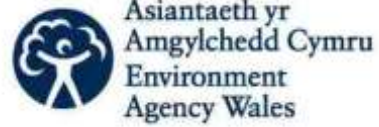


# Riverfly Monitoring Newsletter



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## A word from your Environment Agency Co-ordinator

Hello again everyone, and welcome to the last Riverfly Project report for 2012!

It's been a busy year, with some horrendous weather, but it's been great to see so many new volunteers and so many results coming in. Also, apologies for the delay in getting this report out to you, we've just been exceptionally busy lately, hopefully things will quieten down for a while now and the next report can be produced by the end of March.

We have also had no more records of the Killer Shrimp, *Dikerogammarus villosus*, in South Wales, which is great news, and it remains confined to Eglwys Nynydd reservoir and Cardiff Bay. We set shrimp baiting traps in several lakes around South West Wales over the late summer/ autumn period in order to make sure that no vicious beasts were lurking there, and no alien species were found.

On a less positive note, we've had record of a new alien shrimp species, *Dikerogammarus haemobaphes*, in the Severn catchment. This nasty little character, nicknamed the "Demon Shrimp" favours more silty conditions than *Dikerogammarus villosus*, and has spread into several catchments in England. It hasn't been recorded in South West Wales as yet, but we all need to be vigilant, and remember to use the Check, Clean and Dry guidelines for all fishing or sampling equipment when moving between different catchments.



We will hopefully be holding another training course in the Spring for new volunteers, which is also extremely good news, and means we can cover an even wider range of sample points than we are at present.

Thanks for all of your hard work this past year, and fingers crossed for the continued success of the project in 2013!

Nicola Broadbridge

Environmental Monitoring Officer  
Environmental Monitoring (Analysis and Reporting)

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## TRIM Results

### Middle Teifi Sampling Points – September results

River Name		Cwerchyr	Gran	Talog	Tyweli
Site Name					
NGR		SN368446	SN368466	SN464376	SN442379
Samplers		Ian Thomas/ Eric Davies			
Conditions					
Caddis Flies	Cased Caddis	2		1	1
	Caseless Caddis	2	5		
Mayfly nymphs	Up-wing (Ephemeroidea)				
	wing				
	(Heptageniidae)				
	Olive up-wing (Baetidae)	60	5	50	80
Stonefly nymphs	Stonefly nymphs	40	40	10	2
shrimps	Freshwater shrimps	5	5		5
Leeches	Leeches				
Snails	Spire shells				
	Ramshorn				
Hoglouse	Hoglouse				
Density/biomass indicator (totals)					
Other	Fish				
	Other				

The absence of any flat bodied mayflies at any of these sites is slightly worrying, as this is usually sign of organic pollution. If this continues to be the case in the next batch of samples, then a visit by EA biologists might be in order.

### Upper Teifi Sampling Points – September Results

River Name		Teifi	Teifi	Duar	Cledlyn	Grannell
Site Name		d/s Duar	u/s Duar	Llanybydder		Llanwnnen
NGR		SN524445	SN529447	SN524444	SN492431	SN534471
Samplers		Meurig Davies	Meurig Davies	Meurig Davies	Meurig Davies	Meurig Davies
Conditions						
Caddis Flies	Cased Caddis	10		20	2	
	Caseless Caddis	2	2	20	4	4
Mayfly nymphs	(Ephemeroidea)					
	up-wing					
	(Heptageniidae)	40	40	30	10	20
	(Baetidae)	30	10	40	140	30
Stonefly nymphs	Stonefly nymphs	10		10	10	10
Freshwater shrimps	Freshwater shrimps	10	10	20	10	1
Leeches	Leeches	2				1
Snails	Spire shells					
	Ramshorn					
Hoglouse	Hoglouse					
Density/biomass indicator (totals)						
Other	Fish			Stone Loach		
	Other					
Comments						

These sites all look very healthy, with no obvious problems.

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## Pembrokeshire results

Autumn 2012 River invertebrate monitoring results															
October to November 2012		St Catherines Bridge		Cutty Bridge		Pelcombe Brook		Goodwick Brook		Narberth Brook		Rosemarket Stream		River Gwaun	
Location code		1		2		3		4		6		7		8	
GPS		SM 94494 19795		SM 94129 18729		SM 93910 17740		SM 94741 37427		SN 09582 14482		SM 95480 07850		SN 96369 36868	
Date		26/10/2012						13/10/2012		24/10/2012				20/10/2012	
Name of Monitors		DN/JC		DN/JC		DS		JCu/PP		JH/JeH		JCo		JCu/PP	
Conditions		10° C pH6								30cm deeper				Fast flow, heavy	
Caddis Flies	Cased Caddis	B	25					A	8	B	28			B	29
	Caddis	B	40					A	3	A	1			A	3
Mayfly nymphs	(Ephemeraidae)	-	0					-	0	-	0			-	0
	BWO up-wing	-	0					-	0	-	0			-	0
	up-wing (Heptageniida)	B	20					B	14	B	37			B	58
	Olive up-wing (Baetidae)	C	140					B	13	B	48			B	41
Stonefly nymphs	Stonefly nymphs	B	20					A	8	A	1			B	10
Freshwater shrimps		C	300					A	9	C	146			A	6
Leeches	Leeches	A	3					A	2	-	0			A	8
Snails	Spire shells	B	10					C	120	A	1			-	0
	Ramshorn	-	0					-	0	-	0			-	0
Hoglouse	Hoglouse	-	0					A	1	-	0			-	0
Density/biomass indicator (totals)		558						178		262				155	
Previous Density/biomass		1037		184				198		204				492	
Previous Density/biomass		590		274		152		31		410		82		n/a	
Other	Fish	-						-		-				-	
	Other	-						1 Limpet, 3		-				-	
Comments		Hatch in progress - small mayfly, grey in colour						Again, large number of spire shells present. Several fish seen in the stream.		Depth of main sample 30cm faster and deeper than last quarter sample.				Lots of Heptagenids compared to last two samples. Lots of tiny cased caddis < 3mm.	

The biological quality is generally very good for all sites sampled, although the high numbers of freshwater shrimp and olive upwing mayflies in both the St Catherines Bridge and Narberth brook samples indicates some organic enrichment. The Western Cleddau catchment, including the Pelcomb Brook, Rudbaxton Water, and the Knock and Camrose Brooks, will be the subject of intensive surveying by EA staff in order to pinpoint organic pollution sources in the area. This work was scheduled to take place before Christmas, but we've been held back by the atrocious weather and high flows. Hopefully we'll get a dry spell soon so we can carry out the survey work in time for the next report!

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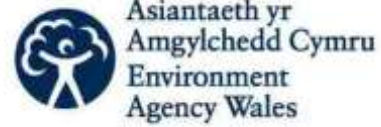
## Carmarthenshire Rivers Trust Results.

### Tywi/Gwili sample points – September

River Name		Araeth		Breinant		Gochen		Duad	
Site Name		Bethlehem Road		Bethlehem Road		Cynwyl Elfed		Cynwyl Elfed	
NGR									
Samplers		Lyn Martinson		Lyn Martinson		G Williams, T Jones		G Williams, T Jones	
Conditions		SN6602323670		SN6370422124					
		Category	Number found	Category	Number found	Category	Number Found	Category	Number found
Caddis Flies	Cased Caddis	A	1	A	1	B	60	A	8
	Caseless Caddis	A	1	A	7	B	10	A	6
Mayfly nymphs	Up-wing (Ephemeraeidae)	-	0	-	0	-	0	-	0
	Blue-winged Olive up-wing	B	17	A	2	B	10	A	4
	Flat-bodied up-wing (Heptageniidae)	A	1	B	17	A	9	A	3
	Olive up-wing (Baetidae)	B	85	B	10	C	200	B	20
Stonefly nymphs	Stonefly nymphs	B	21	B	27	A	7	B	40
Freshwater shrimps		C	295	C	590	B	70	-	0
Leeches	Leeches	-	0	-	0	-	0	-	0
Snails	Snails	-	0	-	(3empty shells)	-	0	-	0
Hoglouse	Hoglouse	-	0	-		-	0	-	0
Density/biomass indicator (totals)		421		644		Total no. recorded: 366		Total no. recorded: 81	
Notes				Also 2 bullheads in sample		Estimated 20% water moss cover on river bed		River clear & appears to be in good health. Free flowing with few riffles.	
Biological Quality		Very good		Very Good		Very Good		Very Good	

All sites looking fairly good. There are very high numbers of Freshwater Shrimp in both the Araeth and Breinant, which is usually an indicator of organic pollution. However, the presence of pollution sensitive taxa such as Stoneflies, flat bodied Mayflies and Blue Winged Olives in the samples shows that any issues are probably not that severe. It will be interesting to see what the invertebrate fauna is like at different times of the year.

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Tawe Anglers sample points.

River Name		Giedd		Llynfell		Twrch	
Site Name		Cwmgiedd		Cwmlynfell		Cwmtwrch	
NGR		SN78851112					
Samplers		Rob Bending/ Mark Hughes		Rob Bending/ Mark Hughes		Rob Bending/ Mark Hughes	
Conditions							
		Category	Number found	Category	Number Found	Category	Number found
Caddis Flies	Cased Caddis	-	0	-	0	-	0
	Caseless Caddis	A	2	A	1	B	10
Mayfly nymph	Up-wing (Ephemeraeidae)	-	0	-	0	-	0
	Blue-winged Olive up-wing	-	0	A	2	-	0
	Flat-bodied up-wing (Hepta)	A	9	A	7	B	15
	Olive up-wing (Baetidae)	B	48	B	19	B	53
Stonefly nym	Stonefly nymphs	A	9	B	37	B	14
Freshwater s	Freshwater shrimps	-	0	B	12	-	0
Leeches	Leeches	A	4	B	11	A	7
Snails	Snails	A	1	A	1	-	0
Hoglouse	Hoglouse	-	0	-	0	-	0
Density/biomass indicator (totals)		<b>Total 65</b>		<b>Total 90</b>		Total 266	
Notes							
Biological Quality		Very Good		Very Good		Very Good	
Comments						Large Olive hatch	

No major problems were found with any of these sites. There have definitely been improvements in all 3 of these watercourses over the past few years, which is very encouraging to see.

## Gorlech and Melindwr Results

River Name		Gorlech		Melindwr	
Site Name		Abergorlech			
NGR					
Samplers		Dave Harry		Dave Harry	
Conditions					
		Category	Number found	Category	Number Found
Caddis Flies	Cased Caddis	C	160	B	40
	Caseless Caddis		0	A	4
Mayfly nymph	Up-wing (Ephemeraeidae)		0		0
	Blue-winged Olive up-wing		0	A	4
	Flat-bodied up-wing (Heptageniidae)	A	2	C	104
	Olive up-wing (Baetidae)	B	90	C	118
Stonefly nym	Stonefly nymphs	B	65	C	155
Freshwater s	Freshwater shrimps		0		0
Leeches	Leeches		0	A	1
Snails	Snails		0		0
Hoglouse	Hoglouse		0		0
Density/biomass indicator (totals)			317		426
Notes					
Biological Quality					
Comments					

Both sites looking very good again, with healthy numbers of sensitive species.

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## Cothi Sample Points

River Name		Cothi		Cothi		Cothi Twrch		Cothi Clydach		Cothi Annell	
Site Name		Pumsaint		Cwrt Y Cadno		Pumsaint		Cwm Mawr du		Island Farm	
NGR											
Samplers		P John, M Heckler		P John, M Heckler		P John, M Heckler		P John, M Heckler		P John, M Heckler	
Conditions											
		Category	Number found	Category	Number Found	Category	Number found	Category	Number found	Category	Number found
Caddis Flies	Cased Caddis			B	18	B	38			B	18
	Caseless Caddis			B	11	A	7			A	4
Mayfly nymphs	Up-wing (Ephemeraidae)			-	0	-	0			-	-
	Blue-winged Olive up-wing			B	35	B	33			B	12
	Flat-bodied up-wing (Heptageniidae)			A	4	C	179			C	101
	Olive up-wing (Baetidae)			C	164	C	167			C	161
Stonefly nymphs	Stonefly nymphs			B	18	C	289			B	32
Freshwater shrimps	Freshwater shrimps			-	0	A	2			A	8
Leeches	Leeches			A	2	A	3			A	2
Snails	Snails			A	5	-	0			-	0
Hoglouse	Hoglouse			-	0	-	0			B	26
<b>Density/biomass indicator (totals)</b>				Total no. recorded: 257		Total no. recorded: 718				Total no. recorded: 364	
<b>Notes</b>				1 Bullhead in sample. Water peaty in colour						Plenty of aquatic weed growth in the river	
<b>Biological Quality</b>				Good		Excellent				Very Good	

Again, all 3 sites sampled had extremely good biology, especially the Twrch which was teeming with life, which is excellent news.

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## Loughor Results

River Name		Cathan		Lash		Marlais	
Site Name							
NGR		SN62850990		SN62131327		SN62221341	
Samplers		John Jones, Steve Richards		John Jones, Steve		John Jones, Steve	
Conditions							
		Category	Number found	Category	Number Found	Category	Number Found
Caddis Flies	Cased Caddis	-	0	A	1	B	19
	Caseless Caddis	A	4	A	5	A	5
Mayfly nymphs	Up-wing (Ephemeroidea)	A	3	-	0	A	2
	Blue-winged Olive up-wing	A	5	-	0		
	Flat-bodied up-wing (Heptageniidae)	B	55	B	45	C	120
	Olive up-wing (Baetidae)	B	80	B	65	C	200
Stonefly nymphs	Stonefly nymphs	B	60	B	60	B	60
Freshwater shrimps	Freshwater shrimps	B	15	B	12	C	100
Leeches	Leeches	A	4	B	40	A	4
Snails	Snails	A	3	B	20	A	9
Hoglouse	Hoglouse	-	0	-	0		
Density/biomass indicator (totals)		Total no. recorded: 229		Total no. recorded: 247		Total no. recorded: 519	
Notes		Water Clear, Clean riverbed. There was a great deal of larvae present in the sample.		Water not so clear, some siltation with a little silkweed present. There were 2 Bullhead and a great deal of larvae present in the sample. There was evidence of sewage waste along the river bank.		Water clear. Clean riverbed with some crowfoot growing. Also caught 5 bullheads in differing sizes.	

The Cathan, Marlais and Lash sites all have excellent biological quality, with very good numbers of pretty much everything! The sewage waste present on the Lash catchment was most likely to have been the result of recent high flows and storm overflows from the treatment works further upstream.

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## Ogmore Results

### Ewenny Catchment

River Name		Ewenny Fach		Ewenny Fawr		Ewenny		Ewenny		Ewenny		Ciwc		Crymlyn	
Site Name		u/s Ewenny Fawr conf.		u/s Ewenny Fach conf.		Bottom Weir u/s Moors		u/s A48 Road Bridge		u/s Mill Sluice Gate		u/s Crymlyn		u/s Ciwc	
NGR															
Samplers		A Nash, C Tutton		A Nash, C Tutton		A Nash, C Tutton		L Page, D Chard		A Nash		A Nash		A Nash	
Conditions															
		Cat.	No.	Cat.	No.	Cat.	No.	Cat.	No.	Cat.	No.	Cat.	No.	Cat.	No.
Caddis Flies	Cased Caddis	A	2	A	8	A	8	A	5	B	11	A	5	A	6
	Caseless Caddis	B	30	-	0	A	3	A	7	A	6	A	2	A	3
Mayfly nymphs	Up-wing (Ephemeraeidae)	A	5	A	2	-	0	-	0	-	0	-	0	-	0
	Blue-winged Olive up-wing	-	0	-	0	-	0	-	0	-	0	-	0	-	0
	Flat-bodied up-wing (Heptageniidae)	A	7	A	5	B	14	A	6	B	12	B	16	B	12
	Olive up-wing (Baetidae)	A	8	A	2	A	5	B	100	B	30	B	30	B	20
Stonefly nymphs	Stonefly nymphs	-	0	-	0	A	4	A	10	A	2	A	4	-	0
Freshwater shrimps	Freshwater shrimps	B	50	A	3	A	1	B	25	B	40	B	21	B	30
Leeches	Leeches	A	1	A	1	A	2	A	2	A	6	-	0	A	3
Snails	Spire shells	-	0	-	0	-	0	B	70	-	0	A	6	A	3
Hoglouse	Hoglouse	-	0	-	0	-	0	-	0	-	0	-	0	-	0
Density/biomass indicator (totals)		103		Total no. recorded: 21		Total no. recorded: 37		Total no. recorded: 225		Total no. recorded: 107		Total no. recorded: 84		Total no. recorded: 77	
Comments		Shallow gravelly run		Fast shallow run in sunlight over bedrock		Slower run, 18 inches deep, in open sunlight		Open sunlit site		Fast shallow gravel run		Slight colour, fining down after spate		Slight colour – fining down after a spate	
Biological Quality		Fairly Good		Disappointing		Disappointing		Good		Quite good		Fairly good		Fairly good	

These sites all had good biological quality. The Ewenny Fawr us Ewenny Fach confluence and Ewenny at Bottom Weir sites would both benefit from being located to the nearest shallow gravel riffle in order to get better invertebrate abundances. Both had a good range of taxa present though, so there are unlikely to be any pollution issues currently.



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## Ewenny and Ogmore

River Name		Ewenny		Ewenny		Ogmore	
Site Name		Ford, Waterton Ind Estate u/s Sluice		Ford, Waterton Ind Estate d/s Sluice		Bridgend Tesco	
NGR		<b>SS 92943 78553</b>		<b>SS 92933 78548</b>		<b>SS 90454 80218</b>	
Samplers		Colin Chapman		Colin Chapman		Colin Chapman	
Conditions							
		Cat.	No.	Cat.	No.	Cat.	No.
Caddis Flies	Cased Caddis	A	6	A	4		3
	Caseless Caddis						
Mayfly nymphs	Up-wing (Ephemeraidae)						
	Blue-winged Olive up-wing	B	20	B	15		5
	Flat-bodied up-wing (Heptageniidae)	B	30	B	30		5
	Olive up-wing (Baetidae)	B	50	B	60		400
Stonefly nymphs	Stonefly nymphs	B	30	B	50		24
Freshwater shrimps	Freshwater shrimps	B	50	A	2		50
Leeches	Leeches						
Snails	Spire shells						
Hoglouse	Hoglouse						
Comments		1 Bullhead					

Both Ewenny sites have good biological quality, with high numbers of pollution sensitive taxa present. The upstream site has fairly high numbers of organic-loving freshwater shrimp, but also has good numbers of other pollution sensitive taxa. The Ogmore site is also not bad, but has extremely high numbers of olive upwings, and moderately high numbers of freshwater shrimp compared to other taxa, indicating a slight organic pollution influence.