

## Avon Fishing Association and The Riverfly Project

In 2015 the Avon Fishing Association joined the Riverfly Partnership. The Riverfly Partnership is a network of nearly 100 partner organisations, representing anglers, conservationists, entomologists, scientists, water course managers and relevant authorities, working together to: - protect the water quality of our rivers; - further the understanding of riverfly populations; - and actively conserve riverfly habitats.

The Association is keen to involve local schools, and so A level students from King Edward VI College were asked to help with the July sampling. The Island is not on our sample list but it was thought useful to sample there. We could then compare the Island site, with those on our designated list which are: Kerrydowns, Gara bridge, New Mill bridge and Knapp Mill.

The project looks for eight key species:

### Riverfly Project Identification of Major groups/species

#### Cased Caddis



Identification: Case made of sand, pebbles, woody debris. Head usually protrudes out of case. Length 0.5 - 2 cm

e.g. The Welshman's Button  
*Sericostoma personatum*

#### Caseless Caddis



Identification: Free living, can be found in nets. Usually crawling on stones. Cream, green or yellow in colour. About 1 cm in length

e.g. *Rhyacophila dorsalis*

Sandfly Sedge

#### May Fly Nymph



Identification: Large nymph. Lives in sand burrow. Gills very prominent. Rare on the Avon.

*Ephemeroptera danica*

Fresh Water Shrimp



Identification: Easy to spot, not to be mistaken for a water louse. Abundant on the Avon.

e.g. *Gammarus* sp

### Blue Winged Olive Nymph



Identification: Slender, free swimming. Legs very speckled, body can be quite speckled, 3 tails, middle tail short. Pale band above tails.

*Ephemerella ignita*

### Flat Bodied Nymphs



Identification: Short, squat. Broad head, thick set legs. 3 tails. Usually found clinging to rocks.

*Ecdyonurus* sp

### Olive Nymphs



Identification: Free swimming, slender, 3 tails middle tail short. Body colour varies.

e.g. Large Dark Olive  
*Baetis rhodani*

### Stonefly Nymph



Identification: Long, slender body. Two tails. Head usually has 2 antennae. Free swimming. Indicator of well oxygenated, clean water. e.g. *Chloroperla torrentium*

## Sampling

Sampling is as follows:

- A 3 min kick sample
- A 1 min examination of large stones
- Numbers of key species or groups are then counted and given an abundance score

Abundance	Score	Estimated number
1-9	1	Quick Count
10-99	2	Nearest 10
100-999	3	Nearest Hundred
Over 1000	4	nearest 1000

The abundance scores are then added for each site and compared to a trigger level which is calculated by the EA. Should total abundance scores fall below the trigger level the EA would be alerted and reasons for that fall investigated.

## The Island Results

The island produced good numbers of :

- Olive Nymphs, Stonefly Nymphs, Flat Bodied Nymphs, Cased Caddis (Score 2)
- Small numbers of Uncased Caddis (Score 1)
- No Blue Winged Olives, Shrimp or May Fly Nymphs

The species found here are indicative of clean, well oxygenated water. The absence of Shrimp and Mayfly larvae is due to the rocky substrate. Both species prefer sandy or fine pebbly substrate to the river. Blue Winged Olives have not been found in quantity on the Avon, indeed they are declining on southern rivers most probably due to global warming . They are still abundant in the North.

