

WILD TROUT TRUST



WILD TROUT TRUST CONSERVATION AWARDS 2018: JUDGES' REPORT

Paul Gaskell, one of our 2018 Conservation Awards' judging panel, describes our winners and valiant shortlisted projects

NORMALLY, it is the projects which face the biggest challenges in the Conservation Awards.... While that's still definitely true for the 2018 awards, a combination of illness and awkward work schedules across all three judges threw in a few extra curveballs this year. Many thanks to all the applicants who worked

with us to make the submissions and interview schedule work – it was much appreciated. With that said, what of the most important aspect: the projects themselves? I'll firstly draw your attention to all three category winning entries PLUS a special Judges' Commendation award:



Bell Meadow Project: River Lark Catchment Partnership (WINNER, Contribution to Wild Trout Conservation Award)

The impressive partnership working, integration of the reach-scale works into the plan for the wider catchment, citizen-science monitoring and sheer enthusiasm for trout and the entire aquatic foodweb made this a really outstanding 'Contribution' to Wild Trout Conservation. A very impressive project indeed and something really flying the flag for self-sustaining, wild fish in an area – these days – not renowned for thriving trout populations.

Wellow & Cam Initiative: Bristol Avon Rivers Trust (WINNER, Medium-Scale Habitat Enhancement Scheme)

A packed field of tough contenders in the Medium-Scale category this year saw BART's Wellow & Cam Initiative edging out the competition with a robust response to what was described at the time as a "tsunami of slurry". Combining technical monitoring with citizen science and 'early warning' beacon initiatives, barrier assessment, removal/alteration of six weirs, interactive river sessions for public engagement, 'yellow fish' surface drainage protection involving 250 people, formal identification of challenges and opportunities, creation of a dedicated friends-of group, clear future management and much, much more enabled this project to score highly across almost all assessment themes.





**Ennerdale Mill Dam Project:
West Cumbria Rivers Trust and Environment
Agency (WINNER, Large-Scale Habitat
Enhancement Scheme)**

A highly ambitious project that needed to overcome significant challenges accrued additional benefits through efficient delivery ahead of schedule, in turn allowing a substantial spend on the creation of an additional vegetated buffer zone. Reconnecting Ennerdale Water (15km upstream from the main works’ site) as well as improving opportunities for wild fish populations within the main downstream catchment, the project delivered significant benefits for freshwater mussels while

also tackling invasive Himalayan balsam and Japanese knotweed and involving multiple fishing interests.

Although first impressions would suggest that the removal of this structure would be unfeasible, rather than settling for an ‘easier’ option to address primarily upstream fish movement, the project worked hard to achieve the necessary funding for complete removal of the impoundment (and associated riparian habitat works). In this way, not only was the crucial downstream (as well as upstream) fish movement facilitated, but the transport of riverbed material was also reinstated.

**Fish Pass App: Westcountry
Rivers Trust
(Judges’ Commendation)**

As an innovative way to support, monitor and adapt the programme of habitat works carried out on the Westcountry Passport streams, the development and initial launch of this app is already achieving valuable ‘wins’ for conservation.



Citizen science and engagement are embedded within the day-to-day use of this platform and the strategic

(ongoing) development and method selection provide an interesting perspective and possible inspiration for how in-channel restoration schemes can be designed. Wild fish populations are at the core of the angling amenity which drives the many initiatives of the Westcountry Rivers Trust.

SHORTLISTED PROJECTS

As with all years of the WTT Conservation Awards (and listed alphabetically for fairness) it is crucial to recognise and be inspired by each and every one of the shortlisted projects in 2018:



Brancepeth Beck: Environment Agency

A serious contender for a prize this year, tackling connectivity on the River Wear catchment. This project included (among many things) volunteer-inputs to the design and installation of structures that now aid fish passage in the face of multiple significant barriers to migration.

Chisenbury Tank Crossing 'A' Project: Wiltshire Wildlife Trust

Part of the strategic restoration of the River Avon, this project redresses the extensive modification (and associated incision) of the channel to reinstate more diverse and ecologically valuable geomorphology. Putting the river into a new course and reconnecting it with its floodplain has created multiple beneficial effects.



Killandean Blue/Green Network: 'Riverlife'/Forth Rivers Trust

Combining in-channel works and riparian environmental/social space improvements, the Forth Rivers Trust are doing a fantastic job in re-connecting the public with their local watercourse. That society needs to care for the river corridors running through communities is in no doubt. This project is a timely reminder that river corridors also provide huge welfare benefits to people who spend time in them.

Lower Misbourne Enhancement Project: Berkshire, Buckinghamshire & Oxfordshire Wildlife Trust

A kilometre of canopy management and creation of more varied in-channel (and riparian) habitat using the arising materials, targeted threatened water vole populations and aimed to improve conditions for wild trout and a host of other river-corridor wildlife. Volunteers and multiple in-kind contributions from a range of partnering organisations brought this project to life.



Watercourses Project (Chalgrave Brook): Watlington Environmental Group

The Chalgrave Brook is believed to be the only Thames tributary that now retains a population of wild trout. One long-time, local resident within the travelling community was moved to tears by the recollection of the previous state of the stream's abundant wild fish.

As is now traditional, the only thing left is to offer huge congratulations to all shortlisted projects. It was a privilege to be introduced to these works – and thank you for the inspiration that the efforts and results create in our community of river-protectors and helpers. Many thanks and well done from Martin Janes at the River Restoration Centre and Shaun and myself at WTT.



WTT'S CONSERVATION AWARDS 2018



OVER 100 guests attended the 2018 WTT Conservation Awards evening at the Savile Club in London, Awards that seek to recognise and encourage excellence in the management and conservation of wild trout habitat and celebrate the efforts, skills and ingenuity of projects carried out both by professionals and by grassroots voluntary organisations.

In introducing the evening, WTT Chairman, David Fraser thanked all involved in the event, including Martin Janes, Director of the River Restoration Centre and co-judge with WTT's Paul Gaskell and a group of individuals, our Wild Trout Conservation Angels, who sponsored the Awards. WTT Director, Shaun Leonard, followed on to outline briefly what WTT had been up to in the past year.

Paul Gaskell then presented the judges' report (see elsewhere in this newsletter) and announced the 2018 winners:

Outstanding Contribution to Wild Trout Conservation Award:
Bell Meadow Project, River Lark Catchment Partnership.

The Medium-Scale Habitat Enhancement Scheme Award: Wellow & Cam Initiative, Bristol Avon Rivers Trust.

The Large-Scale Habitat Enhancement Scheme Award: Ennerdale Mill Dam Project, West Cumbria Rivers Trust and Environment Agency.

A special Judges' Commendation was also offered to Westcountry Rivers Trust's Fish Pass App project.

The 2018 Bernard Venables Award was presented to Phil Bailey, for his huge contribution to wild trout conservation (and WTT) in Yorkshire and elsewhere.



Bernard Venables Award 2018

WE present the Bernard Venables Award to recognise those who, voluntarily, have given a lifetime of service to wild trout conservation and to WTT and whose vital work, perhaps unusual, sometimes outstanding, often goes unrecognised. This Award is supported by Sage with the donation of any Sage rod of the winner's choice.

The 2018 winner is Phil Bailey, a keen river conservationist, angler, fishing guide and fly-tyer. Phil was the inaugural President of the Australian Trout Foundation and has fished and guided across many countries, now settled in Yorkshire. Here, he works tirelessly across the county for wild trout conservation, including shoulder-to-shoulder with WTT's Conservation Officer, Jonny Grey, on the Wharfe, Ure, Aire and Ribble. Phil is an ambassador for wild trout (and WTT), an event organiser, Riverfly monitor, tree planter, weed planter, woody debris installer and invasive species annihilator. His friends, in their proposition, noted of Phil that, "His continued energy, enthusiasm, commitment and sheer hard work to benefit wild trout and grayling populations know no bounds, in what is now his eighth decade. In short, improvement of conditions for fish, and being out on (and in) the river, are his main passions in life." Perfect attributes for a Bernard Venables winner.

WTT ANNUAL DRAW 7pm, 11 December 2018 The Ship & Bell, Horndean, Hants

Do please buy a ticket or two or more... and encourage your friends and colleagues to do likewise. Tickets cost £1 each. Please use the order form enclosed with this Newsletter or visit the shop on our website at www.wildtrout.org. We will complete the counterfoils and send you the corresponding tickets by post or ticket numbers by email.

1st Prize kindly donated by Sage, worth £1099

A Sage MOD Fly Rod, 9ft, 4-wt, 4-piece; a Sage Spectrum Fly Reel 3/4 Platinum; and a Rio Gold Floating Fly Line WF4.

2nd Prize kindly donated by The Peacock at Rowsley and Haddon

Fisheries, worth £470

1 night's accommodation in a large double/twin room for 2 people with 3-course dinner and buffet breakfast, plus 2 low-season tickets to fish the Derbyshire Wye.

3rd Prize kindly donated by The Wild Trout Trust, worth £350

Life membership of The Wild Trout Trust.

4th Prize kindly donated by The Wild Trout Trust, worth £250

A day of quality fly fishing for wild trout at a location in the south, midlands or north of England, accompanied by your chosen WTT Conservation Officer.

5th Prize kindly donated by Andy Steer, worth £60

A framed, coloured illustration of a trout head by Andy Steer, number 3 of a limited edition of 100 prints.

WHAT WTT GOT UP TO IN 2017/2018



WTT reports annually to the Charity Commission on its activities. Here's some of the story, taken from the draft report, for our last fiscal year, ending 30 April 2018. The full version of the report will appear on the WTT website when approved by the Commission

In summary, WTT...

- ran 64 practical demonstration events, involving local communities in improving habitat in their river
- carried out 175 advisory visits to river and lake sites, over 90% resulting in beneficial, practical action
- worked directly with over 3,300 volunteers in 17,000 hours of practical work
- improved habitat on at least 400km of river, evidenced by physical and biological change and in how people manage their river
- worked with a range of institutions on post-graduate projects and widely disseminated ongoing research on aspects of freshwater science pertinent to our work
- spread messages on aquatic conservation through a variety of media to an audience of many thousands of people.

Practical Help and Advice

The gist of what WTT is about is to provide practical help and advice to local community groups and landowners, through demonstration events, the drawing-up of technical proposals and advice on habitat improvement techniques.

In 2017/18, we carried out 175 site visits to offer expert advice, across many parts of Britain and Ireland, on rivers from Galway to Norfolk, Cornwall to Aberdeenshire, walking the bank with angling club members, landowners, other conservation groups and local and national Government officers, to identify good and bad habitat and opportunities to make things better. Feedback from



Eager volunteers planting up the Lyme Brook

a significant sample of those site visits (examples in the full version of the annual report) suggests that all recipients were very happy with their interaction with WTT and that our officers' advice led to beneficial action for the river in over 90% of instances: river-side fences were erected to exclude damaging livestock grazing and poaching, weirs were removed, and gravel and woody material introduced to create diverse habitats that benefit not only fish, but much other wildlife in and around the river. In many cases, we've influenced more sensitive management of rivers, for example encouraging less drastic lopping of riparian trees and a

Our officers' advice led to beneficial action for the river in over 90% of instances

reduction in (or cessation of) stocking with farm-reared trout. Some of the site visits were to very short river reaches, less than 200m, but in other cases, such as on the River Rye in North Yorkshire, our Conservation Officer walked and reported on over 65km of stream!

We also ran 64 practical events, across 128 days and many parts

of Britain, under the supervision of our team of expert WTT Conservation Officers, to implement with volunteers simple but effective habitat improvement techniques for the river: bank repair and reinforcement using natural materials, removal of weirs and introduction of gravel and wood. In Buckinghamshire, a project with Beds, Bucks & Oxon Wildlife Trust, Bucks County Council and the Environment Agency greatly improved habitat on 1km of the River Misbourne. The river was pinched and made more sinuous with a variety of techniques, the bed was reshaped with an excavator and a backwater habitat dug to improve life for the river's fish and its water voles; a

gravel beach by a visitors' centre will make access to the river easy and safe. This project was runner-up in the Canal & Rivers Trust 2018 Living Waterways Award (see also Rob Mungovan's piece in this newsletter).

In Staffordshire, a very straightened and impoverished reach of the Lyme Brook (a tributary of the River Trent) was re-modelled with an excavator

to (re)introduce some meanders and teams of volunteers from the National Citizen Service to plant marginal vegetation.

In Devon, our Conservation Officer, working with angling club volunteers in the River Yeo, used a bespoke winch design to dismantle some boulder weirs that were disrupting the function of the river, including the ability of fish to move around naturally, then tethered some very large, felled trees in the river to create habitat diversity.

Many of our partners and volunteers further apply the knowledge they gain with WTT in caring for their own river reaches, with feedback indicating that this and an ongoing dialogue between our Conservation Officers and those partners is a well-received feature of WTT's working. Again, the full version of the annual report lays out some examples of this feedback.

All of this advisory and practical work has improved habitat on at least 400km of river and directly involved an estimated 3,300 volunteers in more than 17,000 hours of activity and we believe that there is evidence that we are making a difference to our rivers and the wider environment, not only for how those rivers function but also for their wildlife and the people that enjoy them.

The Impact of WTT's Work

We try to assess the impact of what we do by:



Boulder weir out on the Yeo

- seeing how people change the way they manage their river reaches. Feedback from our partners illustrates that change for the better is widespread; 90% of our surveyed Advisory Visit recipients say they have acted on our recommendations;
- looking at physical alterations in the river and its habitats (e.g. with fixed point photography or measurement

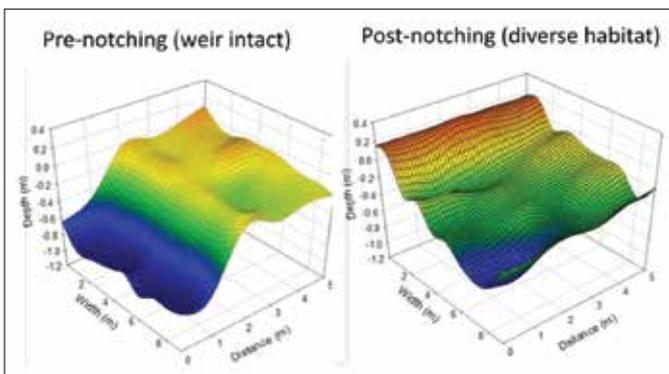
of change);

- in some cases, by measuring biological response e.g. whether there are more trout in a river after input from WTT and its partners.

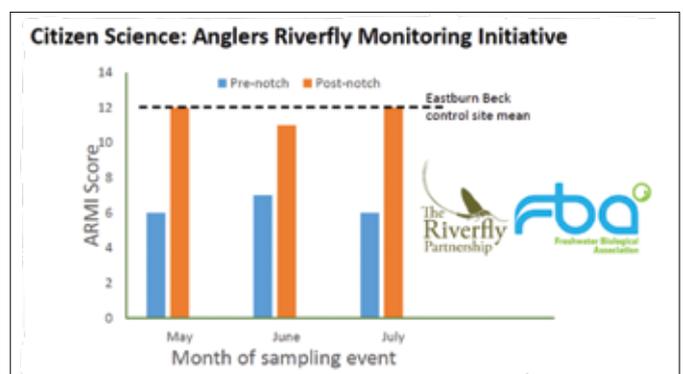
Much of WTT's work produces dramatic differences in the way a river looks and functions, not only ecologically but maybe too in terms of its resilience to flood, drought and

The River Ems before (left) and three-years after habitat improvement work (photos: Ses Wright)





The shape of the bed of a weir pool of Eastburn Beck, steeply sloping before notching (left) and more gentle and varied after notching and 12 months later (right)



The number of riverfly types in Eastburn Beck before (blue bars) and after (green bars) weir notching, compared to undegraded areas with no weirs (dashed line)

pollution; there's visual evidence in some of the pictures above. As additional examples, in Hampshire, photographs of a reach of the River Ems show great change in the river's look, habitat diversity and complexity, from an improvement project run by WTT and Arun Rother Rivers Trust, funded by Portsmouth Water.

In North Yorkshire, notching of weirs

(partial removal of the weir crest) by WTT and the EA in the Eastburn Beck has produced beneficial changes to the shape of the riverbed, measured 12 months after the notching and an apparent increase in the number of types of riverfly. A noticeable step in the riverbed when the weir was fully in place (left in the image above) has

been replaced by a more gentle slope, with more varied habitat and easier for fish to traverse (right in image above). Using the informal scoring system of the Anglers Riverfly Monitoring Initiative, the number of riverfly types nearly doubles after notching, comparing favourably to undegraded areas of the same Beck where there are no weirs.



WTT has worked in Staffordshire's Lyme Brook with the EA and Groundwork, completing a number of phases of improvements, including during 2017/18. In this year, the first brown trout was recorded during EA survey work (above), taken from an improved reach. In Somerset, a community group and WTT partner on the River Cale, again working with the EA, also recorded their first brown trout, surely an indication of an improving river; see <http://urbantrout.blogspot.com/2018/01/catch-in-wincanton-and-news-of-first.html>

An electric fishing survey (right) by students of Queen Mary London set out to assess the effectiveness of baffles attached in road culverts in the Woodplumpton Brook to ease the passage of fish through those culverts, work carried out by WTT and Wyre Rivers Trust (see <https://www.wildtrout.org/wttblog/woodplumpton-brook-restoration-baffle-ing-results>). The results suggest that fish of all sizes can pass more easily post-baffle installation,



including the first brown trout caught in the stream for twenty years. Sadly, there was also evidence of fish killed, perhaps by water pollution.

The techniques that we advocate and apply are tried and tested and supported by evidence; we'd like to do more formal and long-term pre- and post-monitoring of our work, but funding rarely allows for it.

Research and Spreading the Word

Through our Research and Conservation Officer and links to a number of institutions, we are continuing to contribute to both ongoing and proposed research projects. Several of the restoration measures were completed on the Ribble Life

Heritage Lottery-funded study in association with the Ribble Rivers Trust and Lancaster University, with post-works monitoring and sampling for food web changes underway. Sampling has been ongoing in Lincolnshire (with the EA) to study the chemical make-up of large brown trout on the River Welland to discern whether these unusual fish are coming in from the sea, are river resident or possibly stocked. In Norfolk rivers, a similar study has been undertaken (with the Zoological Society of London) on young-of-year trout to determine what proportion of the population might originate from sea trout. The outcome of these projects will have practical implications for how the water in such regulated rivers is managed and whether fish-access to and from the sea is working.

The WTT website has become a hub for post-graduate students to disseminate their research, with our particular focus on practical applications of the work (e.g. <https://www.wildtrout.org/wttblog/communities-created-crowfoot>). We also used the platforms of our annual (and much acclaimed) journal, *Salmo Trutta* and Newsletters to spread word of relevant research outcomes. Throughout the year, we presented at over 30 events, from the Institute of Fisheries Management's Conference in Belfast through to local angling club meetings, with an estimated total audience exceeding 800 people. We have an active web presence, driven not only through a busy website (with >20,000 visitors accessing an average of 5 pages each per month) but also increased social media presence and penetration on Facebook and Twitter, with >3500 and >6500 followers, respectively.

In April, two WTT staff members kayaked along Yorkshire's River Aire, timed for World Fish Migration Day, to highlight the perils faced by trout (and other fish species) trying to navigate a river full of weirs; their journey attracted a huge amount of interest, both

locally and internationally through social media (www.wildtrout.org/wttblog/weird-way-travel).

Fundraising

WTT's fundraising activities are vital in driving our conservation work. The Trust benefits from the generosity of our 2,500 supporters and a number of fundraising events, the most significant of which is our annual, on-line auction: in March 2018, over 300 lots attracted donations of £72,000. The auction also raises the WTT profile and provides an invaluable opportunity for engagement with a broad community that actively supports our work. We are hugely indebted to all who

take part in our auction and other fundraising work.

Staff and Volunteers

In the 2017/18 year, WTT's team of a Director of Operations, six Conservation Officers, a Research and Conservation Officer, a Trust & Data Manager, a Fundraising Officer and a Company Secretary were joined (in August 2017) by an Assistant Conservation Officer and (in April 2018) by another, part-time Conservation Officer, working especially on urban trout projects across the south of England.

However, the role of our volunteers is crucial to what we do, maintaining the Trust's presence across various

media sectors, uploading lots and proof-reading the catalogue for the internet auction, creating newsletter artwork, manning stands at shows, providing technical input through advisory panels and working with the Conservation Officers in practical delivery of riverine habitat enhancements. We are proud to work so effectively with these people and with so many, diverse partners: fishing clubs, other conservation volunteer groups, sister NGOs, landowners, government bodies (especially the Environment Agency) and business, most notably the water companies of Anglian, Severn Trent, Thames and Yorkshire.

Thank you all.

MAKING UP FOR LOST TIME

Mike Blackmore, WTT Conservation Officer in the South West, tells an epic tale of watery travails



REGULAR readers of WTT Newsletters will know that late summer/early autumn is always a busy time for us in the South West. There's a precious window between the end of the bird-nesting season and the start of salmonid spawning that allows us chainsaw-wielding river-nudgers to go about knocking in trees, pulling apart weirs and generally making the place untidy (but lovely for wildlife).

Last year, my delivery season was cut short by the arrival of a baby and a promise I'd made to my wife to at least be somewhere nearby and on dry land in the weeks running up to her due date. Having fulfilled that promise (largely by throwing my back out in the Wiltshire Bourne and subsequently

Left, hard-engineered revetment providing poor marginal habitat. Right, three months later: a biodiverse riverbank habitat including cover for fish

working from the living room floor), I made another promise, this time to myself, that I'd make up for lost time with a bumper crop of river habitat projects in 2018.

In September last year, WTT employed Ed Eley in a supporting role to help Andy Thomas and I cope with demand in southern England. Ed's tree surgery skills were always going to be useful but surprisingly, it's been his sharp eye for detail and quick mastery of the technical side of things that has made him truly invaluable. Ed is also, of course, a much better angler than me, though that generally goes without saying!

With Ed's help, WTT has delivered a whopping ten practical projects in the South West alone this year. We've worked on ten different rivers with nine different fishing clubs, two wildlife trusts, two rivers' trusts and a district council; and with something like 60 individual volunteers clocking up around 740 person-hours of river work. A quick bit of measuring on Google Earth and it works out to a little under 4km of river habitat improved.

Here are some highlights: The first project of the year was on the Galmington Stream, directly outside the offices of Somerset

Wildlife Trust in Taunton. Rather than replace a failing hard-engineered revetment with Generic River Product #1, (aka the gabion basket, page 3 in the lazy engineer's handbook), the Wildlife Trust approached WTT to help find an ecologically-friendly alternative. We devised a low-cost plan to dismantle the whole riverbank and re-use the material. Chestnut stakes formed the skeleton of the new bank with the existing block stone broken up and recycled to fill a bespoke 50m 'rock roll'. Woody material won from clearing the upper bank was used to create a brushwood shelf at the bank toe. Occasional gaps in this shelf would provide holding habitat for the (surprisingly large) trout in the stream. Next a 'grow bag' of geogrid and coir was filled with soil scraped from the upper bank and planted with marginal plugs and a few established plants donated by a nearby school. Finally, the upper bank was seeded with a bug-friendly, nectar-rich wild flower and grass mix. We even incorporated an artificial otter holt. Bargain!

In August, we delivered our biggest river restoration project to date in the South West: the Partners of the Avon River Restoration project (PARR) – you can't get funded without a good, cheesy acronym. Working closely with Wiltshire Wildlife Trust and the Wessex Chalk Stream & Rivers Trust, we set about restoring natural processes to approximately 1.6km of the main Hampshire Avon. Support from the riparian farmer in the form of machinery and materials was very welcome, as was the help of the fishing syndicate. With a small army of volunteers, ranging from local residents and anglers to staff from the Environment Agency and FWAG South West, we set about introducing 57 flow-deflecting woody habitat features and removing seven relic weirs. The river was also narrowed in two locations, one of which involved lowering the riverbank.

With the remnants of the old weirs removed, the riverbed is now free to move. Introducing flow-deflecting



Volunteers in the Avon

structure into the channel will reinstate natural sediment distribution, eventually resulting in an increase in both the abundance and scale of pool and riffle habitats. While the plan is to let the river develop much of this over time, some features appeared almost instantaneously and a number of small pools rapidly filled with shoals of grayling.

Before/after invertebrate, electrofishing and topographical surveys as well as drone photography will monitor how the river adapts to the changes. The project is also being complemented by a further 0.5km of habitat improvement immediately downstream, by the in-house team at Salisbury & District Angling Club.

The PARR project was born through the Hampshire Avon Catchment Partnership and will hopefully set a fine example for true partnership working. Together, we've improved over 2km of river for £11,000, returning a massive £14,000 of in-kind contributions and 200% co-funding for the rod licence monies from EA.

With only one day back in the office, I was again in Taunton, this time working with Scott West and Mia Bryant from Westcountry Rivers Trust, undertaking some enhancements in and around spawning habitat on the

River Tone. Volunteers from Taunton Fly Fishing Club and Somerset Wildlife Trust made short work of improvements at six sites.

Another highlight was a project introducing some much-needed habitat diversity (including potential spawning habitat) to the upper Bristol Frome at Chipping Sodbury, also covered elsewhere by Ed.

Although small-scale, the project is within a Flood Alleviation Scheme

Top, Bristol Frome Site 1: Before.
Bottom, Bristol Frome Site 1: After





and some gruelling number-crunching went into the design so that we could prove there would be no overall loss of channel conveyance. The Bristol Frome is one of the most publically-accessible rivers in the country with a public footpath following almost its entire length. However, the existing channel at Chipping Sodbury comprises a dead straight and uniform ditch which rather sucks the life and soul out of what should be an important public amenity. Much to Ed's understandable consternation, the only wildlife on view was a

regular parade of urban rats. However, towards the end of the project we had a welcome 'Field of Dreams' moment when three good-sized trout magically appeared over the gravel. All worthwhile after all!

Two counties away to the south, we got to grips with the Dorset Stour. As a 'proper' river, sandwiched between the glamorous celebrity chalkstreams of the Frome/Piddle to the west and the Avon/Test/Itchen to the east, the Stour is the forgotten middle child of the South Wessex rivers. Whilst not a SSSI or SAC, to those in the know, the Stour is an incredible hidden gem where specimen coarse fish rub fins with huge salmon and trout (see also Andy Thomas's praise for this river). Even in low flows, the next pool might be 10ft deep. Here be Monsters!

Wimborne & District Angling Club has a work party ethic which is hard to match and it was great fun to demonstrate some tree hinging/winning techniques with them.

At the time of writing (mid-October), there are two more projects in the diary (and a handful of smaller completed projects that I haven't mentioned) but I'll wrap up by coming home to the dear old Wyllye. The scale of engineering effort that consecutive generations historically put into screwing up this river is staggering. Yet the charm of the Wyllye

is ever irrepressible and over the last six or seven years, a comparable scale of effort has gone into its restoration. The willingness of the Wyllye Fly Fishing Club to work with both Wiltshire Wildlife Trust and WTT over this period culminated this year in a habitat project on their sole remaining section of unrestored water. This is a project that has been in the pipeline since a WTT Advisory Visit way back in 2013. I had the rare opportunity to test my work and cast a fly along one of our features, producing a beautiful wild Wyllye brownie. Ed blanked – just sayin'!

Other practical work has included that on the Rivers Chew, Brue, Frome and Merriott in Somerset, the Traphole Stream on Exmoor and the River Taw in Devon.

An honourable mention must go out to the contractors/specialists we've worked with this summer: the unshakeable Max Hardman, the tenacious Dan Upsher, and the three musketeers of Luke Kozak, Nick Lawrence and Olly Shuldham (they'll hate being lumped together like that!). A big shout out should also go to the fantastically helpful civils team at South Gloucestershire District Council.

The air grows cold and I look forward to the return of dark morning starts, McDonald's breakfasts on the A303 and planning new projects with our friends at the various Wildlife and Rivers Trusts, the EA and FWAG. Fingers crossed for some aquifer recharge and a good flush through for this year's projects.

Oh and dry feet. Dry, warm feet!



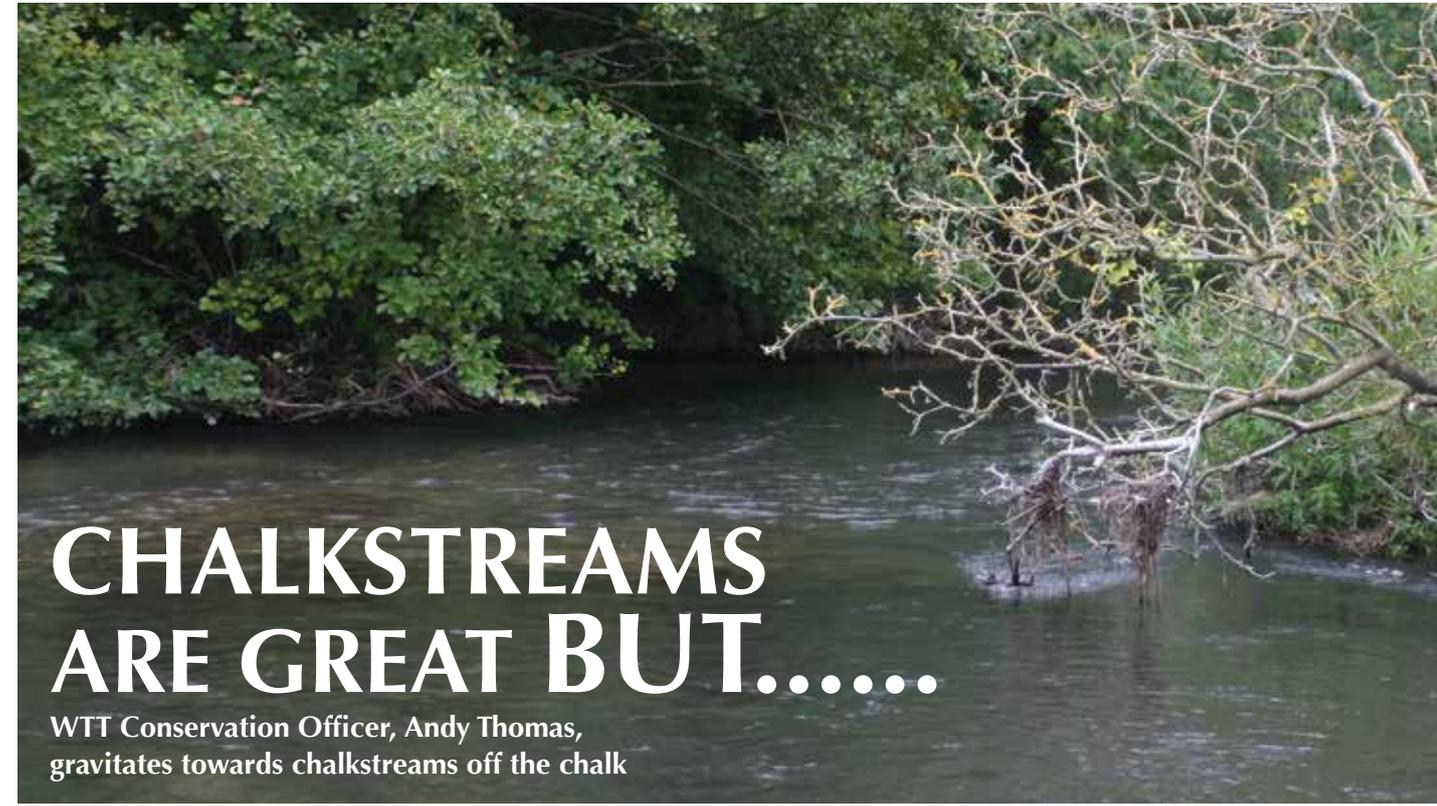
Trout caught just hours after the new habitat was created

NEW WTT Website

OUR website has undergone a facelift and a few technical changes to keep it up to date. The main changes are to make it more 'mobile-friendly' (easily readable on phones and tablets), with increased security and responsiveness.

Our website attracts over 20,000 visitors every month, so it's a very important part of our communication to members and to the wider public. A few pages have been merged to make it easier to navigate but the website remains very rich in content – plenty to keep you entertained, whether it's bite-sized 'trout facts' or longer articles about trout, river restoration or our projects and you can access a large number of short videos on a wide range of topics including catch & release techniques and how dredging affects rivers. The site also features a shop where you can join or renew your membership and buy WTT goodies and publications. The web address is the same – www.wildtrout.org. Take a look and let me know what you think!

Denise Ashton dashton@wildtrout.org



CHALKSTREAMS ARE GREAT BUT.....

WTT Conservation Officer, Andy Thomas,
gravitates towards chalkstreams off the chalk

It was the final day of the trout fishing season and I was down on the river for a last few casts before stowing my fly gear away until the spring – I only ever fish for grayling with trotting gear and only then when I know I can't catch anything else. No freezing fingers for me! These days when grabbing a few hours fishing for trout, I tend invariably to gravitate towards 'mixed' fisheries on the lower stretches of some of our more well-known chalkstreams but not necessarily on the chalky bits. This last day of the season got me thinking about why I find these mixed fisheries so interesting and compelling, especially when compared to famed chalkstream beats that many fisher folk dream about.

Most of the Wessex chalkstreams retain their label as a 'chalkstream' even though invariably they start life as ephemeral winterbournes, then become true perennial-flowing chalkstreams before moving off their chalky underlay to flow through a mixed geology of sands, gravels and clays. We don't tend suddenly to give these rivers a different name once they drift off the chalk; we still call them

chalkstreams because they maintain those 'chalkstreamy' characteristics of clear water and luxurious weed growth. Rivers that flow both north and south off the great central southern chalk mound inevitably end up running through a mixed geology before they either hit the sea, or in the case of the Lambourn, Kennet and Loddon, the main River Thames.

I find it interesting that rivers like the Dorset Stour are not called a chalkstream, even though the river carves its way through a long section of chalky stuff either side of Blandford Forum. The fact that the Stour starts life from deep greensand springs and then quickly feeds into a deeply incised clay-lined channel, augmented by surface water runoff, seals its fate for many as being a lowland clay river – nowhere near as interesting, you might think.

Somehow, perhaps, in the flyfishers' Championship, rather than the chalkstream Premier League! Yet this jewel of a river is augmented by another gem of a true chalkstream, the Dorset Allen, before reverting back to the mixed geology of sands, gravel and clay downstream of Wimborne. Yes,

the Stour is much more flashy than any true chalkstream but long sections of the middle river, with gin-clear summer water, sparkling gravels and long tresses of water crowfoot, can easily hold their own when compared to parts of the Hampshire Avon, especially when one critically appraises habitat quality. Perhaps Southern sea trout populations know a little more than we give them credit for, because they invariably choose to spawn in the flashy streams that run off anything other than pure chalk.

Of course, the Hampshire Avon is really only underpinned by a chalk

WTT AUCTION 2019

OUR 2019 fundraising auction will start on Friday 8 March and close during the evening of Sunday 17 March (St Patrick's Day, hurrah!). Printed catalogues should be with members in early February, and the auction lots will also be on the WTT website. We will use eBay, as usual, as their service to us is free, they have good security and tried and tested processes for managing online auctions. If you prefer to bid by post, we



Naturally-fallen wood helping to maintain high quality spawning opportunities by cleaning and sorting river bed gravels

that they can often be made up of long, uniform reaches of samey, glide habitat. This shouldn't be a surprise as we are talking about channels that are inevitably man-made and usually so in order to do a job of work, either milling or historical agricultural irrigation. Many of these channels were formed as long ago as Roman times and that is largely where most of them have stayed ever since. There are exceptions: Hampshire's River Meon is the steepest chalkstream in England and as such can generate real flow-power following a wetter than average winter, which has enabled it to do its fair share of wriggling around. However, the wriggling only really gets going once the river drops from the chalk to the sands and gravels towards the coastal plain. Here, the Meon gets very interesting because it doesn't only meander, but the riverbed also rises and falls like a roller-coaster. It's wild trout Nirvana!

I'm sometimes not the sharpest knife in the drawer and it took me a while to realise that the pool habitat I was trying to scour with strategically placed, woody flow deflectors on many chalkstream headwaters was not doing what it was supposed to. The combination of a lack of bed gradient

and the complete absence of energetic spate-flow conditions, especially when coupled with the natural cementing qualities of groundwater saturated in dissolved calcium carbonate, is rarely going to facilitate a lovely deep scour pool off the end of a tree trunk – either naturally fallen or artificially placed. The lack of nice deep pools, preferably adjacent to valuable overhanging cover, isn't only a problem for us as anglers keen on intercepting a really big fish. That fish of a lifetime is never going to be really happy sitting in an 18in deep glide, unless of course it is within the flip of a fin from a well-covered deep pool. There's more: without that nice deep pool, we also can't have a shallow, downstream ramp of eroded gravels that could prove irresistible for spawning fish. Move off the chalk and the water chemistry is far less likely to concrete the bed and with a change to less-porous geology comes the likelihood of real flow-power following heavy rainfall. Hey presto, deeper pools, meandering bends, eroding seams of fresh bank gravels thrown up into enticing spawning ramps and long, shallow riffles where the (trout) kids can hang out.

Where am I going with this story? Ah, yes. Treat yourself to the odd day off the chalky bits with the chance of something a little bit special and if you are trying to create deeper holding pools on the chalky bits, don't expect the river to do all the work for you.

geology in the reaches above Salisbury. Yet for me the beats I tend to focus on in the Avon are those where the chalk substrate gives way to a mixed geology. And, if like me, you are often driven to dream about catching that fish of a lifetime, then my advice to you is to head for the dirty end of town.

So exactly what is it about these sections of river, mainly fed by alkaline water but underpinned by thick seams of gravels, sands and clay that make them really interesting to folk like me? One of the issues I have with some (but not all) chalkstream channels is

will bid on eBay on your behalf so you are not disadvantaged. Many lots are won by postal bidders, so if the online process isn't for you, you can still take part.

The auction is a very significant part of our funding and helps pay for the 'in river' practical habitat improvement projects which you can find described by our Conservation Officers in this newsletter. In particular, it helps pay for the design, planning and preparation work

that is very difficult to fund from other sources.

We aim to make the auction accessible and affordable to everyone, so we have a huge number of lots that range in price from £20 to much more! Fishing days are very popular and make up the majority of the lots, but flies, art and literature are also on offer. If you or your club or syndicate would like to offer a 'lot', please get in touch.

Many friends are made and clubs and syndicates joined as a result of

auction-lot fishing days. There is a wonderful 'buzz' around the auction that helps to raise awareness of the WTT and our work with a very wide community of anglers. We very much appreciate the help that members and supporters give to publicise the auction, and our thanks go to the donors and bidders who make it such a success.

For more information, please contact Denise Ashton on 07802 454157 or dashton@wildtrout.org



NEWS FROM TROUT IN THE TOWN UP NORTH

Paul Gaskell, on his varied summer and early autumn work schedule

WELL, there's one thing that you can't accuse the role of the northern Trout in the Town Project manager of... and that is 'lacking variety'. In the preceding months, I've become a qualified Japanese knotweed zapper, attended the inaugural 'SUNRISE' steering group meeting for the last big chunk of European funding allocated to the Trent catchment, thumped some stakes into North Yorkshire's Thornton Beck, poured over entry forms and conducted the shortlist interviews for the 2018 WTT Conservation Awards (judges report elsewhere in this Newsletter), bashed balsam on the Dearne, advised ecology and civil engineering professors on the value of angling to society and as a driver for accruing 'natural capital' from healthy ecosystems, published an article with my new partner in crime, Theo Pike, in the first issue of the new (glorious

and ad-free) *Fly Culture* magazine and surveyed and advised on hallowed streams fished by Izaak Walton.

Now that I'm working 3 days per week in this role, it is certainly an enjoyable challenge to get everything into a working week. In my non-WTT role, I went to Japan and Italy this summer for some filming with Discover Tenkara. That actually brings a lot of cross-pollinating ideas and inspiration along with it too – for instance, the challenges faced by threatened marble trout populations in the Dolomite Mountains of Italy and the extreme commitment needed to create (the undeniably wonderful) catch & release fishery of 'yamame' (trout) and 'iwana' (char) of Ueno in Japan.

In all of the above, it is probably fair to say that the biggest and most intriguing challenge will be working as a part of the approximately £3m

SUNRISE project. Even though our portion of that is relatively modest (on a project of that scale), the WTT, through the steering group and also the Trent Catchment Partnership meetings that led to the bid being created and (ultimately) won, has had the opportunity to influence the wider project in many positive ways. Working in this way (and with many of the same people/organisations) has allowed several phases of previous habitat works on the Lyme Brook in Staffordshire, some of this has coincided with the first official modern records of wild trout returning to those sections of this stream – and more work is in the pipeline via this collaboration.

Watch this space and please feel free to offer comments to me via email: pgaskell@wildtrout.org

Also, look out for the new-look Trout in the Town inputs to the blog on the main WTT website.

JONNY'S SUMMER UP NORTH

WTT Conservation Officer, **Jonny Grey**, reviews some of his summer toils, including some interesting results from monitoring



Pre- and post-view of Coniston Cold Weir removal

Our project means that fish now have unimpeded access to 20.4km of waterway and my full economic costing analysis of the project reveals that it was achieved for a shade under £8,000

WELL, what a summer in North Yorkshire! Not the greatest from a fishing perspective but at least the dry weather meant I could crack on with various 'in river' projects without a hitch. It also allowed me time to gather some more (ongoing) monitoring data and reflect upon how successful some of my interventions have been to date.

Looking back to the Summer Newsletter, I was getting very excited about the impending full removal of Coniston Cold Weir, a partnership project between WTT, the Environment Agency and Aire Rivers Trust. To cut a long story short, removal of the 19m-wide, 1m-high weir (plus 4m of apron downstream) which was built to supply a mill ~180 years ago, took six years of sporadic conversations with the owner, five months of permitting and due diligence searches, but only

two days to remove! After only 4 hours of work, once the plant had opened up a 'notch' in the weir-face, it was incredible to see minnow push on upstream, past the pounding pecker! In fact, there was a small trout rising consistently approximately 15m upstream of the works throughout the entire process. Our project means that fish now have unimpeded access to 20.4km of waterway and my full economic costing analysis of the project reveals that it was achieved for a shade under £8,000. I'm particularly chuffed that I was contacted by The World Fish Migration Foundation and asked whether our project could be used as a case study for Dam Removal Europe (<https://www.damremoval.eu/portfolio/coniston-cold-weir-england/>).

It is now almost four months since D(emolition) Day and with only one major spate to speak of during that period, the physical structure of

the river has been relatively slow to respond. However, there is evidence of a narrowing of the channel through the formerly impounded reach (with retention of some deeper fish-holding pools), and a glorious deposition bar is forming along the left bank downstream, exactly as predicted by Claire Bithell, the local EA geomorphology expert. I've had a trail camera and a time-lapse camera recording developments – so far, I have captured otter, grey squirrel, fox, hedgehog and grey heron using the newly formed gravel bars, as well as plenty of carrion crows squabbling over signal crayfish that they seem adept at nabbing from the shallows!

This summer has seen a ramp up in my practical activities with clubs via workshops, paid for either by the EA's rod licence-funded Fishery Improvement Programme or via the Yorkshire Water Biodiversity Fund. Many of these



Demonstrating erosion, deposition and the effects of boulder revetment using a River Table at the Kilnsey Show

have focused on tributaries, including access to and fro, and the quality of spawning gravels and adjacent fry habitat within. For example, I have initiated some electrofishing of Cockhill Beck with Knaresborough Anglers to provide some rudimentary baseline data on fish population structure; parr outnumbered fry, and both were at lower abundance than one might expect for such a beck. Since then, we have installed many woody deflectors to pinch and shape the channel and help retain appropriately sized, silt-free gravels, so hopefully our work will improve the situation and more fish might find their way to the Nidd in future years. Similar work has been conducted along Cock Beck (Wharfe) with volunteers from

Yorkshire Dales Rivers Trust, led by the infectiously enthusiastic Dr Marie Taylor, and on the small feeder tribs of Emsay Reservoir with Skipton Angling Association.

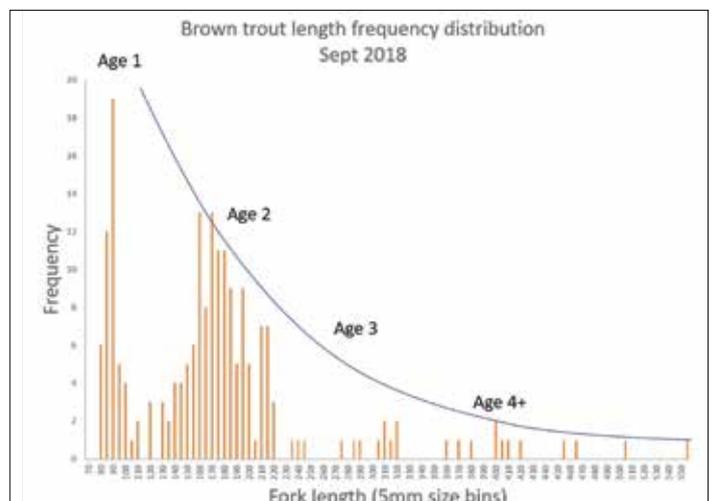
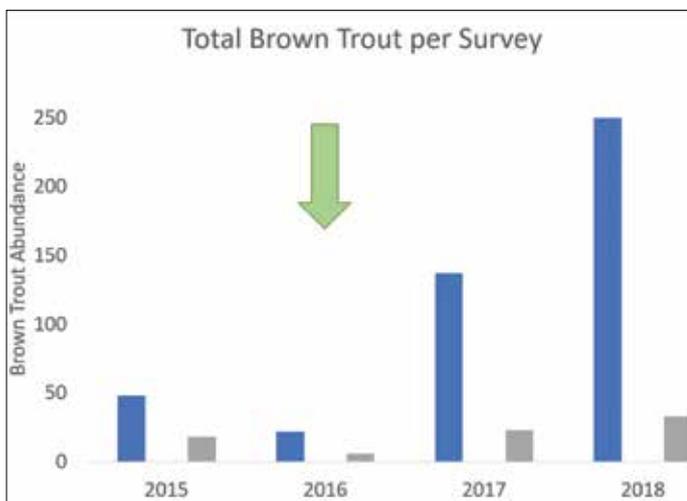
As well as the usual array of talks and presentations to angling bodies and college/university students, I have spent several days this summer attached to a River Table! This was primarily at the Great Yorkshire Show (GYS), but also as a guest of Kilnsey Angling Club at the Kilnsey Show. A River Table is not only a fantastic toy in hot weather (think sand pit combined with paddling pool) but also an incredibly useful engagement tool for getting simple messages about river process across to kids (young and old, alike). Here, I must thank Yorkshire



Creation of a weir notch – two hours with a sledge-hammer well spent

Dales RT for lending me theirs to play with. I was hoarse after three days of the GYS and, at a primarily agricultural show, I spent most of my time discussing and demonstrating the futility of dredging! However, I sensed some real 'light-bulb' moments and have hopefully caused a few folk to reconsider how they manage land alongside our rivers.

Left: Electrofishing survey data pre- and post-interventions (green arrow) on Eastburn Beck (blue bars) versus a nearby reference site (grey bars). Right: Length-frequency data of brown trout with age class derived from known Aire trout





It's hard for me to believe that I have been with WTT now for the best part of four 'work seasons' ie outside of the salmonid spawning window. My oldest project is Eastburn Beck, catalysed by Pete Turner (EA) and which coalesced very quickly in 2015, leading to weir-notching and removal/partial demolition of six structures carried out in 2016. Elsewhere, I have reported on the changes to geomorphology and macroinvertebrate abundance as measured by the Anglers Riverfly Monitoring Initiative. However, in September, I completed a fourth consecutive season of electrofishing data, and the data are quite compelling.

Now, there are a few caveats associated with the data but as there was no specific funding pot for the monitoring of the works for this duration, I am making the best of the situation. So, all surveys were carried out in each of the years for roughly the same amount of time (effort), over similar distances (spatial extent), using similar kit, and roughly the same time of year

(although 2018 was a little later because of the incredibly dry spring / summer).

I only have one year of pre-data, and two 'proper' years of post-, and trout numbers are notoriously variable year to year. I say proper years, as the 15/16 floods annihilated the trout production from that year (I could not find any young-of-year in 2016) and altered the river habitat substantially, maybe even flushing some of the larger trout out of the system. Hence, there is a dip in the 2016 data which was actually around when we carried out the majority of the works (green arrow).

Given the above, where we have removed obstructions to fish passage (blue bars), there are 5x the number of fish in 2018 compared to those same sites in 2015 prior to the works. The data from the reference site (at most 2x higher) would suggest that this is not simply due to the good spawning and growing season we just experienced in 17/18.

We measured the fish we caught. If we then draw a graph of those fish-lengths against the number we caught of each length, we get what's called a length-frequency plot and this one is revealing; there should be distinct bell-shaped clumps of data representing the various age classes and I have superimposed an average 'age' derived from scale readings of Aire trout carried out by the EA (courtesy of Dr Gareth Davies). So, Age 1 fish tend to be around 90mm, Age 2 around 180mm and so on. We would expect a much greater number of fry and decreasing numbers of parr and adults as mortality affects the age structure, represented by the blue line. So, what do we see?

Firstly, I did not capture as many fry (Age 1) as predicted. This was partly because I was not targeting all the most appropriate areas for fry (ie the shallow riffles and pocket water). However, it does lend weight to my argument above that the 5x greater total number of fish we found was not simply due to a very good spawning year ie skewed by lots of fry. For comparison, I caught 49 Age 1 compared to 129 Age 2 fish. Secondly, there were also considerably fewer Age 3 fish than might be predicted but not surprising given that that would be the cohort affected by the 15/16 floods. Thirdly, there are some whopping trout in this system, and a greater number of larger individuals (of greater size) than were recorded in 2015 prior to any interventions!

So, while the dataset is still relatively short and limiting, I'm fairly confident our work to improve connectivity and habitat quality has had a positive impact just using these simple measures of brown trout abundance and size distribution. I'm keen to continue monitoring of the site for as long as possible so it can inform other projects across the country, and there are a few more examples of where we are monitoring progress or outcomes of projects on the WTT blog: <https://www.wildtrout.org/wttblog/>

COAL COUNTRY CALLING

Theo Pike, six months into his new, two-day-a-week role as WTT's Trout in the Town Officer for the south of England, notes that the pace is picking up nicely...

AT the start of the summer, I went along to the Somerset Valley Arts Day, part of the Bath Fringe, in the heart of the old Somerset coal field in Radstock, to meet local residents and 'live tweet' an art project highlighting the problems caused by plastic rubbish in our rivers. The problems of marine plastic are steadily growing in everyone's consciousness – maybe now more than ever, following the BBC's 'Drowning in Plastic' documentary – but making the link between urban litter and starving seabird chicks on remote Pacific atolls is still something we're working on. So, inspired by



living next to the Wellow Brook and its litter problem, local artist Chris Lewis-Smith had come up with the idea of creating a fish-shaped metal frame, which could then be filled with plastic collected from the Brook by staff and volunteers from the Bristol Avon Rivers Trust (BART).

As the Arts Day went on, local kids gradually stuffed the 12-foot framework with single-use plastic bottles, footballs, lumps of styrofoam and strips of polythene. The organisers tell me they're hoping to display the big plastic fish in one or more of the local

Luke Kozak notching the weir in Bruton, to help the river function more naturally and its fish move when and where they want to

carnivals too – carrying on raising awareness of how urban residents can really influence what happens in the wider world. In the longer term, BART have been surveying fish passage problems and other issues on the upper Wellow Brook, and we're all looking forward to seeing the urban headwaters of this very post-industrial river becoming part of a fully

REDD SPOTTING

WTT's Conservation Officer in the north, Gareth Pedley, outlines what to look for when trying to spot trout (and salmon) redds

IN the UK, trout spawning generally occurs between October and January, triggered by shortening day-length and decreasing temperature. The exact timing varies slightly by geographical location, as incubation takes longer in colder water and it is vital that the fry hatch out in time for the better feeding that spring offers. There's also a genetic component to when and where trout will spawn.

A trout will seek out areas of raised gravel and accelerating flow, towards the tail of a pool (or sometimes riffle), with gravel of 10-40mm (20-60+mm for larger trout/sea trout) in which to

cut her nest, technically called a redd. Areas of upwelling flow are ideal, but not vital; the main requirement is simply that flows will naturally keep the redd area free from finer material (silt etc) to allow a good flow-through of water.

A hen fish will often test the flow and riverbed with her fins to identify suitable areas. If the location is suitable, she will cut a redd, turning on her side and using her tail to dig a pot in the riverbed, 15-30cm deep (Fig. 1).

The hen then lays her eggs into that pot, over which the cock fish will release his milt (sperm); she'll move upstream slightly, and again use her



1

tail to cover the eggs with gravel. This whole affair takes anything from hours up to a few days, with a single hen fish often laying in several redds.

The freshly-created redds in Figure 2 are easily identifiable, as lighter areas free from algae and fine sediment. Older redds are less obvious as the algae and sediment quickly re-accumulates. That is when recognising the characteristic, clam shell-like shape left in the riverbed becomes important (Fig. 3).

catchment-based approach to bringing it back to life.

Elsewhere in the west, I've driven over to Okehampton to catch up with ORIG's Christine Marsh and Paul Coles and talk about new ways of getting local residents more involved with their river. I've also been balsam-bashing with the Friends of the River Frome in Somerset, and successfully applied for EA funding to pay for a feasibility study for restoring a very small Frome tributary called the Dippy. To be honest, it's unlikely that this tiny stream will ever hold trout, but breaking it out of its concrete gutter and renaturalising its bed and banks will help to improve water quality and biodiversity. This will also allow people to get involved in looking after part of their local environment again, and maybe show us the way to bigger projects on the main River Frome.

And then, a few miles away, I've been working with Luke Kozak, Ewan Jones, Jane Durney and other members of the Brue CREW to deliver their first project on the River Brue in the middle of Bruton, as part of the

(already award-winning) Hills to Levels project.

Originally designed by Mike Blackmore after his Advisory Visit in 2015, the first part of these works involved notching a small weir to help fish passage and draw the flow of the river through a bridge arch which has been repeatedly filling up



Chris Lewis-Smith's plastic fish, filling all too easily

with silt. Trout haven't been spotted in this stretch for a while, but even before Luke had finished sculpting the notch with an angle grinder and road breaker, we could clearly see bullheads navigating up the new plume of water to find out what was going on.

Luke Kozak notching the weir in Bruton, to help the river function more naturally and its fish move when and where they want to.

Sometime in the very near future, we're aiming to return to this site to build two low-level berms from local stone – designed to overtop safely in floods, but form a more natural two-stage channel when flows are low, and keep the river clear of invasive reeds. By rights, we should already have delivered this part of the project in mid-October, but Storm Callum had other ideas! There's lots more great work to be done in Bruton, and I'll hope to report on exciting developments in future issues of this newsletter.

Finally, on social media, Paul and I have been pleased to see lots of activity on the WTT's new Trout in the Town Facebook group. Whether you're involved in urban projects already, or you're just starting to wonder about looking after your local urban river, please do drop in to say hello, ask for advice, or simply soak up the inspiration at <https://www.facebook.com/groups/wildtrouttrusttroutinthetown/>



2a

The redd in Figure 3 may end up so high and dry that the eggs laid within it will die through dehydration, frost or a lack of water flow-through to oxygenate them. These sub-standard sites may be used when prime spots are in short supply.

This is an abbreviated version of a paper for one of our redd identification workshops. If you are interested in further information or even attending such a workshop, please contact your local WTT Conservation Officer.



2b

Figure 1. Hen sea trout on her side, cutting a redd. A cock fish is waiting with her, keen for an opportunity to spawn; he will actively defend that position, although other fish may also try to sneak in and fertilise the eggs as they are released (photo: Peter Henriksson).

Figures 2a and 2b. There are so many freshly-cut sea trout redds in this example that it is useful to first look at the original photo (2a) then the annotated photo (2b): at least ten redds are easily identifiable.



3

Figure 3. A redd created by a smaller trout. Note how finer material is carried furthest downstream and much of the larger material remains at the upstream end (right side of shot), creating silt-free gravels and a flow-through of water to oxygenate the eggs.



HELPING TROUT IN A DIRTY PLACE

WTT Project Officer, Ed Eley, tries to save the day for some trout in a dirty place

I'm sure that most of you are familiar with Theo Pike's excellent book, *Trout in Dirty Places*, the title of which is especially befitting for a project Mike Blackmore and I recently carried out on an urban section of the Bristol Frome at Chipping Sodbury. In fact, before we started the project we assumed that there were no trout residing there at all (I'll get to that bit later). Plenty of signal crayfish and rats though. The project was a partnership between WTT, the Environment Agency (EA), South Gloucestershire Council, Bristol City Council and the Bristol Avon Rivers Trust (BART), aiming to raise awareness and appreciation of the river in the local community with some relatively simple habitat enhancements that would provide both aesthetic and bio-

diversity benefits.

The section of river we were working on is only a stone's throw from its source, yet the water quality is dire. The changing water colour over the week we were there (with no rain) suggests that there is a point-source (or sources) to the excess nutrients and so identifying and addressing the issue(s) should be fairly easy. With this in mind, we're hoping that the finished project will attract a group of volunteers to carry out wet-weather walkover surveys, supported by

The section of river we were working on is only a stone's throw from its source, yet the water quality is dire

BART, to identify and address the point source(s).

This project is located within an EA Flood Alleviation Scheme (FAS) and previously, a WTT proposal with similar aims was rejected downstream at Yate. However, this time by working closely with the EA, we were able to design and deliver a project that would not compromise the overall channel conveyance. It's important to mention that the works (although relatively small in size) set an important precedence for future urban habitat projects situated within such FAS areas.

This project was relatively straightforward, the usual WTT stuff: introducing some woody habitat features and gravels to create spawning habitat. However, being situated within a FAS meant that anything we put in could not change the overall conveyance. So, in certain sections, the banks were re-profiled to account for the new woody structures and gravels. The re-profiling works themselves provided habitat improvements, creating areas of wider channel with gentler bank gradients in an otherwise straight ditch. And, as an



Excessive algal growth in the Frome, a short distance downstream at Yate (photo taken in spring 2017)

added bonus, the waste from the excavations, plus a few bankside trees, were used to create a hibernaculum. The last leg of the project involved planting up the brushwood features and the newly re-profiled banks.

For me there were two main highlights: the first, a massive Full Monty breakfast at a café down the road (allowed because we were ahead of schedule) and the second, more importantly, towards the end of the project, after the gravel had been introduced and the sediment settled out, when a group of trout obligingly drifted downstream to come and check out their new home. It was so encouraging to see that trout were still present and clinging on, despite living in an urban ditch with virtually no habitat and seemingly terrible water quality issues. I frequently drive past Chipping Sodbury so hopefully I'll get a chance to stop by and see how the work evolves and who knows, maybe even count some redds...

ROB'S EAST ANGLIAN UPDATE

Rob Mungovan with plenty of news from his work in the East of England

THE heat and drought of the summer certainly put a strain on the rivers of this region, especially as we're known to be the driest part of England. We had at least 50 days without a drop of rain and the heat put an end to my local trout fishing. Now, with the cool of autumn upon us, I'm desperately hoping for the rains to bring life back to our tired rivers.

My most interesting piece of work this summer has been bed restoration to the River Gwash downstream of Ryhall: the Gwash Angling Club are super-keen, helped with a little technical input and experience from WTT. Last year, I'd been shown an area of river which had been opened up to create a 2-stage channel. The flow was moving fine but due to the river's past dredging, there was very little gravel left, hardly enough for trout to spawn. It was apparent to me that to complete this restoration, the riverbed needed to be restored, not simply the channel's cross-section. The idea is to raise the bed back to a level nearer to that prior to dredging; basically, we're trying to reverse historical, poor flood-alleviation work. Following the

necessary depth analysis and cross-section evaluation, I concluded that 300T of a mixed-grade gravel should do the job. I visited a local quarry with my right-hand man from the Gwash Club, Chris Fuller, and we identified just the right type of stone: a mix of 20-40mm graded gravel and a largely unwashed, random grade from the reject pile.

Luckily, the heat of summer had baked-hard our access route across the farmland and so once the rape crop was lifted, we were able to start. The stone was arranged in piles along the riverbank so that it could be easily moved with a long reach-excavator, under my supervision. After every gravel drop, the back of the bucket was used to gently tamp it down, a really important action if the stone is to set firm (but not too firm) on the riverbed. This firming-up work creates a more resilient bed that is better able to withstand scouring flows as the gravel interlocks.

We got the excavator working ahead of us, and then members of the Gwash Club were on hand to tread down the stone, to rake it to



Left: the River Gwash before bed-raising. Below left, the River Gwash with the bed raised to produce pools and riffles



Members of the Gwash Angling Club lend a hand getting the gravel just right



the required shape, and to plant large Reed Sweet-grass turfs that had been pulled back by the excavator as it worked to find the overgrown river.

The end result was about 100m of restored river with gentle pools, short riffles and glides. As soon as the work was completed, we saw trout riding the new flow patterns which were delivering food to lies that had been retained under existing vegetated banks. My thanks to Chris Fuller and the Gwash Club for such a nice piece of work, without any problems!

I was lucky enough to be sent on a wild sea trout chase into Suffolk, not where we'd usually go looking. But as we are finding in many catchments whose wild trout stocks are doing well, there's often silver trout battling to get back upstream. The river in question was the Deben, surprisingly gravel-rich just above its tidal limit. I'll be returning in the winter on an Advisory Visit and to see if I can help my contact there spot sea trout redds.

Other work has seen me on four Advisory Visits: on the urban landscape of the Colne Brook near Iver (just inside the M25), the delightful Little Ouse at Thetford (a gravel-rich river on the edge of Fenland with lots of trout potential), the rural Welland and the Harper's Brook in Northants. The Advisory Visits are a really useful tool for getting our message across; I

The Little Ouse, a Fenland-edge river with much potential for trout

look forward to the recipients coming back to put ideas into action.

In the Summer Newsletter, I introduced you to our work on the River Misbourne. Well, it now makes me happy to report that the project has received national recognition.

The Lower Misbourne Enhancement Project won the runner-up spot in the Canal & River Trust's 2018 Living Waterways Awards (Natural Environment Category). We were pipped to first place by a very extensive £2m green infrastructure project in Wales which saw an entire canal restored! In

Volunteers learn habitat enhancement techniques on the River Shep



our project, at Denham Country Park, a kilometre of the Misbourne was improved for the benefit of trout and its declining water voles. The judges were particularly impressed with the project's improved river access at the visitor centre, enabling kids to explore the river safely and cleanly, whilst other more precious habitats have been protected behind brushwood ledges. A team of 17 volunteers worked with me over a period of two weeks to install flow detectors, create brushwood refuges and hinge-cut trees to create cover for wildlife. The project was a partnership between the Berks, Bucks & Oxon Wildlife Trust, Bucks County Council, the Environment Agency, Groundwork South and WTT.

During the late summer evenings, I worked with the Cambridge Trout Club to complete some winter work which was flooded off, then frozen off! Simple brushwood refuges and deflectors were popped in to diversify the flow and to aid sediment-sorting and transfer, whilst enhancing spawning gravel and fry habitat.

A nice piece of work came my way in my home village on the little River Shep. I still closely support the conservation group, the Friends of the River Shep, but as with many local groups, new blood and training is often an issue. So, we ran a training event to get volunteers making things better for the river and learn new skills, working with me over three days. Despite the extended drought, the first day I chose was the day that it rained and rained! However, 12 volunteers were found from local organisations and other river groups, and although wet through, everyone learned a huge amount and didn't let the rain dampen spirits.

Finally, at the time of writing (mid-October), a pretty significant project on the River Welland at Ashley is just underway, after a year of planning – hopefully some exciting stories and pictures in the next WTT Newsletter.

TIM'S ADVENTURES IN THE MIDLANDS AND LINCOLNSHIRE

Tim Jacklin, WTT Conservation Officer, takes us on a tour of his busy summer



Work on the Brailsford Brook: clockwise from top left, lowered water after a weir removal, exposing many signal crayfish burrows; natural features reappearing though a good flush still needed; a notched weir to improve fish passage; a bypass around a retained weir



LOOKING at my previous newsletter contribution, I was reflecting upon the wet winter and high water levels – what a contrast this summer has provided, with some in-river jobs completed by wet wading, a welcome relief from the melting temperatures!

Alongside a multitude of walkover surveys to review past project works and develop plans for new ones (largely on the upper Witham in Lincolnshire), the theme of

my work over the last few months has centred very much on weir removal. Three sites have been the focus of attention, all within the catchment of the River Dove in Derbyshire and Staffordshire and all following on from WTT AVs, some dating back a number of years, and much subsequent effort devoted to consultation, persuasion and careful planning.

Work on the Brailsford Brook has been carried out by the landowners using contractors with WTT

technical input. From approximately 50 weirs in 2km of stream, about 45 have been, or are being, removed. Those left in place (to retain a head to supply water into adjacent lakes, or to protect infrastructure such as a ford and a bridge) are being modified to improve fish passage, for example by notching, creating a bypass channel or building a 'rock ramp' fish pass. Further works are planned here to install woody debris.

The Letting the Dove Flow

project has taken another step forward recently with the removal of two weirs in the very popular beauty spot of Dovedale. A lot of research and planning has gone into this aspect of the project, given the history of the weirs and the large number of visitors to this location. WTT is working in close partnership with the National Trust, Leek & District Fly Fishing Association (www.ladffa.com), Natural England and the Environment Agency to restore the River Dove back to more natural conditions. There are over 170 weirs throughout the project-reach and the latest works takes the tally of those removed to seven. In August, two weirs, between the famous Stepping Stones and Lovers' Leap, were removed by hand by a very hard-working party of National Trust staff and volunteers and members of LADFFA.

In addition a large, fallen ash tree was repositioned to clear an access track and provide large woody habitat within the river channel. More woody material introduction is planned during the coming months.

In such a public location, explanation and interpretation of the work has been an important part of the project. Public engagement days were held and reached 620 visitors with a range of activities including river dipping and creative activities to engage people with the paintings of the valley before the weirs were ever built.

In addition, social media, articles in local papers and an interview on Moorland Radio have shared the aims of the project with a wider audience. For more information see: www.nationaltrust.org.uk/ilam-park-dovedale-and-the-white-peak/features/letting-the-dove-flow

A WTT Advisory Visit (AV) in 2016 on behalf of Birdsgrove Fly Fishing Club (BFFC) to the River Dove, Derbyshire, identified seven weirs along the 5km length of river fished by the club. The impoundment of water by these structures is detrimental to river habitat, fish and fly populations,



Gothard Weir on the Dove: breaking it up (above) and (below) natural features reappearing upstream



natural sediment transport and unimpeded fish passage. The AV report stimulated a debate within the club about what could be done to improve the fishery and it was decided to work towards the removal of the two weirs that had been built by the club in the past. A partnership project involving BFFC, WTT and the

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Environment Agency was initiated and in September 2017, the smaller of the two structures (Rivetts Weir) was removed (reported previously in these pages).

The larger structure, Gothard Weir, was built in the 1980s on the site of an older, dilapidated weir and repaired in 1993 following undermining and slumping. The original construction and repair plans indicated that it was made from gabion baskets filled with stone, and large pre-cast concrete flooring panels. As with all weir-removal projects, the bulk of the work is in the planning and preparation. A topographical survey of riverbed and bank levels was carried out, which

informed an assessment of likely consequences of removal by a professional fluvial geomorphologist. Liaison with adjacent landowners was greatly assisted by BFFC, the necessary EA permits were applied for, quotations were obtained from local contractors and we were fortunate to have good ground conditions for plant access as a result of the dry weather.

In early September 2018, the weir was removed. As predicted, the upstream water levels dropped by approximately a metre and exposed the

sediment (gravel, sand and silt) that had accumulated over the many decades the weir had been in place. There was very much a feeling of 'the tide having gone out' and some consternation at the dramatic effect at the first riffle upstream of the weir, where the river shrank from around 20m wide down to a 5m-wide channel cut into the accumulated gravels. However, within a few days the river had moved more of the gravel and a week later a flush of water reshaped the gravel deposits to a much greater extent. This process

will continue over the coming months (depending upon the frequency of high water events) as the river 'catches up' with years of stalled sediment transport. Already a new riffle has emerged upstream and several mouth-wateringly fishy pools have developed on the outside of meanders. Various monitoring is taking place, including the longer-term effect on water levels and gravel deposits (using automatic recorders, fixed-point and time-lapse photography) and fish and fly life via catch returns and invertebrate kick-sampling.



WTT WEEKEND AT HADDON

WTT members were blessed during the summer with an excellent opportunity to fish for wild browns, wild rainbows and grayling across four rivers including areas usually only open to the Peacock Fly Fishing Club members, thanks to the Haddon Estate and the Club. A lovely weekend was enjoyed by 15 members and though the weather made the fishing at times tough, the river and its surrounds looked just amazing. We very much hope to repeat this event in 2019; further details will appear in the 2019 Spring Update and *Salmo Trutta* as well as being sent by email to those members who've opted to receive events' notices in this way.

2019 SEASON RODS AVAILABLE ON THE RIVER LAMBOURN AT HUNTS GREEN

The fishing is all wild trout (not stocked for many years) and grayling in a beautiful, quiet setting surrounded by wildlife.

There is 2 miles of well-managed water downstream of Boxford with a full-time riverkeeper. Rods may fish as often as they wish during the trout season and on any day except Wednesday. The river is open for grayling during October.

Contact the keeper, Bruce Wheeler, on 07950 046696.



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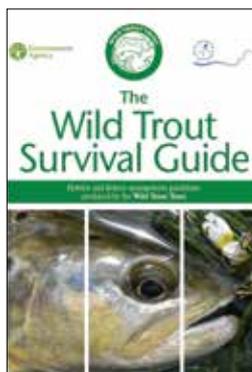
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10	150	150	150	150
12	200	200	200	200
14	250	250	250	250
16	300	300	300	300
18	350	350	350	350
20	400	400	400	400
22	450	450	450	450
24	500	500	500	500
26	550	550	550	550
28	600	600	600	600
30	650	650	650	650
32	700	700	700	700
34	750	750	750	750
36	800	800	800	800
38	850	850	850	850
40	900	900	900	900
42	950	950	950	950
44	1000	1000	1000	1000
46	1050	1050	1050	1050
48	1100	1100	1100	1100
50	1150	1150	1150	1150
52	1200	1200	1200	1200
54	1250	1250	1250	1250
56	1300	1300	1300	1300
58	1350	1350	1350	1350
60	1400	1400	1400	1400
62	1450	1450	1450	1450
64	1500	1500	1500	1500
66	1550	1550	1550	1550
68	1600	1600	1600	1600
70	1650	1650	1650	1650
72	1700	1700	1700	1700
74	1750	1750	1750	1750
76	1800	1800	1800	1800
78	1850	1850	1850	1850
80	1900	1900	1900	1900
82	1950	1950	1950	1950
84	2000	2000	2000	2000
86	2050	2050	2050	2050
88	2100	2100	2100	2100
90	2150	2150	2150	2150
92	2200	2200	2200	2200
94	2250	2250	2250	2250
96	2300	2300	2300	2300
98	2350	2350	2350	2350
100	2400	2400	2400	2400



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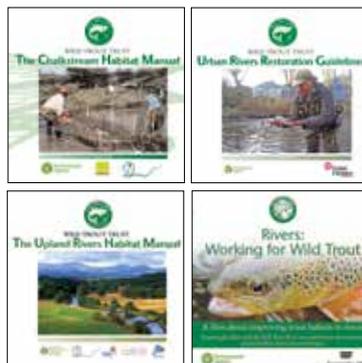
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