

Cressbrook and Litton Flyfishers Club

The River Wye, Derbyshire

Adult Upwing and Stonefly Records – 2019

And

End of project summaries



By Stuart M Crofts

Cressbrook and Litton Flyfishers Club

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Introduction

This is the fifth and final year of this project. But, please don't worry; I have another idea up my sleeve that may interest some of the more entomologically minded members of the Cressbrook and Litton Flyfishers Club...more of that later.

For the past five years in each of the fishing huts there have been *sample packs* available for members to pick up. Each sample pack consisted of a small zip-lock bag inside of which was a screw top sample tube and an information slip. Members were invited to take along a sample pack when they went fishing and if they came across any upwing flies or stoneflies, they could be caught and put into the screw topped sample tube. On returning to the fishing huts the sample tube was filled with some preserving alcohol and the information slip completed with the members name along with the date and the beat number where the sample was caught. All was then put back in the zip-lock bag and placed in a box where I could pick them up for analysis.

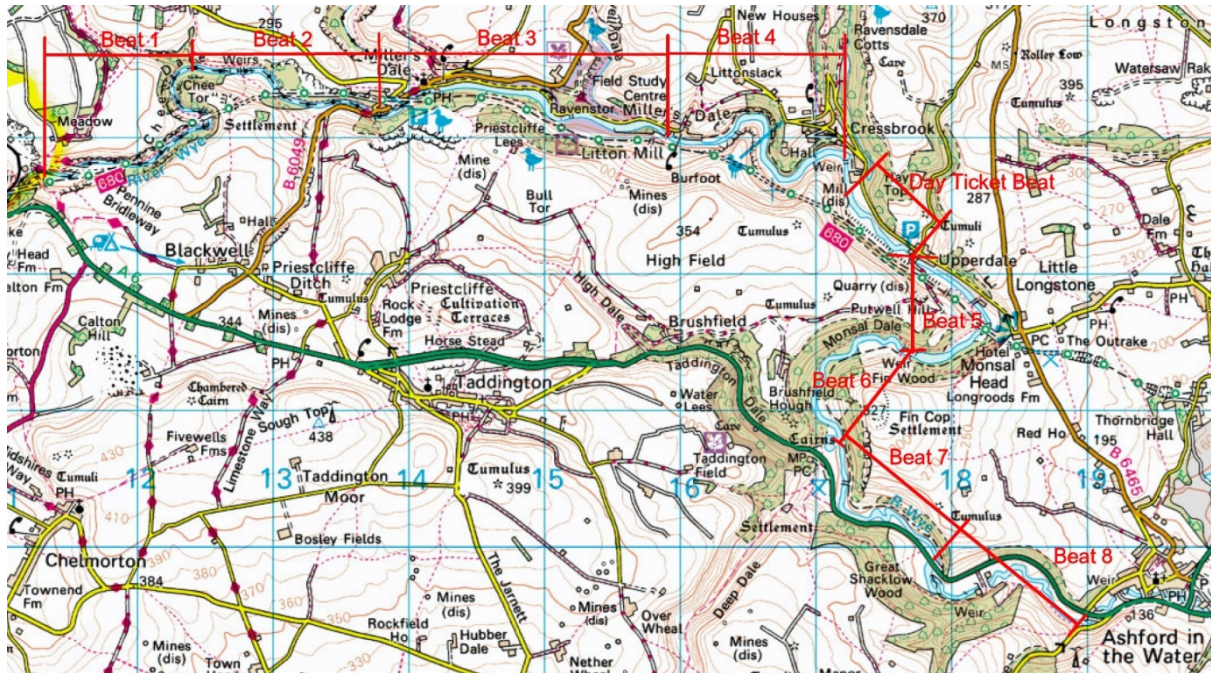
The term "upwing flies" relates to the insects in the order Ephemeroptera, this includes some very familiar insects as far as the anglers are concerned such as the blue winged olives, mayflies and iron blues. The name "stoneflies" relates to the insects in the order Plecoptera, these are less well known, and like caddisflies (that I also study in detail), tend to be overlooked by the anglers yet they are often taken eagerly by fish the anglers are trying to catch.

I **only** required the adult stages of these insects for this project. This was so I could see flight period data. Most flyfishers are aware that upwings are peculiar in that all our UK species have two adult stages. Anglers know these as *duns* and *spinners*. I needed both because some species are easier to identify (to the full species level) as duns while others can only be positively identified at the spinner stage.

I hope you find this final report interesting as it highlights the richness of this wonderful river which I just hope no one ever takes for granted because it is a rare and very special place.

Stuart M Crofts, February 2020

Cressbrook & Litton Flyfishers Club Fishery Beat Locations



The Cressbrook & Litton Flyfishers Club has fishing rights on the River Wye in Derbyshire. The club has divided the fishing for its members into eight beats with an additional section for *day ticket* anglers in the middle. The map above shows the general locations of these beats and below are the locations using Ordnance Survey grid references. For the purpose of this study the beat numbers have been used as the reference to where the insect samples were collected.

Beat 1: SK112727 downstream to SK123734

Beat 2: SK123734 downstream to SK137731

Beat 3: SK137731 downstream to SK158730

Beat 4: SK158730 downstream to SK172728

Day Ticket: SK172725 downstream to SK177721

Beat 5: SK177721 downstream to SK176714

Beat 6: SK176714 downstream to SK171706

Beat 7: SK171706 downstream to SK178698

Beat 8: SK178698 downstream to SK189694

2019 Adult Upwing Results and Five Year Summary

In line with most projects such as this the number of people who want to be enthusiastically involved gradually declines over time and therefore it was of no surprise to me that 2019 had its lowest number of club members contributing. Only four people collected samples, one of those was a river keeper and one of those was me, so that leaves just two members who were involved. Clearly this seriously impacted the numbers of actual samples collected which for 2019 was just 29 individual upwinged flies compared with almost 500 on the first year of the project in 2015. At the bottom of the page is a table showing the few species of adult upwings that were recorded in 2019 on the Cressbrook and Litton fishing beats on the River Wye. On the same table the common or *anglers* name is also given for these species. On the page following you will find two more tables with the same list of species; one table shows the *months of the year* that the species were recorded and the other table shows the *fishery beats* where they were found.

Following these records are similar tables on page 5 **and it is these that are the most interesting.** This is because they show ALL RECORDS from the past five years (combined results for 2015, 2016, 2017, 2018 and 2019). And, it is this five year *snap-shot* that gives you the best overall picture of what is around and will be the most interesting for the decades to come to see how the river changes as it is impacted by new stresses such as climate change.

A very obvious and valid question is have we recorded all the upwing species that live on the River Wye where the club members fish? Clearly that is impossible to answer but with fifteen species of upwings now positively recorded over the last five years it is a pretty impressive list. You will also see from the tables on page 5 that there are quite a few species that have been recorded on every beat during the five year period of the study. These, in effect, are the *hard-core* of the upwings that *drive* the dryfly fishing on the river. However, please do not neglect the other species that have been recorded, at times they could well be important to your fishing. Lastly, do not take the data on page 5 too literally; any of the species recorded could potentially turn up on any beat and at any time of the year. Insects do not care too much of any rules placed upon them by humans.

Genus	Species	Common Name
<i>Baetis</i>	<i>muticus</i>	Northern Iron Blue
<i>Baetis</i>	<i>rhodani</i>	Large Dark Olive
<i>Ecdyonurus</i>	<i>torrentis</i>	Large Brook Dun
<i>Ephemera</i>	<i>danica</i>	Mayfly
<i>Rhithrogena</i>	<i>semicolorata</i>	Olive Upright

2019 Adult Upwing Records

Genus	Species	Months Recorded											
		J	F	M	A	M	J	J	A	S	O	N	D
<i>Baetis</i>	<i>muticus</i>					✓	✓						
<i>Baetis</i>	<i>rhodani</i>			✓	✓	✓	✓						
<i>Ecdyonurus</i>	<i>torrentis</i>					✓							
<i>Ephemera</i>	<i>danica</i>					✓							
<i>Rhithrogena</i>	<i>semicolorata</i>					✓							

Genus	Species	Fishery Beats Recorded								
		Beat 1	Beat 2	Beat 3	Beat 4	Day Ticket	Beat 5	Beat 6	Beat 7	Beat 8
Baetis	muticus		✓			✓			✓	
Baetis	rhodani		✓			✓		✓	✓	
Ecdyonurus	torrentis			✓		✓				
Ephemera	danica		✓							
Rhithrogena	semicolorata					✓				

Adult Upwing Records (Full project data 2015-19)

Genus	Species	Months Recorded											
		J	F	M	A	M	J	J	A	S	O	N	D
<i>Baetis</i>	<i>muticus</i>					✓	✓	✓	✓	✓			
<i>Baetis</i>	<i>niger</i>				✓								
<i>Baetis</i>	<i>rhodani</i>			✓	✓	✓	✓	✓	✓	✓	✓	✓	
<i>Baetis</i>	<i>scambus</i>						✓		✓	✓			
<i>Baetis</i>	<i>vernus</i>					✓							
<i>Caenis</i>	<i>rivulorum</i>						✓						
<i>Centroptilum</i>	<i>luteolum</i>					✓	✓	✓	✓	✓	✓		
<i>Ecdyonurus</i>	<i>dispar</i>									✓	✓		
<i>Ecdyonurus</i>	<i>torrentis</i>					✓	✓						
<i>Ephemera</i>	<i>danica</i>				✓	✓	✓	✓	✓				
<i>Heptagenia</i>	<i>sulphurea</i>						✓						
<i>Paraleptophlebia</i>	<i>submarginata</i>					✓	✓						
<i>Proclonia</i>	<i>pennulatum</i>						✓		✓	✓			
<i>Rhithrogena</i>	<i>semicolorata</i>				✓	✓	✓	✓	✓	✓			
<i>Serratella</i>	<i>ignita</i>					✓	✓	✓	✓	✓	✓		

Genus	Species	Fishery Beats Recorded									
		Beat 1	Beat 2	Beat 3	Beat 4	Day Ticket	Beat 5	Beat 6	Beat 7	Beat 8	
Baetis	muticus	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Baetis	niger									✓	
Baetis	rhodani	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Baetis	scambus		✓					✓	✓	✓	
Baetis	vernus									✓	
Caenis	rivulorum								✓		
Centroptilum	luteolum			✓	✓	✓		✓	✓	✓	
Ecdyonurus	dispar							✓	✓	✓	
Ecdyonurus	torrentis	✓	✓	✓		✓	✓		✓		
Ephemera	danica	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Heptagenia	sulphurea								✓		
Paraleptophlebia	submarginata		✓				✓	✓	✓		
Procloeon	pennulatum		✓			✓		✓	✓		
Rhithrogena	semicolorata	✓	✓	✓	✓	✓	✓	✓	✓		
Serratella	ignita	✓	✓	✓	✓	✓	✓	✓	✓	✓	

2019 Adult Stonefly Results and Five Year Summary

Below is a table showing the few species of adult stoneflies that were recorded in 2019 on the Cressbrook and Litton fishing beats on the River Wye. The reason for the lack of records was obviously the same with the upwings (see page 3), in fact with the stoneflies only six individuals were collected. However, in keeping with the format of the report from previous years the table shows both the scientific species name and the common (anglers) name.

On the page following you will find two more tables with the same list of species; one table shows the *months of the year* that the different species were recorded and the other table shows the *fishery beats* where they were found. Following this there are two similar tables on page 8 and, as with the upwings, **it is these that are the most interesting**. This is because they show ALL RECORDS from the past five years (combined results for 2015, 2016, 2017, 2018 and 2019). It is this five year *snap-shot* that gives you the best overall picture of what is around and will be the most interesting for the decades to come to see how the river changes as it is impacted by any new stresses such as those brought about by climate change.

Again, like the upwings, a very obvious question would be have we recorded all the stonefly species that live on the River Wye in the areas where the club members fish? The answer once again is that is impossible to answer. However with fourteen species of stoneflies now positively recorded over the last five years it is a very respectable list for any river. You will also see from the tables on page 8 that there are some species that have been recorded on almost every beat during the five year period of the study. These are the ones that angler is most likely to encounter while out on the river but do not take the data too literally; any of the species recorded could potentially turn up on any beat and at almost any time of the year. As I said in the previous pages about the upwings; insects do not care too much of any rules placed upon them by humans.

Genus	Species	Common Name
<i>Isoperla</i>	<i>grammatica</i>	Yellow sally
<i>Nemoura</i>	<i>erratica</i>	Erratic small brown
<i>Protonemura</i>	<i>meyeri</i>	Common early brown
<i>Siphonoperla</i>	<i>torrentium</i>	Small yellow sally

2019 Adult Stonefly Records

Genus	Species	Months Recorded											
		J	F	M	A	M	J	J	A	S	O	N	D
<i>Isoperla</i>	<i>grammatica</i>						✓						
<i>Nemoura</i>	<i>erratica</i>				✓								
<i>Protonemura</i>	<i>meyeri</i>					✓	✓						
<i>Siphonoperla</i>	<i>torrentium</i>					✓							

Genus	Species	Fishery Beats Recorded								
		Beat 1	Beat 2	Beat 3	Beat 4	Day Ticket	Beat 5	Beat 6	Beat 7	Beat 8
<i>Isoperla</i>	<i>grammatica</i>								✓	
<i>Nemoura</i>	<i>erratica</i>			✓						
<i>Protonemura</i>	<i>meyeri</i>		✓			✓				
<i>Siphonoperla</i>	<i>torrentium</i>					✓				

Adult Stonefly Records (Full project data 2015-19)

Genus	Species	Months Recorded											
		J	F	M	A	M	J	J	A	S	O	N	D
<i>Brachyptera</i>	<i>risi</i>			✓	✓	✓							
<i>Isoperla</i>	<i>grammatica</i>					✓	✓	✓					
<i>Leuctra</i>	<i>fusca</i>	✓							✓	✓	✓		✓
<i>Leuctra</i>	<i>inermis</i>					✓	✓						
<i>Leuctra</i>	<i>geniculata</i>								✓	✓	✓		
<i>Leuctra</i>	<i>hippopus</i>					✓							
<i>Nemoura</i>	<i>avicularis</i>				✓	✓	✓						
<i>Nemoura</i>	<i>cambrica</i>				✓	✓	✓	✓					
<i>Nemoura</i>	<i>erratica</i>			✓	✓	✓	✓	✓	✓	✓			
<i>Nemurella</i>	<i>picteti</i>					✓	✓			✓			
<i>Perlodes</i>	<i>mortoni</i>				✓	✓							
<i>Protonemura</i>	<i>meyeri</i>			✓	✓	✓	✓						
<i>Siphonoperla</i>	<i>torrentium</i>					✓							
<i>Taeniopteryx</i>	<i>nebulosa</i>			✓									

Genus	Species	Fishery Beats Recorded								
		Beat 1	Beat 2	Beat 3	Beat 4	Day Ticket	Beat 5	Beat 6	Beat 7	Beat 8
<i>Brachyptera</i>	<i>risi</i>		✓		✓			✓		
<i>Isoperla</i>	<i>grammatica</i>		✓	✓	✓	✓	✓	✓	✓	✓
<i>Leuctra</i>	<i>fusca</i>	✓	✓				✓	✓	✓	✓
<i>Leuctra</i>	<i>inermis</i>	✓	✓							
<i>Leuctra</i>	<i>geniculata</i>					✓	✓	✓	✓	
<i>Leuctra</i>	<i>hippopus</i>									
<i>Nemoura</i>	<i>avicularis</i>	✓							✓	✓
<i>Nemoura</i>	<i>cambrica</i>	✓	✓	✓	✓		✓			
<i>Nemoura</i>	<i>erratica</i>	✓	✓	✓			✓	✓	✓	
<i>Nemurella</i>	<i>picteti</i>	✓	✓					✓		
<i>Perlodes</i>	<i>mortoni</i>					✓		✓	✓	✓
<i>Protonemura</i>	<i>meyeri</i>	✓	✓	✓	✓	✓	✓	✓	✓	✓
<i>Siphonoperla</i>	<i>torrentium</i>	✓	✓			✓				
<i>Taeniopteryx</i>	<i>nebulosa</i>							✓		

Lessons learnt from the project and the future....what next?

The last five years of looking at the samples collected by the members of the Cressbrook & Litton Flyfishers Club has been a joy and I thank everyone who has taken the trouble to collect the samples without which this project could not have even started. More importantly I feel it has delivered some very interesting results. Some would argue that they could have guessed some of the findings such as the large dark olives, iron blues, mayflies and blue winged olives being present on all beats; nonetheless there is nothing better than proving it! But what about the olive uprights - how many would have guessed their importance (recorded on every beat except 8)? It is the same with the flight periods; look at the mayflies recorded from April to August and what about the blue winged olives, traditionally the upwing of summer, but here recorded from May to October. Same story with the olive upright, 30 years ago Oliver Edwards and I, along with the Orvis store in Harrogate, organised fishing weekends on the River Ure in North Yorkshire. These were in May and planned to coincide with the hatches of both yellow may duns and olive uprights that would normally be over by the end of June. Now the olive uprights go on until September.

The stoneflies were largely unknown by the anglers prior to this project and I was delighted by the numbers of species that have been recorded – fourteen species, who would have guessed that. And, look at what is common, for example *Protonemura meyeri*, this was recorded on every beat. Looking at all the stonefly species that have been recorded they cover the entire fishing season and it is about time the members woke up to this. The fish certainly know all about them.

So, the question is what next? Well my plan is still to leave some sample packs in the fishing huts but not for any formalised collecting project. I just want to leave them for any of the members to use should they come across any **adult** (not larvae) upwing fly, stonefly or even a caddisfly that interests them (or has been exciting the fish) and they would simply like to know what it is. I will leave some instructions in the huts and can write a simple report at the year-end for the club with my findings, a sort of informal invert ID service – not all fishing clubs have one of them!

I wish you all a fantastic 2020 fishing season,

Stuart

Appendix 1: The detailed upwing fly records

Note: As you look at these detailed records you will come across a group of samples with the abbreviation “sp.” in the species column. This is an indication that the collected sample could not be identified beyond genus level with the identification keys available at this time (2019). With reference to this report all the unidentified species are from the *Baetis* genus. There are nine species from this genus here in the UK and four of these species (*Baetis vernus*, *Baetis fuscatus*, *Baetis scambus* and *Baetis buceratus*) can only be identified to full species level when you have a sample of the male imago. You will see on these records that the samples in question were not at the required imago stage (or they were female) and hence there identification stopped at the level of genus.

Adult Mayfly Occurrence Scheme Records 2019

Genus	Species	C&L Beat Number	Date	Name of Sample Supplier	Sub-imago (dun)		Imago (spinner)		Weather	Brief Notes (when taken)
					Male	Female	Male	Female		
<i>Baetis</i>	<i>muticus</i>	DT	01-May-19	Stuart Crofts	1	0	0	0	Dull, 12°C	
<i>Baetis</i>	<i>muticus</i>	7	06-May-19	Chris Thirtle	1	0	1	0	Dull, 10°C	
<i>Baetis</i>	<i>muticus</i>	DT	13-May-19	Stuart Crofts	0	2	0	0	Sunny, 15°C	From a rainbow trout
<i>Baetis</i>	<i>muticus</i>	2	27-May-19	Chris Thirtle	0	1	0	0	Dull, 11°C	
<i>Baetis</i>	<i>muticus</i>	2	02-Jun-19	Jim Playle	0	0	1	0	Dull, 12°C	
<i>Baetis</i>	<i>rhodani</i>	2	20-Mar-19	Hilary Langan	0	1	0	0	Sunny, 15°C	
<i>Baetis</i>	<i>rhodani</i>	7	23-Apr-19	Hilary Langan	0	1	0	0	Dull, 16°C	
<i>Baetis</i>	<i>rhodani</i>	DT	01-May-19	Stuart Crofts	2	2	0	0	Sunny, 16°C	
<i>Baetis</i>	<i>rhodani</i>	2	02-May-19	Stuart Crofts	1	0	0	0	Dull, 10°C	
<i>Baetis</i>	<i>rhodani</i>	6	02-May-19	Hilary Langan	0	2	0	0	Dull, 15°C	
<i>Baetis</i>	<i>rhodani</i>	7	06-May-19	Chris Thirtle	0	1	0	0	Dull, 10°C	
<i>Baetis</i>	<i>rhodani</i>	DT	13-May-19	Stuart Crofts	0	1	0	0	Sunny, 15°C	From a rainbow trout
<i>Baetis</i>	<i>rhodani</i>	2	02-Jun-19	Jim Playle	0	1	0	0	Dull, 12°C	
<i>Baetis</i>	<i>rhodani</i>	7	06-Jun-19	Hilary Langan	0	0	1	0	Sunny, 18°C	
<i>Baetis</i>	<i>sp.</i>	6	18-May-19	Jim Playle	0	1	0	0	Dull, 12°C	
<i>Baetis</i>	<i>sp.</i>	2	27-May-19	Chris Thirtle	0	1	0	0	Dull, 11°C	
<i>Baetis</i>	<i>sp.</i>	2	05-Jun-19	Chris Thirtle	0	0	0	1	Dull, 18°C	
<i>Baetis</i>	<i>sp.</i>	7	06-Jun-19	Hilary Langan	0	0	0	1	Sunny, 18°C	
<i>Ecdyonurus</i>	<i>torrentis</i>	DT	13-May-19	Stuart Crofts	1	0	0	0	Sunny, 15°C	
<i>Ecdyonurus</i>	<i>torrentis</i>	3	16-May-19	Chris Thirtle	0	1	0	0	Sunny, 14°C	
<i>Ephemera</i>	<i>danica</i>	2	27-May-19	Chris Thirtle	0	1	0	0	Dull, 11°C	
<i>Rhithrogena</i>	<i>semicolorata</i>	DT	13-May-19	Stuart Crofts	0	2	0	0	Sunny, 15°C	From a rainbow trout
					6	18	3	2		

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Appendix 2: The detailed stonefly records

Adult Stonefly Occurrence Scheme Records 2019

Genus	Species	C&L Beat Number	Date	Name of Sample Supplier	Male	Female	Weather	Brief Notes (when taken)
<i>Isoperla</i>	<i>grammatica</i>	7	06-Jun-19	Hilary Langan	0	1	Sunny, 18 °C	
<i>Nemoura</i>	<i>erratica</i>	3	18-Apr-19	Chris Thirtle	0	1	Sunny, 14 °C	
<i>Protonemura</i>	<i>meyeri</i>	DT	13-May-19	Stuart Crofts	0	1	Sunny, 15 °C	
<i>Protonemura</i>	<i>meyeri</i>	2	30-May-19	Hilary Langan	0	1	Dull, 12 °C	
<i>Protonemura</i>	<i>meyeri</i>	2	02-Jun-19	Jim Playle	1	0	Dull, 12 °C	
<i>Siphonoperla</i>	<i>torrentium</i>	DT	13-May-19	Stuart Crofts	1	0	Sunny, 15 °C	

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References

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