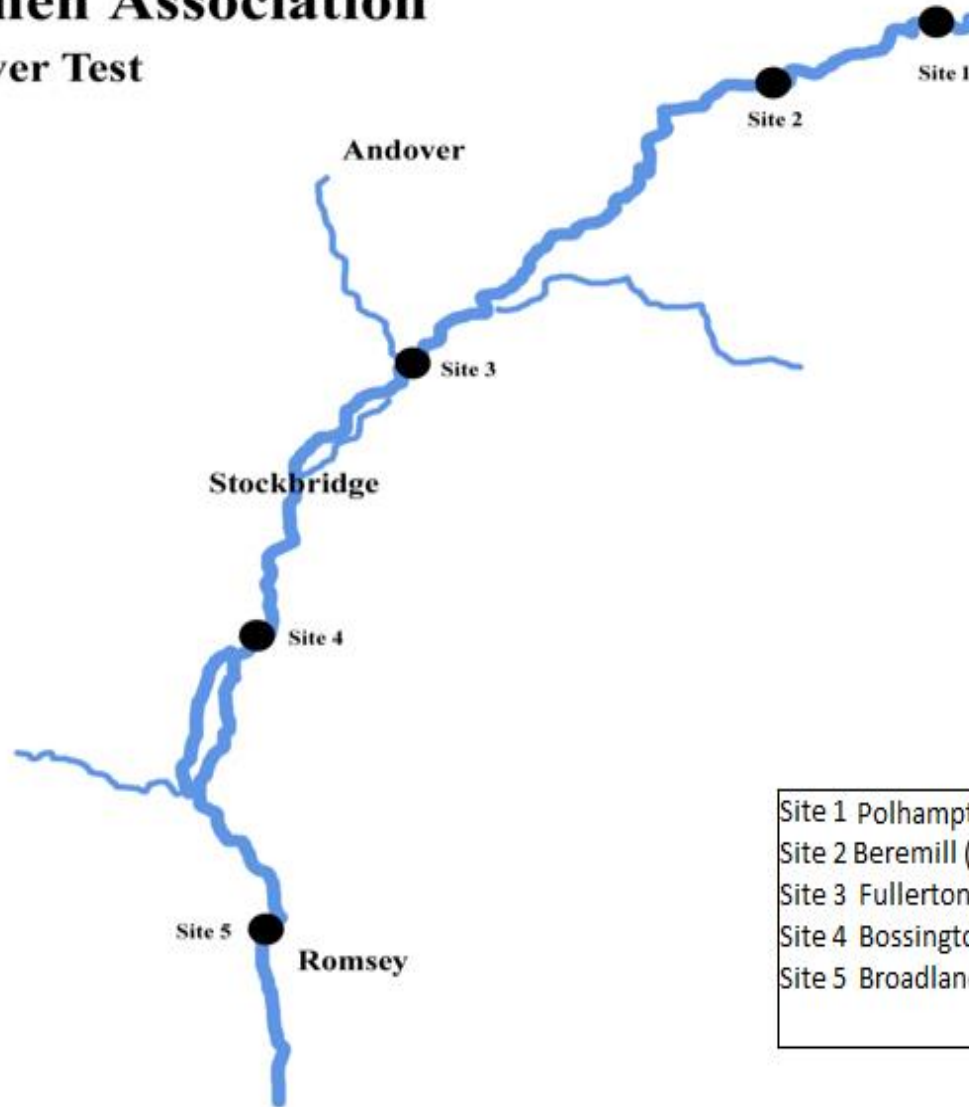


# Test & Itchen Association

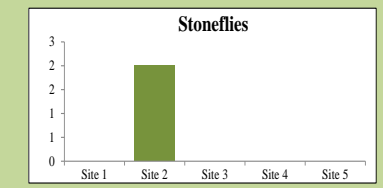
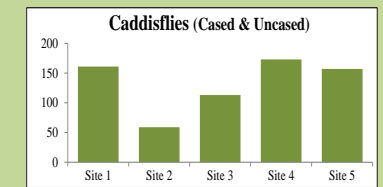
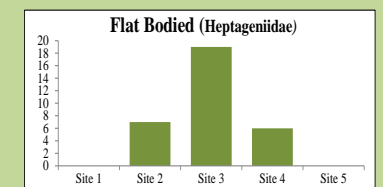
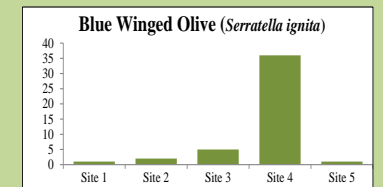
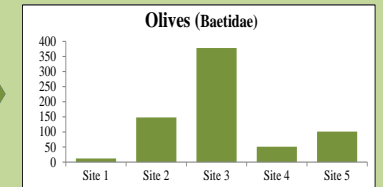
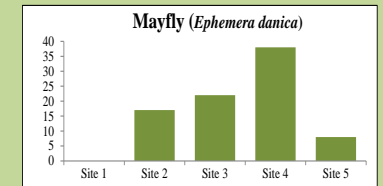
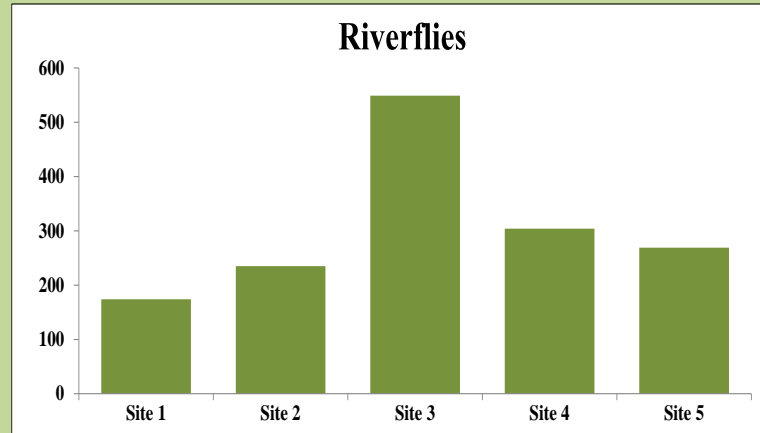
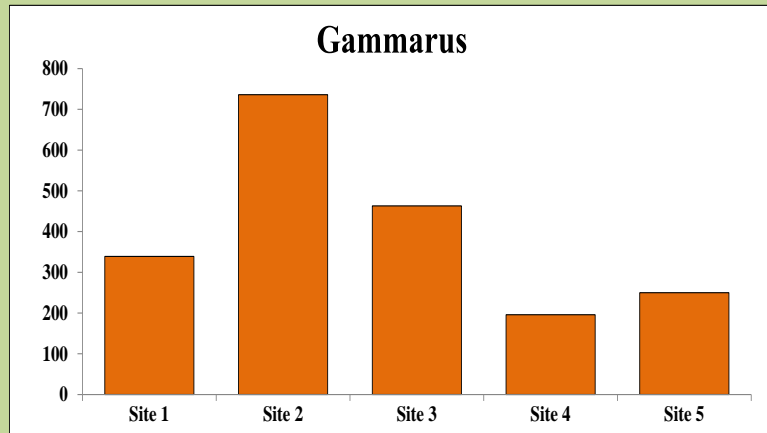
## River Test



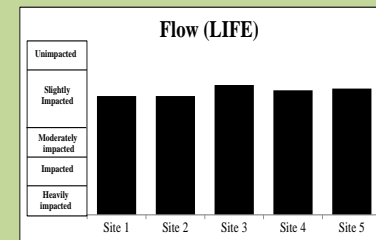
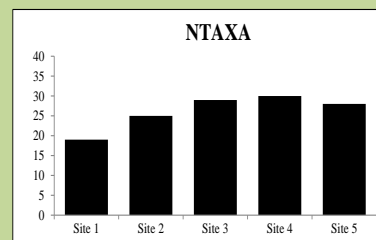
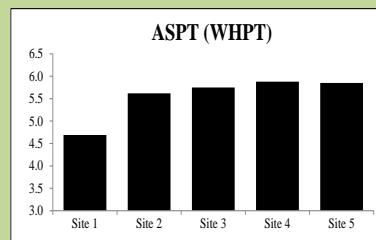
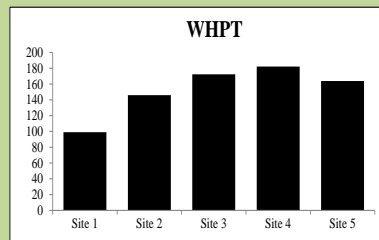
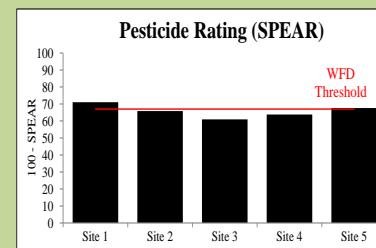
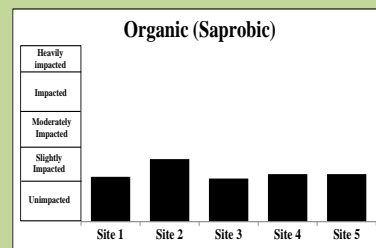
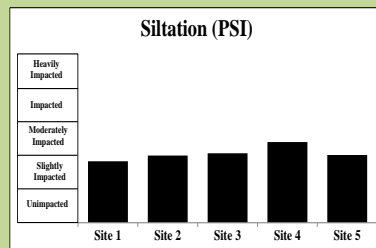
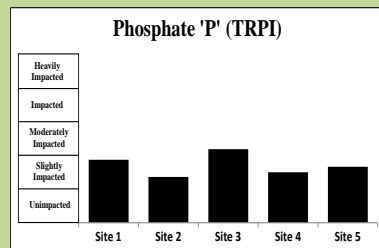
Site 1 Polhampton (SU 52393 50494)  
Site 2 Beremill (SU 47803 48054)  
Site 3 Fullerton (SU 38174 39055)  
Site 4 Bossington (SU 33806 30650)  
Site 5 Broadlands (SU 35462 17848)

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## River Test 2019 - Autumn

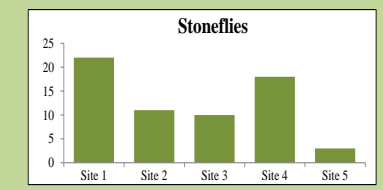
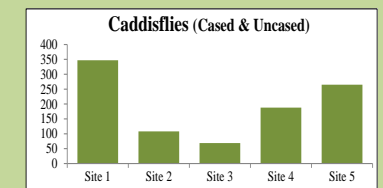
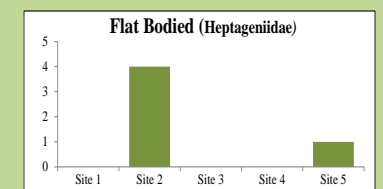
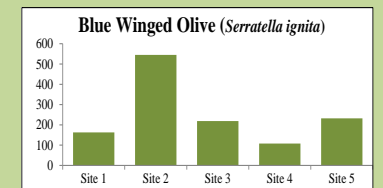
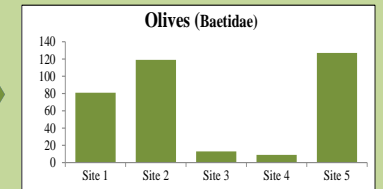
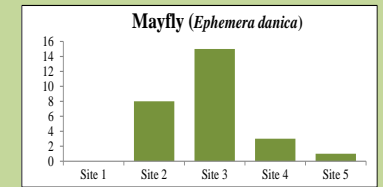
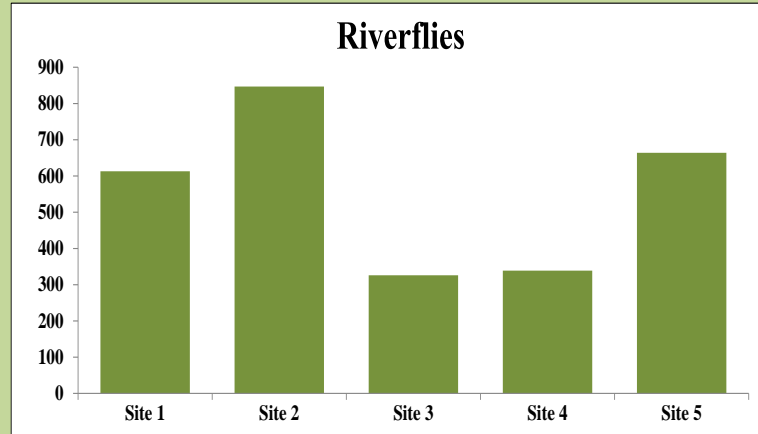
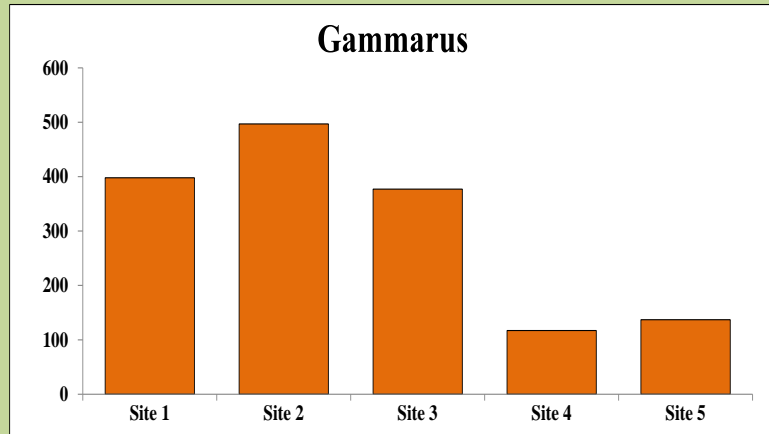


## Biometrics

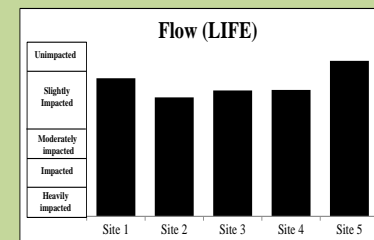
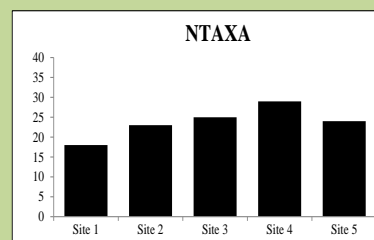
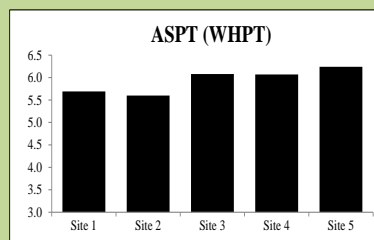
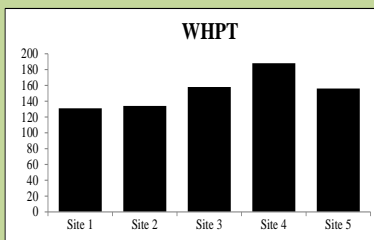
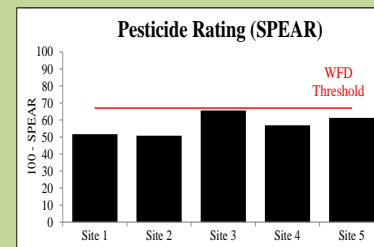
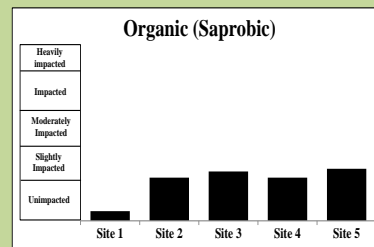
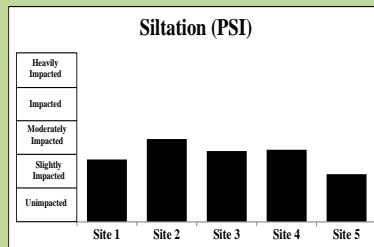
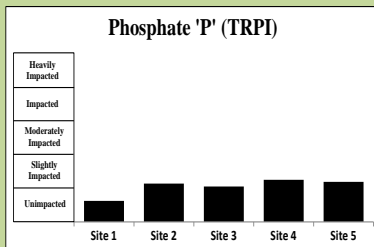


# Test & Itchen Association

## River Test 2020 - Spring

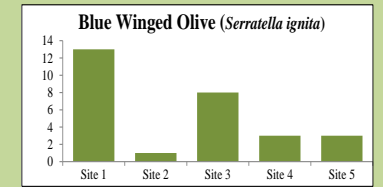
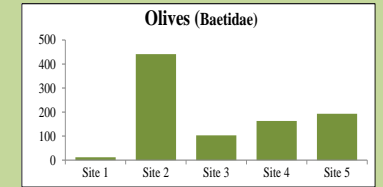
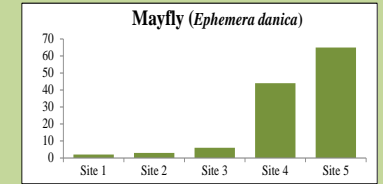
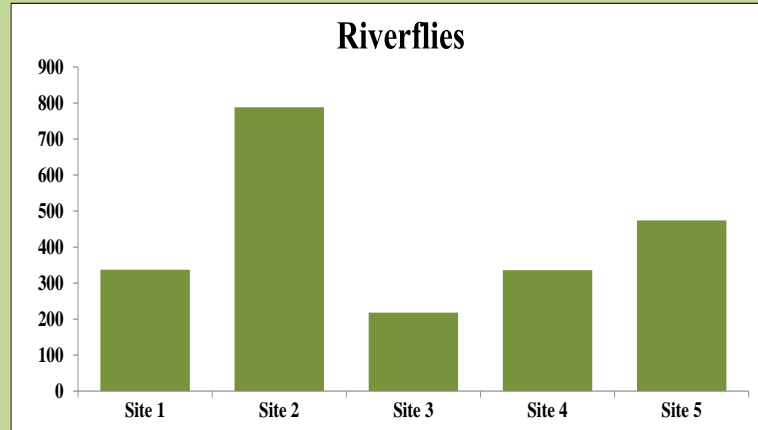
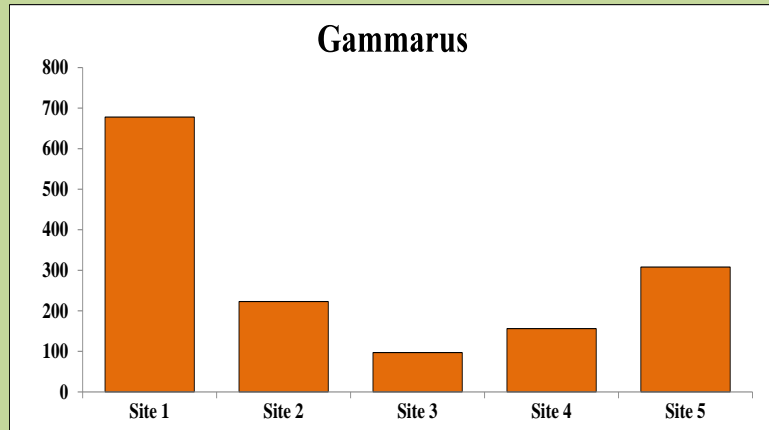


## Biometrics

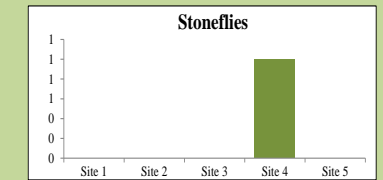
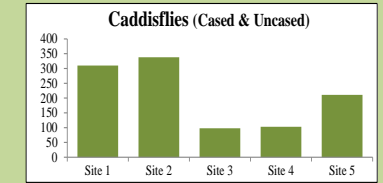
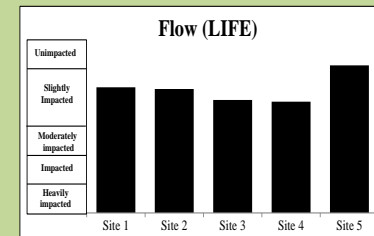
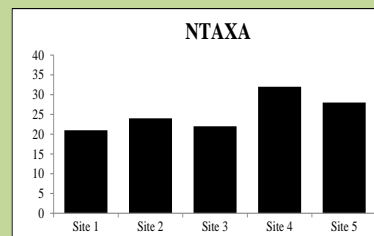
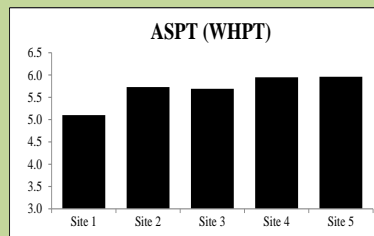
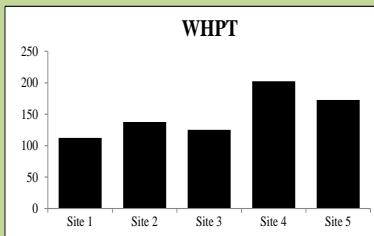
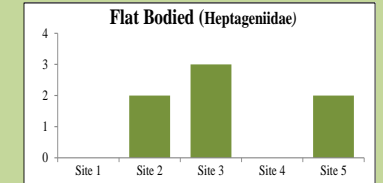
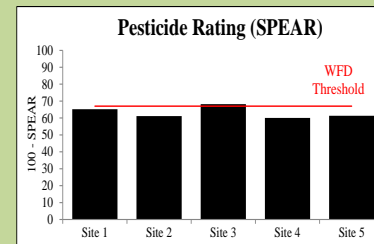
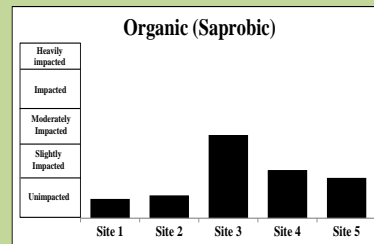
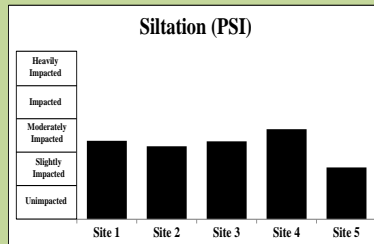
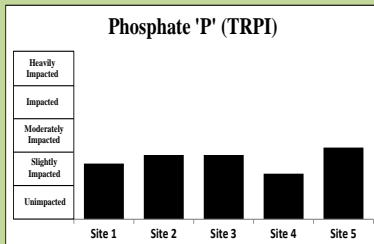


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## River Test 2020 - Autumn

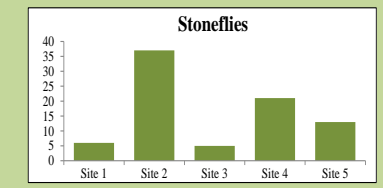
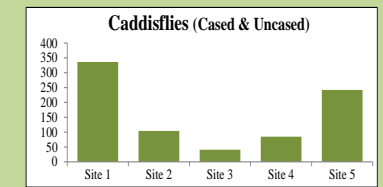
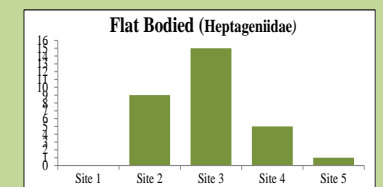
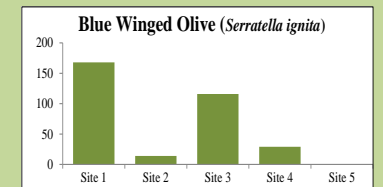
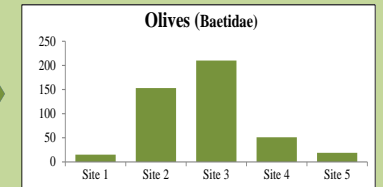
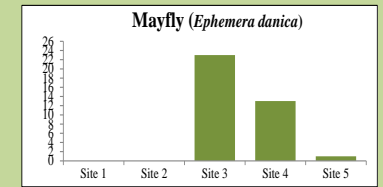
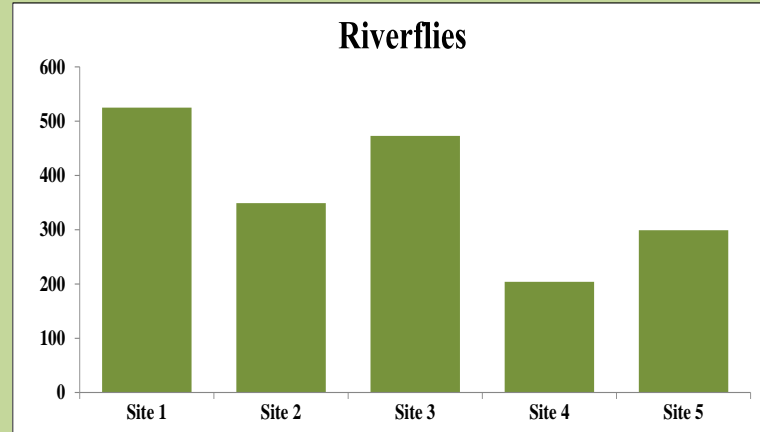
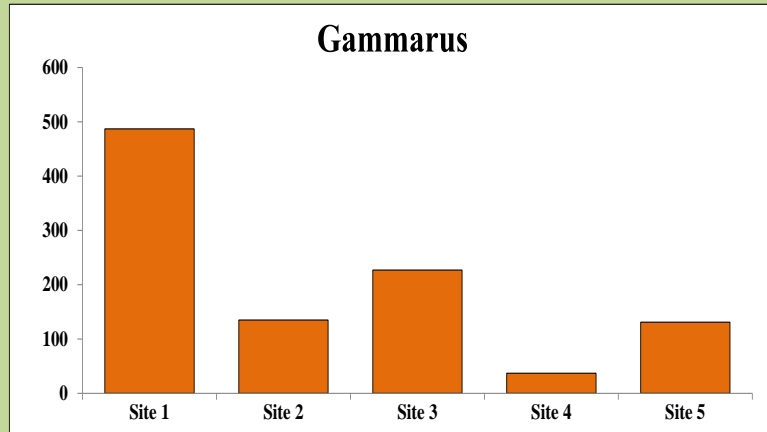


## Biometrics

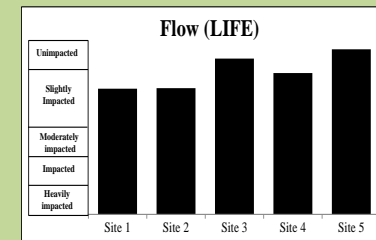
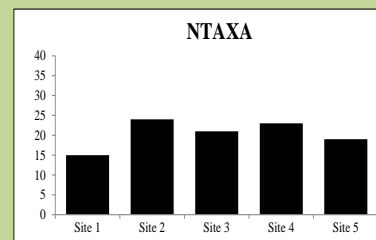
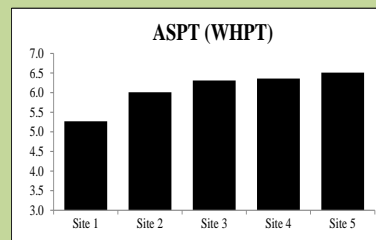
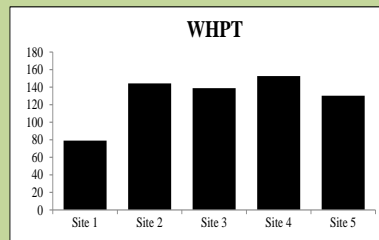
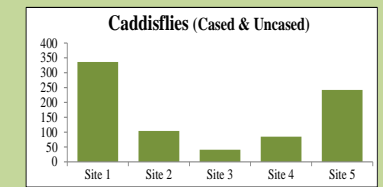
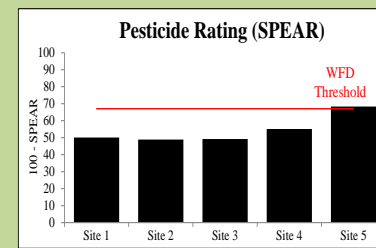
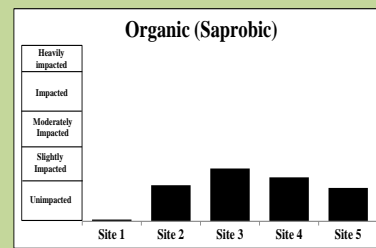
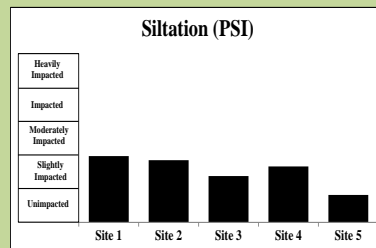
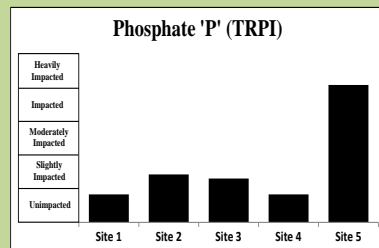


# Test & Itchen Association

## River Test 2021 - Spring

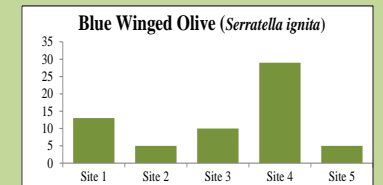
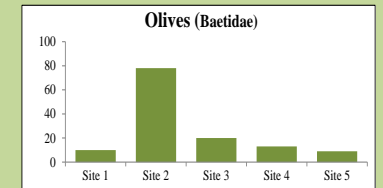
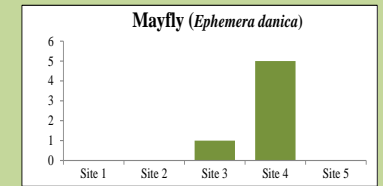
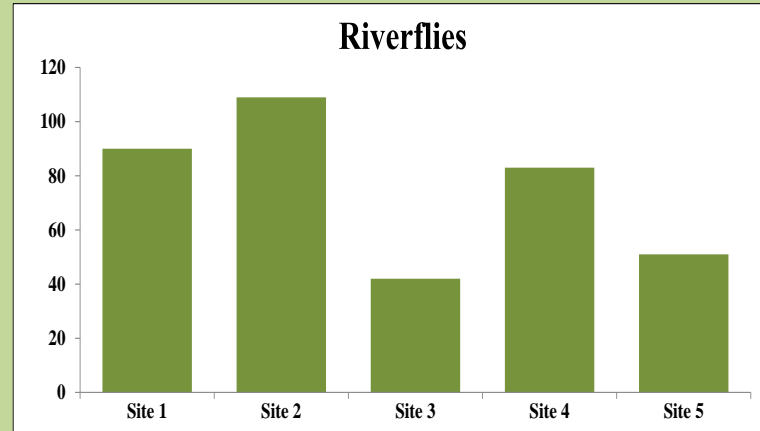
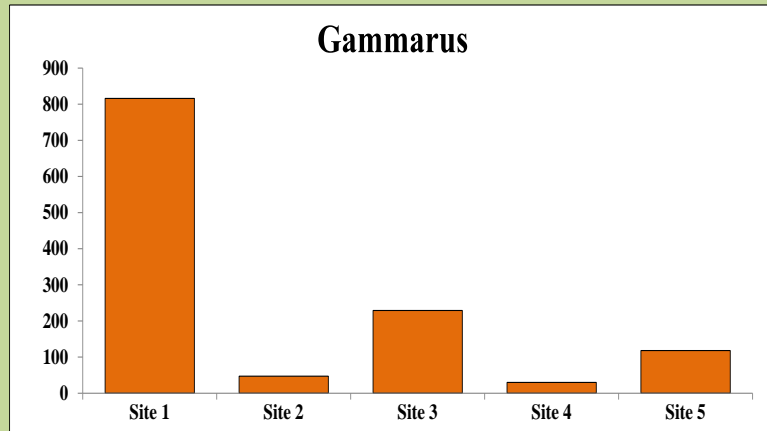


## Biometrics

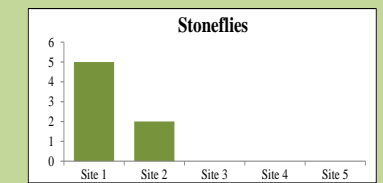
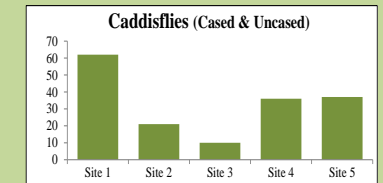
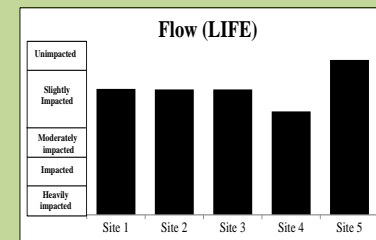
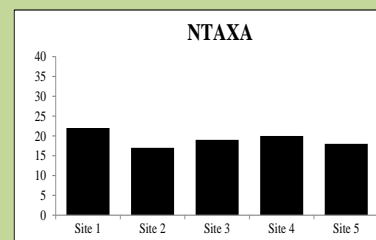
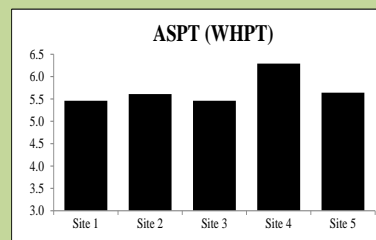
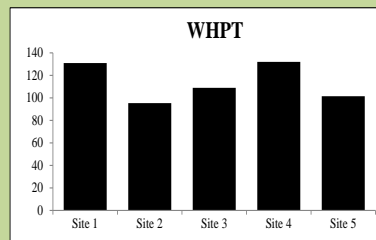
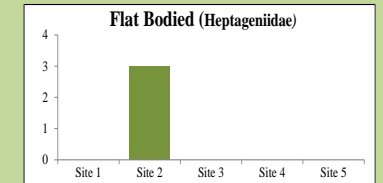
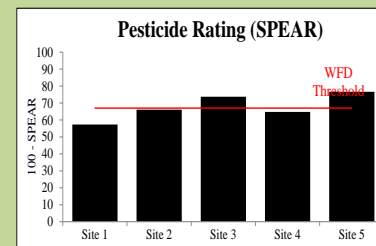
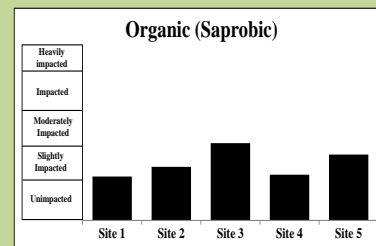
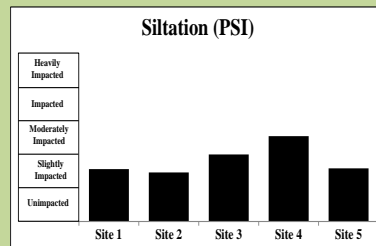
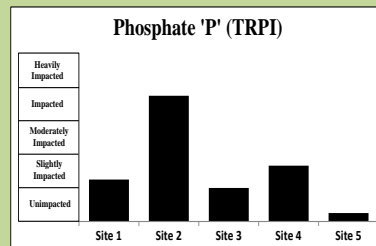


# Test & Itchen Association

## River Test 2021 - Autumn

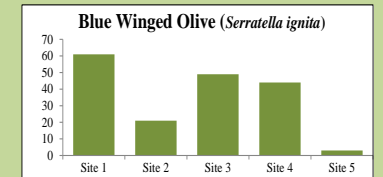
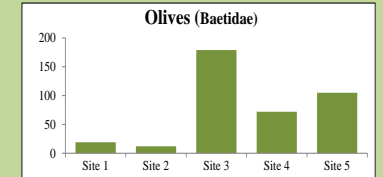
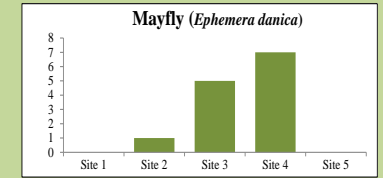
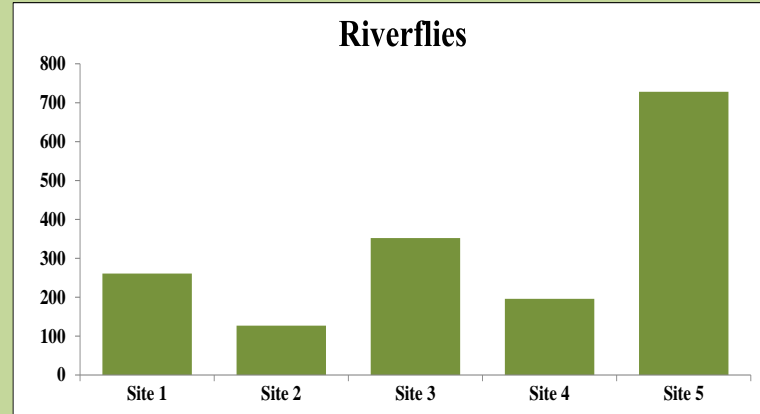
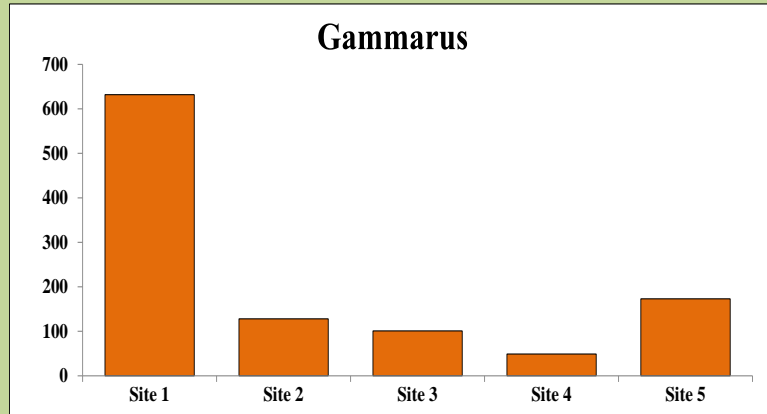


## Biometrics

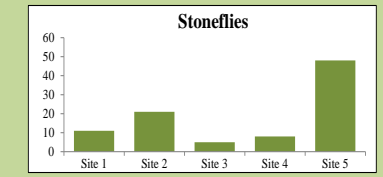
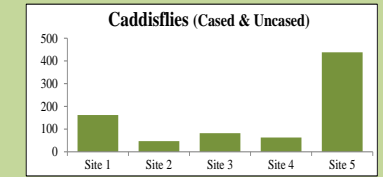
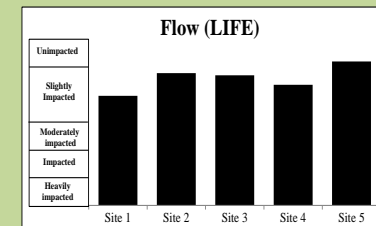
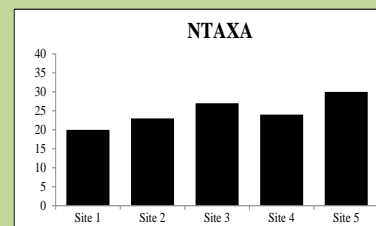
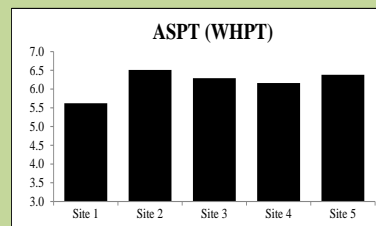
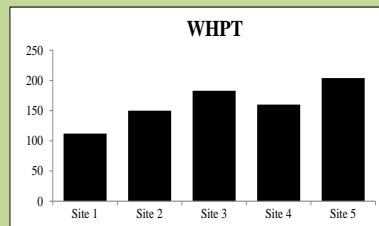
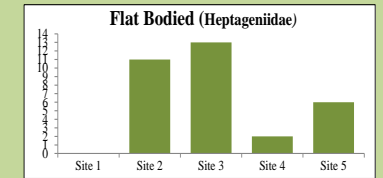
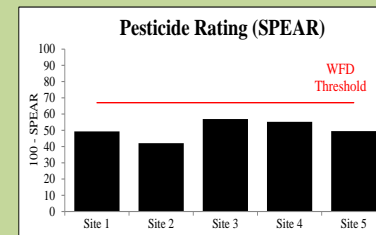
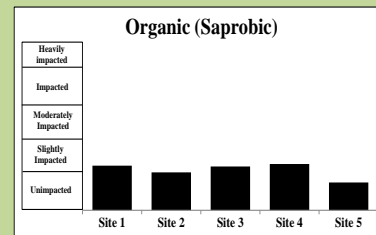
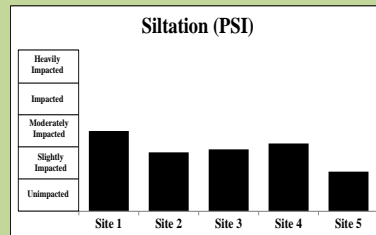
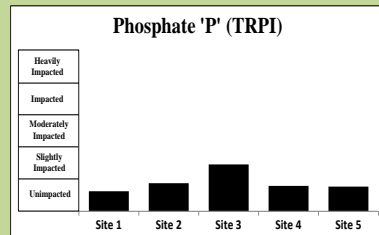


# Test & Itchen Association

## River Test 2022 - Spring



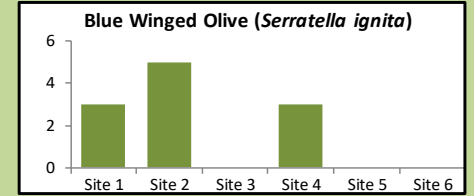
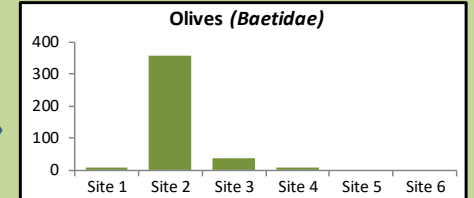
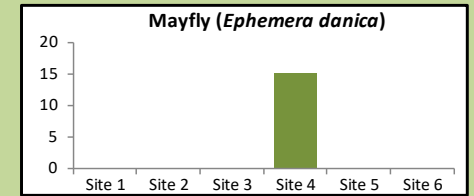
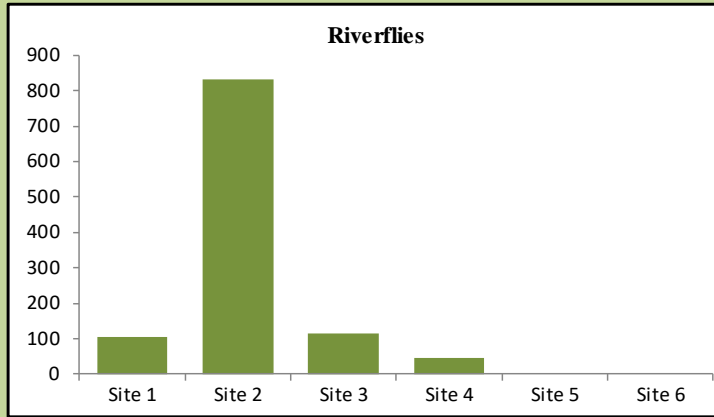
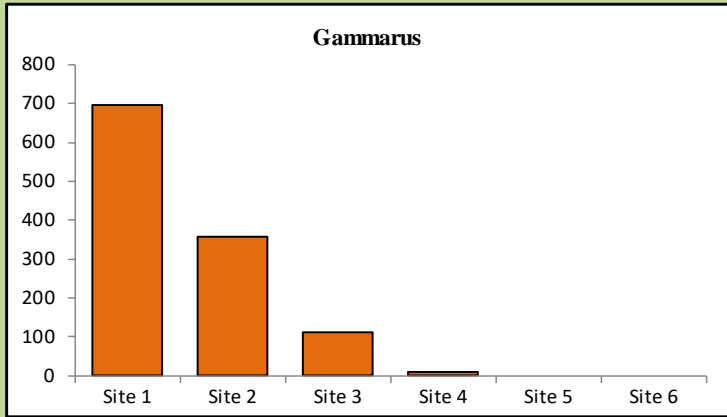
## Biometrics



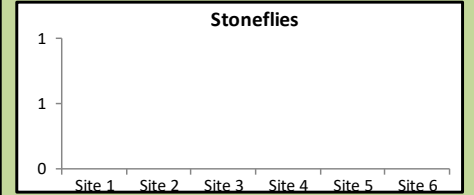
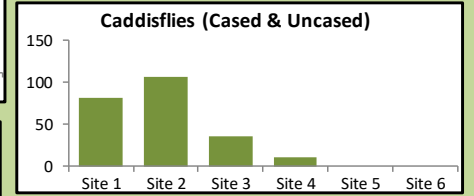
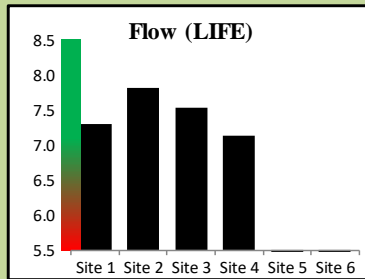
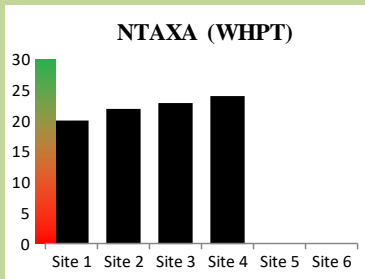
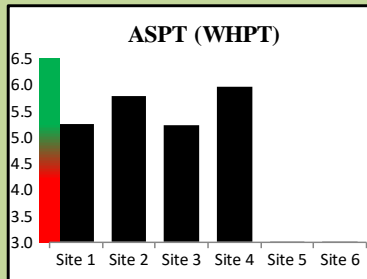
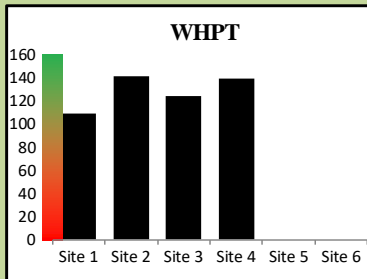
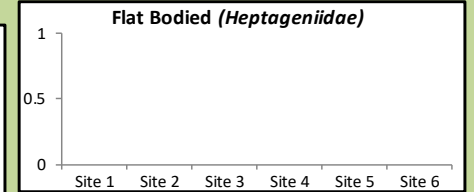
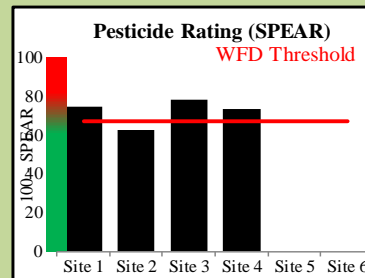
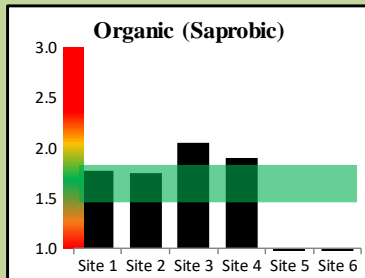
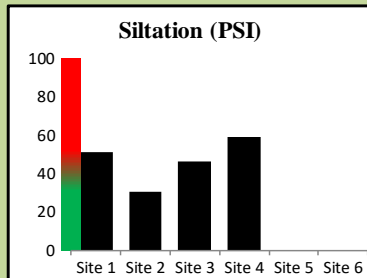
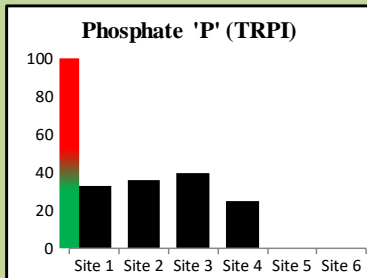
Data in Appendix 6

## Test and Itchen Association

River Test  
Autumn 2022



## Biometrics



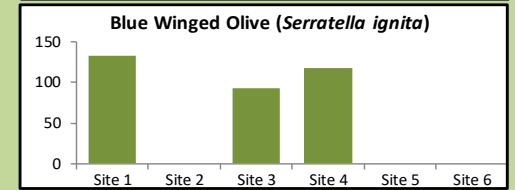
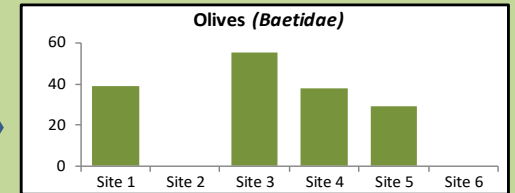
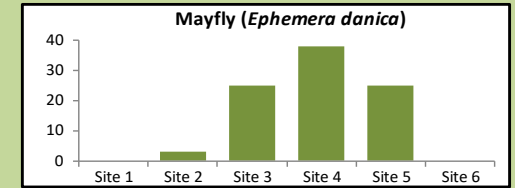
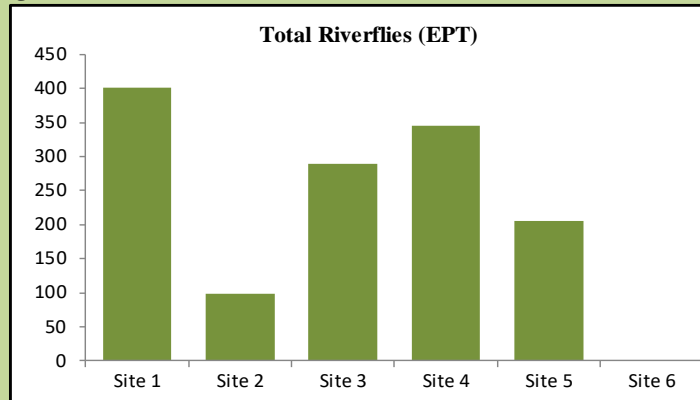
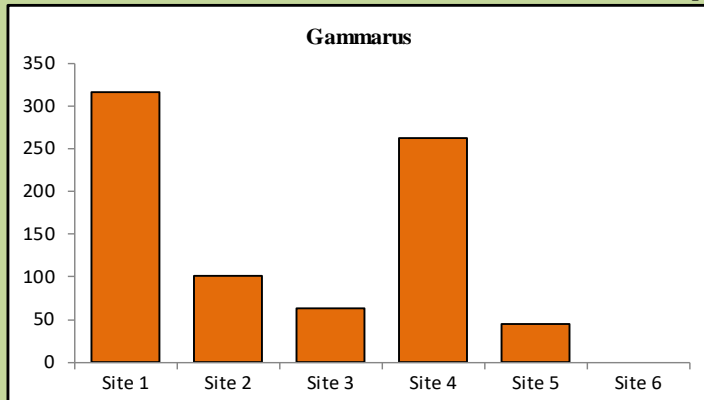
\*No Data Site 5 (Sample damaged in transit)

Data in Appendix 7

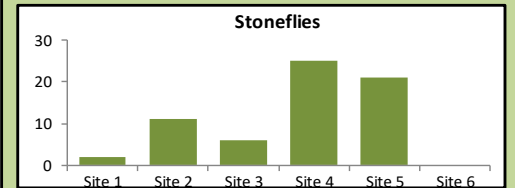
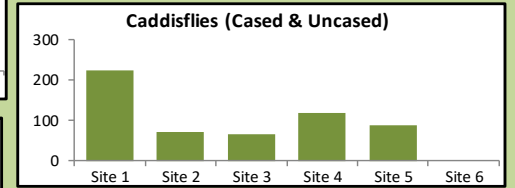
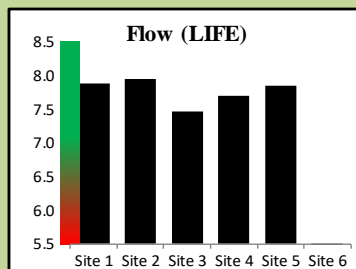
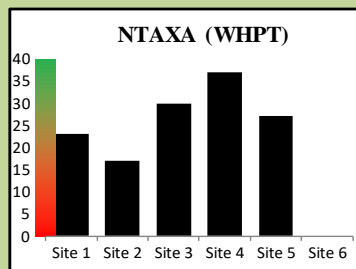
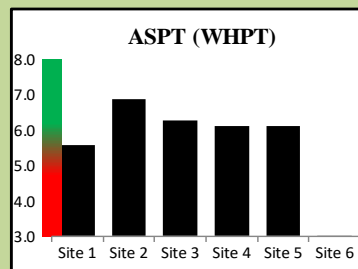
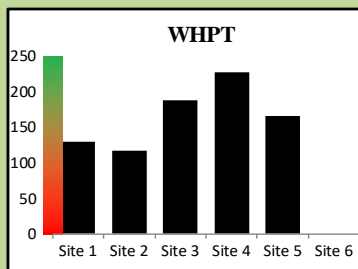
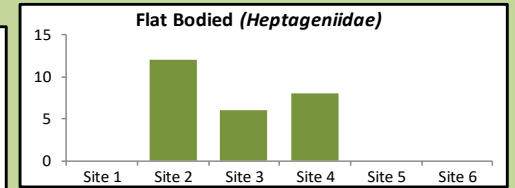
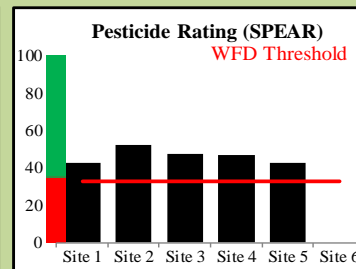
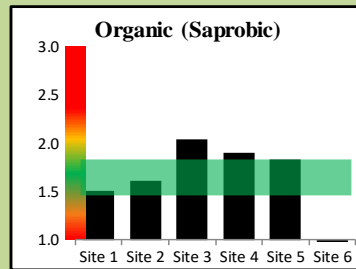
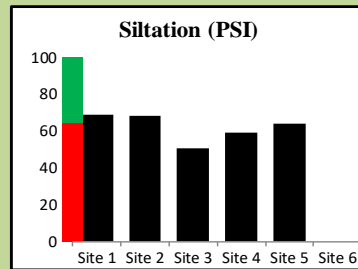
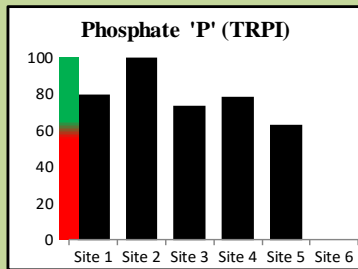


## Tet and Itchen Association

River Test  
Spring 2023



## Biometrics



Data in Appendix 8

# Appendix 1

| Caddisflies                  | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|------------------------------|--------|--------|--------|--------|--------|
| Adicella reducta             |        |        |        |        | 1      |
| Agapetus fuscipes            | 3      | 6      | 2      |        |        |
| Agapetus sp.                 | 154    |        |        |        |        |
| Athripsodes                  |        |        |        | 3      |        |
| Athripsodes cinereus         |        |        | 1      | 1      | 26     |
| Brachycentrus subnubilis     |        |        |        | 4      | 7      |
| Chaetopteryx villosa         |        |        | 1      |        |        |
| Cheumatopsyche lepida        |        |        | 1      | 88     | 77     |
| Goera pilosa                 |        |        |        | 1      | 1      |
| Hydropsyche pellucidula      |        | 4      | 6      | 10     | 7      |
| Hydropsyche siltalai         |        | 11     | 41     | 6      | 16     |
| Hydroptila sp.               |        |        |        | 6      |        |
| Ithytrichia                  |        |        |        | 2      | 5      |
| Limnephilus flavicornis      |        | 2      |        |        |        |
| Mystacides                   |        |        | 2      | 15     | 2      |
| Mystacides longicornis       |        |        | 5      |        |        |
| Odontocerum albicorne        |        |        |        | 1      |        |
| Polycentropus flavomaculatus |        | 3      | 1      | 3      | 2      |
| Potamophylax                 |        |        |        |        | 2      |
| Potamophylax latipennis      |        | 4      |        |        |        |
| Rhyacophila                  | 1      |        |        |        | 2      |
| Rhyacophila septentrionis    |        | 1      | 1      |        | 2      |
| Sericostoma personatum       |        | 22     | 49     | 33     | 7      |
| Silo nigricornis             | 3      | 6      | 3      |        |        |

| Damsels & Dragons | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|-------------------|--------|--------|--------|--------|--------|
| Calopteryx        |        |        | 2      | 4      |        |
| Calopteryx virgo  |        |        | 3      | 1      |        |

| Mayflies             | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|----------------------|--------|--------|--------|--------|--------|
| Ephemera danica      |        | 17     | 22     | 38     | 8      |
| Baetis               | 12     | 148    | 378    | 51     | 101    |
| Heptagenia sulphurea |        | 7      | 19     | 6      |        |
| Serratella ignita    | 1      | 2      | 5      | 36     | 1      |
| Caenis rivulorum     |        |        | 12     |        | 2      |

| Stoneflies    | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|---------------|--------|--------|--------|--------|--------|
| Stonely nymph |        | 2      |        |        |        |

| Beetles & Bugs           | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|--------------------------|--------|--------|--------|--------|--------|
| Aphelocheirus aestivalis |        |        |        | 100    | 3      |
| Diving Beetle larva      |        |        |        | 1      |        |
| Elmis aenea              | 23     | 65     | 241    | 29     | 83     |
| Halipilus                | 1      |        |        | 1      |        |
| Lesser Waterboatman      |        | 13     |        |        |        |
| Limnius volckmari        |        | 3      | 56     | 26     | 49     |
| Oreodytes sanmarkii      | 4      | 1      | 3      |        |        |
| Platambus maculatus      |        | 3      | 2      | 1      |        |
| Riolus subviolaceus      |        |        | 6      | 2      |        |
| Whirligig Beetle         |        |        |        |        | 1      |



## River Test - 2019 Autumn

| True Flies     | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|----------------|--------|--------|--------|--------|--------|
| Tanytarsinae   | 16     |        | 1      |        |        |
| Antocha sp.    | 3      |        |        |        |        |
| Chironomidae   |        |        | 7      | 8      | 15     |
| Dicranota sp.  |        |        |        |        | 1      |
| Orthocladiinae | 5      | 7      | 1      |        | 3      |
| Simulium       | 1      | 19     | 577    | 1      | 332    |

| Alderfly       | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|----------------|--------|--------|--------|--------|--------|
| Sialis lutaria | 1      | 3      | 2      |        |        |

| Crustaceans       | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|-------------------|--------|--------|--------|--------|--------|
| Gammarus pulex    | 339    | 736    | 463    | 196    | 250    |
| Asellus aquaticus | 613    | 254    | 23     | 1      | 15     |

| Biometrics            | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|-----------------------|--------|--------|--------|--------|--------|
| BMWP                  | 93     | 138    | 166    | 184    | 166    |
| ASPT                  | 4.89   | 5.52   | 5.72   | 6.13   | 5.93   |
| WHPT                  | 99     | 146    | 172    | 182    | 164    |
| ASPT                  | 4.69   | 5.62   | 5.75   | 5.88   | 5.85   |
| Number of Taxa (BMWP) | 19     | 25     | 29     | 30     | 28     |
| Riverfly - species    | 6      | 13     | 17     | 17     | 18     |
| Riverfly - numbers    | 174    | 233    | 549    | 304    | 269    |
| CCI                   | 7.00   | 12.70  | 15.27  | 15.17  | 15.12  |
| LIFE                  | 7.55   | 7.55   | 7.74   | 7.65   | 7.68   |
| PSI                   | 63.41  | 60.00  | 58.67  | 51.95  | 59.70  |
| SPEAR                 | 28.97  | 34.15  | 39.05  | 36.19  | 32.38  |
| TRPI                  | 62.50  | 72.73  | 56.25  | 70.00  | 66.67  |
| Saprobic              | 1.91   | 2.11   | 1.89   | 1.94   | 1.94   |

| Molluscs                 | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|--------------------------|--------|--------|--------|--------|--------|
| Ancylus fluviatilis      | 1      | 1      | 3      | 1      | 3      |
| Anisus vortex            | 9      | 99     | 22     | 51     | 15     |
| Bithynia tentaculata     |        |        | 9      | 37     | 17     |
| Gyraulus albus           |        | 1      |        | 17     | 4      |
| Lymnaea sp.              |        | 2      |        |        |        |
| Physa fontinalis         | 5      | 53     | 8      | 17     | 29     |
| Pisidium sp.             |        |        | 9      |        | 67     |
| Planorbis carinatus      |        |        |        | 1      |        |
| Planorbis leucostoma     |        | 2      |        |        |        |
| Planorbis planorbis      |        |        |        | 2      | 4      |
| Potamopyrgus antipodarum |        |        |        | 19     |        |
| Radix balthica           |        |        | 4      | 26     | 1      |
| Sphaerium                |        | 94     |        | 36     |        |
| Theodoxus fluviatilis    |        |        |        | 48     |        |

| Leeches & Worms         | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|-------------------------|--------|--------|--------|--------|--------|
| Erpobdella octoculata   | 1      | 2      | 11     | 3      | 1      |
| Glossiphonia complanata | 3      | 21     | 4      | 3      |        |
| Helobdella stagnalis    | 4      | 1      | 7      |        | 13     |
| Piscicola geometra      | 1      | 2      | 3      |        |        |
| Theromyzon tessellatum  |        | 1      | 2      |        |        |

## Appendix 2

| Caddisflies              | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|--------------------------|--------|--------|--------|--------|--------|
| Agapetus                 |        | 46     | 3      |        |        |
| Agapetus fuscipes        | 201    |        |        |        |        |
| Agapetus ochripes        | 12     |        |        |        |        |
| Anabolia nervosa         |        | 6      | 3      | 1      |        |
| Athripsodesa albifrons   |        |        |        |        | 4      |
| Brachycentrus subnubilis |        |        | 3      | 23     | 65     |
| Ceraclea nigronervosa    |        |        |        |        | 1      |
| Chaetopteryx villosa     | 19     | 9      |        | 1      |        |
| Cheumatopsyche lepida    |        |        | 3      | 49     | 149    |
| Drusus annulatus         | 20     |        |        | 1      |        |
| Glyptotendipes pallidus  | 6      |        |        |        |        |
| Halesus radiatus         |        | 4      | 5      | 2      |        |
| Hydropsyche pellucidula  |        |        |        |        | 9      |
| Hydropsyche siltalai     |        | 5      | 29     | 36     | 18     |
| Hydroptila               | 11     |        |        | 16     | 11     |
| Ithytrichia lamellaris   |        |        |        |        | 3      |
| Lepidostoma basale       |        |        |        | 8      |        |
| Lepidostoma hirtum       |        |        |        | 39     |        |
| Limnephilus lunatus      | 42     | 23     |        | 4      |        |
| Limnephilus rhombicus    | 20     |        |        | 2      |        |
| Lype phaeopa             | 1      |        |        |        |        |
| Lype reducta             | 2      |        |        |        |        |
| Odontocerum albicorne    |        |        | 4      | 1      |        |
| Potamophylax cingulatus  | 7      |        |        |        |        |
| Potamophylax latipennis  | 6      | 3      |        | 3      |        |
| Rhyacophila dorsalis     |        | 2      | 3      | 1      | 5      |
| Sericostoma personatum   |        | 10     | 16     |        |        |
| Trianaodes bicolor       |        |        |        | 1      |        |

| Damsels & Dragons    | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|----------------------|--------|--------|--------|--------|--------|
| Calopteryx splendens |        |        | 1      | 7      | 1      |

| Mayflies                | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|-------------------------|--------|--------|--------|--------|--------|
| Ephemera danica         |        | 8      | 15     | 3      | 1      |
| Baetis                  |        |        |        |        |        |
| Baetis rhodani          | 76     | 83     | 13     | 9      | 83     |
| Baetis fuscatus/scambus | 5      | 36     |        |        | 44     |
| Heptagenia sulphurea    |        | 4      |        |        | 1      |
| Serratella ignita       | 163    | 545    | 219    | 108    | 232    |
| Caenis rivulorum group  |        | 52     |        | 13     | 35     |

| Stoneflies          | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|---------------------|--------|--------|--------|--------|--------|
| Isoperla grammatica | 3      | 11     | 3      |        | 3      |
| Leuctra hippopus    | 19     |        | 7      |        |        |
| Leuctra geniculata  |        |        |        | 18     |        |

| Beetles & Bugs           | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|--------------------------|--------|--------|--------|--------|--------|
| Aphelocheirus aestivalis |        |        |        | 21     | 3      |
| Dytiscidae               | 2      |        |        |        | 1      |
| Elmis aenea              | 14     |        | 12     | 28     | 54     |
| Haliphus                 |        |        |        | 2      |        |
| Hydroporus               | 3      |        |        |        |        |
| Limnius volckmari        |        |        | 17     | 37     | 71     |
| Nebrioporus depreus      |        |        |        | 2      |        |
| Oreodytes sanmarkii      |        | 2      |        |        |        |
| Sigara dorsalis          |        |        | 1      | 1      |        |



### River Test - 2020 Spring

| True Flies                  | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|-----------------------------|--------|--------|--------|--------|--------|
| Ceratopogonidae             | 2      |        |        |        | 1      |
| Clinocera                   | 5      |        |        |        |        |
| Dicranota                   |        |        |        |        | 2      |
| Dixa                        | 4      | 2      | 2      | 2      |        |
| Orthocladinae               | 31     | 62     | 19     | 36     | 29     |
| Oxycera nigricornis         | 1      |        |        |        |        |
| Oxycera pardalina           | 1      |        |        |        |        |
| Simulium                    |        |        | 119    |        |        |
| Simulium angustitarse group | 18     |        |        |        |        |
| Simulium ornatum group      |        |        |        |        | 42     |
| Tanytopodinae               | 17     |        |        | 11     |        |
| Tanytarsini                 | 12     | 18     |        |        | 1      |

| Alderfly       | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|----------------|--------|--------|--------|--------|--------|
| Sialis lutaria | 1      |        |        |        |        |

| Crustaceans       | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|-------------------|--------|--------|--------|--------|--------|
| Gammarus pulex    | 398    | 497    | 377    | 117    | 137    |
| Niphargus aquilex | 3      |        | 1      |        |        |
| Asellus aquaticus | 97     | 31     | 8      |        |        |

| Biometrics            | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|-----------------------|--------|--------|--------|--------|--------|
| BMWP                  | 101    | 126    | 146    | 180    | 151    |
| ASPT                  | 5.61   | 5.48   | 5.84   | 6.21   | 6.29   |
| WHPT                  | 131    | 134    | 158    | 188    | 156    |
| ASPT                  | 5.69   | 5.60   | 6.08   | 6.07   | 6.24   |
| Number of Taxa (BMWP) | 18     | 23     | 25     | 29     | 24     |
| Riverfly - species    | 15     | 16     | 13     | 21     | 16     |
| Riverfly - numbers    | 587    | 847    | 976    | 339    | 664    |
| CCI                   | 18.48  | 8.89   | 9.80   | 15.75  | 17.36  |
| LIFE                  | 7.88   | 7.55   | 7.67   | 7.68   | 8.18   |
| PSI                   | 62.90  | 50.79  | 57.89  | 57.14  | 71.67  |
| SPEAR                 | 48.35  | 49.19  | 34.43  | 43.10  | 38.72  |
| TRPI                  | 87.50  | 77.27  | 78.95  | 75.01  | 76.19  |
| Saprobic              | 1.51   | 1.89   | 1.96   | 1.89   | 1.99   |

| Molluscs                 | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|--------------------------|--------|--------|--------|--------|--------|
| Ancylus fluviatilis      |        | 7      |        | 4      |        |
| Anisus vortex            | 4      |        | 7      | 1      | 2      |
| Bathyomphalus contortus  | 1      | 3      |        |        |        |
| Bithynia tentaculata     | 10     |        | 37     | 35     | 13     |
| Gyraulus albus           |        | 7      |        | 8      |        |
| Lymnaea palustris        |        | 2      | 1      |        |        |
| Physa fontinalis         | 10     | 17     |        |        |        |
| Pisidium                 |        |        | 3      |        |        |
| Planorbis carinatus      |        |        |        | 1      |        |
| Potamopyrgus antipodarum |        |        |        |        | 6      |
| Radix balthica           | 8      | 2      |        | 4      |        |
| Sphaerium                |        | 9      | 6      |        |        |
| Theodoxus fluviatilis    |        |        |        | 39     | 1      |
| Valvata piscinalis       |        |        | 3      |        |        |

| Leeches & Worms         | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|-------------------------|--------|--------|--------|--------|--------|
| Criodrilum lacuum       |        |        |        |        |        |
| Erpobdella octoculata   |        | 1      | 1      | 3      | 17     |
| Glossiphonia complanata |        | 3      |        | 5      |        |
| Haplotaxis gordioides   |        | 1      | 1      |        |        |
| Hydracarina             |        | 8      |        | 10     | 6      |
| Oligochaeta             |        | 13     | 9      | 9      | 26     |
| Polycelis felina        |        | 7      |        |        |        |

## Appendix 3

| <b>Caddisflies</b>           | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|------------------------------|--------|--------|--------|--------|--------|
| Agapetus                     | 289    | 93     |        |        |        |
| Athripsodes cinereus         |        |        |        |        | 2      |
| Brachycentrus subnubilus     |        |        |        | 1      | 23     |
| Chaetopteryx villosa         |        |        |        | 2      |        |
| Cheumatopsyche lepida        |        |        |        | 27     | 72     |
| Drusus annulatus             | 7      |        |        |        |        |
| Glyptotaelius pellucidus     |        | 4      | 1      |        |        |
| Hydropsyche pellucidula      |        | 3      | 12     | 8      | 29     |
| Hydropsyche siltalai         |        |        | 19     |        |        |
| Hydropsyche siltalai         |        |        | 19     | 5      | 16     |
| Hydroptila                   | 4      |        |        | 9      | 49     |
| Ithytrichia lamellaris       |        |        |        | 1      |        |
| Limnephilus lunatus          |        |        | 3      | 3      |        |
| Limnephilus rhombicus        |        | 12     | 11     | 4      |        |
| Mystacidis azurea            |        |        | 5      | 13     |        |
| Odontocerum albicorne        |        |        | 4      |        |        |
| Plectrocnemia conspersa      |        |        |        | 1      |        |
| Polycentropus flavomaculatus |        |        |        |        | 1      |
| Polycentropus kingi          |        |        |        |        | 1      |
| Potamophylax cingulatus      | 1      |        |        |        |        |
| Rhyacophila dorsalis         | 1      |        |        |        | 17     |
| Sericostoma personatum       |        | 11     | 23     | 18     |        |
| Silo nigricornis             | 8      | 215    | 1      | 11     | 1      |

| <b>Damselfly &amp; Dragons</b> | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|--------------------------------|--------|--------|--------|--------|--------|
| Calopteryx splendens           |        |        |        | 3      |        |

| <b>Mayflies</b>               | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|-------------------------------|--------|--------|--------|--------|--------|
| Ephemera danica               | 2      | 3      | 6      | 44     | 65     |
| Baetis                        |        | 441    | 103    | 163    | 188    |
| Baetis rhodani                | 12     |        |        |        |        |
| Baetis fuscatus/scambus       |        |        |        |        |        |
| Baetis muticus                |        |        |        |        | 5      |
| Heptagenia sulphurea          |        | 2      | 3      |        | 2      |
| Serratella ignita             | 13     | 1      | 8      | 3      | 3      |
| Caenis rivulorum group        |        |        |        |        |        |
| Centroptilum luteolum         |        |        |        | 16     |        |
| Paraleptophlebia submarginata |        |        |        | 6      |        |
| Procladius pennulatus         |        | 3      |        |        |        |

| <b>Stoneflies</b> | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|-------------------|--------|--------|--------|--------|--------|
| Isoperla          |        |        |        | 1      |        |

| <b>Beetles &amp; Bugs</b> | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|---------------------------|--------|--------|--------|--------|--------|
| Aphelocheirus aestivalis  |        |        |        | 34     | 16     |
| Brychius elevatus         |        |        |        | 1      |        |
| Dytiscidae                |        | 7      |        | 1      |        |
| Elmidae                   | 29     | 38     | 31     | 59     | 142    |
| Gyrinidae                 |        | 5      |        |        |        |
| Halipus                   |        |        |        | 3      |        |
| Halipus lineatocollis     | 1      |        |        |        |        |
| Hydracarina               | 3      |        |        |        | 11     |
| Limnius volckmari         |        |        | 18     | 6      | 117    |
| Nebrioporus               |        |        |        | 18     | 1      |
| Orectochilus villosus     |        |        |        |        | 5      |
| Oreodytes sanmarkii       | 15     | 5      |        |        |        |
| Oulimnius tuberculatus    |        |        |        | 2      | 27     |
| Riolus                    |        |        |        | 4      | 8      |
| Sigara dorsalis           |        |        |        |        | 1      |



### River Test - 2020

#### Autumn

| <b>True Flies</b>      | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|------------------------|--------|--------|--------|--------|--------|
| Orthocladiinae         | 12     | 18     | 39     | 3      | 10     |
| Chironominae           |        | 4      |        |        |        |
| Dixa                   |        |        |        | 5      |        |
| Hemerodromia           |        |        |        |        | 3      |
| Oxyecera pardalina     |        |        |        | 1      |        |
| Simulium ornatum group |        | 39     | 1249   | 58     | 656    |
| Tanytopodinae          | 3      |        |        |        |        |
| Tanytarsini            |        | 14     | 28     | 13     |        |

| <b>Alderfly</b> | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|-----------------|--------|--------|--------|--------|--------|
| Sialis lutaria  | 1      |        |        | 1      |        |

| <b>Crustaceans</b> | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|--------------------|--------|--------|--------|--------|--------|
| Gammarus pulex     | 678    | 223    | 97     | 156    | 308    |
| Asellus aquaticus  | 396    | 21     | 19     | 1      | 1      |

| <b>Biometrics</b>     | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|-----------------------|--------|--------|--------|--------|--------|
| BMWP                  | 108    | 134    | 129    | 193    | 160    |
| ASPT                  | 5.14   | 5.58   | 5.86   | 6.03   | 5.71   |
| WHPT                  | 112    | 138    | 125    | 202    | 173    |
| ASPT                  | 5.10   | 5.73   | 5.69   | 5.95   | 5.96   |
| Number of Taxa (BMWP) | 21     | 24     | 22     | 32     | 28     |
| Riverfly - species    | 9      | 11     | 13     | 21     | 15     |
| Riverfly - numbers    | 337    | 788    | 199    | 336    | 474    |
| CCI                   | 7.50   | 9.77   | 8.54   | 15.62  | 15.69  |
| LIFE                  | 7.68   | 7.65   | 7.46   | 7.43   | 8.06   |
| PSI                   | 53.06  | 56.36  | 53.37  | 46.15  | 69.01  |
| SPEAR                 | 34.79  | 38.85  | 31.79  | 39.91  | 38.65  |
| TRPI                  | 66.67  | 61.54  | 61.54  | 72.73  | 57.14  |
| Saprobic              | 1.62   | 1.66   | 2.35   | 1.95   | 1.86   |

| <b>Molluscs</b>        | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|------------------------|--------|--------|--------|--------|--------|
| Anisus vortex          | 10     | 9      | 14     | 24     |        |
| Ancylus fluviatilis    | 3      | 6      |        | 1      | 1      |
| Bathymphalus contortus | 4      | 8      |        |        |        |
| Bithynia tentaculata   |        | 3      | 10     | 44     | 3      |
| Gyraulus albus         |        |        | 5      | 25     | 1      |
| Lymnaea stagnalis      |        |        |        | 5      |        |
| Physa fontinalis       | 3      | 12     | 22     | 6      | 1      |
| Planorbis carinatus    |        |        |        | 3      |        |
| Radix balthica         | 1      | 2      |        | 23     | 1      |
| Sphaerium              |        |        | 7      | 2      |        |
| Theodoxus fluviatilis  |        |        |        | 31     |        |

| <b>Leeches &amp; Worms</b> | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|----------------------------|--------|--------|--------|--------|--------|
| Erpobdella octoculata      |        |        | 13     |        | 2      |
| Glossiphonia complanata    | 5      | 5      |        | 3      | 3      |
| Helobdella stagnalis       |        |        | 5      |        | 1      |
| Oligochaeta                | 5      |        |        | 7      | 17     |
| Pisicola geometra          |        | 2      | 4      |        |        |
| Polycelis felina           | 8      | 10     |        |        |        |
| Theromyzon tessellatum     | 1      |        |        | 1      |        |

# Appendix 4

| Caddisflies                  | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|------------------------------|--------|--------|--------|--------|--------|
| Adicella reducta             |        | 1      |        |        |        |
| Agapetus                     |        | 38     |        | 12     | 31     |
| Agapetus fuscipes            | 196    |        | 1      |        |        |
| Agapetus ochripes            | 87     |        |        |        |        |
| Anabolia nervosa             |        |        | 10     | 2      |        |
| Athripsodes albifrons        |        |        |        |        | 1      |
| Chaetopteryx villosa         |        | 8      |        |        |        |
| Cheumatopsyche lepidula      |        |        |        | 7      | 15     |
| Glyptotendipes               |        | 10     |        |        |        |
| Hydropsyche pellucidula      |        | 1      | 1      | 14     | 51     |
| Hydropsyche siltalai         |        |        | 3      | 29     | 73     |
| Hydroptila                   | 16     | 7      |        |        | 59     |
| Lepidostoma basale           |        | 3      |        |        |        |
| Limnephilidae                | 3      |        |        | 3      |        |
| Limnephilus flavicornis      |        |        |        |        |        |
| Limnephilus lunatus          | 23     | 21     |        | 3      |        |
| Melampophylax mucoreus       |        |        | 3      |        |        |
| Oxyethira                    |        |        |        |        | 8      |
| Polycentropus flavomaculatus |        | 1      |        |        |        |
| Potamophylax                 |        |        |        |        |        |
| Potamophylax cingulatus      | 11     | 1      |        | 6      |        |
| Procladius pennulatus        |        | 4      |        |        |        |
| Rhyacophila dorsalis         |        |        | 3      | 3      | 4      |
| Rhyacophila septentrionis    |        |        |        | 1      |        |
| Sericostoma personatum       |        | 9      | 13     | 5      |        |

| Damsels & Dragons    | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|----------------------|--------|--------|--------|--------|--------|
| Calopteryx splendens |        |        | 1      | 10     |        |

| Mayflies             | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|----------------------|--------|--------|--------|--------|--------|
| Ephemera danica      |        |        | 23     | 13     | 1      |
| Baetis fuscatus      |        | 113    | 81     | 28     |        |
| Baetis muticus       |        |        | 17     |        |        |
| Baetis niger         |        | 2      |        |        |        |
| Baetis rhodani       | 15     | 38     | 112    | 23     | 19     |
| Heptagenia sulphurea |        | 9      | 15     | 5      | 1      |
| Serratella ignita    | 168    | 14     | 116    | 29     |        |
| Caenis rivulorum     |        | 32     | 63     |        | 23     |

| Stoneflies          | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|---------------------|--------|--------|--------|--------|--------|
| Isoperla grammatica |        | 37     | 5      | 18     | 13     |
| Leuctra geniculata  |        |        |        | 3      |        |
| Nemoura cinerea     | 6      |        |        |        |        |

| Beetles & Bugs           | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|--------------------------|--------|--------|--------|--------|--------|
| Aphelocheirus aestivalis |        |        |        | 31     | 12     |
| Brychius elevatus        |        |        |        | 1      |        |
| Elmis aenea              | 21     | 35     | 28     | 21     | 23     |
| Hydracarina              |        |        |        |        | 1      |
| Limnius volkmari         |        |        | 7      |        | 27     |
| Oreodytes sanmarkii      |        |        |        | 3      |        |
| Riolus subviolaceus      |        |        |        | 2      |        |



River Test - 2021  
Spring

| True Flies          | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|---------------------|--------|--------|--------|--------|--------|
| Antocha vitripennis |        |        |        |        | 14     |
| Chironomidae        | 3      | 3      | 3      |        |        |
| Dicranota           |        |        |        | 1      | 1      |
| Orthocladinae       | 12     | 16     | 15     | 1      | 19     |
| Simulium            | 8      | 5      |        |        |        |
| Simulium ornatum    | 6      |        | 131    | 57     | 68     |
| Tanytopinae         | 13     |        |        |        |        |
| Tanytarsini         |        |        | 11     |        |        |

| Alderfly | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|----------|--------|--------|--------|--------|--------|
|          |        |        |        |        |        |
|          |        |        |        |        |        |
|          |        |        |        |        |        |
|          |        |        |        |        |        |

| Crustaceans       | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|-------------------|--------|--------|--------|--------|--------|
| Gammarus pulex    | 487    | 135    | 227    | 37     | 131    |
| Asellus aquaticus | 32     | 22     | 1      |        |        |

| Biometrics            | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|-----------------------|--------|--------|--------|--------|--------|
| BMWP                  | 74     | 145    | 125    | 144    | 118    |
| ASPT                  | 4.93   | 6.04   | 5.95   | 6.26   | 6.21   |
| WHPT                  | 79     | 144    | 139    | 153    | 130    |
| ASPT                  | 5.27   | 6.01   | 6.31   | 6.36   | 6.51   |
| Number of Taxa (BMWP) | 15     | 24     | 21     | 23     | 19     |
| Riverfly - species    | 10     | 19     | 16     | 18     | 13     |
| Riverfly - numbers    | 525    | 349    | 473    | 204    | 299    |
| CCI                   | 3.60   | 11.88  | 9.04   | 16.00  | 10.79  |
| LIFE                  | 7.67   | 7.68   | 8.19   | 7.94   | 8.35   |
| PSI                   | 60.53  | 62.96  | 72.41  | 66.67  | 83.67  |
| SPEAR                 | 49.88  | 51.13  | 50.78  | 44.92  | 31.71  |
| TRPI                  | 83.33  | 71.43  | 73.91  | 83.33  | 18.18  |
| Saprobic              | 1.42   | 1.81   | 2.00   | 1.90   | 1.78   |

| Molluscs             | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|----------------------|--------|--------|--------|--------|--------|
| Acroloxus lacustris  |        | 6      |        |        |        |
| Ancylus fluviatilis  |        |        |        |        | 8      |
| Anisus vortex        | 5      | 12     |        | 23     |        |
| Bithynia tentaculata |        |        | 5      | 21     | 12     |
| Gyraulus albus       |        |        |        | 1      |        |
| Lymnaea palustris    |        |        |        |        | 1      |
| Physa fontinalis     | 3      | 3      | 4      |        |        |
| Planorbis carinatus  |        |        |        | 13     |        |
| Radix balthica       | 6      | 2      |        | 2      |        |
| Sphaerium            |        | 8      |        |        |        |
| Sphaerium corneum    |        |        | 6      |        |        |

| Leeches & Worms       | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|-----------------------|--------|--------|--------|--------|--------|
| Erpobdella octoculata | 1      | 3      | 1      |        |        |
| Oligochaeta           |        |        |        | 1      |        |
| Pisicola geometra     |        |        | 1      |        | 1      |

# Appendix 5



## River Test - 2021 Autumn

| Caddisflies              | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|--------------------------|--------|--------|--------|--------|--------|
| Agapetus                 |        |        | 4      |        |        |
| Agapetus delicatulus     | 12     |        |        |        |        |
| Agapetus fuscipes        | 23     | 12     |        |        |        |
| Anabolia nervosa         |        |        |        | 2      |        |
| Brachycentrus subnubilus |        |        |        | 8      | 11     |
| Drusus annulatus         | 8      |        |        |        |        |
| Hydropsyche pellucidula  |        |        | 4      | 14     | 17     |
| Hydropsyche siltalai     |        | 7      |        |        |        |
| Limnephilus rhombicus    |        |        |        | 3      |        |
| Oxyethira                | 6      |        |        |        |        |
| Polycentropus kingi      |        |        |        | 1      |        |
| Potamophylax cingulatus  | 4      | 2      |        |        |        |
| Potamophylax latipennis  |        |        | 1      |        |        |
| Rhyacophila dorsalis     | 6      |        |        |        | 6      |
| Sericostoma personatum   | 1      |        |        | 5      | 3      |
| Silo nigricornis         |        |        | 1      | 3      |        |
| Stenophylax permistus    | 1      |        |        |        |        |
| Ylodes conspersus        | 1      |        |        |        |        |

| Mayflies                   | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|----------------------------|--------|--------|--------|--------|--------|
| Ephemera danica            |        |        | 1      | 5      |        |
| Baetis                     | 10     |        |        |        |        |
| Baetis rhodani/atlancticus |        | 44     | 6      | 3      |        |
| Baetis fuscatus/scambus    |        | 31     | 14     | 10     | 7      |
| Baetis muticus             |        | 3      |        |        | 2      |
| Heptagenia sulphurea       |        | 3      |        |        |        |
| Serratella ignita          | 13     | 5      | 10     | 29     | 5      |
| Centropilum luteolum       |        |        | 1      |        |        |

| Damselfly & Dragons  | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|----------------------|--------|--------|--------|--------|--------|
| Calopteryx splendens |        |        |        | 4      |        |

| Stoneflies          | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|---------------------|--------|--------|--------|--------|--------|
| Isoperla grammatica |        | 2      |        |        |        |
| Leuctra fusca       | 5      |        |        |        |        |

| Beetles & Bugs           | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|--------------------------|--------|--------|--------|--------|--------|
| Aphelocheirus aestivalis |        |        |        | 31     | 5      |
| Elmis aenea              | 28     |        | 15     | 17     | 49     |
| Halipilus                |        |        |        | 1      |        |
| Halipilus flavicollis    |        |        |        |        | 3      |
| Halipilus lineatocollis  | 1      |        |        |        |        |
| Hydraena                 |        |        | 1      |        |        |
| Limnesia                 |        | 17     |        |        |        |
| Limnius volckmari        |        |        | 11     | 37     | 20     |
| Oreodytes sanmarkii      | 11     | 4      |        |        |        |
| Platambus maculatus      |        | 1      |        |        |        |
| Sigara                   | 1      |        |        |        |        |
| Sigara dorsalis          |        | 10     |        |        |        |

| True Flies             | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|------------------------|--------|--------|--------|--------|--------|
| Dixa                   | 3      |        | 1      |        |        |
| Diconota               |        |        |        |        | 3      |
| Orthocnemiinae         |        |        | 3      |        | 21     |
| Simulium               | 4      |        |        |        |        |
| Simulium ornatum group |        | 88     | 559    | 1      | 255    |
| Tanyptodinae           | 8      |        |        |        |        |
| Tanyptarsini           | 5      |        | 1      |        |        |

| Alderfly | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|----------|--------|--------|--------|--------|--------|
|          |        |        |        |        |        |

| Crustaceans       | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|-------------------|--------|--------|--------|--------|--------|
| Gammarus pulex    | 816    | 47     | 229    | 30     | 118    |
| Asellus aquaticus | 51     | 4      | 5      |        |        |
| Ostracod          |        |        | 13     |        |        |

| Biometrics            | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|-----------------------|--------|--------|--------|--------|--------|
| BMWP                  | 120    | 96     | 95     | 130    | 98     |
| ASPT                  | 5.45   | 5.65   | 5.00   | 6.50   | 5.44   |
| WHPT                  | 131    | 95     | 109    | 132    | 102    |
| ASPT                  | 5.46   | 5.61   | 5.46   | 6.29   | 5.64   |
| Number of Taxa (BMWP) | 22     | 17     | 19     | 20     | 18     |
| Riverfly - species    | 12     | 9      | 9      | 11     | 7      |
| Riverfly - numbers    | 90     | 109    | 42     | 83     | 51     |
| CCI                   | 11.33  | 4.86   | 9.12   | 11.15  | 10.67  |
| LIFE                  | 7.68   | 7.67   | 7.67   | 7.29   | 8.18   |
| PSI                   | 68.75  | 70.73  | 60.00  | 49.09  | 68.29  |
| SPEAR                 | 42.70  | 33.91  | 26.28  | 35.23  | 23.37  |
| TRPI                  | 75.00  | 25.00  | 80.00  | 66.67  | 95.00  |
| Saprobic              | 1.90   | 2.01   | 2.28   | 1.92   | 2.15   |

| Molluscs                 | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|--------------------------|--------|--------|--------|--------|--------|
| Ancylus fluviatilis      | 3      | 5      |        |        |        |
| Anisus vortex            | 15     | 6      |        | 6      |        |
| Bithynia tentaculata     |        |        | 4      | 71     | 23     |
| Gyraulus albus           |        |        |        | 22     |        |
| Lymnaea palustris        |        |        |        | 1      |        |
| Lymnaea stagnalis        |        |        |        | 1      |        |
| Physa fontinalis         | 2      |        | 3      |        | 6      |
| Planorbis carinatus      |        |        |        | 13     |        |
| Potamopyrgus antipodarum |        |        |        | 4      |        |
| Radix balthica           |        |        |        | 7      | 3      |
| Sphaerium                |        |        |        | 6      |        |
| Theodoxus fluviatilis    |        |        |        | 26     | 2      |

| Leeches & Worms         | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|-------------------------|--------|--------|--------|--------|--------|
| Erpobdella octoculata   |        | 4      |        |        |        |
| Glossiphonia complanata | 6      |        | 2      |        |        |
| Helobdella stagnalis    | 5      | 11     |        |        |        |
| Oligochaeta             | 7      |        | 12     |        | 16     |
| Piscicola geometra      | 2      | 2      |        |        |        |
| Theromyzon tessellatum  |        | 1      | 3      |        |        |

# Appendix 6



## River Test - 2022 Spring

| Caddisflies                  | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|------------------------------|--------|--------|--------|--------|--------|
| Adicella reducta             |        |        |        |        | 1      |
| Agapetus                     |        |        | 9      |        | 59     |
| Agapetus delicatulus         | 128    | 23     |        |        |        |
| Agapetus fuscipes            |        |        |        |        |        |
| Anabolia nervosa             |        |        | 3      | 2      |        |
| Athripsodes albifrons        |        |        |        |        | 6      |
| Athripsodes cinereus         |        |        |        |        | 3      |
| Brachycentrus subnubilis     |        |        |        | 2      |        |
| Chaetopteryx villosa         |        |        |        | 1      |        |
| Cheumatopsyche lepida        |        |        | 1      | 1      | 104    |
| Drusus annulatus             |        |        |        |        |        |
| Glyptotaelus pellucidus      | 2      |        |        | 2      |        |
| Haleus radialis              | 1      |        | 2      |        | 1      |
| Hydatophylax infumatus       |        | 1      |        |        |        |
| Hydropsyche pellucidula      |        | 3      |        | 3      | 9      |
| Hydropsyche siltalai         |        |        | 38     | 11     | 77     |
| Hydroptila                   | 11     | 5      |        | 19     | 97     |
| Ithytrichia lamellaris       |        |        |        |        | 8      |
| Lepidostoma hirtum           |        |        |        | 6      | 36     |
| Limnephilus                  |        | 3      |        |        |        |
| Limnephilus decipiens        |        | 2      |        | 2      |        |
| Limnephilus lunatus          | 9      |        | 6      | 4      |        |
| Limnephilus rhombicus        | 3      |        |        | 3      | 2      |
| Melampophylax mucoreus       | 1      |        |        |        |        |
| Mystacidia azurea            | 4      |        |        |        | 1      |
| Odontocerum albicorne        |        |        | 2      |        |        |
| Oxyethira                    |        |        |        |        |        |
| Polycentropus flavomaculatus |        | 2      |        |        |        |
| Polycentropus kingi          |        |        |        |        |        |
| Potamophylax cingulatus      |        |        |        |        |        |
| Potamophylax latipennis      |        | 3      | 1      | 2      |        |
| Psychomyia pusilla           |        |        |        |        | 5      |
| Rhyacophila dorsalis         |        |        | 4      |        | 7      |
| Rhyacophila septentrionis    |        |        |        |        | 1      |
| Sericostoma personatum       | 3      | 5      | 13     | 5      | 16     |
| Silo nigricornis             |        |        | 3      |        | 5      |
| Stenophylax permistus        |        |        |        |        |        |
| Ylodes conspersus            |        |        |        |        |        |

| Damselfly & Dragons    | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|------------------------|--------|--------|--------|--------|--------|
| Calopteryx splendens   |        |        | 2      | 2      | 2      |
| Cordulegaster boltonii |        | 1      |        |        |        |

| Mayflies                  | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|---------------------------|--------|--------|--------|--------|--------|
| Ephemera danica           |        | 1      | 5      | 7      |        |
| Baetis                    | 13     | 12     |        | 54     |        |
| Baetis rhodani/atlanticus |        |        | 134    |        | 38     |
| Baetis fuscatus/scambus   |        |        | 45     | 6      |        |
| Baetis muticus            |        |        |        | 3      | 56     |
| Baetis digitatus          | 6      |        |        | 9      | 11     |
| Heptagenia sulphurea      |        | 8      | 13     | 2      | 6      |
| Rhithrogena               |        | 3      |        |        |        |
| Serratella ignita         | 61     | 21     | 49     | 44     | 3      |
| Centropilum luteolum      |        |        |        |        |        |
| Caenis rivulorum          | 8      | 14     | 19     |        | 128    |

| Stoneflies          | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|---------------------|--------|--------|--------|--------|--------|
| Isoperla grammatica | 4      | 21     | 4      | 8      | 41     |
| Lectra fusca        |        |        |        |        |        |
| Leuctra geniculata  |        |        | 1      |        | 7      |
| Nemoura             | 5      |        |        |        |        |
| Nemoura lacustris   | 2      |        |        |        |        |

| Beetles & Bugs           | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|--------------------------|--------|--------|--------|--------|--------|
| Aphelocheirus aestivalis |        |        |        | 20     | 6      |
| Elmis aenea              | 10     | 15     | 7      |        | 126    |
| Halipilus                |        |        |        |        |        |
| Halipilus flavicollis    |        |        |        |        |        |
| Halipilus lineatocollis  |        |        |        |        |        |
| Hydracarina              |        |        |        | 4      |        |
| Limnesia                 |        |        |        |        |        |
| Limnius volckmari        |        |        | 24     | 23     | 13     |
| Micronecta scholtzi      |        |        |        |        | 1      |
| Nebrioporus depressus    |        |        |        |        | 1      |
| Oreochilus villosus      |        | 3      |        |        |        |
| Oreodytes sanmarkii      | 9      | 1      |        |        |        |
| Platambus maculatus      |        |        |        |        |        |
| Riolus subviolaceus      |        |        |        |        | 5      |
| Sigara                   |        |        |        |        |        |
| Sigara dorsalis          |        |        |        |        |        |

| True Flies             | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|------------------------|--------|--------|--------|--------|--------|
| Antocha vitripennis    |        |        |        | 1      | 3      |
| Ceratopogonidae        |        |        |        |        | 1      |
| Chironominae           | 5      | 2      |        | 1      |        |
| Dironota               |        |        |        |        |        |
| Dixa                   |        |        |        |        |        |
| Orthocladiinae         | 7      | 44     |        |        | 5      |
| Psychodidae            |        |        |        | 1      |        |
| Simulium               |        | 1      | 157    |        |        |
| Simulium ornatum group |        |        |        | 41     | 85     |
| Tanypodinae            | 10     |        |        |        |        |
| Tanytarsini            | 17     |        | 21     |        | 23     |

| Alderfly       | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|----------------|--------|--------|--------|--------|--------|
| Sialis lutaria | 1      |        |        |        |        |

| Crustaceans       | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|-------------------|--------|--------|--------|--------|--------|
| Gammarus pulex    | 632    | 128    | 101    | 49     | 173    |
| Asellus aquaticus | 78     | 8      | 6      |        |        |
| Ostracod          |        |        |        |        |        |
| Niphargus aquilex |        |        | 1      |        |        |

| Biometrics            | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|-----------------------|--------|--------|--------|--------|--------|
| BMWP                  | 115    | 141    | 161    | 152    | 194    |
| ASPT                  | 5.75   | 6.13   | 5.96   | 6.33   | 6.47   |
| WHPT                  | 112    | 150    | 183    | 160    | 204    |
| ASPT                  | 5.62   | 6.51   | 6.29   | 6.16   | 6.38   |
| Number of Taxa (BMWP) | 20     | 23     | 27     | 24     | 30     |
| Riverfly - species    | 14     | 17     | 20     | 22     | 26     |
| Riverfly - numbers    | 258    | 130    | 356    | 196    | 728    |
| CCI                   | 10.25  | 11.30  | 14.90  | 16.19  | 19.38  |
| LIFE                  | 7.48   | 7.89   | 7.85   | 7.68   | 8.10   |
| PSI                   | 50.00  | 63.27  | 61.43  | 57.78  | 75.31  |
| SPEAR                 | 50.70  | 57.93  | 43.04  | 44.78  | 50.46  |
| TRPI                  | 87.50  | 82.53  | 70.83  | 84.21  | 84.62  |
| Saprobic              | 1.93   | 1.85   | 1.92   | 1.95   | 1.73   |

| Molluscs                 | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|--------------------------|--------|--------|--------|--------|--------|
| Ancylus fluviatilis      |        |        |        |        | 4      |
| Anisus vortex            | 12     | 5      | 5      | 7      | 3      |
| Bithynia tentaculata     |        |        | 14     | 12     | 18     |
| Gyraulus albus           |        |        |        | 9      | 1      |
| Lymnaea palustris        |        |        | 1      |        |        |
| Lymnaea stagnalis        |        |        |        |        |        |
| Physa fontinalis         | 5      |        | 2      | 1      | 2      |
| Planorbis carinatus      |        |        |        |        | 1      |
| Potamopyrgus antipodarum |        |        |        |        | 3      |
| Radix bathica            | 3      | 1      | 2      | 4      |        |
| Sphaerium                |        |        | 11     |        |        |
| Theodoxus fluviatilis    |        |        |        | 19     |        |
| Valvata piscinalis       |        |        | 5      |        |        |

| Leeches & Worms         | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|-------------------------|--------|--------|--------|--------|--------|
| Erpobdella octoculata   |        |        | 3      |        |        |
| Glossiphonia complanata | 6      | 1      |        |        |        |
| Helobdella stagnalis    | 6      | 1      |        |        | 6      |
| Oligochaeta             |        |        | 6      | 11     | 7      |
| Piscicola geometra      |        |        |        |        |        |
| Theromyzon tessulatum   |        | 1      |        |        |        |
| Haplotaxis gordioides   |        |        | 2      |        |        |

# Appendix 7

| Caddisflies                     | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 | Site 6 |
|---------------------------------|--------|--------|--------|--------|--------|--------|
| Agapetus delicatulus            | 23     |        | 1      |        |        |        |
| Agapetus fuscipes               |        | 89     |        |        |        |        |
| Agapetus ochripes               | 55     |        |        |        |        |        |
| Beraea pullata                  |        | 1      |        |        |        |        |
| Brachycentrus subnubilis        |        |        |        | 5      |        |        |
| Cheumatopsyche lepida           |        |        | 3      |        |        |        |
| Glyptotendipes pellucidus       | 2      |        |        |        |        |        |
| Grammatotendipes nigropunctatus |        | 1      | 2      |        |        |        |
| Hydropsyche pellucidula         |        |        |        | 1      |        |        |
| Hydropsyche siltalai            |        |        | 14     |        |        |        |
| Hydropsyche sp.                 |        |        | 1      |        |        |        |
| Molanna angustata               | 1      |        |        |        |        |        |
| Mystacides azurea               |        |        | 3      | 1      |        |        |
| Odontocerum albicorne           |        |        | 1      |        |        |        |
| Polycentropus flavomaculatus    |        | 1      |        |        |        |        |
| Rhyacophila dorsalis            |        | 1      |        | 1      |        |        |
| Sericostoma persanatum          |        | 3      | 11     | 3      |        |        |
| Silo nigricornis                | 1      | 10     |        |        |        |        |

| Damsels & Dragons    | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 | Site 6 |
|----------------------|--------|--------|--------|--------|--------|--------|
| Calopteryx splendens |        |        | 1      | 6      |        |        |

| Mayflies                  | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 | Site 6 |
|---------------------------|--------|--------|--------|--------|--------|--------|
| Ephemera danica           |        |        |        | 15     |        |        |
| Baetis                    |        |        |        | 8      |        |        |
| Baetis scambus fuscatus   |        | 111    | 28     |        |        |        |
| Baetis rhodani atlanticus | 9      | 206    | 11     |        |        |        |
| Baetis digitatus          | 1      |        |        |        |        |        |
| Baetis venosus            |        | 39     |        |        |        |        |
| Serratella ignita         | 3      | 5      |        | 3      |        |        |

|                                |  |   |  |  |  |  |
|--------------------------------|--|---|--|--|--|--|
| Pamphleptophlebia submarginata |  | 9 |  |  |  |  |
|--------------------------------|--|---|--|--|--|--|

| Stoneflies | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 | Site 6 |
|------------|--------|--------|--------|--------|--------|--------|
|------------|--------|--------|--------|--------|--------|--------|

| Beetles & Bugs           | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 | Site 6 |
|--------------------------|--------|--------|--------|--------|--------|--------|
| Aphelocheirus aestivalis |        |        |        | 40     |        |        |
| Dytiscidae               |        | 2      |        |        |        |        |
| Elmis aenea              | 11     | 28     | 159    | 22     |        |        |
| Haliphys                 |        |        |        | 1      |        |        |
| Limnius volckmari        |        | 2      | 31     | 32     |        |        |
| Oreochilus villosus      |        |        |        |        |        |        |
| Oreodytes samarkii       |        | 3      | 1      | 1      |        |        |
| Oulinus tuberculatus     |        |        |        | 1      |        |        |
| Sigara                   | 1      |        |        |        |        |        |



River Test  
Autumn 2022

| True Flies             | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 | Site 6 |
|------------------------|--------|--------|--------|--------|--------|--------|
| Dixa                   | 1      | 3      |        |        |        |        |
| Dolichopeza albipes    | 1      |        |        |        |        |        |
| Erioptera              |        | 1      |        |        |        |        |
| Orthocladinae          | 10     | 21     | 3      |        |        |        |
| Oxyera nigricornis     | 3      |        |        |        |        |        |
| Simulium               | 3      | 57     |        | 3      |        |        |
| Simulium ornatum group |        |        | 289    |        |        |        |
| Tanyptodinae           | 3      |        |        |        |        |        |
| Tanytarsini            | 1      |        |        |        |        |        |

| Alderfly | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 | Site 6 |
|----------|--------|--------|--------|--------|--------|--------|
|----------|--------|--------|--------|--------|--------|--------|

| Crustaceans       | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 | Site 6 |
|-------------------|--------|--------|--------|--------|--------|--------|
| Gammarus pulex    | 696    | 357    | 113    | 11     |        |        |
| Asellus aquaticus | 18     | 25     | 27     |        |        |        |

| Biometrics            | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 | Site 6 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| BMWP                  | 105    | 127    | 120    | 143    |        |        |
| ASPT                  | 5.25   | 5.77   | 5.22   | 5.96   |        |        |
| WHPT                  | 109    | 142    | 124    | 139    |        |        |
| WHPT ASPT             | 4.96   | 5.90   | 5.40   | 5.55   |        |        |
| Number of Taxa (BMWP) | 20     | 22     | 23     | 24     |        |        |
| Riverfly - species    | 8      | 12     | 10     | 8      | 0      | 0      |
| Riverfly - numbers    | 105    | 832    | 114    | 45     | 0      | 0      |
| CCI                   | 10.28  | 9.79   | 9.38   | 8.39   |        |        |
| LIFE                  | 7.30   | 7.81   | 7.54   | 7.13   |        |        |
| PSI                   | 48.94  | 69.23  | 53.85  | 40.68  |        |        |
| SPEAR                 | 25.81  | 37.32  | 21.86  | 26.45  |        |        |
| TRPI                  | 67     | 64     | 60     | 75     |        |        |
| Saprobic              | 1.78   | 1.75   | 2.05   | 1.90   |        |        |

| Molluscs                 | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 | Site 6 |
|--------------------------|--------|--------|--------|--------|--------|--------|
| Anisus vortex            | 18     | 7      | 10     | 28     |        |        |
| Ancylus fluviatilis      | 1      |        |        | 2      |        |        |
| Bathynomphalus contortus | 13     |        |        |        |        |        |
| Bithynia tentaculata     |        |        | 5      | 49     |        |        |
| Cyrtolus albus           |        |        |        | 14     |        |        |
| Lymnaea palustris        |        |        |        | 1      |        |        |
| Physa fontinalis         | 13     | 5      |        | 7      |        |        |
| Planorbis carinatus      |        |        | 4      | 5      |        |        |
| Potamopyrgus antipodarum |        |        |        | 3      |        |        |
| Radix balthica           | 1      |        | 8      | 25     |        |        |
| Sphaerium                |        |        | 4      |        |        |        |
| Sphaerium corneum        |        |        |        | 2      |        |        |
| Theodoxus fluviatilis    |        |        |        | 23     |        |        |
| Valvata piscinalis       | 2      |        |        | 4      |        |        |

| Leeches & Worms         | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 | Site 6 |
|-------------------------|--------|--------|--------|--------|--------|--------|
| Erpobdella octoculata   |        | 2      | 3      |        |        |        |
| Glossiphonia complanata |        | 2      | 1      | 2      |        |        |
| Helobdella stagnalis    |        |        |        | 1      |        |        |
| Pisicicola geometra     |        | 1      | 1      |        |        |        |
| Polycelis felina        | 2      | 3      | 1      |        |        |        |
| Theromyzon tessulatatum | 3      | 2      | 1      | 1      |        |        |

\*No Data Site 5 (Sample damaged in transit)



## Appendix 8

| Caddisflies             | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 | Site 6 |
|-------------------------|--------|--------|--------|--------|--------|--------|
| Agapetus                |        | 28     |        |        |        |        |
| Agapetus delicatulus    | 19     |        |        |        |        |        |
| Agapetus fuscipes       | 158    |        | 8      |        |        |        |
| Agapetus ochripes       |        |        |        |        | 3      |        |
| Anabolia nervosa        |        |        | 4      |        |        |        |
| Athripsodes cinereus    |        |        |        | 2      | 6      |        |
| Chaetopteryx villosa    | 19     | 1      |        | 3      |        |        |
| Cheumatopsyche lepida   |        |        | 5      | 13     | 12     |        |
| Drusus annulatus        | 3      |        |        | 3      | 5      |        |
| Halesus radiatus        |        | 2      |        | 1      |        |        |
| Hypopsyche pellucidula  |        |        |        | 11     | 6      |        |
| Hypopsyche siltalai     |        | 5      | 7      | 8      | 17     |        |
| Hydroptila              | 1      |        | 5      | 16     | 6      |        |
| Ithytrichia lamellaris  |        |        |        | 1      |        |        |
| Lepidostoma hirtum      |        |        |        | 36     | 14     |        |
| Limnephilus             |        |        |        | 2      |        |        |
| Limnephilus lunatus     | 3      | 9      | 6      | 7      |        |        |
| Mystacides azurea       |        |        | 3      | 3      | 2      |        |
| Nebrioporus depressus   |        |        |        | 1      |        |        |
| Odontocerum albicorne   |        | 2      | 2      |        |        |        |
| Potamophylax cingulatus | 21     |        | 1      |        |        |        |
| Potamophylax latipennis |        | 15     |        | 2      |        |        |
| Rhyacophila dorsalis    |        |        |        | 1      | 3      |        |
| Sericostoma personatum  |        | 7      | 22     | 7      | 13     |        |
| Silo nigricornis        | 1      | 3      | 3      | 1      |        |        |

| Damsels & Dragons    | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 | Site 6 |
|----------------------|--------|--------|--------|--------|--------|--------|
| Calopteryx splendens |        |        |        | 6      | 1      |        |
| Pyrrhosoma           |        |        |        | 7      |        |        |

| Mayflies                      | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 | Site 6 |
|-------------------------------|--------|--------|--------|--------|--------|--------|
| Ephemera danica               |        | 3      | 25     | 38     | 25     |        |
| Baetis                        |        |        |        |        |        |        |
| Baetis fuscatus/scambus       |        |        | 44     | 29     | 16     |        |
| Baetis rhodani/atlancticus    | 39     |        | 11     | 8      | 7      |        |
| Baetis muticus                |        |        |        |        | 5      |        |
| Baetis niger                  |        |        |        | 1      |        |        |
| Baetis vernus                 |        |        |        |        | 1      |        |
| Heptagenia sulphurea          |        | 12     | 6      | 8      |        |        |
| Serratella ignita             | 132    |        | 93     | 117    |        |        |
| Caenis                        | 3      |        |        |        |        |        |
| Caenis rivulorum              |        |        | 38     |        | 43     |        |
| Paraleptophlebia submarginata |        |        |        | 1      |        |        |

| Stoneflies          | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 | Site 6 |
|---------------------|--------|--------|--------|--------|--------|--------|
| Isoperla grammatica | 1      | 11     | 6      | 25     | 21     |        |
| Nemoura avicularis  | 1      |        |        |        |        |        |

| Beetles & Bugs           | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 | Site 6 |
|--------------------------|--------|--------|--------|--------|--------|--------|
| Aphelocheirus aestivalis |        |        |        | 48     | 17     |        |
| Elmis aenea              | 39     | 13     | 39     | 30     | 9      |        |
| Haliphus                 |        |        |        | 1      |        |        |
| Haplotaxis gordioides    |        |        |        | 1      |        |        |
| Hydracarina              | 2      |        | 1      |        | 3      |        |
| Limnius volckmari        |        | 6      | 13     | 33     |        |        |
| Orectochilus villosus    |        | 3      | 2      | 1      | 5      |        |
| Oreodytes sanmarkii      | 3      |        |        |        |        |        |
| Scirtes                  | 2      |        |        |        |        |        |



**River Test  
Spring 2023**

| True Flies             | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 | Site 6 |
|------------------------|--------|--------|--------|--------|--------|--------|
| Antocha                |        |        |        | 5      | 4      |        |
| Atherix ibis           |        |        | 2      |        |        |        |
| Chironominae           |        | 10     |        |        |        |        |
| Dixa                   |        |        |        | 3      |        |        |
| Hemerodromia           |        |        |        | 1      |        |        |
| Lipsothrix             | 1      |        |        |        |        |        |
| Ormosia                | 1      |        |        | 1      |        |        |
| Orthocladinae          | 4      |        | 6      | 3      | 7      |        |
| Oxyceera               | 1      |        |        | 1      |        |        |
| Ptychoptera            |        | 1      |        |        |        |        |
| Simulium               | 21     |        |        | 8      |        |        |
| Simulium ornatum group |        |        | 217    |        | 9      |        |
| Tanytopodinae          | 3      |        |        |        |        |        |
| Tanytarsini            | 1      |        | 11     |        | 3      |        |

| Alderfly       | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 | Site 6 |
|----------------|--------|--------|--------|--------|--------|--------|
| Sialis lutaria |        |        | 1      |        |        |        |

| Crustaceans       | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 | Site 6 |
|-------------------|--------|--------|--------|--------|--------|--------|
| Gammarus pulex    | 316    | 101    | 63     | 263    | 45     |        |
| Asellus aquaticus | 43     | 6      | 8      | 1      | 5      |        |

| Biometrics            | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 | Site 6 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| BMWP                  | 120    | 106    | 174    | 206    | 154    |        |
| ASPT                  | 5.45   | 6.63   | 6.00   | 6.24   | 5.92   |        |
| WHPT                  | 129    | 117    | 188    | 227    | 166    |        |
| WHPT ASPT             | 5.59   | 6.89   | 6.27   | 6.13   | 6.13   |        |
| Number of Taxa (WHPT) | 23     | 17     | 30     | 37     | 27     |        |
| Riverfly - species    | 13     | 12     | 18     | 26     | 18     | 0      |
| Riverfly - numbers    | 401    | 98     | 289    | 345    | 205    | 0      |
| CCI                   | 8.75   | 9.50   | 12.49  | 23.08  | 13.28  |        |
| LIFE                  | 7.88   | 7.95   | 7.46   | 7.70   | 7.84   |        |
| PSI                   | 68.75  | 68.42  | 50.67  | 59.30  | 64.06  |        |
| SPEAR                 | 42.48  | 52.34  | 47.70  | 46.72  | 42.62  |        |
| TRPI                  | 80     | 100    | 73     | 78     | 63     |        |
| Saprobic              | 1.51   | 1.61   | 2.04   | 1.90   | 1.84   |        |

| Molluscs                 | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 | Site 6 |
|--------------------------|--------|--------|--------|--------|--------|--------|
| Ancylus fluviatilis      |        |        | 1      |        | 2      |        |
| Anisus vortex            | 10     |        | 20     |        | 7      |        |
| Bithynia tentaculata     |        |        | 5      | 31     | 8      |        |
| Gyraulus albus           |        |        | 2      | 26     |        |        |
| Lymnaea palustris        |        |        | 1      | 1      |        |        |
| Lymnaea stagnalis        |        |        | 1      |        |        |        |
| Physa fontinalis         | 44     |        | 3      |        |        |        |
| Piscicola geometra       | 2      |        | 1      |        |        |        |
| Pisidium                 |        |        |        |        | 3      |        |
| Planorbis                |        |        | 4      |        | 1      |        |
| Planorbis carinatus      |        |        | 3      | 6      |        |        |
| Potamopyrgus antipodarum |        |        |        | 1      |        |        |
| Radix balthica           |        |        | 7      | 13     |        |        |
| Sphaerium                |        |        |        | 5      |        |        |
| Sphaerium corneum        |        |        |        |        | 3      |        |
| Theodoxus fluviatilis    |        |        |        | 11     |        |        |
| Valvata piscinalis       | 1      |        |        | 1      |        |        |

| Leeches & Worms         | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 | Site 6 |
|-------------------------|--------|--------|--------|--------|--------|--------|
| Erbopdella octoculata   |        | 2      | 7      |        | 1      |        |
| Glossiphonia complanata |        | 3      | 3      |        |        |        |
| Helobdella stagnalis    | 1      | 6      | 2      |        | 10     |        |
| Oligochaeta             |        |        |        | 8      |        |        |
| Theromyzon tessulatum   |        | 1      | 1      |        |        |        |