

From Beck To Beach

The newsletter of West Cumbria Rivers Trust

Floodplain project nears completion

Work on land near Low Lorton that will help reduce flood risk to Cockermouth is nearly complete.

Since 2016, we've been working with a landowner at Rogerscale, near Low Lorton, to restore an area of floodplain. The goal is to increase the amount of water held on the floodplain during storms, slowing the flow of water towards Cockermouth.

The project began with the planting of a willow copse, in partnership with Iggesund Paperboard who are working with farmers to plant willow crops to provide fuel for the bio mass boiler at their Workington mill. Willow is excellent at slowing floodwater as it moves across the floodplain and farmers involved in Iggesund's programme have reported flood mitigation benefits.

West Cumbria Rivers Trust then planted deciduous trees on the floodplain and a hedge along the riverbank. These trees will slow water flow, and trap debris which prevents it being washed downstream where it can damage infrastructure.

The final stages of the project have involved laying an old hedge and restoring a pond and scrape to slow the flow further and increase natural temporary water storage areas, which hold water after storms and allow it to drain away gradually.



The layed hedge will slow the surface water flow

Project Officer Ian Creighton said: "I'm really pleased with this project. The area's looking fantastic, and as well as providing natural flood management measures, we've created diverse habitats for wildlife.

"Our next steps are some further planting and setting up a monitoring system so we can track the effectiveness of the measures we've put in place. We want to understand how well they reduce flood risk so we'll monitor the area for three years using cameras and equipment to measure the water level. This will help us improve our work and plan future projects."

This work has been funded by DEFRA through the

Community Natural Flood Management program, with further funding and trees provided by the Woodland Trust.

westcumbriariverstrust.org/projects/rogerscale-floodplain-restoration



Flood debris trapped by the willow copse



The pond (left) and scrape (right) will hold water temporarily after storms, slowing the flow of water off the land



IN THIS ISSUE...

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- Get involved! Events and volunteering dates

The Adventurous Salmon set to leap off the shelves

We've teamed up with Eden Rivers Trust to launch *The Adventurous Salmon*, a brand-new children's picture book.

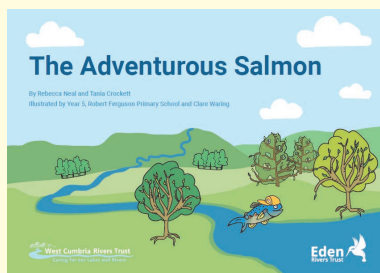
Young readers will follow the epic 3,000 km journey of a wild Atlantic salmon, from Cumbria's tiny beckes to the sea and back again, learning about our native wildlife along the way. The book is being used in our school sessions and both Trusts are selling copies to raise funds.

Jodie Mills, Operations Director, said: "*The Adventurous Salmon* will form a key part of the free nature education programme we offer local schools. We've recently used the book in the classroom for the first time and had a fantastic response from pupils, who really engaged with the book's lessons about Cumbrian wildlife."

The story was written by West Cumbria Rivers Trust's Rebecca Neal and Eden Rivers Trust's Tania Crockett as part of an education programme funded by Copeland Community Fund, United Utilities and the National Lottery Heritage Fund.

The Adventurous Salmon is available from our visitor centre at 32 Lake Road, Keswick, from the Keswick and Carlisle branches of Bookends, or from our website. Schools and community groups interested in free education sessions should contact Cathy Gruba at cathy@westcumbriarivertrust.org

westcumbriarivertrust.org/projects/education/the-adventurous-salmon-book



Want to know more about work on your local river or lake?

A new website offering extensive information on river and lake improvement projects happening across West Cumbria has been launched.

The West Cumbria Catchment Partnership, led by West Cumbria Rivers Trust, brings together organisations that manage and improve water courses and the surrounding land. The Partnership includes local and county councils, statutory bodies, conservation charities, local businesses and community groups.

On the Partnership's newly-launched website you'll find:

- an interactive map showing projects across West Cumbria
- the Catchment Action Plan for each river catchment in West Cumbria, detailing the issues it faces and current and planned projects
- extensive data, including water quality, fish populations, protected areas and river classifications

Vikki Salas, Assistant Director at West Cumbria Rivers Trust, said: "The website is great for anyone interested in their local water course. You can learn more about the issues we face and see what all the different agencies involved are doing to address them."

westcumbriacatchmentpartnership.co.uk



Do your bit to fight the alien invasion

More of us will be hitting the water as the weather improves, but it's all too easy to accidentally contribute to the spread of highly damaging invasive plants and animals. Fortunately, there are simple steps you can take to help stop the invasion.

Invasive species are estimated to cause £1.7 billion damage to the UK every year and they can wipe out native flora and fauna, reducing biodiversity. The main threats to Cumbria's rivers and lakes include American crayfish, Crassula, Himalayan balsam, Japanese knotweed and Skunk cabbage.

Once Crassula gets into water it can't be removed. It has seriously affected both Bassenthwaite Lake and Derwent Water, and is so vigorous it has outcompeted our native plants and is even climbing onto the shore. If you go sailing, make sure your craft is thoroughly drained and dried before you take it to another water body. If you're a swimmer or fisher, make sure your clothing and equipment is dry before being re-used.



Know your invasives: *Crassula helmsii*

Himalayan balsam is easily pulled up and we arrange regular balsam pulling events. Keep an eye on our website or email philippa@westcumbriarivertrust.org to find out more about volunteering with us.

westcumbriarivertrust.org/projects/invasive-species

Know your invasives: Skunk cabbage



Local businesses support Adopt a Beck

Word is spreading about 'Adopt a Beck', our scheme for local businesses and community organisations to become guardians of

their local rivers by investing in habitat improvements and community and education events.

In November our patrons Lord and Lady Egremont generously hosted an intimate event for local businesses at their home at Cockermouth Castle. Using the results of our wildlife survey programme we prioritised the becks that need help and invited businesses in those areas. Attendees heard about issues affecting rivers near their premises and the ways they could help.

Operations Director Jodie Mills said: "The companies that came were really engaged

with what we're doing. We're finding that local businesses want to give something back to the community and support the environment. It was a fabulous evening and I'd like to say a massive thank you to Lord and Lady Egremont for opening up their home to us."

In February Jodie gave a talk on Adopt a Beck to more than 200 businesses at a Britain's Energy Coast Business Cluster event in Lillyhall, Workington which has created further interest in the scheme.

westcumbriarivertrust.org/support-us/adopt-a-beck



Business leaders chat to Trust staff at Cockermouth Castle

Work continues on Flimby flood project

Flimby has a long record of flooding from Penny Gill and Flimby Gill which flow through culverts under the village. We've been working in partnership with several agencies to develop natural flood management solutions. Recent work includes:

- constructing ten leaky barriers in Flimby Great Wood and seven areas of 'Kerplunk' trees to help slow the flow of water heading downstream towards the village, reducing the chances of the culverts being overwhelmed after storms
- finalising agreements to restore hedges across flow pathways which will also help slow down the water so it reaches Flimby more gradually

Over the coming spring and summer we'll be putting up fencing for hedge planting areas, building additional leaky barriers, building a flood retention bund to temporarily store water after storms and working with landowners to apply for Countryside Stewardship.

westcumbriarivertrust.org/projects/flimby-flood-alleviation



A leaky barrier in Penny Gill to help slow the flow of water



Children's winning van artwork unveiled

A colourful new vehicle is hitting Cumbria's roads as we've unveiled our new van decorated with drawings by local children.

A 'Design Our Van' competition for under-16s attracted more than 100 entries, including entries from St. Herbert's Primary School in Keswick, St. Bridget's Primary School in Egremont and Lowca Community School.

Three winners and five runners-up were given book tokens and invited to an unveiling event, where they saw their artwork enlarged to cover the van for the first time. As an extra treat for their great artwork they were also given copies of our new children's book, *The Adventurous Salmon*.

Jodie Mills, Operations Director, said: "We work closely with local schools, providing education sessions to help children appreciate and understand our fantastic rivers. This competition was a great way to get them thinking about the wildlife we find in our rivers."

We've been growing steadily in recent years, attracting funding for an increasing number



of conservation projects on West Cumbria's rivers and lakes. The new vehicle will help our team get to sites with an ever increasing amount of tools and equipment.

The vehicle is kindly sponsored by Border Cars, United Utilities and the Copeland Community Fund.



News in brief

Volunteers needed for this year's electrofishing season

Our annual fish surveys in the River Derwent catchment look for juvenile salmon and trout to monitor the species' spawning success. Survey results help us secure funding for projects to improve habitat and water quality, and aid fish passage.

We had a fantastic year in 2018, with 157 sites surveyed and nearly 7,000 salmon and trout recorded, the majority of which were salmon fry, less than a year old. We couldn't have done it without our 36 wonderful volunteers who donated over 800 hours of their time. If you can help us this year, contact ruth@westcumbriarivertrust.org

westcumbriarivertrust.org/projects/electrofishing-surveys

Are you a landowner in the River Cocker or Glenderamackin areas?

We're working with the Environment Agency and other partners on natural flood

management projects in these river catchments, doing things like planting kested hedgerows, creating temporary water storage areas and aerating soils. Many such measures won't adversely affect your farm business and some can even enhance it.

To find out more or arrange a site visit, contact annabelle@westcumbriarivertrust.org for the Cocker area, or clair@westcumbriarivertrust.org for the Glenderamackin.

Read our guide to natural flood management for landowners at westcumbriarivertrust.org/news/natural-flood-management-handbook

Funding awarded for River Keekle restoration

Funding has been awarded for phase one of a major project on the River Keekle near Moresby Parks, Whitehaven. The river runs over a stretch of industrial plastic, used to cover spoil from an old mine, which is breaking up. Pieces are being washed downstream, contributing to blockages, localised flooding and plastic pollution.

In the first phase this summer we'll test methods of removing the plastic, funded by the Environment Agency's River Restoration

Programme. We then aim to remove the plastic and restore the riverbed in a second phase in 2020. Find out more at our information day on 11 May.

westcumbriarivertrust.org/events

Welcoming our new Learning and Engagement Officer

We're delighted to welcome Cathy Gruba as our new Learning and Engagement Officer, taking the lead on our programme of school and community sessions.



Cathy's interest in wildlife conservation started when she spent a wet, muddy winter on the Isle of Arran volunteering for the National Trust for Scotland. She has since worked as conservation ranger for Center Parcs, coordinated a busy family learning programme for Tullie House Museum, and been lead ecologist for a number of sites linked to the United Utilities pipeline project. In her spare time you'll find Cathy walking her dog Flynn on the saltmarshes and mosses of the Solway coast.

westcumbriarivertrust.org/about#meet-the-team

What is it?

Our latest handy gadget is a soil penetrometer, which measures soil compaction. We're using it to provide landowners with advice on managing their soil, benefiting both their farm business and the surrounding environment.

Compacted soil causes several problems. Plant growth is hindered as roots struggle to penetrate the earth. Without a good root network to hold soil together, erosion is more likely which results in the loss of fertile topsoil and reduced water quality as soil gets washed into watercourses. Compacted soil is also less fertile because infiltration by nutrients, water and air is poor.

The penetrometer is designed to mimic root growth. It is driven into the ground to a depth of 45cm and measures the resistance roots encounter.

The results are analysed on a computer and a graph shows the resistance profile of the area tested. This data is vital because different tools and techniques are needed to relieve compaction depending the depth and extent of the problem.









Event calendar

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| 2 April | Family | Storytelling and crafts: <i>The Adventurous Salmon</i> |
| 3 April | Family | Family Pond Dipping |
| 6 April | Family | Make your own Mini River Habitat |
| 8 April | Family | Make your own Life-cycle Hat |
| 9 April | Family | Storytelling and crafts: <i>The Adventurous Salmon</i> |
| 9 April | Talk | 2018 fish surveys on the River Derwent catchment |
| 10 April | Volunteering | Wasdale Wednesdays: National Trust-led event |
| 16 April | Talk | Natural flood management in Bootle |
| 18 April | Volunteering | Derwent River Watchers: Footpath repair work |
| 8 May | Volunteering | Wasdale Wednesdays: Gully stuffing |
| 11 May | Info session | River Keekle Restoration: Walk, Talk & Learn |
| 14 May | Talk | Eskdale Corn Mill: Its history, restoration and future |
| 16 May | Volunteering | Derwent River Watchers: Balsam bash |
| 27 May | Family | Colourful Foil Fish |
| 29 May | Family | Family Pond Dipping |
| 1 June | Family | Make your own Mini Boat |
| 11 June | Talk | Algal blooms and water quality in the Lake District |
| 12 June | Volunteering | Wasdale Wednesdays: Balsam bash |
| 20 June | Volunteering | Derwent River Watchers: Balsam bash |

Events are subject to change and more will be added after we've gone to print! For full details and all the latest information, see our website or contact us on 017687 75429. westcumbriarivertrust.org/events

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