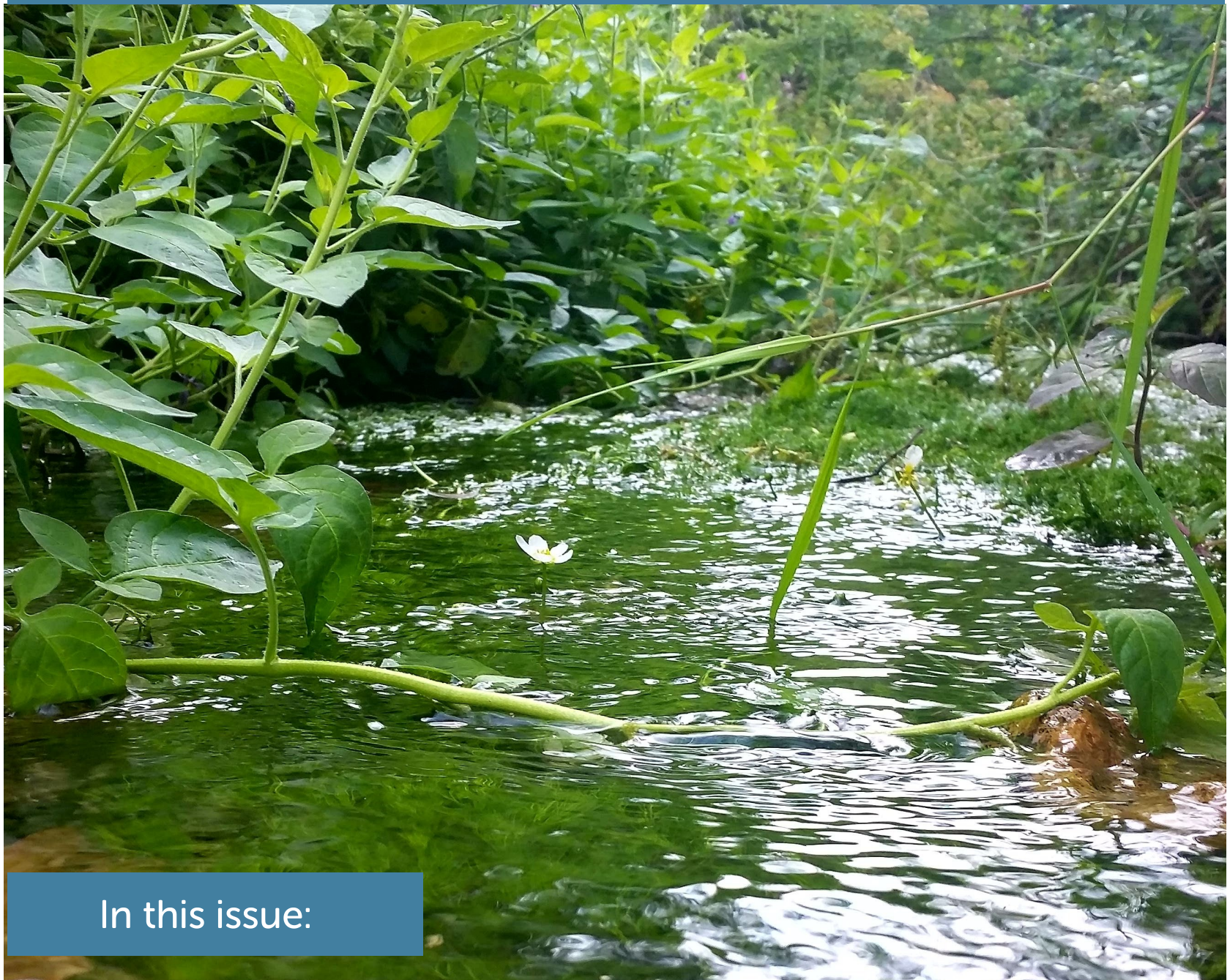


Issue 11 | June 2020



Wessex
Rivers Trust

WESSEX RIVERS NEWS



In this issue:

Project funding
success for
Watercress and
Winterbournes

Wessex Rivers
Trust embraces
new GIS tools

Rivers at home—
Learning in
lockdown

Chair's Introduction

George Seligman, Chair of Trustees

What a difference six months has made to all of us. This newsletter, like our lives, is overshadowed by the effects of CV-19 and the limitations of lockdown. Wessex Rivers Trust has been much more fortunate than many other charities in that our cash flow has proved resilient and we have enough work in hand to keep all our staff fully employed without using the furlough scheme. How we have done that is described below. Consequently, when lockdown is eased enough to let us get out into our catchments and communities, we will have a range of developed projects ready to roll. We anticipate a strong summer and autumn of in-river activities, together with the resumption of our education programme.

It is not only the pandemic which has changed things in recent months. In March our rivers were still very high and the water meadows alongside them were saturated with pools of standing water. Since then, in my part of the Test Valley we have had only one full day of rain and a few days with showers. The water meadows now have one inch cracks, with signs of drought if we do not get significant rain soon. So that, in this water-stressed part of Hampshire, is a challenge for Wessex Rivers Trust and

many others. Possible drought orders and the need for a reduction in abstraction feature significantly in our thinking at present, emphasised by the work which we will begin on Southern Water's river compensation scheme. More detail on that will become available on the website shortly.

Two and a half years ago Dr Martijn Antheunisse joined the Trust as our new Chief Executive Officer. Martijn is heading home to the Netherlands later this year. During his tenure he has transformed the Trust for the better and in the process greatly increased our ability to deliver environmental benefits in our rivers and, through our education programme, in increasing numbers of schools. The Trust will miss Martijn and so will I. Meanwhile, we have been through a substantial process to recruit our new CEO. We had a strong response to our job advert and I am delighted that Dr Dave Rumble, currently working for the Hampshire and Isle of Wight Wildlife Trust, accepted our offer of the job. Dave will join the Trust in August for a handover period with Martijn. I look forward very much to working closely with Dave in the coming months and years.



Image: Banded demoiselle. Photo credit: Dick Hawkes

The 'new normal'

Martijn Antheunisse, Chief Executive

If I were given a penny for every time I heard somebody utter the phrase 'the new normal', to describe conditions during the Covid-19 emergency, my mortgage would be paid off by now! Lockdown and social distancing rules have had and still have a significant impact on our operations, as you might have picked up when tuning in to our new website (www.wessexrt.org.uk). Where possible and safe to do so we continue to work outside on our riverbanks to undertake surveys and prepare, and soon deliver, habitat improvement and other works to restore our precious chalk streams.

Luckily, funding has not dried up in the first half year of 2020 and we were able to continue to employ all staff — albeit sometimes on slightly different tasks and projects. So there was no need to furlough anyone, the portfolio for the remainder of the year looks healthy and we are very confident we will make it safely to the other side of this incredible challenge—under whatever 'new normal' situation we will have to face! We are very well versed in using all kinds of online collaboration tools and videoconferencing services. But as most people probably agree, working from home is not ideal and we are looking forward to be able to go back to our office!

In this summer edition of the Trust's magazine we showcase what we have done so far to continue with our engagement and education work without the ability to meet people face to face. Furthermore, you will find snippets on projects in development and an article on the exciting opportunities that new GIS technologies can offer the Trust.

Finally, it is my time to say goodbye and to welcome Dr Dave Rumble, who will take over as CEO by the end of the summer.



Wessex
Rivers Trust



Water crowfoot (Ranunculus aquatilis)

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Funding success!

Andy Blincow, Senior Project Officer

Recently, the Trust received some exciting news: confirmation that the Watercress and Winterbournes Landscape Partnership Project was granted full funding of almost £2 million by the National Heritage Lottery Fund (NHLF). The project aims to create 'healthy headwaters' across the Test & Itchen catchments. It is led by the Hampshire and Isle of Wight Wildlife Trust and Wessex Rivers Trust, with invaluable support from a wide range of partner organisations. The grant confirmation is the culmination of more than two years of project development by partners and volunteers. It gives us the opportunity to deliver catchment-scale improvements for protected species and habitats, water quality, education, access and heritage over the next five years.

Winterbourne headwater chalk streams boast a wealth of biodiversity and cultural heritage features. Upstream winterbourne reaches of headwaters have very characteristic plant and invertebrate communities which reflects the seasonal wetting and drying, whilst lower reaches have natural chalk stream characteristics often better than larger chalk stream rivers. Historic modification and current pressures impact on these unique systems, including (but not exhaustive): ditching, straightening & removal of natural features, weirs and historic water meadow sluices, urbanisation and



'gardenisation', non-native invasive species, water abstraction, farming and land management and ground and surface water pollution.

In total five new posts will be advertised in the next six months and employed for the duration of the scheme, two of which will be hosted by Wessex Rivers Trust: a Conservation and Projects Officer and a part-time Education Officer. These positions are expected to be in place by autumn 2020. Martijn Antheunisse, our Chief Executive says, "We are very excited to be involved in this scheme. The work on the ground together with the local communities will be transformative for winterbourne chalk streams in the area – it is truly a once in a generation opportunity to get things right and boost local biodiversity."

Delivery projects planned for 2020

Wessex Rivers Trust is currently finalising preparations for several 'year 1' projects to be delivered in autumn



Classic headwater chalk stream habitat on the River Anton



Trout redd immediately below the mill

2020 and spring 2021. These include works to improve chalk stream habitat, enhance fish passage, reduce rural diffuse sediment entering watercourses and facilitate Natural Flood Management (NFM).

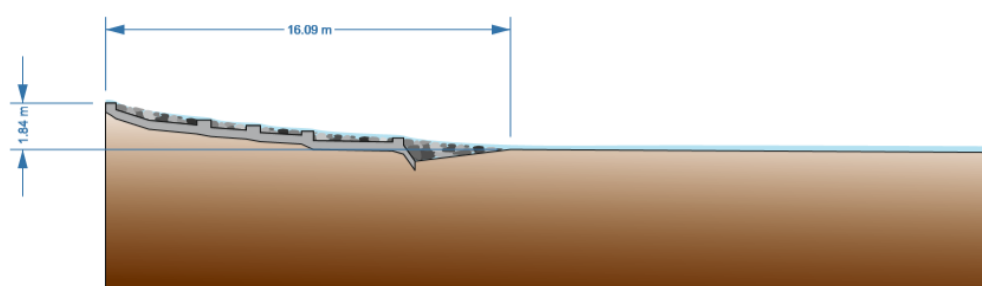
One of those projects aims to enhance fish passage and migration on the Bourne Rivulet – the perennial reach of this stream boasts some of the best chalk stream habitat within the Test & Itchen headwaters and is renowned for its brown trout fly fishing heritage, thanks to the works of Harry Plunket Greene. However, structures associated with other cultural heritage features of chalk stream heritage in the form of water mills, cress farms and ornamental landscaping have isolated and fragmented the brown trout populations for which the river is famed. This has the result of lowering the population's resilience to potential pollution incidents and may reduce genetic diversity.

Working with a keen landowner, the Trust has designed a project to ease fish passage through a relic water mill in the mid-lower reaches of the catchment. This will enable a range of resident fish species to migrate through the site, linking excellent quality spawning, nursery and adult habitat for many kilometres upstream and downstream of the mill. The designed solution is in the form of a 'rock ramp', to be installed within a series of descending pools in an overspill channel. The benefits

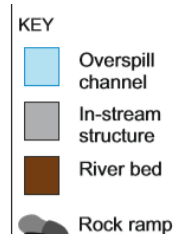
of a rock ramp approach over a technical pre-fabricated fish pass are: reduced overall cost, the ability to 'tweak' the layout during and after construction to ensure maximum efficiency, the potential for multiple species to utilise the easement, and the minimal requirement for long-term maintenance.

The design devised by the Trust will see approximately 30tons of stone used to create a rough ramp, which will help break up fast water flow and provide multiple resting pools for fish. In addition, several further sluices that control water through structures around the site will be fixed in position with new boards to ensure a consistent and appropriate level of flow passes over the new ramp. This will help create a suitable 'attractant flow' that will draw migrating fish to the newly created rock ramp.

This is only the first project of a whole range of improvements in the Test & Itchen headwaters planned and being developed for the next five years. The Trust is very excited to be involved in this Landscape Partnership Project and make a real difference for our chalk stream headwaters.



"Rock ramp" design for fish passage past the mill



Ripley Brook: Project work continues

Matt Irvine, Project Officer



Trees were winched into the ditch to slow the flow of water and act as a filter for sediments

Building on projects that focussed on Natural Flood Management in previous years, Wessex Rivers Trust has carried out further work in the Ripley Brook catchment on the Lower Avon.

In February of this year, we reconnected an old forestry ditch to the Ripley Brook. This was to encourage water to enter the ditch



A sluice system was installed to allow drainage to be managed.

during times of high flows – thereby reducing the volume of water in the main channel during peak flows, reducing the impacts of flooding downstream. Whole trees were winched and felled into the ditch. This slowed the flow of water through the ditch and trapped sediment. Where the ditch re-enters the brook further downstream, the water is now much clearer with a lower sediment load.

A second project involved the re-routing of a drainage ditch and the creation of a flood water attenuation pond further upstream. Again, we wanted to slow the rate at which water during rain events reaches the river. In addition, the existing ditch regularly became blocked, pushing water onto a farm track. This increased the rate of runoff, scouring material out of the

track, and taking fine sediments from the track straight into the brook downstream.

We re-routed the ditch away from the track and into a newly created attenuation pond. A sluice system was installed to control the level of water retained there. The system will remain open until heavy rain is forecast. The estate manager will then drop the sluice boards to hold the water back, draining the pond down only once the peak flows have passed, therefore optimising the effect on potential flood reduction.

These works will not only benefit water quality and reduce flooding, but the attenuation pond will double up as a wildlife haven and will be teeming with birds and wetland plants.

Changing times: Education videos

Maddie Crabb, Trainee Project Officer

Due to the unprecedented closure of schools this spring, we had to rethink our popular primary school education programme. Just as we got stuck into our first few education sessions of the year, we had to put everything on hold as a result of Covid-19 lockdown measures and the subsequent closure of all schools. This was a big disappointment as we believe it is so important to give children the opportunity to get out of the classroom and home environment to explore nature in all its glory.

After the initial 'getting used to' period and the introduction of home schooling to many of our routines, Wessex RT have developed a new education programme designed to bring nature to your homes. Our Education Officer Amy, and Trainee Project Officer Maddie, took up the challenge of rethinking our education strategy and providing an at-home solution. Maddie spent her first few weeks of lockdown learning the skills required to edit our new online education videos. Amy produced footage, while practising social distancing at her local river and from her garden. It was a steep learning curve, but we have produced several exciting videos and miniseries which can all be found on our new YouTube channel! So, what have we got in store for all large and small river investigators?

How to river dip

Ever wondered what lies beneath the water's surface? Well why not take a look with our easy video guide of How to River Dip. You might discover some animals you have never seen before!

Beneath the surface – miniseries

Want to find out some interesting facts about the animals you discovered whilst river dipping. This miniseries includes life cycles and adaptations of the common species you find on the riverbed.

River wildlife investigators – miniseries

Want to know about animals that live in, and rely on our rivers? This series delivers a number of talks on the common species that you find around our rivers, some cute and cuddly, others a nuisance.

At home river activities

Not able to access your local river? We will bring the river to you, with some ingenious river activities invented by our team's very own children.

Search "Wessex Rivers Trust" on YouTube



Getting the G/St of it

Mike Blackmore, Head of Project Delivery

A Geographic Information Systems (GIS) is a way of capturing, analysing and presenting geographic information. In other words, merging detailed data with a traditional map. In some respects, this is nothing new. Marking observations and monitoring data onto maps has always been a good way of contextualising the issues facing our rivers. However, modern GIS tools enable us to do this at a significantly greater level of detail and at a vastly increased speed. Smartphones and tablets, GPS receivers and other technology enable field workers to instantly record and share all kinds of valuable information and observations on interactive maps in real-time. This in turn allows us to quickly and easily analyse observations at a much larger scale.

For example, we can use mobile devices and software to record information relating to fish passage over particular obstacles and automatically attach that information, along with geo-tagged photographs to points on a digital map. Back at the office, we can perform all kinds of analyses on both our new data and other publicly available data (such as fish survey records). This means we can quickly analyse the “passability” of obstacles in the context of local fish species and their nearby habitat requirements. Doing this kind of work means we can prioritise fish passage improvements based on which structures are blocking access to potential key spawning sites.

Other publicly available data includes LIDAR (or *Laser Imaging, Detection and Ranging*) which is elevation data

produced by lasers bouncing between the ground and an aircraft. This data can be displayed with different colours representing different elevations, revealing hidden ‘paleo-channels’, water meadows or archaeology not visible in standard satellite imagery. This can be used to identify opportunities for restoring natural channels and wetlands.

The possibilities extend to all kinds of river and catchment related issues. We can map pollution sources, pathways and receptors, prioritising them against nearby habitat types. We can compare floodplain connectivity to potential for water storage or model overland flows against opportunities for sediment and floodwater interception projects. We can even produce rapid assessments of habitat quality by calculating the abundance of good habitat features against habitat-limiting issues and categorising the resulting ‘score’.

One of the emerging advantages of modern GIS software is the way we can present the data we collect and analyse. Online interactive maps allow stakeholders (fishing clubs, landowners, community groups, government bodies, etc.) to interact with and explore issues (and potential solutions) in a way that’s just not possible with traditional written reports. If a picture paints a thousand words, then a map of interactive pictures must paint a million!

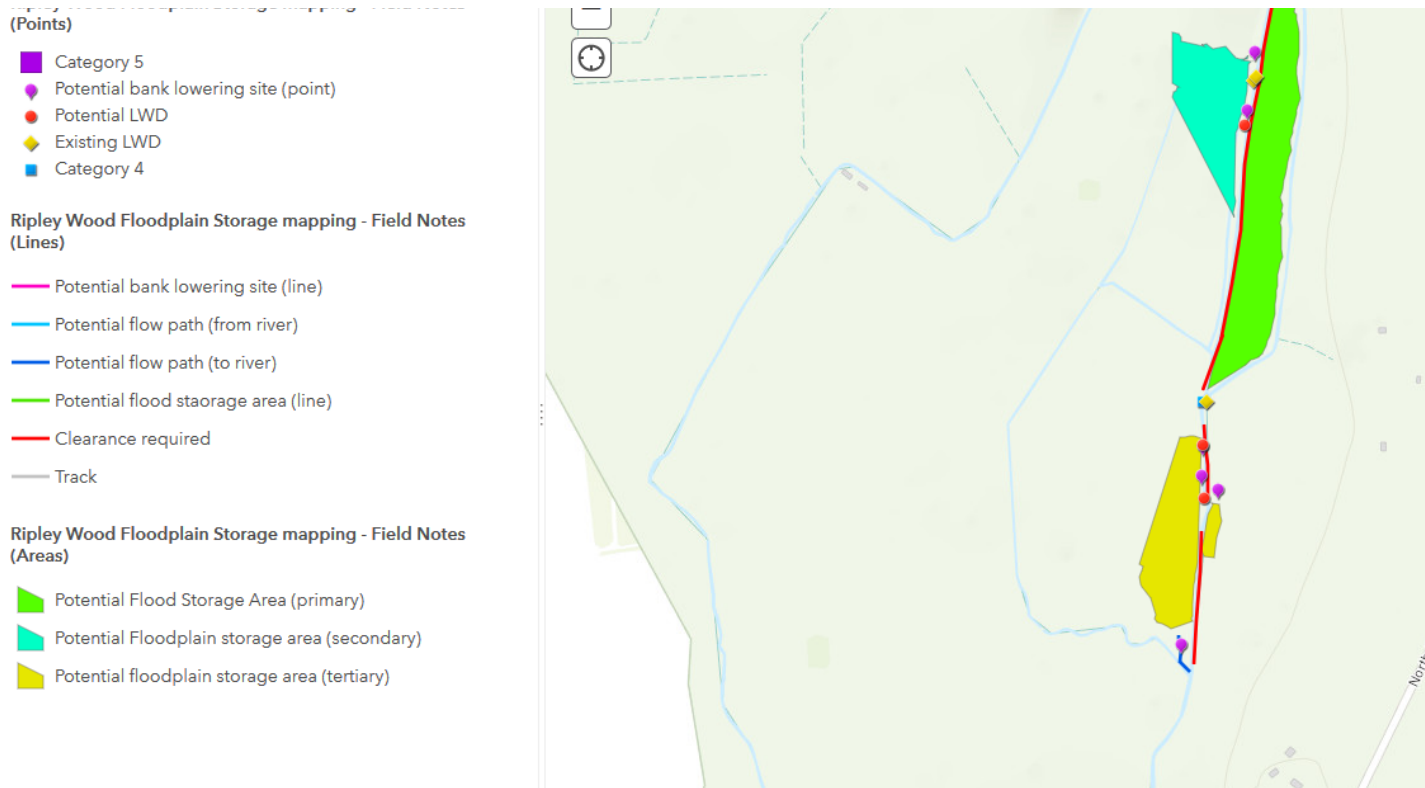
We can even take this a step further, creating online ‘Story Maps’, which guide the user through the data, taking them on a guided tour of their catchment, river or fishery. This enables us to present habitat or water quality issues with a minimum of jargon and to propose easily understandable solutions.

Modern GIS also enables us to do more with less. Attaching photographs, categories, qualitative information (scoring) and even voice-to-text notes to geographical data means we can spend more time in the field and less time in the office. We can produce maps that can be quickly converted into scale drawings for accurately costing, planning, and consenting projects. All of this means we can stretch our funding further than ever before, maximising the ecological gain of every pound spent.

It also unlocks the awesome people-power of volunteers. Pre-designed surveys can be accessed via free smartphone apps that allow for massive-scale collection of controlled and ordered data, mapping everything from fish spawning sites to potential



LIDAR imagery brings an ancient water meadow back to life

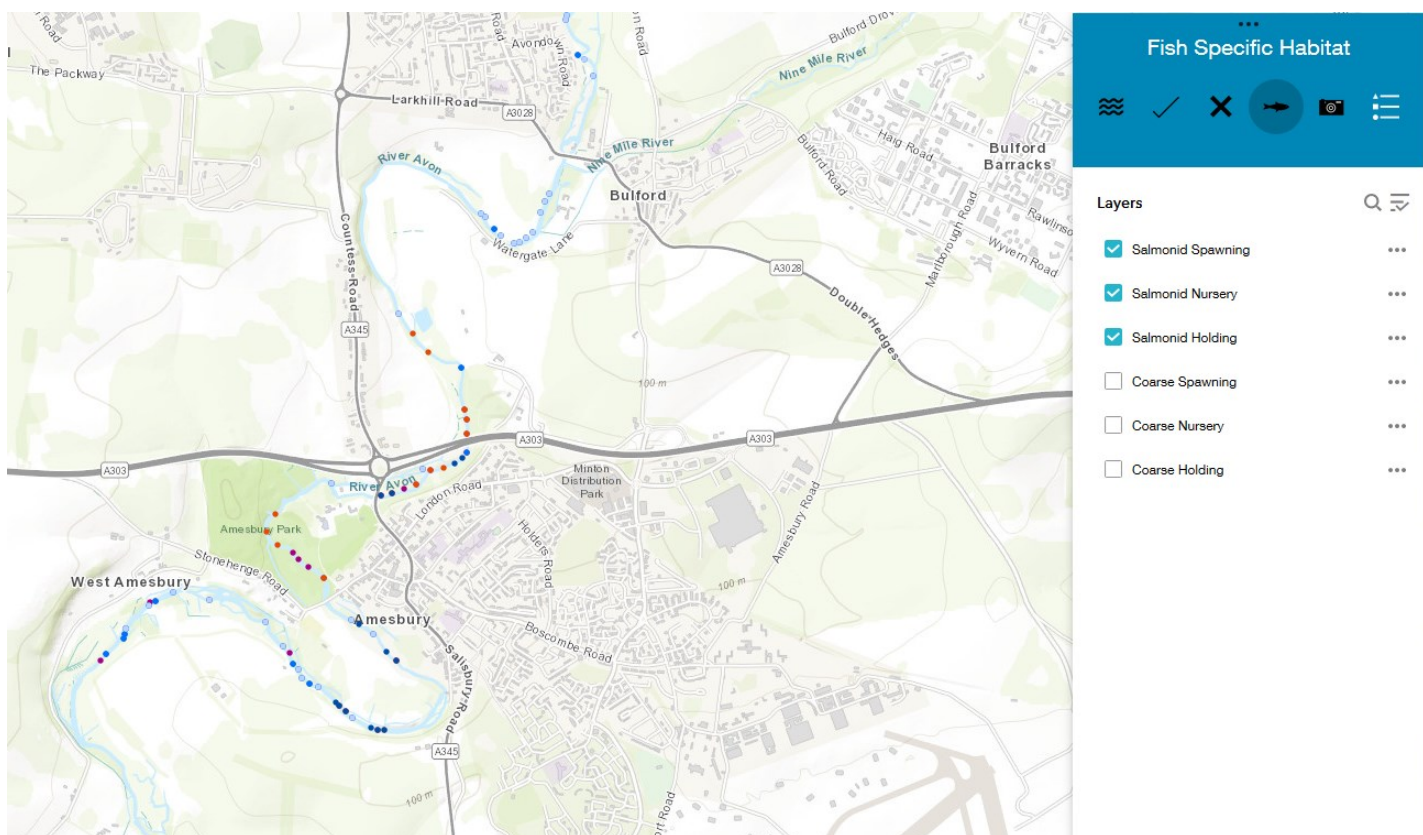


Opportunities for floodwater storage can be mapped in real-time and shared with at-risk communities downstream

pollution sources. We are barely scratching the surface of what citizen science can do for improving our catchments.

GIS mapping software, combined with technological advances in everything from handheld and radio-controlled devices, to aircraft and satellite mounted equipment, are revolutionising the way we see our

catchments. Keeping pace with the rapidly evolving technology of the 'geospatial' sector enables the Trust to work smarter, producing more useful, cost-effective and strategic outputs. We are seeing our rivers from a whole new perspective and caring for them at a genuinely geographical scale.



An interactive map allows stakeholders to explore their river and understand its issues

The next generation

Maddie Crabb, Trainee Project Officer

Wessex RT have been lucky enough to host two work placement students this year. It is an important part of the Trust's role to inspire the next generation to take up the gauntlet and protect our rivers' futures. We take pride in providing high quality placements and integrating students into our team. Here are some glowing reviews from our 2020 placement students:

George Sharp, Sparsholt College



"My overall experience has been incredible; you genuinely feel like you're contributing something, simply because you are. You're treated with respect and trusted with meaningful tasks, often with evidence that you can show to employers; I've made educational materials, proofread text published to the website and contributed to the construction of proposals and reports that will eventually find themselves in the hands of stakeholders. I would absolutely recommend arranging a work placement with them; you're not just ticking a box so you can graduate, you're accessing expertise and opportunities you can't get anywhere else to develop your understanding and improve your future prospects."

Josh David, Kingston Maurward College



"I first contacted Wessex RT to fulfil the criteria of my college course, which required me to undertake a two day per week industry placement. Within my first eight weeks at the trust, I have participated in walkover surveys from Southampton to Warminster, conducted fish passage and sediment pathway surveys, been involved in the planning of educational events and analysed and represented data with mapping software. My experience so far at the Wessex Rivers Trust has been overwhelmingly positive. My placement has not only increased my employability post-graduation, it has allowed me to learn from a team of experts who share the same passions as I do in a friendly and professional environment."

Inspired by our work placement stories?

We always encourage students from year 10 upwards to get in touch with the Trust if they are looking for a work experience or a placement. Contact maddie@wessexrt.org.uk to find out more information and available opportunities.

Working from home

Amy Ellis, Education Officer

Working from home during a nationwide lockdown has been a challenge for Wessex Rivers Trust, like most charities. Ensuring public safety has never been more important during the Covid-19 pandemic, leading to restrictions, costing people their jobs, with many companies folding under economic pressure.

While a lot of charities are now functioning with a skeleton staff, Wessex Rivers Trust is fortunately still able to function relatively unscathed, for now. With some large projects recently awarded to the Trust the team is as busy as ever preparing for delivery across the catchments.

A few staff have been able to safely continue surveying and delivering on the ground project work, whilst practicing social distancing. Most of the team, however, have

been kept busy with working from the safety of their own homes.

Prior to the social restrictions the team were working in a way that allowed flexible home working, so were fortunate to find it relatively easy to move to a home working environment. With some makeshift office spaces amongst family lives, the team has managed to have daily team meetings and continues with a high level of productivity.

Regular meetings are aimed at keeping the team spirit up, through sharing personal and professional setbacks and successes. Although we are not able to share an office space, the staff are being kept together as a collective group through the magic of Microsoft Teams!



A few of our Wessex RT staff working from home. Clockwise from top left: Matt Irvine, Amy Ellis, Maddie Crabb, Mike Blackmore, Alex Deacon

Eel pass maintenance

Andy Blincow, Senior Project Officer

Staff from the Trust have been visiting a number of eel passes distributed across the Test, Itchen and Meon catchments to assess their condition and undertake routine maintenance. Following a 2017 assessment and prioritisation of barriers to eel passage across the catchments, the Trust installed several pipe and trough type passes on the highest priority structures. Regular maintenance and cleaning is essential to ensuring the bristle type substrate within the eel passes remains free of detritus, allowing elvers to effectively 'climb' up through them. This is especially important before the main spring elver migration, allowing these juvenile eels to travel from the sea to high quality habitat in the upper catchments.



Photo Competition

Wessex Rivers Trust invites you to enter our photo competition.

Categories:

- Riverscapes
- Watery wildlife
- People and rivers

Guest judge:

Wildlife Photographer
Jack Perks

Please submit entries to
info@wessexrt.org.uk by
31st August 2020

For more information
visit: [wessexrt.org.uk/
competitions.html](http://wessexrt.org.uk/competitions.html)



Fishing sale thanks

Lee Bush, Administration Officer

For the last few years Wessex Rivers Trust has been fortunate enough to receive donations of rarely available fishing days from friends and supporters. These days are sold to raise very important funds for the Trust. Last year we raised over £6,000!

This year was slightly more of a challenge due to Covid-19 and the restrictions imposed on fishing. At the start of lockdown there was still uncertainty about when fishing would be allowed and as a result bids were far fewer than in previous years. On 10 May restrictions were lifted and fishermen and women encouraged to fish again (when adhering to government social distancing guidelines). As a result of another social media push and emails to all our supporters we have now sold 10 of the days and have made at least £5,000.

Thank you to all of you who either donated a day or bought a day's fishing in the sale – your support is very much appreciated, and will allow us to continue to support our rivers for wildlife and people.



Does your child have a river related question?

We would love to hear from them. We will try and answer as many questions as possible, no matter how simple or tricky they are. We will even make a video of them to share!

info@wessexrt.org.uk



Rivers at home: Learning in lockdown

Amy Ellis, Education and Engagement Officer

This Spring and Summer Wessex Rivers Trust is taking a different approach to river education. Any normal year, we would be on the riverbanks teaching primary school children about the incredible hidden world below the surface of our chalk streams. This year, we have adapted our strategy and moved to online education and distance learning.

Schools are being offered a “Freshwater Invertebrate Delivery Service”, accompanied with sampling trays and ID sheets, as well as educational videos to support the sessions.

Through our social media platforms we are using #RiverWatch to bring Wessex rivers to everyone staying home. These beautiful photos and videos have shown our rivers in their best light, to people who are unable to access them at this tricky time.

Our very own “Trainee Education Officers” (staff’s children!) have come up with some fantastic ideas of how to engage young people in rivers at home. These have included a lot of river restoration planning, with many models tried and tested. The Kingfisher Snap Up board game prototype has been produced, tested and approved by our CEO! A macrophyte (aquatic plant) identification challenge was set, with varying success, depending on the age and ability of the child. Dressing up as fish and even some invertebrates made using modelling clay were a few other activities tried out.



Homemade berms to watch how water naturally flows on bends



Experimenting with dams and fish movements



Dressing up as a salmon

Show us your rivers at home

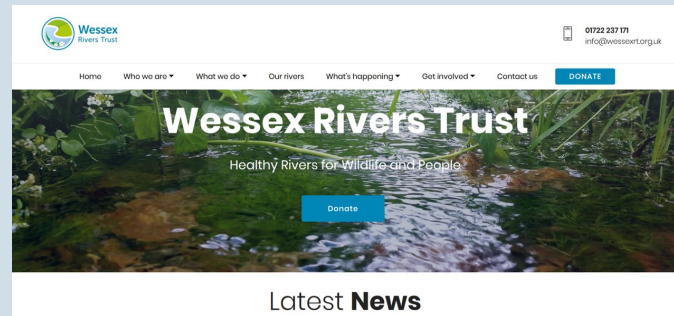
Why not make your own river at home and share it with us on any of our social media platforms. You can also send photos to our Education and Engagement Officer, Amy Ellis (amy@wessexrt.org.uk) and she can post it for all to see.

In other news...

New website

Wessex Rivers Trust has a new website with a more modern, fresh feel. The website will showcase all areas of our work, providing examples of projects in development and completed. The Latest News will be updated with weekly blog posts and have links to our twitter feed and YouTube channel. The updated supporters page will also provide a quick and easy way for people to donate.

Why not take a look at wessex.org.uk?



Martijn's departure



In February, Martijn told George and the trustees that he had decided to move with his family back to his home in the Netherlands. Martijn joined the Trust in 2018 with a team of 4. He leaves us having grown the Trust's team to 9. We now have an

office, a smart branded truck, improved processes and policies, as well as a new accounting system and bookkeeper. More recently Martijn pushed for a new name for the Trust, a new logo and modernised website. There is a new education programme and a constant stream of projects developing, all which Martijn has had a hand in. He leaves us with an almost unrecognisable Trust that is ready to move forward and grow even more.

Despite these uncertain times Martijn has secured a role as Senior Water Advisor with Rijkswaterstaat - the executive agency of the Department of Infrastructure and Water - focusing on developing projects on the River Meuse. He will be working on Water Framework Directive planning, 'Room for the River' type projects linked to environmental improvements and flood risk reduction and other integrated water management programmes.

Martijn will be greatly missed by us all and we wish him and his family all the very best for their return to the Netherlands.

Upcoming vacancies

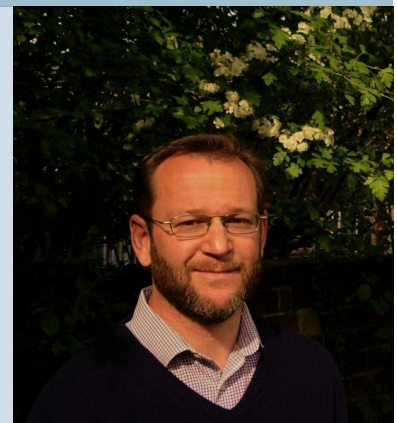
Shortly, the Trust will start advertising for several exciting roles as part of new projects—make sure to know first and keep a look out for them on our new website under 'vacancies'.

New CEO

We are delighted to announce that we have recruited Dr Dave Rumble to become our new Chief Executive.

Dave will join the Trust in August after 16 years at Hampshire & Isle of Wight Wildlife Trust. In his various roles, Dave has overseen the development and delivery of programmes of work including river and floodplain restoration, data, policy and advocacy. As a founding co-chair of the Test & Itchen Catchment Partnership, he helped establish this group alongside the rapidly growing Rivers Trust.

Before his conservation career Dave spent time as an academic specialising in ecology then living and working in Papua New Guinea on an education programme. Dave is passionate about rivers and wetlands and the wider value of catchments. Having grown-up in the area, the chalk rivers and New Forest streams are part of his DNA.





Wessex
Rivers Trust

Help us protect and restore the chalk streams
and rivers of Wessex. Please visit our website
www.wessexrt.org.uk/becomeasupporter.html

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