

From Beck To Beach

News in brief...

Official Office Opening and truck presentation

Back in March our office and joint exhibition with the United Utilities West Cumbria Supply Project was officially opened by our Patrons Lord and Lady Egremont. UU also very generously donated a truck to the Trust at the opening. We invited school girls Bicci and Clemency Clark who won the "Design our Van" competition in 2015 to create some new pictures for the side of our new truck. Keep an eye out for our fab vehicles out and about in West Cumbria!



Electrofishing results 2016 and call for volunteers

Fish surveys have become an annual part of our work and the aim is to build up a picture of river health and what can be done to improve the rivers for both people and wildlife. We have finally

crunched the data from last year's survey and unsurprisingly all the fish numbers were down compared to previous years, which is not surprising after the floods. However some fish survived with some places still having sizable fish populations. For the full detailed report please go to our website. If you are interested in helping with the surveys this year please email info@westcumbriariverstrust.org for more information.

River Derwent Annual Litter Pick

Twenty-six volunteers and canoeists from across our community turned out for our sixth annual spring litter pick below Keswick. What a difference they made, we left with three kilometres of river banking free of litter! Over thirty bags of rubbish were removed along with numerous individual items too large to go into the bags but nevertheless, transportable in the open canoes. Our friendly local farmer, Kevin Tyson, again kindly transported all the bags and individual items up to the main road for collection by Allerdale Borough Council.



Riverfly Training

Thanks to our funders Copeland Community Fund we were able to train a new generation of Riverfly Monitors in May. The Anglers Riverfly Monitoring Initiative is a national citizen science project that supports volunteers to study invertebrates in their local river. The information is used to flag possible pollution incidents which can then be investigated by the Environment Agency.



Eel & Elver Pass Cleaning by Local Fishermen

Often overlooked, our native eels are now and continue to be under serious threat after suffering a 95% decline in the last 25 years. Local fishermen Bruce and Ian are doing their bit to support this threatened species by maintaining the passes that have been installed by WCRT to ensure their continued access into sections of our rivers and streams blocked off by man-made structures. Every spring they pressure wash the eel passes to free them of silt to ensure their continued free passage... a big thank you.

Welcoming three new team members!



Our ever expanding workforce has just gained three new members of staff. We would like to welcome Caitlin Pearson to the role of Catchment Officer. Caitlin previously worked as a Project Officer for the Yorkshire Dales Rivers Trust after finishing her PhD on the effects of farming on stream invertebrates. She is looking forward to working with a wide range of partners to develop our

Catchment plans. Caitlin feels very lucky to have moved to Cumbria where she can spend lots of time fell running, cycling and swimming in the lakes!

Another appointment is Katie Milburn as the Waver Wampool Project Officer. She will

be working on the River Waver and River Wampool, conducting walkover surveys and working with the locals. Finally we welcome Tim Pitt who is on secondment from The Rivers Trust and is working on our Ennerdale Mill Dam project in Egremont.

Update from a top secret location!

Fifty seven juvenile mussels were released into their secret new home on the 23rd May, in a joint project between us and the Freshwater Biological Association, funded by Biffa Award. These mussels have been reared in captivity and are nine years of age. Nevertheless they are still tiny and only measure between 16 and 37mm in length. Luckily nearly a fortnight of dry weather gave them time to settle in and bury themselves into gravel before the first spate of water. We will be continuing to keep a close eye on how they settle in and plans are already in place to introduce more in the near future.



Facilitation Fund projects Countryside Stewardship

We have been running a very successful farmers group in the Crookhurst Catchment for 6 months and we have just set up a new one in the Cocker catchment. These groups are funded by Natural England to encourage partnership working to deliver landscape scale environmental benefits and offer an uplift for environmental grants to any group members.

The main focus of both groups is to reduce flooding, but also improve water quality and increase biodiversity, so there are a wide variety of topics we will be covering over the next few years.

The new group in the Cocker catchment is still gaining momentum but has a lot of ideas for helping farmers and is also able to apply for recent funding to help reduce flooding in the area. We are recruiting new members for both groups so if you farm in one of these areas and would like to know more please contact Rosie (rosie@westcumbriarivertrust.org) about the Crookhurst or Philippa (philippa@westcumbriarivertrust.org) about the Cocker.



The Crookhurst group meets once a month to discuss a variety of topics, so far we have covered grassland productivity and resource protection, stewardship grants, soil health, water quality, fluke prevention and have guest speakers arranged to inform the group about the benefits of trees and explain what natural flood management is. As well as helping farmers make informed decisions the groups are also a welcomed social opportunity, with some Crookhurst farmers calling their meetings 'Tuesday night club'!



Adopting a Beck never felt so good!



NU'GEN



Funded by Nugen and in partnership with the Environment Agency, Egremont Anglers and Catchment Sensitive Farming, the project on Kirk Beck and Black Beck is in full swing having delivered just under 70 metres of willow spiling at 3 locations on Black Beck; 40m of willow & brash bank stabilisation, instillation of 2 troughs and 680m of riparian fencing and lots of free planting. Fencing is critical to keep livestock away from riverbanks to reduce poaching and loss of land, and as the wonderful willow grows on these sites, the roots will help hold the banks together to help prevent further erosion. This will not only improve water quality & habitat for wildlife, but it will also help the farmers to keep their valuable soil where it's needed; on the fields!

25 Catchment Sensitive Farming (CSF) visits have been made delivering information and advice on Countryside Stewardship and grant opportunities to help with farm

management. This work will continue into 2017/18 and is match funded by NE.



Events so far have included a Bank Stabilisation workshop led by the Wild Trout Trust and attended by over 18 energetic volunteers – big thanks to Egremont Anglers, local volunteers & the Environment Agency for all the extra muscle! World Environment Day went pink this year as we celebrated in style on June 5th with a Himalayan Balsam Blitz on the grounds of the beautiful & historic Calder Abbey. Braving the weather, enthusiastic staff from Nugen joined local families who not only bashed a huge area of

balsam, but also found all sorts of wonderful wildlife!

The Abbey is the uppermost point of Balsam in the river catchment so was an important area to tackle and help raise awareness. Big thanks go to everyone who joined us on the day & Calder Abbey for allowing us to host the event in such wonderful surroundings.

There's more in the pipeline too so why not find out more & get involved! Contact karin@westcumbriarivertrust.org



Whip it out, wash it & wipe it!



Summer's here – hooray! And I'm sure you're all enjoying some quality time outdoors and on the water. Whether you are swimming, boating, fishing or just playing in our rivers and lakes, you could inadvertently be carrying unwanted Invaders...

Invasive species are a serious issue in freshwater habitats, with lakes perhaps the most vulnerable

habitats of all. We already have problems in the Lakes with species like New Zealand pigmyweed in Derwent Water & Bassenthwaite Lake, but there are other lakes in Britain & Ireland with even more serious problems; massive infestations of invasive non-native mussels and clams that carpet vast areas of lake beds, or "Killer shrimps" that completely dominate and destroy the invertebrate communities that had evolved over thousands of years, and of other invasive plants (like Curly Waterweed in Lough Corrib, Ireland) that have made canoeing, sailing, swimming or fishing pretty well impossible and has seriously impacted tourism in the area. We would hate for any of these species to come to our lovely lakes so following 3 simple actions will not only help look after our wonderful Cumbrian countryside, it will also enable us to continue playing in the outdoors and help keep our tourism economy alive!

Check - Clean - Dry

- ☒ **Check** all clothing, footwear and equipment for plant fragments and living organisms before leaving a river or lake. Pay particular attention to areas that are damp or hard to inspect.
- ☒ **Clean** & wash all equipment & remove any organisms or plant fragments and leave on site. OR wash on a hard standing surface away from any drainage system.
- ☒ **Dry** all your equipment & clothing thoroughly before visiting your next water body. Some species can survive up to 3 weeks in damp conditions.

For more information on biosecurity and to volunteer get in touch!

Smolt trap...

This year we have had the pleasure of assisting APEM with the smolt trap on St John's Beck. It has been a successful survey and we have had some good results from the data collected.

A smolt is like the teenage version of a salmonid fish. They can be Salmon (*Salmo salar*) or Sea Trout (*Salmo trutta*). Smolts are the transition phase between a parr (juvenile salmonid) and a fully-fledged adult. You can identify a smolt from the silvery colouration; like in this photo below.



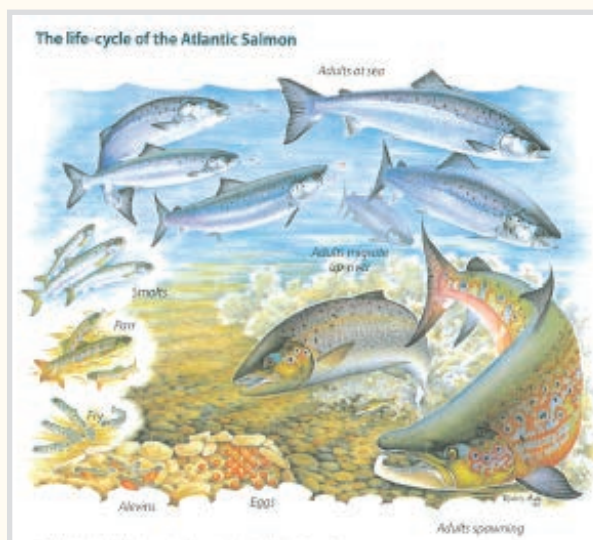
Compared to a parr where the fish still has distinct parr markings such as the thumb prints, spots and green/ brown colouration; like in this photo below.



The salmonids make this transition from parr to smolt as they migrate downstream to the sea. They usually metamorphose into smolts around two to three years old.

However this year we have been seeing one year old fish already changed and on their way to sea. We're not entirely sure why this has occurred but this could be their way of coping with predation or climate change among many other factors.

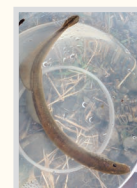
This is a diagram of the life cycle of a salmon to help understand the terminology and stages of growth and migration.



Credit: M. Everard (2013) "Britain's Freshwater Fishes" Wild Guides, Princeton, p.g 11

Did you know salmon returns from the sea and swims upstream to spawn in the waters it was born?

As well as smolts we have seen many other interesting species in the trap including River Lamprey and Brook Lamprey. These funny looking creatures are from the age of the dinosaurs and have large sucker like mouths with lots of little teeth to latch on and bite with. It's a good sign that we have found some lamprey as they were in decline and hadn't been seen in this area for many years. Lamprey like clean water, flowing water with shallow areas that contain organically enriched mud for their babies (ammocoetes) to burrow into and filter feed.



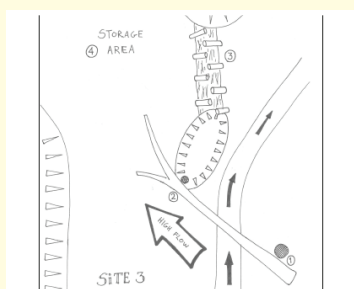
Finally we can't write an article about the smolt trap without including a picture of the beautiful Brown Trout we caught. It measured about 700mm and at best guess weighed 4lbs! The colours were just amazing.



What is a leaky dam?

Leaky dams come in all sorts of shapes and sizes but are usually small scale and built with natural materials on small becks high in the catchment. The idea is to hold back some water at the peak of a flood and release it slowly to prevent large volumes of water flowing downstream causing soil erosion and flooding. In Hayton Castle Woods we are in the process of building a series of leaky dams, mostly from trees felled in the area. Some leaky dams can also trap sediment and clean river water; these are made from water tolerant species of tree such as willow which can be woven together to form a dense mat of living tree which the water passes through slowly, dropping any silt in the process.

This photo (looking upstream) and diagram show leaky dam 3 in Hayton Castle Woods. So far we have the first weave of willow, round living willow stakes and soon there will be a second line of stakes forming a tepee structure with these and brash bundles secured between the two. The storage area (on the right of the picture) is an old quarry which will flood at times of heavy rain and on the left is Patten Beck with the tree forming the top of the dam in the background. The whole structure is made from living willow and will continue to grow making it very strong.



HAYTON CASTLE



PURSUE A QUEST