

Riverfly Monitoring Newsletter

Southwest Wales – forward look for 2009

May 2009

Introduction and Thank you

We now have 3 main areas being covered by the scheme, and the growth of the project has been very encouraging, with several new volunteers getting involved. We now have at least 2 seasons worth of results for the Teifi, Pembrokeshire and Carmarthenshire groups, so are building up a really useful dataset for a rapidly increasing number of sites.

I'm also pleased to announce a new volunteer, Cedwyn Davies, who will be monitoring at sites on the Neath and Dulais starting in June. It's great to see the project spreading eastwards, and hopefully more people will follow by example and help with the scheme so that we can cover an even wider network.

Many thanks for all of your hard work this year.

Nicola.

About your Environment Agency Contact!

For the benefit of those of you who haven't met me yet, my name is Nicola Broadbridge, and I've been working for the Environment Agency since April 1999. During most of my time with the Agency, I've had a Freshwater Biology based role, and my official job title is currently "Environmental Monitoring Officer".

My specialities include invertebrate, plant and algae ID, and I'm also the South West Wales area contact for the ecology side of CAMS (Catchment Abstraction Monitoring Strategy). I've been the area contact for the Riverfly Project for the past year, and am thoroughly enjoying the work, and most of all the co-operation and enthusiasm of the volunteers and co-ordinators.



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Teifi Results

Many thanks to Colin and the Teifi volunteers for continuing to support the project despite the insurance issues that slowed everything up at first. Almost all of the sites were covered during the winter despite the very cold conditions, and every site bar one in the monitoring programme was sampled during the Spring period, which is a fantastic achievement!

Teifi Group Sampling Points

Collection Point	River	Grid	Monitors
1	Cych	SN249411	C. Chapman , M. Tabernacle
2	Cych	SN276359	C. Chapman , M. Tabernacle
3	Dulas (Cych Tributary)	SN244382	C. Chapman , M. Tabernacle
4	Mamog (Cych Tributary)	SN294361	C. Chapman , M. Tabernacle
5	Dulas (Ceri Tributary)	SN313468	C. Chapman , M. Tabernacle
6	Nant Bargod	SN358379	S.Elcomb, S.Owen
7	Nant Bargod	SN354391	S.Elcomb, S.Owen
8	Clettwr Fach	SN440483	G. Jones, I. Thomas
9	Clettwr Fawr	SN425469	G. Jones, I. Thomas
10	Clettwr	SN448436	G. Jones, I. Thomas
11	Cwerchyr	SN367446	I. Thomas
12	Nant Gran (Tyweli tributary)	SN437347	E.Davies, S.Jones
13	Talog (Tyweli Tributary)	SN463376	E.Davies, S.Jones
14	Tyweli	SN422390	E.Davies, S.Jones
15	Nant Ythan (Cerdin Tributary)	SN412428	D.F. Roberts, R.Foulkes
16	Cerdin	SN409441	D.F. Roberts, R.Foulkes
17	Cerdin	SN422416	D.F. Roberts, R.Foulkes
18	Ceri	SN324469	R. Harding
19	Teifi above Llanybydder	SN524445	Meurig Davies, Emyr Jones
20	Teifi above Llanybydder	SN529447	Alan Davies , Emyr Jones
21	Afon Duar	SN524444	Alan Davies , Emyr Jones
22	Nant Cledlyn	SN492431	Alan Davies, Meurig Davies
23	Afon Grannell	SN534471	Meurig Davies, Emyr Jones
24	Afon Pedran	SN276358	Rob Wilson, Jez More
25	Afon Cneifa	SN269371	Rob Wilson, Jez More
26	Afon Brefi	SN669548	Cap Morris, Emyr Lake
27	Afon Teifi	SN641548	Cap Morris, Emyr Lake

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Teifi Sampling Results Spring 2009

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
10	5	20	10	7	2	3	4	1	3	35	1	0	5	20	10	10	3	7	5	30	40	4	6	20	22	NS	0	0	0	14	
15	5	0	15	0	3	3	0	0	0	5	9	3	2	15	70	25	17	3	10	70	8	20	6	4	8	NS	11	10	4	22	
100	150	150	60	150	100	90	78	2	0	0	15	25	120	140	90	15	400	40	20	100	150	50	20	10	58	NS	25	40	20	15	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	1	0	NS	0	0	0	0
0	1	0	0	50	0	0	0	30	35	42	0	0	0	0	15	0	200	0	0	0	0	0	0	0	0	75	NS	0	0	0	15
200	40	300	50	12	200	200	42	75	5	0	65	300	60	60	55	60	100	50	100	300	150	90	130	300	18	NS	109	40	70	25	
2	40	2	40	10	70	20	10	2	0	60	24	100	60	60	40	5	2	30	50	100	90	30	50	300	112	NS	10	20	40	35	
1	0	20	0	40	80	100	6	25	2	49	0	1	80	80	30	20	10	4	20	50	10	0	0	0	NS	5	10	25	17		
0	1	1	0	3	0	0	4	0	0	2	0	0	5	5	5	5	0	1	0	0	0	0	0	0	3	NS	0	0	0	3	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NS	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NS	0	0	0	0	
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1b	10b	0	0	0	0	0	0	0	NS	0	0	0	0	

Interpretation of Results

Cych Catchment

The numbers of *Gammarus* and Stoneflies seem a lot lower than usual, particularly at sample point 1 (Abercych). Low numbers of these families are often an indication of sheep dip issues, which have historically been reported in the Cych catchment. As a result of these findings from the past 3 seasons, myself and the other EA biologists will include the Cych in this years sheep dip monitoring programme later in the year to investigate any potential sources. The site was sampled as part of EA routine sampling this past April, and appeared to be normal, but the catchment will still be included in this autumn's Sheep dip monitoring as a precaution.

Ceri Catchment

The results don't seem to show any obvious problems for the catchment, in fact the biological quality seems better than it has been in recent years, which is encouraging to see.

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Nant Bargod

No obvious problems shown.

Clettwr Catchment

No obvious problems shown.

Cwerchyr

There were no stoneflies or *Gammarus* in the winter sample, but stoneflies were recorded in the spring. If *Gammarus* and stonefly numbers continue to be low, this watercourse may be considered for inclusion in the EA Sheep Dip monitoring project.

Tyweli Catchment

No problems, healthy invertebrate populations recorded at all 3 sites.

Cerdin Catchment

No problems shown.

Llanybydder and Lampeter sites

No problems shown.

Pembrokeshire results

Big thanks to Steve and all the volunteers for getting the Pembrokeshire monitoring off to a flying start. I look forward to receiving further results for the area, and actually had the privilege of meeting the Anghof team when I was carrying out routine monitoring in the area myself!

Pembrokeshire Group Sampling Points

Collection Point	Sample Point	Grid Reference	Monitors
1	Knock Brook at Cutty Bridge	SM942188	J. Codd and D.Nattress
2	W Cleddau at St Catherines Bridge	SM945192	J. Codd and D. Nattress
3	W Cleddau at Musland Farm Bottom	SM945271	L. and G. Evans
4	W Cleddau at Musland Farm Top	SM945271	L. and G. Evans
5	Cartlett Brook	SM966164	R. Davies, R. Baker and J. Wright
6	Merlin's Brook	SM948147	R. Davies, R. Baker and J. Wright
7	Halt Pool		E. and G.W. Williams
8	Anghof		E. and G.W. Williams

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Pembrokeshire Sampling Results Autumn 2008

Autumn 08		1	2	3	4	5	6	7	8
CADDIS FLIES	Trichoptera, Caseless Caddis	3	N/S	0	20	N/S	N/S	N/S	N/S
	Trichoptera, Cased Caddis	100	N/S	22	5	N/S	N/S	N/S	N/S
MAY FLIES	Baetidae, Olives	12	N/S	220	0	N/S	N/S	N/S	N/S
	Ephemeridae, Mayflies	0	N/S	0	0	N/S	N/S	N/S	N/S
	Ephemerellidae, Blue Winged Olives	0	N/S	0	0	N/S	N/S	N/S	N/S
	Heptageniidae, Yellow May Dun	0	N/S	5	2	N/S	N/S	N/S	N/S
STONE FLIES	Plecoptera	0	N/S	0	10	N/S	N/S	N/S	N/S
SHRIMPS	Gammarus	6	N/S	200	200	N/S	N/S	N/S	N/S
LEECHES		2	N/S	0	0	N/S	N/S	N/S	N/S
SNAILS		0	N/S	0	0	N/S	N/S	N/S	N/S
HOG LICE		0	N/S	9	20	N/S	N/S	N/S	N/S
SAUCER BUGS		0	N/S	0		N/S	N/S	N/S	N/S

Pembrokeshire Sampling Results Winter 2008/09

Winter 09		1	2	3	4	5	6	7	8
CADDIS FLIES	Trichoptera, Caseless Caddis	1	1	N/S	N/S	N/S	N/S	1	0
	Trichoptera, Cased Caddis	35	110	N/S	N/S	N/S	N/S	10	0
MAY FLIES	Baetidae, Olives	80	0	N/S	N/S	N/S	N/S	3	20
	Ephemeridae, Mayflies	0	0	N/S	N/S	N/S	N/S	0	0
	Ephemerellidae, Blue Winged Olives	0	20	N/S	N/S	N/S	N/S	1	0
	Heptageniidae, Yellow May Dun	7	2	N/S	N/S	N/S	N/S	0	1
STONE FLIES	Plecoptera	2	6	N/S	N/S	N/S	N/S	4	5
SHRIMPS	Gammarus	6	50	N/S	N/S	N/S	N/S	40	4
LEECHES		4	0	N/S	N/S	N/S	N/S	15	3
SNAILS		0	0	N/S	N/S	N/S	N/S	0	0
HOG LICE		0	0	N/S	N/S	N/S	N/S	0	0
SAUCER BUGS		0	0	N/S	N/S	N/S	N/S	0	0

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Pembrokeshire Sampling Results Spring 2009

No spring results received to date (June 2009)

Interpretation of Results

The site on the Knock Brook had fairly low number of Yellow May Dun and Stoneflies in both samples, and they were completely absent in the autumn although high flows could have been a factor. This brook has been affected by organic pollution in the past, so is definitely worth keeping an eye on, and if results continue to be poor then an EA investigation could be required.

The Anghof is still showing quite disappointing results, and again, continued monitoring is definitely required to keep an eye on things there, as the river has suffered badly from organic inputs in previous years. Both sites around Musland farm seem to have fairly low numbers of sensitive invertebrates, but again this could be due to the high flows in the Autumn so it will be interesting to see how these sites fare in normal conditions.

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Carmarthenshire Rivers Trust Results.

Big thanks to Brian and all of the other volunteers for completing their first year of sampling. A reasonable proportion of the sites have been sampled for the Spring period, so a special thanks to those who managed to get out! It's really important to try and get an idea of how ecological quality for each site varies on a seasonal level, so that any changes can be interpreted as either natural or due to a pollution event.

The vast majority of the sites sampled showed an improvement in invertebrate populations compared to the 2008 samples, which I suspect is due to the absence of continued high flows for this season.

Tywi Catchment Sites

Site Number	Site Name	Grid reference	Monitors
1	Cothi Clydach at Pont Cwmmawr	SN 51459 32642	B Jones, J Price
2	Cothi at Cwrt Y Cadno	SN 6917 4413	P John, M Heckler
3	Cothi Twrch at Pumpsaint	SN 65391 40799	P John, M Heckler
4	Cothi at Pumpsaint	SN6558 4053	P John, M Heckler
5	Annell at Crugybar	SN 6456 3608	P John, M Heckler
6	Gwili at Abergwili Road Bridge	SN 43350-21040	N Evans, S Edwards
7	Duad at Cwmduad	SN 3740 3015	N Evans, S Edwards
8	Gochen at Cynwyl Elfed	SN 372 274	D N Evans, D M Greves
9	Myddyfi d/s Cilsan Ford		G Price, M Jones
10	Dryslwyn Dulas	SN-5557-2253	M Jones, G W Price
11	Llangadog Bran u/s Tywi	SN 6964 2841	Mike Jenkins
12	Llanwrda Dulais at Llanwrda	SN 7190 3130	Mike Jenkins
13	Rhosmaen Dulais at A40 Road Bridge	SN 6467 2443	Mike Jenkins
14	Rhosmaen Dulais at Glanthames	SN 6420 2670	E Rimmer, M Davies
15	Rhosmaen Dulais at Pont Rhyd Y March	SN 7557 2887	Mike Jenkins
16	Sawdde at Llangadog Common	SN 7060 2765	Mike Jenkins
17	Doethie at Rhydygroes	SN 77045 47413	B Jones, J Price
18	Doethie u/s Pysgotwr	SN 76516 48358	B Jones, J Price
19	Doethie u/s Pwll yr wyn	SN 768515	E Lake, M Morris
20	Pysgotwr u/s Doethie	SN-7645-4826	B Jones, J Price
21	Doethie Fach at Pont Rhiw Gelynen	SN 756533	E Lake, M Morris
22	Doethie Fawr at Pont Mari	SN 754530	E Lake, M Morris
23	Doethie Fawr at Pont Penlan	SN 742543	E Lake, M Morris
24	Tywi at Rhandirmwyn	SN-7790-4345	B Jones, M Morris
25	Tywi at Llandovery railway bridge	SN 64673 24438	B Jones, M Morris
26	Llandovery Bran at Pont Rhyd Owen	SN 7745 3525	B Jones, M Morris
27	Dunant u/s Tywi	SN 7580 3840	B Jones, M Morris
28	Crychiau at Dalpen Bridge	SN 445 227	D N Evans, D M Greves

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Spring 2009 results

Spring 09		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
CADDIS FLIES	Trichoptera, Caseless Caddis	77	32	15	n/s	2	n/s	n/s	4	n/s	n/s	0	n/s	n/s	20	n/s	n/s	20	27	5	n/s	n/s	20	35	n/s	n/s	n/s	n/s	20
	Trichoptera, Cased Caddis	1	14	13	n/s	30	n/s	n/s	7	n/s	n/s	5	n/s	n/s	15	n/s	n/s	4	2	4	n/s	n/s	6	7	n/s	n/s	n/s	n/s	10
MAY FLIES	Baetidae, Olives	69	1	13	n/s	111	n/s	n/s	16	n/s	n/s	100	n/s	n/s	220	n/s	n/s	0	3	6	n/s	n/s	0	1	n/s	n/s	n/s	n/s	40
	Ephemeroidea, Mayflies	0	0	0	n/s	0	n/s	n/s	0	n/s	n/s	0	n/s	n/s	25	n/s	n/s	0	0	0	n/s	n/s	0	0	n/s	n/s	n/s	n/s	0
	Ephemeroidea, BWO	0	31	67	n/s	75	n/s	n/s	7	n/s	n/s	0	n/s	n/s	150	n/s	n/s	0	0	0	n/s	n/s	1	3	n/s	n/s	n/s	n/s	0
	Heptageniidae, Yellow May Dun	154	102	125	n/s	220	n/s	n/s	110	n/s	n/s	77	n/s	n/s	60	n/s	n/s	28	37	1	n/s	n/s	0	0	n/s	n/s	n/s	n/s	##
STONE FLIES	Plecoptera	135	60	311	n/s	121	n/s	n/s	72	n/s	n/s	11	n/s	n/s	60	n/s	n/s	119	168	97	n/s	n/s	202	98	n/s	n/s	n/s	n/s	20
SHRIMPS	Gammarus	0	0	2	n/s	2	n/s	n/s	0	n/s	n/s	5	n/s	n/s	10	n/s	n/s	0	0	0	n/s	n/s	0	0	n/s	n/s	n/s	n/s	3
Misc.	Leeches	0	0	0	n/s	0	n/s	n/s	0	n/s	n/s	0	n/s	n/s	0	n/s	n/s	0	0	0	n/s	n/s	21	20	n/s	n/s	n/s	n/s	1
	Snails	0	0	0	n/s	0	n/s	n/s	0	n/s	n/s	0	n/s	n/s	0	n/s	n/s	0	0	0	n/s	n/s	0	0	n/s	n/s	n/s	n/s	1
	Hog Louse	0	0	0	n/s	0	n/s	n/s	0	n/s	n/s	0	n/s	n/s	0	n/s	n/s	0	0	0	n/s	n/s	0	0	n/s	n/s	n/s	n/s	0
	Saucer Bugs / Beetles	0	0	0	n/s	0	n/s	n/s	0	n/s	n/s	0	n/s	n/s	0	n/s	n/s	0	0	0	n/s	n/s	0	0	n/s	n/s	n/s	n/s	0

In general the Tywi catchment is looking pretty healthy according to these results. The acidified tributaries at the top of the catchment continue to show average to poor invertebrate populations as expected.

Loughor Catchment Sites

Collection Point	Site name	Grid Reference	Monitors
1	Amman at Garnant	SN 692 113	J Jones, G Thomas
2	Cathan at Garnswllt	SN 628 320	J Jones, G Thomas
3	Garnant at Garnant	SN 692 451	J Jones, G Thomas
4	Lash below known problems	SN 616 071	J Jones, G Thomas
5	Pedol at Garnant	SN 690 613	J Jones, G Thomas
6	Lash above known problems	SN 614 291	J Jones, G Thomas

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Spring 2009 results

Spring 09		1	2	3	4	5	6
CADDIS FLIES	Trichoptera – caseless caddis	1	4	2	21	5	24
	Trichoptera – Cased Caddis	6	0	1	8	3	6
MAYFLIES	Baetidae - Olives	35	31	50	12	14	26
	Ephemeroidea - Mayflies	8	14	11	42	23	36
	Ephemeroidea - BWO	7	28	3	15	3	10
	Heptageniidae – Yellow May Dun	110	62	12	200	33	200
STONEFLIES	Plecoptera	42	11	18	22	32	15
SHRIMPS	Gammarus	0	0	0	2	2	0
MISC.	Leeches	1	9	0	1	1	1
	Snails	0	0	0	0	0	0
	Water Hog Louse	0	0	0	0	0	0
	Saucer Bugs/ Beetles	0	0	0	0	0	0

The Loughor catchment sampling results have all shown very good biological quality, and it was great to see that all of the sites had been covered.

Taf Catchment Sites

Collection Point	Site name	Grid Reference	Monitors
1	Gafel at Rhydowen	SN 193 290	Keith and Lesley Jones
2	Gronw u/s Taf	SN 202 163	Keith and Lesley Jones
3	Nant Elwyn u/s Taf	SN 195 286	Keith and Lesley Jones
4	Taf at Llanfyrnach	SN 221 311	Keith and Lesley Jones
5	Taf u/s Elwyn	SN 195 287	Keith and Lesley Jones
6	Taf u/s Gronw	SN 202 162	Keith and Lesley Jones
7	Taf u/s Marlais	SN 186 168	Keith and Lesley Jones

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Spring 2009 results

Spring 09		1	2	3	4	5	6	7
CADDIS FLIES	Trichoptera – caseless caddis	18	12	n/s	n/s	n/s	n/s	n/s
	Trichoptera – Cased Caddis	16	20	n/s	n/s	n/s	n/s	n/s
MAYFLIES	Baetidae - Olives	63	52	n/s	n/s	n/s	n/s	n/s
	Ephemeraeidae - Mayflies	0	0	n/s	n/s	n/s	n/s	n/s
	Ephemeraeidae - BWO	0	0	n/s	n/s	n/s	n/s	n/s
	Heptageniidae – Yellow May Dun	83	46	n/s	n/s	n/s	n/s	n/s
STONEFLIES	Plecoptera	85	32	n/s	n/s	n/s	n/s	n/s
SHRIMPS	Gammarus	11	12	n/s	n/s	n/s	n/s	n/s
MISC.	Leeches	20	5	n/s	n/s	n/s	n/s	n/s
	Snails	0	0	n/s	n/s	n/s	n/s	n/s
	Water Hog Louse	0	0	n/s	n/s	n/s	n/s	n/s
	Saucer Bugs/ Beetles	0	0	n/s	n/s	n/s	n/s	n/s

Both of the sites sampled showed much better ecological quality than during the past couple of sampling runs, which was very encouraging to see.

Gwendraeth Catchment Sites

Collection Point	Site Name	Grid Reference	Monitors
1	Gwendraeth Fach at Gelli Deg	SN 41868 10156	A Stuart, M Price
2	Gwendraeth Fawr at Pont Spwdwr	SN 43383 05873	A Stuart, M Price
3	Gwendraeth Fawr at Pont Henri	SN 47530 09398	A Stuart, M Price
4	Gwendraeth Fawr d/s Pontyates STW		A Stuart, M Price

Spring 2009 results

Not sampled this season

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Tawe Catchment Sites

Collection Point	Site name	Grid Reference	Monitors
1	Twrch at Lower Cwmtwrch	SN 7670 1020	R Lockyer, P Jones
2	Giedd at Cwmgiedd	SN 7885 1112	R Lockyer, P Jones
3	Llynfell at Cwmllynfell	SN 7480 1250	R Lockyer, P Jones

Spring 2009 results

Spring 09		1	2	3
CADDIS FLIES	Trichoptera – caseless caddis	6	3	3
	Trichoptera – Cased Caddis	1	8	10
MAYFLIES	Baetidae - Olives	125	1	0
	Ephemeridae - Mayflies	0	0	0
	Ephemerellidae - BWO	102	10	15
	Heptageniidae – Yellow May Dun	23	20	9
STONEFLIES	Plecoptera	33	70	56
SHRIMPS	Gammarus	0	1	1
MISC.	Leeches	2	0	1
	Snails	0	0	0
	Water Hog Louse	0	0	0
	Saucer Bugs/ Beetles	0	0	0

All 3 sites look to be fairly good, with plenty of stoneflies and mayflies present.