

CRIMP

Clyde Riverfly Monitoring Partnership

Issue 4 – Autumn 2015



THIS SEASON

CRIMP IS A CITIZEN SCIENCE PROJECT THAT AIMS TO PROVIDE TRAINING IN RIVERFLY MONITORING TO VOLUNTEERS ACROSS THE EIGHT COUNTIES OF THE RIVER CLYDE CATCHMENT

Duncanrig students take the plunge!

This term at Duncanrig Secondary some new students were getting to grips with riverfly monitoring for the first time as part of their biology lessons. Their local burn, a small tributary of the Kitch Water, flows beneath the school and is a short walk away. One pupil donned chest waders to take a sample for the rest of the class to see what is thriving in the water right next to their school. As much of the river is culverted upstream in Westwood, the fly-life was slightly impoverished – not many of the groups found score on the ARMI index. The sample did however yield freshwater hog-louse, plenty of leeches and blackfly larvae. It was great to get outdoors and learn about the factors affecting biological water quality and biological indicators!



Fourth Caring for the Clyde – Citizen Science Meeting

The Clyde River Foundation's annual citizen science meeting will take place on Saturday 27th February. **Caring for the Clyde** will celebrate three years of coordinating CRIMP, our largest citizen science project, on the River Clyde.

We are very grateful to **Scottish Natural Heritage** for supporting CRIMP and helping us to train over 100 monitors. We will continue to support our current monitors across the catchment and hope to secure further funding to continue to coordinate riverfly monitoring on the River Clyde. The Clyde River Foundation now has two trained and accredited tutors who are able to deliver further training workshops. If you are interested in becoming a riverfly monitor please get in touch – we may deliver more training workshops next year if there is significant demand.

Earlier this month we met with Ben Fitch, Anglers' Riverfly Monitoring Initiative Coordinator, SEPA and representatives from the, Annan, Almond, Forth, Galloway and Tweed Fisheries Trusts, all of whom have had a level of participation in riverfly monitoring within their



Scottish Anglers Riverfly Monitoring Initiative (ARMI) Meeting 11th November

catchments in the past.

We are very pleased to announce that Ben Fitch has agreed to be our guest speaker at our Citizen Science meeting in February. Ben will introduce the Riverfly Partnership's new online repository, demonstrate its uses and functionality and talk about opportunities to join the Riverfly Partnership in Scotland.

If you are interested in attending the Caring for the Clyde – Citizen Science meeting – contact us!

Gotter Water under watch

At end of August CRIMP monitors on the Gotter Water came across sewage debris at their monitoring site just upstream of the River Gryfe confluence. John Blair, president of the Bridge of Weir Angling Club and coordinator of the CRIMP group, reported the incident to SEPA. Scottish Water evidently cleared the debris (on September 3rd) that was blocking the combined sewage overflow (CSO) and had caused it to overflow.

Later that month riverfly monitors identified that the riverfly score had fallen below the trigger on September 28th. The SEPA ecology team visited the site on October 9th. On the same day the Clyde River Foundation received this report from the SEPA ecology team who attended the Gotter Water, "this morning SEPA made a visual inspection of the reach and collected an invertebrate sample from the Gotter Water just upstream of its confluence with the River Gryfe. There was no sewage fungus or

October 2015 results (SEPA's bankside sort)

Common Name	Scientific name	BMWP score	No.
Flat-bodied up-wing fly	Heptageniidae	10	70
Blue Winged Olive	Ephemerelellidae	10	2
Needle fly	Leuctridae	10	6
Gadger	Perlodidae	10	30
Gadger	Perlidae	10	8
Cased Caddis	Goeridae	10	1
Sand fly	Ryachophilidae	7	4
Caseless caddis	Polycentropodidae	4	3
Cased caddis	Limnephilidae	1	1
Freshwater Limpet	Ancylidae	6	12
Freshwater shrimp	Gammaridae	6	12
Diving beetle	Dytiscidae	5	1
Whirligig beetle	Gyrinidae	5	1
Minute moss beetle	Hydraenidae	5	1
Riffle Beetle	Elmidae	5	7
Caseless caddis	Hydropsychidae	5	1
Black fly larvae	Simuliidae	5	5
Flatworm	Planariidae	5	1
Olive	Baetidae	4	35
Snail	Physidae	3	1
Snail leech	Glossiphoniidae	3	1
Duck leech	Erpobdellidae	3	1
Freshwater hog louse	Asellidae	3	1
Non-biting midge larva	Chironomidae	2	12
Aquatic worm	Oligochaeta	1	5

other evidence that the burn had been *recently* polluted, though there was a trace of sewage debris indicating the CSO had recently been discharging.

The invertebrate sample achieved scores of Biological Monitoring Working Party (BMWP) 147, number of taxa 25 and average score per taxa (ASPT) 5.88. These scores are in line with previous results for this site and indicate excellent water quality. Therefore the Gotter Water is in excellent condition at Quarriers Village."

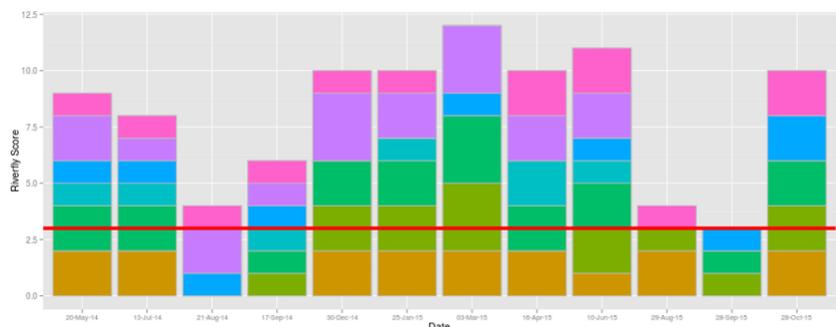
The Clyde River Foundation requested a full copy of the macro-invertebrate data. Interestingly when the BMWP score is converted to a 'Riverfly score' it totals '9' which closely lines up with the riverfly score recorded on October 28th.

Although a poor score was identified by the volunteers for two months running we are relieved it appears to have recovered quickly and that the riverfly monitoring scoring methodology has corresponded with the expert investigation.

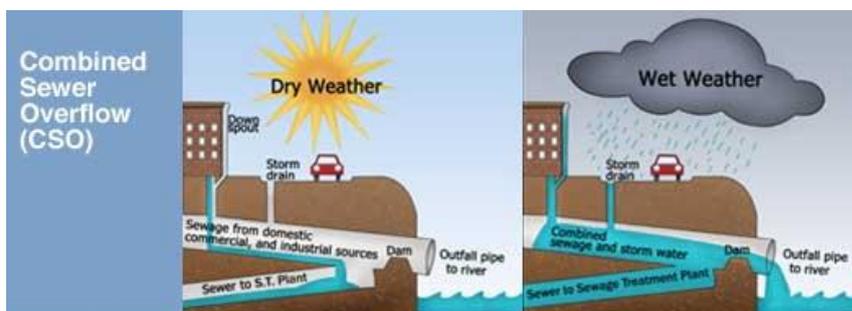
The CRIMP volunteers have done an excellent job in flagging up the sewage debris in the first instance and having it cleared out of the river as soon as possible.



Gotter water d/s Quarriers



How does a CSO work?



A CSO is an archaic sewer system designed to accumulate both storm water runoff and sewage in one pipe. When pressed over capacity during storms however, the overflow – storm water and untreated waste – diverts directly into waterways. On the Gotter Water downstream of Quarriers village, despite a dry spell, sewage debris from inappropriately flushed items (nappies etc.) had accumulated and caused the CSO to block and overflow.

Campsie Angling Association back in the river

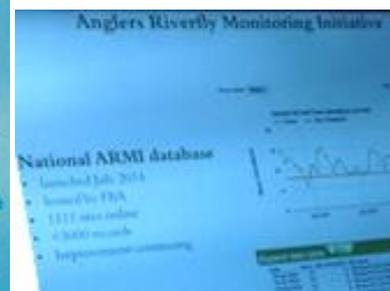
We met with the Campsie Angling Association secretary Lawrence Meechan on the Glazert Water for a refresher in the riverfly monitoring technique. Lawrence attended one of the first Riverfly monitoring training courses on the River Clyde in 2012, before CRIMP was launched. Lawrence hopes to send some 'new young blood' along to a training course next year to pick up some riverfly monitoring skills and cover more sites in the headwaters of the River Kelvin.



Scottish Anglers Riverfly Monitoring Initiative (ARMI) meeting outcomes

During the November meeting SEPA pledged continued support for Citizen Science and particularly riverfly monitoring. Some of the main outcomes from the meeting were to make significant progress in setting specific trigger levels for Clyde riverfly monitoring sites in 2016 and allocating a named SEPA Ecology contact for the River Clyde catchment to deal with the follow up of pollution incidents and SEPA investigations.

Another significant outcome is the planned transfer of CRIMP data to the National Riverfly Monitoring database. Over the winter period, Ben will register current monitoring sites with the transition to the new database taking place after the Caring for the Clyde meeting in February.



Spot a pollution incident?

We've had a number of pollution incidents across the Clyde catchment since CRIMP launched in 2013. However without more coverage and active sampling on all the tributaries of the Clyde there is less evidence and long term records to rely on. It can take up to a year to establish a 'trigger level' for a specific site if there is no data collected previously.

If you identify a trigger level breach it is important to follow this protocol:

- Repeat the CRIMP methodology
- If the trigger level breach is **confirmed**, contact the **Clyde River Foundation**, who will contact the SEPA Ecology contact directly
- If **out of working hours** then please contact the **statutory body emergency hotline (0800 807060)** and explain that the incident is being reported by a riverfly monitoring group and take note of the **incident number**.

SEPA's Pollution Hotline - 0800 80 70 60

Contact us

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