6 (3). At site 2, mayflies were the most abundant group (124 specimens, 64.2% of all riverflies), particularly Blue-winged Olives (*Serratella ignita*) and Olives (*Baetis rhodani/atlanticus*).
- The non-native, invasive New Zealand Mud Snail (*Potamopyrgus antipodarum*) was found at all sites. At sites 3 and 5, this species was in high numbers (748 and 910 specimens, respectively).
- Several species of interest were found: the Black-legged Water-snipefly (*Ibisia marginata*), collected at site 2, is a nationally scarce species, with 1,143 records in the UK; the amphipod *Niphargus aquilex*, collected at site 5, with 769 records in the UK, is colourless and eyeless, and typical of subterranean waters.
- Site 2 had the best water quality overall (except for low organic pollution). This is reflected in the highest diversity and abundance of riverflies, especially stoneflies, which are very sensitive to pollution. However, the highest diversity and abundance of macroinvertebrates were recorded at site 5, despite indications of chemical, organic and sediment impacts. This is explained by a higher variety of caddisflies, fly larvae and miscellaneous taxa, and the highest number of New Zealand Mud Snails of all sites (910 specimens).

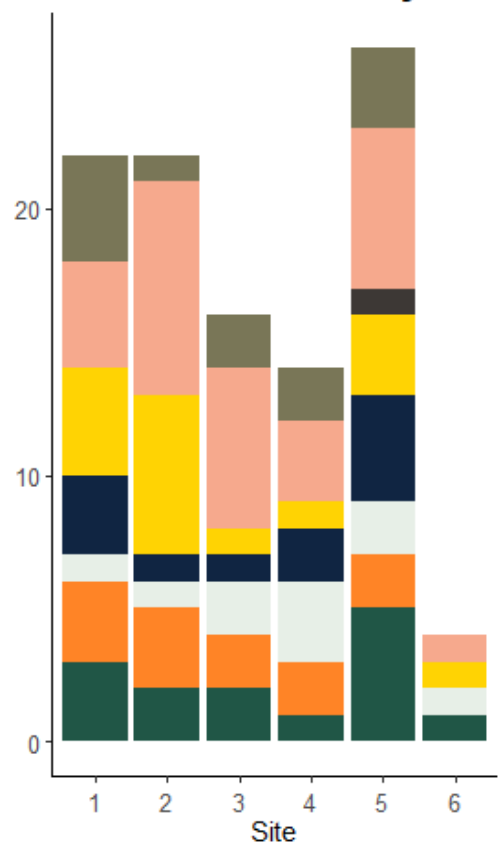


Water Quality Scores



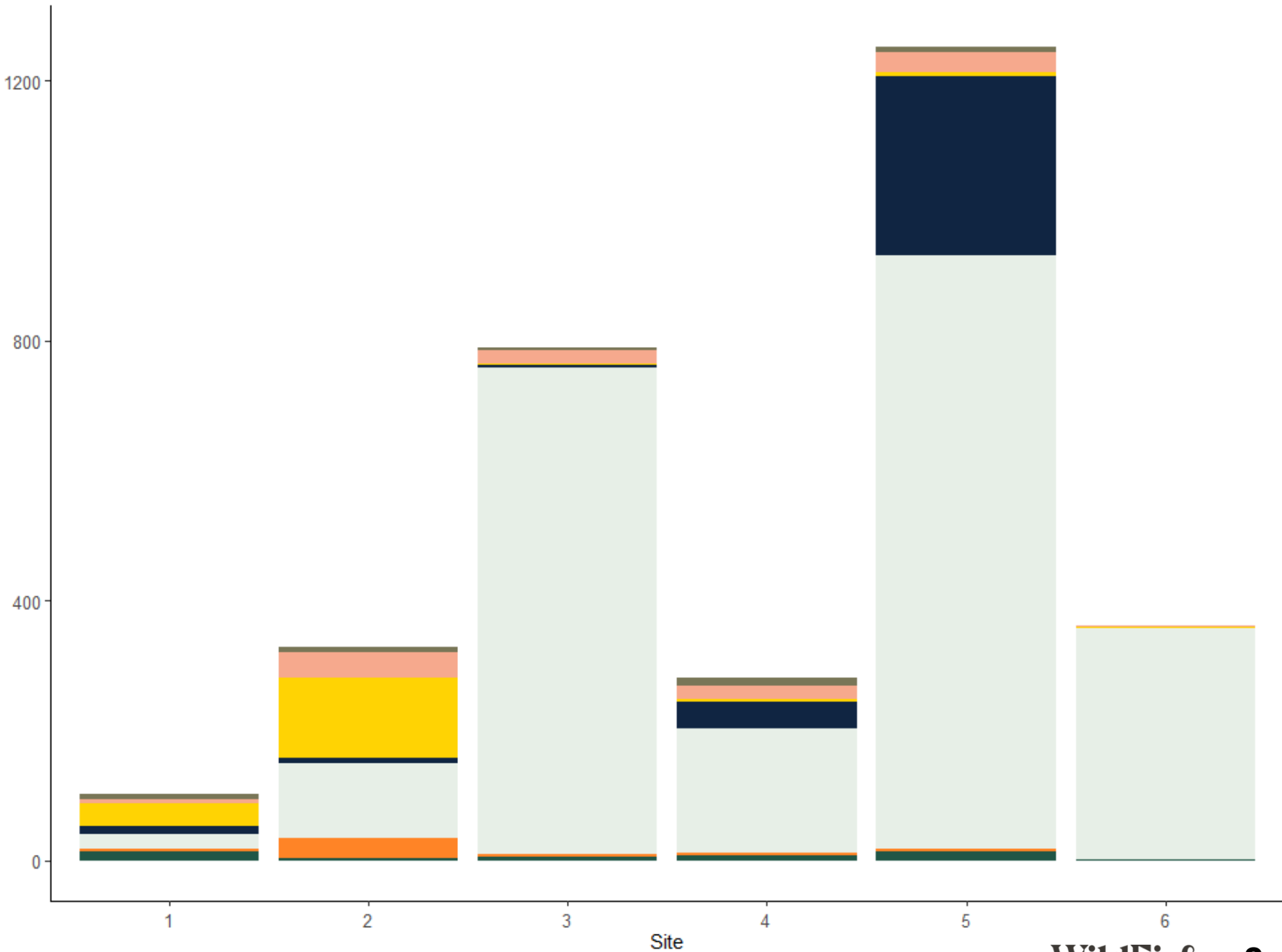
Water Quality Scores By Site						
Water Quality Metric	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
SPEAR	37.84	62.44	40.78	24.73	30.81	20.43
Saprobic	1.87	1.92	2.26	2.01	2.18	1.60
PSI	85.71	88.89	74.07	71.43	72.73	37.50
LIFE	8.32	8.63	8.15	8.55	8.09	6.67
TRPI	100.00	100.00	100.00	100.00	83.33	100.00
BMWP	106.00	107.00	75.00	76.00	118.00	23.00
WHPT	113.00	129.10	88.30	84.20	142.60	28.50
WHPT NTAXA	17.00	17.00	14.00	13.00	23.00	4.00
WHPT ASPT	6.65	7.59	6.31	6.48	6.20	7.12
CCI	7.08	10.67	4.80	4.20	14.00	NaN

Total Diversity

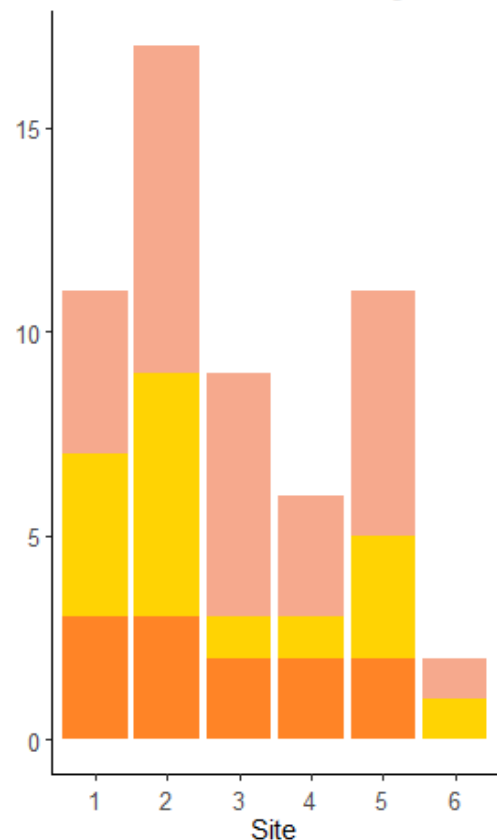


Total Community		
Site	Diversity	Abundance
1	21 (2)	101
2	22 (1)	328
3	16 (2)	790
4	14 (0)	282
5	26 (2)	1252
6	4 (0)	361

Total Abundance

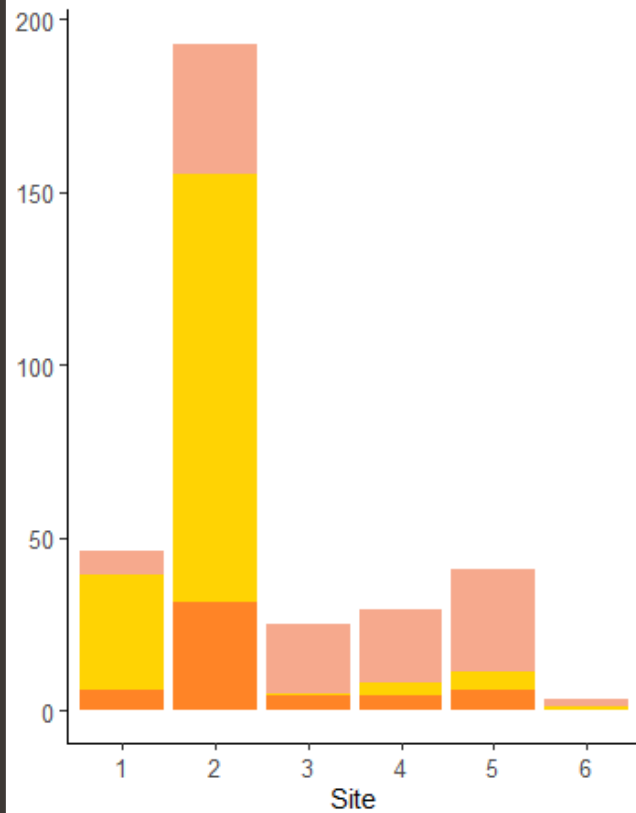


EPT Diversity



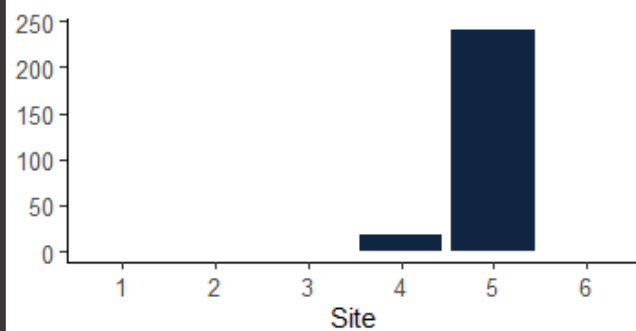
Riverfly Community

Site	Diversity	Abundance
1	11 (2)	46
2	17 (1)	193
3	9 (2)	25
4	6 (0)	29
5	11 (2)	41
6	2 (0)	3



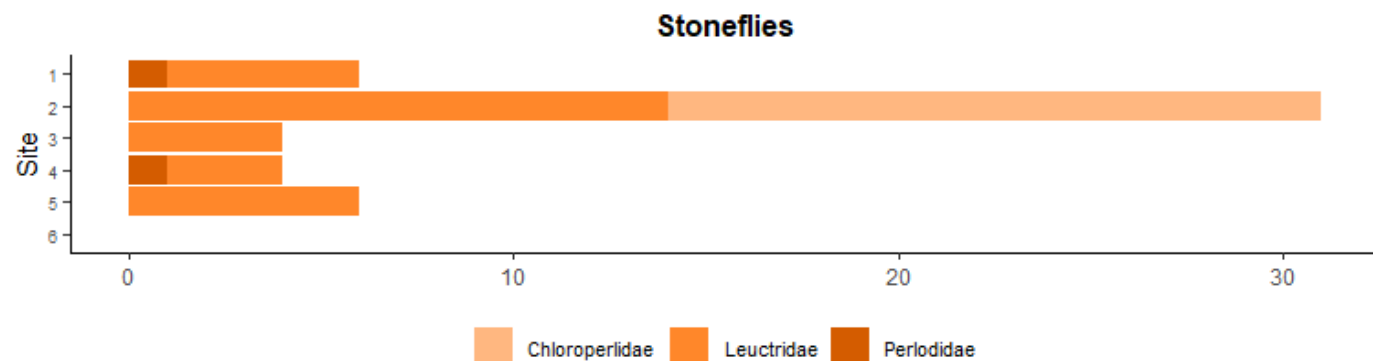
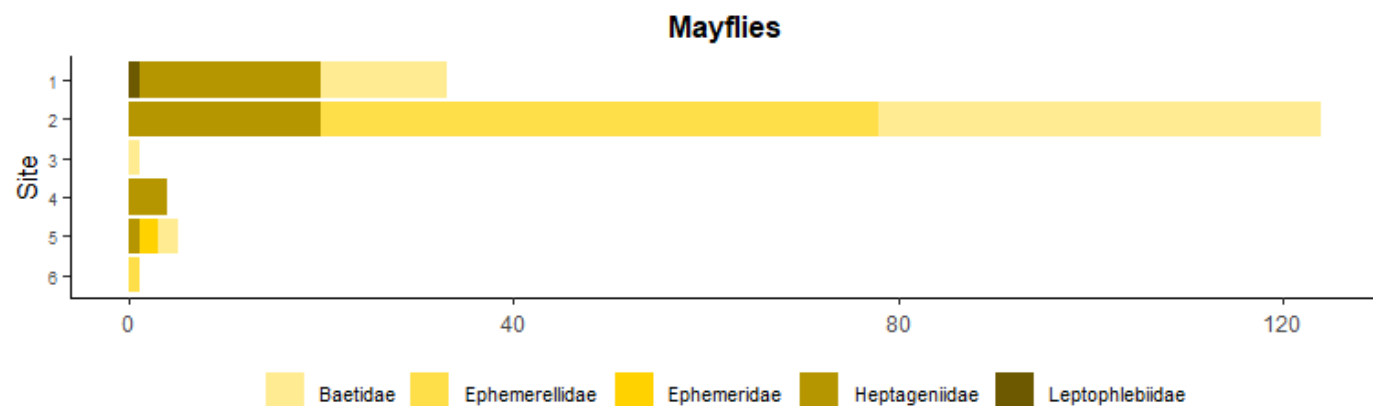
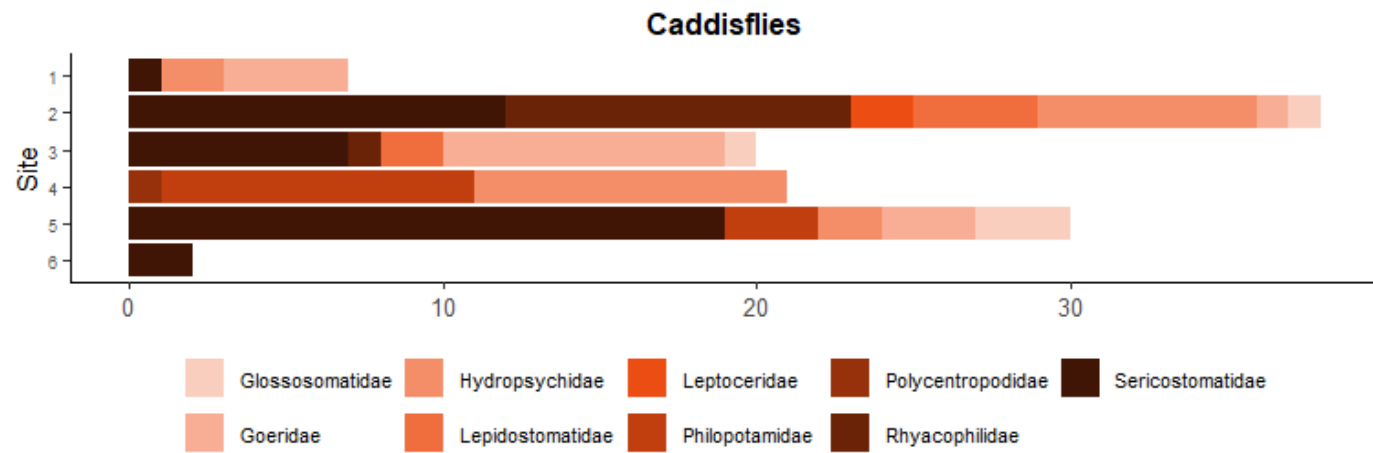
Caddisflies Mayflies Stoneflies

Gammaridae Abundance



EPT Abundance

Autumn 2025



Yealm Estuary to Moor:

River Yealm *Autumn 2025*



SmartRivers Invertebrate Counts

Beetles								
Order*	Family*	Taxon	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Coleoptera	Elmidae	Elmis aenea	2	0	5	2	3	0
		Limnius volckmari	1	8	0	11	5	0
	Gyrinidae	Orectochilus villosus	4	0	1	0	1	0
	Hydraenidae	Hydraena gracilis	1	0	0	0	0	0
		Total Diversity	4	1	2	2	3	0
	Total Abundance	8	8	6	13	9	0	
Caddisflies								
Order*	Family*	Taxon	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Trichoptera	Glossosomatidae	Agapetus	0	0	0	0	3	0
		Agapetus delicatulus	0	1	0	0	0	0
		Glossosoma boltoni	0	0	1	0	0	0
	Goeridae	Silo	3	0	4	0	2	0
		Silo pallipes	1	1	5	0	1	0
	Hydropsychidae	Hydropsyche siltalai	2	7	0	10	2	0
	Lepidostomatidae	Lepidostoma hirtum	0	4	2	0	0	0
	Leptoceridae	Athripsodes	0	1	0	0	0	0
		Athripsodes albifrons	0	1	0	0	0	0
	Philopotamidae	Philopotamus montanus	0	0	0	10	0	0
		Wormaldia occipitalis	0	0	0	0	3	0
	Polycentropodidae	Polycentropus flavomaculatus	0	0	0	1	0	0
	Rhyacophilidae	Rhyacophila dorsalis	0	11	1	0	0	0
	Sericostomatidae	Sericostoma personatum	1	12	7	0	19	0
		Sericostomatidae	0	0	0	0	0	2
		Total Diversity	4	8	6	3	6	1
		Total Abundance	7	38	20	21	30	2
Leeches								
Order*	Family*	Taxon	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Rhynchobdellida	Glossiphoniidae	Glossiphonia complanata	0	0	0	0	1	0
		Total Diversity	0	0	0	0	1	0
		Total Abundance	0	0	0	0	1	0

* Some 'Order' and 'Family' groupings relate to higher classifications. Database is undergoing updates.

Mayflies								
Order*	Family*	Taxon	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Ephemeroptera	Baetidae	Baetis	0	0	0	0	2	0
		Baetis rhodani/atlanticus	13	40	1	0	0	0
		Baetis scambus	0	2	0	0	0	0
		Baetis scambus/fuscatus	0	4	0	0	0	0
	Ephemerellidae	Ephemerellidae	0	0	0	0	0	1
		Serratella ignita	0	58	0	0	0	0
	Ephemeridae	Ephemera danica	0	0	0	0	2	0
	Heptageniidae	Ecdyonurus	8	0	0	4	0	0
		Ecdyonurus sp.	0	1	0	0	0	0
		Rhithrogena	11	19	0	0	0	0
		Rhithrogena sp.	0	0	0	0	1	0
	Leptophlebiidae	Leptophlebiidae	1	0	0	0	0	0
		Total Diversity	4	6	1	1	3	1
		Total Abundance	33	124	1	4	5	1

Misc. Taxa								
Order*	Family*	Taxon	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Amphipoda	Gammaridae	Gammarus pulex	0	0	0	18	0	0
		Gammarus pulex/fossarum	1	0	0	0	241	0
	Niphargidae	Niphargus aquilex	0	0	0	0	2	0
Isopoda	Asellidae	Asellus aquaticus	0	0	0	0	3	0
Ph. Nematoda	Ph. Nematoda	Nematoda	1	0	0	0	0	0
Subcl. Oligochaeta	Subcl. Oligochaeta	Oligochaeta	11	9	5	22	30	0
		Total Diversity	3	1	1	2	4	0
		Total Abundance	13	9	5	40	276	0

Molluscs								
Order*	Family*	Taxon	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Littorinimorpha	Tateidae	Potamopyrgus antipodarum	22	114	748	189	910	0
Ph. Mollusca	Hydrobiidae	Hydrobiidae	0	0	0	0	0	356
	Lymnaeidae	Ampullaceana balthica	0	0	1	2	0	0
	Planorbidae	Ancylus fluviatilis	0	0	0	2	2	0
Total Diversity			1	1	2	3	2	1
Total Abundance			22	114	749	193	912	356

* Some 'Order' and 'Family' groupings relate to higher classifications. Database is undergoing updates.

Stoneflies								
Order*	Family*	Taxon	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Plecoptera	Chloroperlidae	Chloroperla tripunctata	0	2	0	0	0	0
		Siphonoperla torrentium	0	15	0	0	0	0
	Leuctridae	Leuctra	0	14	3	0	2	0
		Leuctra fusca	4	0	1	3	4	0
		Leuctra sp.	1	0	0	0	0	0
	Perlodidae	Isoperla grammatica	1	0	0	1	0	0
		Total Diversity	3	3	2	2	2	0
		Total Abundance	6	31	4	4	6	0

True Flies								
Order*	Family*	Taxon	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Diptera	Athericidae	Ibisia marginata	0	2	0	0	0	0
	Chironomidae	Chironomidae	5	2	1	7	7	0
	Empididae	Chelifera sp.	0	0	0	0	1	0
	Limoniidae	Eloeophila	1	0	0	0	0	0
		Idioptera	0	0	0	0	1	0
	Ptychopteridae	Ptychoptera sp.	0	0	0	0	1	0
	Simuliidae	Simulium	7	0	4	0	3	0
	Tabanidae	Tabanidae	0	0	0	0	0	2
		Total Diversity	3	2	2	1	5	1
		Total Abundance	13	4	5	7	13	2