



# Newsletter

Issue 3 Summer 2018

Cover image: Ullswater by #iwill participant.

## Change, renewal, refocus

It's hard to believe it's now nine months since I started at ERT. With my feet well and truly under the table, I can pause and reflect on considerable change at the Trust but also considerable pride in what has been achieved in that time.

We have inducted six new staff members in six months, each one bringing new skills and enthusiasm to our team. This includes a first for the trust – a dedicated part time fund-raiser. The new names and roles can be found on page 2, feel free to drop by and put names to faces if you are in the area.

We have said goodbye to some longstanding, valued colleagues who have been part of the Trust's success in recent years: Joanne Spencer, Jane Davies, Paul Greaves, Karen Parr, Alice Robinson, Matt Jenkinson and Daniel Brazier. Their legacy is impressive throughout our programme and we wish them well.

With all this change one might have expected a slow down in delivery ... I am pleased this doesn't appear to be the case!

You can read about the long term boost to our river restoration programme (page 5). Thanks to Environment Agency funding we can do some long term planning in this area. As I write, the diggers are in at Little Beck in the Lyvennet creating new wetlands that will eventually be

part of another restored stretch of that idyllic river, providing wildlife habitat and slowing the flow in periods of high water ....renewal at its best.

Eden Rivers Wonder World exhibition at Tullie House in Carlisle (page 3) has proved immensely popular – even Sir David Attenborough got excited by the infamous Litter Monster.

The exhibition launch in June was a proud moment for ERT and there is still time to visit - take a small person with you, they will love it and you won't regret it.

We continue to entice farmers into our Facilitation Fund, with relevant topical events to help them and the rivers; resilience, nutrient and soil management was on the agenda at a recent demonstration event at ERT.

Drought has been a preoccupation for many of us in recent weeks but at ERT we have not lost sight of the need to build resilience through natural flood management. In the Roe and Ive sub catchment, we have continued to draw up options with farmers to increase hedges, look at offline water storage and improve drainage. Eight more leaky dams have been installed in Whale Gill in the Roe and Ive. *Continued next page*

Haweswater, late July 2018, taken by #iwill participant



Continued from previous page

Internally, we have a new strategic plan **A Healthy Eden for All**. We have refocused on major objectives for the next five years, under four programme areas: **Connect** (engaging people) **Improve** (natural processes) **Protect** (iconic wildlife) and **Enable** (our organisation to be the best it can be). This process has clarified our priorities and aspirations to continue to grow and maintain success, but with a healthy dose of realism.

Recently we were delighted to be selected as Penrith Sainsbury's chosen charity of the year (thank you to all who voted for us). As grant funding decreases and becomes more competitive, diversifying our income is an important objective in

our strategic plan that will be fundamental to our future success.

Beyond our own programme, it has been great for me to get out and about and learn about the issues facing the catchment that affect rivers. The many and varied participants in Eden's Catchment Partnership illustrate this perfectly and I hope ERT can be central to reinvigorating that group and help to encourage more multi-partner projects that will deliver integrated catchment management, that benefits both people and wildlife.

Naturally, in each newsletter we want to highlight the good work that ERT is doing – invariably with a myriad of partners and volunteers without whom we would not be able to function.

We are however cognizant of the uncertainties and changes that are likely to affect our work, that of all our partners and many communities in the Eden. This is dominated by the uncertainty of what Brexit will bring, but also the prospect of a new Environment Bill, the DEFRA 25 year plan and the background of continued austerity.

The theme of change will be with us for a while, it will be challenging but not necessarily always negative. As this year has shown, change can provide opportunities to refresh and refocus, innovate and improve. We intend to keep going with that in mind.

**Elizabeth Radford**  
**Chief Executive Officer**

## News in brief

### Sainsbury's Penrith Local Charity of the Year 2018/9

We are honoured to have been chosen as Penrith Sainsbury's local charity of the year for 2018/19. Thank you to all of the Sainsbury's shoppers who voted for us in store and online, we're looking forward to working with Sainsbury's over the next year to support their fundraising programme on our behalf!

### Au revoir to our apprentices

June saw the final cohort of our Heritage Lottery Fund supported Eden Apprentices complete their apprenticeships.

Over the last four years, 16 young people have gained a wealth of skills and experience in river conservation, gaining confidence and other skills that employers look for - all of which will stand them in good stead as they embark on careers in the outside world. We'd like to wish Courtney, Oliver, Nathan and James all the very best for their future!

This summer has also seen Toby Hadley (one of our original apprentices) rejoining us to deliver a programme of electro-fishing and crayfish monitoring with a trusty band of volunteers.

We'll take a look back at four years of Apprentice Eden in the next newsletter.

### Staff update

It's always sad to say goodbye to members of our team, but we're delighted that they are moving onto new challenges around the UK, and hope they take a little bit of the spirit of Eden with them!

On the plus side, it means that we welcome new people to the team as well! A big ERT welcome to: Jenni Payne (Community Engagement Officer) Claire Chapman (Finance Manager), Caroline Robinson (Fundraising Officer), Julie Lawrence (Head of Community Engagement), and Andy Dyer & Sarah Kidd (Farming and Conservation Officers).



### Triathlon-tastic effort!

Congratulations to Elizabeth Radford, CEO, Jenny Garbe, Conservation and GIS Officer, and Alistair Maltby, The River Trust's Director, North England, (pictured) who teamed up to complete the Ullswater Triathlon on the 14th July ... despite the heatwave and blue-green algae!

They raised over **£500** to help support the Trust's work in the catchment.

Thanks and well done guys!

# Securing the health of our rivers long-term

We have recently been awarded £1.2m towards our £1.5m 2018-2023 river restoration programme, improving and protecting key tributaries and rivers in the Eden catchment; helping to create a healthy Eden for all.



Thanks to this support from the Environment Agency, we will be able to continue vital river restoration work, focusing on six key river catchments: Caldew, Eamont, Lowther, Leith, Lyvennet and Scandal Beck. All of which make up part of the Eden Special Areas of Conservation (SAC) and Sites of Special Scientific Interest (SSSI).

The River Eden Restoration Strategy was launched in 2015 with the aim of restoring natural processes within the catchment, focusing in particular on the designated SAC and SSSI reaches to:

- Encourage more natural flow of water - both in the river itself and how it's held on the land.
- Improve habitat quality and connectivity.

In many cases, this also has an additional benefit of reducing potential flood risk downstream. The trust achieves all this by working closely with landowners to find solutions that help everyone.

To date, the focus has been mainly on barrier removal and reconnecting floodplains with the river, as well as undertaking feasibility studies for potential sites for this phase of the programme.

“Our river restoration work has gone from strength to strength over the last few years as a result of a lot of hard work and joint effort from land owners and other project partners. Securing this new funding from the Environment Agency for the next five years will allow us to achieve so much more in partnership with others.”

Daniel Braizer -  
ERT River Restoration Manager

“We are proud to continue our support for the Eden Rivers Trust's restoration programme. We have already realised many great wins over the last seven years since the river restoration programme began, so here's to many more environmental wins for the Eden catchment over the next five years.”

Oliver Southgate -  
Project Manager - River Restoration,  
Environment Agency

Over the next five years, we will be undertaking projects with key partners that will restore natural river processes, improve water quality and habitat, and, where possible, install appropriate natural flood management features to help mitigate local flooding in the six key river catchments.

The Scandal Beck catchment is a new addition to the programme from 2018 onwards. Along with the upper Lyvennet, it features as a project within the Heritage Lottery funded Westmorland Dales Landscape Partnership scheme.

The partnership, of which Eden Rivers Trust is an important partner, is led by Friends of the Lake District.

Eden Rivers Trust's current role in this project involves consulting with local stakeholders to identify opportunities, and planning projects that will include elements of river restoration complemented by the installation of natural flood management features. They hope to deliver more if the partnership's delivery phase bid is successful, which will be determined later this year.

If you are interested in being part of this work in any of the catchments listed in this article, whether you are a landowner or an interested group or organisation, please get in touch with us at [office@edenrt.org](mailto:office@edenrt.org)



This summer, explore Eden Rivers Wonder World in our fun, interactive exhibition for all the family, produced in partnership with Tullie House Museum and Art Gallery.

**Eden Rivers Wonder World** is an ambitious exploration of the places and creatures that make Eden's rivers so – amazing!

From the very start of Cherish Eden, our Heritage Lottery Fund supported project, Eden Rivers Trust and Tullie House Museum were committed to putting on a show-stopping family exhibition together that would bring the river to life, and finally, in June 2018, the dream became a reality!

Interactive displays, photographic walls and models, including a kinetic heron, are your guide along the mighty, meandering rivers of the Eden.



Stopping to take in a view, a secret place or to look more closely at one of the many creatures that call the river 'home', you are taken on an awe-inspiring exploration of the Eden catchment.

### Eden's amazing creatures

Creative displays put the rivers' amazing creatures under scrutiny to see just what super powers they have developed to survive in this watery environment.



From the tiny Cased caddisfly larvae with its master building skills to the whopping wild Atlantic salmon (did you know that the biggest ever caught in England was in the Eden and weighed over 55lbs (25kg).



We are also introduced to the illusive Kingfisher who uses an amazing trick of the light to make its feathers shine a brilliant blue; the Grey heron with its amazing neck that strikes at lightning speed and the super-sucker Lamprey

whose unsociable habits are described in graphic detail! Also meet the native White-clawed crayfish whose super healing powers enable it to regrow lost limbs and the amazing underwater hunting machine – the Otter – one of Britain's best-loved and cherished wild animals.

### Eden's amazing places

With such magic in the air, there's little surprise that the Eden catchment has inspired nature lovers, artists, walkers, climbers, tourists, engineers, architects and eccentrics for hundreds of years.

The River Eden's 80-mile journey from source to sea steers a path through dramatic and stirring landscapes, passing wondrous natural features like Rutter Force, just one of the catchment's spectacular waterfalls,

as well as man-made marvels such as Swardale Gill Viaduct and ancient castles that have witnessed Eden's turbulent history.

We also take a look at the what lies below the surface; the rocks that have shaped Eden's valleys and the river. All their stories are told in the exhibition.

The community has been at the heart of this exhibition, creating two major installations – Litter Monster and Project Rainbow.

## Project Rainbow

Project Rainbow was created especially for the exhibition. Over 150 young people from uniformed groups, Morland school and Tullie Young Carers took part in a photography skills workshop and explored the local river environment. They then captured an amazing rainbow of wildlife images on the banks of the local rivers in the Eden and Carlisle areas during the spring/summer of 2017.



## Beware the Litter Monster

This imposing sculpture is the result of a creative commission by Eden Rivers Trust with artist, Ro Thomas (Woodmatters), in collaboration with creative partners Josh Simpson (Ragtag Arts) and Janine Bebbington (Gorgeous Media).

The River Eden and all the rivers, streams, and lakes that flow into it are amazing, but the issue of litter, especially plastics, in aquatic environments is a huge and growing problem – particularly in the city and some of Eden's towns.

The Litter Monster shows just what can happen if we let our inner monster free to put our Wonder World at peril.

The objectives of the project are to improve the local environment through active participation by local schools and to raise public awareness of the problems caused by litter and the effect it has on the surrounding areas.

79 Pupils from three primary schools in the Eden catchment: Rockcliffe, Petheril Bank and Appleby, undertook a litter pick along the river with us and explored the hot topic of litter in our rivers and seas.

Then they created the exhibit; a massive, eye-catching sculpture and an accompanying film with the artists, expressing their thoughts about litter and the impact on people and wildlife.

During the schools' sessions, Sir David Attenborough and BBC's Blue Planet 2 were cited as a massive influence and pupils wanted him to know what they were doing to help save our planet through this project.

Unbeknown to them, Ro got in touch with Sir David ... and he sent the 'Eden Litter Champions' a letter back praising their work! The letter was unveiled (to great excitement) at a special event for the schools who took part.



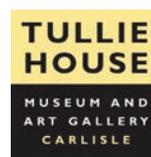
“ I like it because it inspired people not to throw litter and that you can be creative with it. It can help the world. The litter monster is a really creative thing. ”

Holly (pictured), Appleby Primary School

The exhibition is open until **30 September**, so bring the family and explore **Eden Rivers Wonder World** for yourself!

A Tullie House Annual Ticket is £10 per adult. Admission for under 18's is free. See [tulliehouse.co.uk](http://tulliehouse.co.uk) for more details. See page 13 for list of holiday activities.

**We'd like to say a huge thank you to Tullie House and ERT staff past and present involved in developing & delivering this exhibition.**



# Putting soil to the test

In the last newsletter we shared some insights into good soil health. In this issue, we delve a little deeper into the science behind soil, and the benefits of undertaking soil sampling to understand a field's soil composition to improve its health & productivity.



We work with farmers to identify ways that they can improve productivity and efficiency whilst also improving the environment. As you would expect from a rivers trust, we focus on how farmers can make the best use of water available (conserving it and managing excess), but you may be surprised to know that soil management is also a key concern for us as run off affects our rivers. Here's just one example of how we are working with farmers to increase their knowledge and help them to learn techniques to improve the management of their soils.

## Soil sampling around Ullswater

The area around Patterdale and Glenridding is a tourist hot spot, famed for its dramatic scenery. However, it is also a working landscape. We are advising a number of farmers who have land in the valley and grazing rights on the Cumbrian high fells. The average annual rainfall here is high - 2098 mm per year (1961-1990 averages) and it falls onto permanent grassland on top of thin soils. The area was severely affected during Storm Desmond in 2015 and a significant area of farmland was flooded.

As a response to the flooding, a project was set up to investigate ways to manage water using natural flood management (NFM) measures. This was funded by the Princes Countryside Fund, Penrith and Patterdale Parish Community Flood Group, and The Farmer Network.

As part of this project, Danny Teesdale, (Landowner liaison (NFM) in Patterdale/Grizedale) organised an on-farm advisory event to introduce the idea of soil management as an NFM measure. Danny, together with soil expert, James Bretherton from Agscope, discussed how to assess and improve the physical and biological characteristics of soil through soil aeration. Those present at the event heard how important Calcium is in creating a stable soil structure. This led farmers to start thinking about chemical analysis of soils resulting in a new project - a programme of soil sampling on participating farms.

## Why undertake soil analysis?

Soil is high on the government's agenda. After years of degradation (often due to policy decisions), soil is getting the focus it deserves.

Routine standard soil analysis (every 3 - 5 years) of nutrients in the soil tests the pH (acidity/alkalinity) of the soil and levels of P (phosphorous), K (potassium), and Mg (magnesium).

Calculating the nutrient requirements of the crop, minus the nutrients available in the soil determines the supply of manures, slurries or artificial fertilisers to be applied.

Acting on the results and planning nutrient applications can bring benefits to farmers, rivers and streams:

### Benefits for farmers

- Optimises grass yields and quality – better animal feed, increasing the weight gain of livestock
- Avoids wastage of fertiliser (and money!)
- Can improve drainage, allowing more days when farmers can work on the land

- Reduced livestock disorders linked to nutrient deficiencies.

### Benefits for rivers & streams

- Improved water quality, through reduced run off and fewer nutrients entering the water course.
- More water held in healthy soil, reducing the volume of water flowing off the land into the river during heavy rainfall, potentially reducing flood risk.

## Soil sampling in practice

Project Assistant, Andy Bates (pictured on previous page) braved the elements to gather soil samples from farms in the group. To ensure that samples were representative of soils in the field, a minimum of 10 samples were taken from each field at a depth of 3 cm, walking in a W shape and avoiding unrepresentative areas such as gateways and areas where livestock congregate.

Samples were sent to the laboratory and a 'standard' soil analysis was requested testing for acidity/alkalinity (pH), Phosphorous (P), Potassium (K), and Magnesium (Mg). Nitrogen (N) is so variable that it is not usually tested, instead it is estimated using industry standard data tables.

## The results

These showed that about three-quarters of the fields had a pH level of 5.5 or below, which would not be untypical of soils in an upland environment. However, pH levels of below 5.5 may mean that the utilisation of the major nutrients such as N, P and K can be compromised, leading to poorer grass growth at certain times of the year.

Investment in lime to correct a pH deficiency (the target level for upland and lowland grassland is 6.0) should give rise to long term benefits in grass growth and quality.

With regards to the P and K indices, again about three-quarters of the fields were below what is termed the target index of 2 for both of these major nutrients. The results obtained are not untypical of grassland nutrients nationally and possibly reflect a move away from regular soil testing of grassland in recent years. As can be seen from the information in the quick guide to soil nutrients (right), both P and K are major nutritional elements for grasslands (and crops in general), so any low levels in the ground require more frequent topping-up from external sources such as bagged fertilisers or animal manures.

## Conclusion

It may be that farms are, or have been, in agri-environment schemes that restricted the use of lime, fertiliser and/or manure - particularly in areas adjacent to, or draining into watercourses, leading to low levels of nutrients and pH being recorded. Alternatively, low nutrient levels may be due to the increasing costs of lime and fertiliser, as well reduced monitoring.

Defra's 25 year plan and the introduction of the new Farming Rules for Water in April 2018 means that many more farmers will get more intimately acquainted with the composition and state of their soil. Farmers will be required to undertake soil sampling every five years if they have cultivated agricultural land that has been ploughed or spread organic fertiliser/manure on the land within the last three years.

Each participant in the project received a copy of the soil sample results for their fields which was followed up by a meeting with Danny Teesdale and a soil expert to discuss the results and understand how to interpret and use them to put together a nutrient management plan for their felds.

**Soils are a valuable resource and it is important that farming, as an industry, continues to evaluate nutrient availability from soils and how they can be protected, now and in the future.**

## Quick guide to soil nutrients

Essential mineral nutrient elements for plants are classified as **Major** and **Minor** nutrients (trace elements).

### Major

Nitrogen (N) - for proteins and chlorophyll. The main driver of yield. Good for: protein, leaves, shoots.

Phosphorous (P) - key role in energy transfer in cells, cell membrane and root development. Good for: roots

Potassium (K) - assists transfer of nutrients and sugars around the plant, stem extension. Good for: fruits and nutrients.

Magnesium (Mg) - constituent of chlorophyll. Good for: photosynthesis process

Calcium (Ca) - vital for the growth, especially in the root. Good for: cell growth

Sulphur (S) - necessary for photosynthesis and protein formation, similar to nitrogen. Good for: protein, leaves, shoots.

In addition, plants and animals require following nutrients in varying amounts:

### Minor

Trace elements - nutrients

Zinc (ZN) - is necessary for moisture absorption in plants and fertility and hoof strength in animals.

Cobalt (Co) - essential for healthy bone development and the health of red blood cells.

In addition animals require essential nutrients including;

Iodine (I) - necessary for energy metabolism

Selenium (Se) - important for reproduction, healthy muscles and growth

pH - Most important to get it right!

pH is a measure of acidity or alkalinity. In soil the most desirable pH for most arable crops is 6.5, 6 for grassland. pH affects the availability of nutrients and potentially toxic elements.

# Traditionally Eden

Bringing back traditional rural skills to help improve and protect our rivers

Spring saw the launch of two brand new volunteer training programmes to pass on some of the traditional countryside skills that are in danger of dying out, yet still have their part to play in the Trust's conservation work.



**Traditionally Eden** is a series of practical workshops teaching valuable and sustainable countryside skills to volunteers so that they can undertake vital projects in the future that will improve and protect Eden's rivers.

To date, volunteers have tried their hand at hedge laying, green woodworking and willow spiling (a sustainable and natural way of stabilising eroded riverbanks whilst also creating vital habitat for wildlife).

We also held dry stone walling level 1&2 workshops that were massively over-subscribed!



**Naturally Eden** workshops equip volunteers with the basic skills to identify plants, fish and trees found in the Eden, understand their place in the ecosystem and how they reflect the health of Eden's rivers and soils. Volunteers can then help as part of our ongoing monitoring programme.



Our mission is to improve and protect Eden's rivers and these workshops are crucial to support our work, training up volunteers to undertake sustainable conservation work - using natural materials where possible, as well monitoring the state of Eden's iconic and endangered species and their habitats to identify future conservation work.

Fancy learning something new?  
See page 13 and our website for details of the next set of Naturally Eden and Traditionally Eden workshops.



LOTTERY FUNDED

Susie Grainger, Volunteer Coordinator



# Tree-mendous communities take action to reduce flood risk

In February, Eden Rivers Trust joined forces with the Patterdale Community Flood Group and residents in Patterdale to plant 2,000+ trees in key spots in the Patterdale area to slow the flow of water, increase flood resilience and create wildlife habitat.

During Storm Desmond, there was a major landslip on Place Fell caused by storm channels (fed by underground springs that only reach the surface during prolonged wet weather) sending mud and water down the hillside.

Local residents and ERT volunteers planted trees on the steep bank left behind in order to stabilise it and help protect it from further slippage during heavy rain.

The following day, over 30 volunteers, including members of the Glenridding Flood Action Group, descended on the Kennels Bridge area to plant a tree-mendous 2,200 trees in total.

The main area that was planted acts as a floodplain during heavy rainfall, so the trees will help to intercept rainfall and soak up excess water as well as helping to stop gravel and boulders from hitting the bridge at speed when the beck level is high.

In turn, this will reduce the scouring of riverbanks further on, and the amount of material being deposited in the village, mitigating the risk of flooding downstream.

We'd like to thank Nature Lakeland and the Woodland Trust for providing the trees and landowners, Dalemian Estates and Patterdale Hall Estate.

Roocking resident, Judith Cooke, who mobilised the volunteers said:

 All the houses in Roocking are well aware of the possible flood risk from Place Fell;

during Storm Desmond two damaging mudslides cut some of us off and swept away parts of houses, walls and access tracks. The storm swept through the home of our oldest residents and this took a year to put right.

When we asked for help with the planting project, everyone has given generously to support the work; several of us are helping with the planting, while others have donated funds to ensure there is enough to make a worthwhile project.



Our volunteer programme is supported by the Heritage Lottery Fund and some of this planting has been made possible due to funding from Natural England's Higher Level Stewardship scheme.



LOTTERY FUNDED



#iwill

Connect 



In July, an intrepid bunch of young people aged 16-24 signed up to our very first #iwill activity week.

Over the course of five days they climbed fells, canoed, explored Ullswater and Haweswater, gained their John Muir Award, showed some serious photography and film making skills (look out for some of their amazing photos throughout this newsletter), undertook social action and generally made a social storm for rivers!

This week was made possible by funding by #iwill 2018 (awarded via Cumbria Community Foundation). #iwill is a UK-wide campaign aiming to get 6 out of 10 young people involved in social action by 2020. Here's some highlights from the week:



### Tuesday

An epic day 2 exploring Ullswater by canoe followed by some awesome cliff jumping. Massive thanks to The Adventure Element Ltd for their support and enthusiasm over the last 2 days, we couldn't have been amazing without your help. Sore arms all round tonight!!

### Monday

A day of firsts - from climbing hills and having feet nibbled by fish to a trip on the Ullswater steamer. We did some serious walking discovering the hills and shore around Ullswater all whilst getting to know everybody!



I've never walked up a hill in the rain before - but it didn't put me off! - participant





## Wednesday

A trip to Aira Force to meet with some remarkable trees and make a start on filming and interviews with Gorgeous Media for the #ican #iwill film. A picnic in the bay was followed by conservation work at Patterdale Hall with the lovely Mike (Jonathan Holdsworth). The day was complete with ice creams all round from Sharmans Convenience Store, Glenridding.



## Thursday

Kicked off with a slot on CFM's breakfast show! Then it was straight off to Haweswater in search of the lost village of Mardale. We took some cracking shots of the shrinking reservoir and emerging walls and bridges.

Janine Bebbington (our very own George Lucas) was out again today, so took her to the wilds of our local moorland to get some more footage of everyone, followed up with an editing session in Shap village hall.



## Friday

Travelled the full length of the lake today once again. We're really grateful to Ullswater Steamers - without them we wouldn't have discovered Ullswater like we have! Set up our very own pop-up photography exhibition in Glenridding, got more people involved in our plastic use surveys, and did a litter pick around the village. We rounded off the week with the presentation of the John Muir Award to everyone - fantastic work!

“ I discovered that I'm good at photography! ”  
- participant

Thanks to everyone who helped make this such a fantastic week: The Adventure Element, Tebay Services for keeping us fed, Stagecoach for helping out with transport, Ullswater Steamers for getting us around the lake every day, Sharmans Convenience store, Gorgeous Media, Patterdale Hall and Graham Watson (John Muir Award).

## Fancy being part of the next #iwill activity week?

We will be running a 3 day/2 night bushcraft adventure during October half-term.

If you're aged 14-20 (up to 25 if you have a disability) and are up for the challenge of sleeping, cooking and living outdoors then we'd love to hear from you!

Get in touch with Susie Grainger, email [susie@edenrt.org](mailto:susie@edenrt.org) or call 01768 866788 for more details.

Proudly supporting youth social action



Department for Culture Media & Sport



LOTTERY FUNDED



# The big interview

After nine months in post as CEO, we catch up with Elizabeth Radford to find out a bit more about her impressions of the Eden catchment and the journey she's taken that has brought her here.

**What attracted you to the field of botany? (Elizabeth holds an MSc & BSc in Botany)**

I had an 'Auntie' who was a biology teacher and she used to show me mosses on the trees in the local woods (and caddis fly larvae in their cases under the stones in streams) when I was very young.

When I was a Brownie, I collected wildflower postcards and labelled them with both their Latin and English names, on reflection that was probably down to another auntie who was hugely enthusiastic about wildflowers (and rare breeds of animals) and used to take us to see cowslips and orchids on Painswick Beacon.

Later I became fascinated by how plants have evolved from single celled organisms engulfing one another to simple mosses and liverworts and complex plants, as well as their biogeography and their taxonomy - isn't it interesting that some of the plants that are most useful to humans sit in the same 'plant families' as those that are most poisonous?

**What has been your career highlight to date (pre-ERT, naturally no comparison!)**

I'm lucky to be able to say that the highlights keep coming; they are usually evolve around the times when I am working together with a committed and interesting set of individuals to achieve something positive for the environment.

I have been extremely fortunate in my career to date to visit a number of countries, experience some incredible

nature, and to work with people who possess many different perspectives on conservation and indeed on life; it's always the people that I have worked with to 'get something done' that punctuate that time with highlights.

**You've had some time to explore the area - what are your impressions of the Eden catchment?**

That there is so much variety in the landscape here, and that the river really does feel at the centre of things.

I also get the feeling I could live here for 40 years and still be finding special places (and new Cumbrian words).

Just a few highlights include: the light of the sunset on sandstone dry stone walls; four foot snow drifts at Newton Rigg this winter; St Ninians Chapel in spring; the splendour of High Cup Nick; chasing yellow hammers and goldfinches down the lanes on my bike in the Roe and Ive; the clarity of the water in the Lowther; the river and crags at Armathwaite; lampreys in Carlisle and eels on the Petteril; and water crowfoot a-plenty along the river.

**What is the biggest challenge facing ERT?**

Our work to save the river rests on the principles of integrated catchment management and is both generalist and specialised.

To do our work well we need to tap in to a number of technical disciplines (environmental and educational); understand many natural processes (on land and in the water); know the catchment intimately; and really understand the needs of all of Eden's communities.



It's challenging, but also means our work is always interesting and varied. We need to make sure we maintain a multi-disciplined team that continue to work in such an integrated holistic way - whilst not over-stretching our people and resource - in order that we can maximise our impact on the ground.

**In 10 years time ERT will ...**

... be a recognised and valued part of the conservation landscape in the Eden, and our work widely acknowledged as relevant, forward looking and having long lasting impact on the ground in all parts of the catchment.

**Tell us something not many people know about you?**

I love climbing mountains, - but ERT has made me start to look at them very differently - in halves, as watersheds rather than as one summit!



# Events

## Until 30 September Eden Rivers Wonder World exhibition

Tullie House Museum and Art  
Gallery, Carlisle

Explore Eden's amazing creatures and places, and find out more about how we can all keep it amazing in this interactive exhibition for all the family.

Details of opening hours and admission costs can be found at [www.tulliehouse.co.uk](http://www.tulliehouse.co.uk)

## 19-21, 24, 25, 27,28 Aug, 5-9 Sept Crayfish Surveying

Various locations

Come along and help us with our annual survey of native white-clawed crayfish! No previous experience required.

Contact [toby.hadley@edenrt.org](mailto:toby.hadley@edenrt.org)

## Thurs 23 August 1pm-4pm Eden Rivers Wonder World: Ingenious Insects

Tullie House Museum and Art  
Gallery, Carlisle

See some of Eden's amazing creatures up-close and carry out fun scientific tests.

Please note exhibition admission charges apply. Drop-in activities are free for those with a Tullie House Annual Ticket.

## Thurs 30 August, 1pm-4pm Eden Rivers Wonder World: Fantastic Fish

Tullie House Museum and Art  
Gallery, Carlisle

See some of Eden's amazing creatures up-close and carry out fun scientific tests.

**Come along and meet the team, or get stuck in with a volunteer project! More info about all events can be found on our website**

Please note exhibition admission charges apply. Drop-in activities are free for those with a Tullie House Annual Ticket.

## Wed 12 September, 10am-3pm Scabious planting with Natural England

Finglang Rigg

Marsh Fritillary butterflies love this plant - so come along and help us plant 1,000!

## Fri 14 September, 6pm-8pm At the Riverside: Twilight Walk

Frank's Bridge, Kirkby Stephen

Join Kirkby Stephen Community Arts for a guided twilight meander along the Eden.

## Sat 15 September, 11am & 2pm At the Riverside: Sound Walk

Frank's Bridge, Kirkby Stephen

Field recording meets silent disco ... explore the sounds of the river using high tech recording equipment with Sound Artist Dan Fox.

Meet at Frank's Bridge.

Booking essential: email [kate@kirkbystephencommunityarts.co.uk](mailto:kate@kirkbystephencommunityarts.co.uk)

## Thursday 20th Sept, 5.30-7.30pm Naturally Eden - Tree Identification

Meet at Skirsgill Business Park

Join us for an introduction to identifying trees found in our patch of Cumbria.

## Friday 21 September, 9am-5pm tbc. Emergency First Aid with Forestry Eden Rivers Trust offices

A one day course to equip volunteers with first aid skills and knowledge for working in the field. Current volunteers will get first refusal, new volunteers please contact us to be added to the waiting list. 10 places available.

## 28th & 29th September, 10am-5pm Strimmer & bushcutter training

Eden Rivers Trust offices

Learn how to use strimmers properly to help us battle invasives such as Himalayan balsam next year.

This course is LANTRA accredited.

6 places available.

## Thursday 18 October tbc, 10-3pm Naturally Eden - Identifying Fungi

Location to be advised

An introduction to identifying common fungi found in the Eden.

## November and December Tree planting

Various locations/dates

This winter we are aiming to plant over 9,000 trees! We need your help ... and your work colleagues, youth and community groups and schools! Sign up individually or get in touch with us about bringing a group along.

## Rubbish Free Rivers! From October onwards,

various locations throughout Eden

As the greenery dies back, our winter programme of litter picking along the river banks ramps up with regular litter picks throughout the winter. Keep an eye on our website/social media for dates!

## That's all for this issue

The next Eden Rivers Trust newsletter is due to hit inboxes early in 2019. In the meantime, you can keep up to date with all the latest news from Eden Rivers Trust via social media:



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