

Celebrating ARC's achievements and mapping the project's legacy

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Held at the impressive Arundel Castle, our end of project conference was a resounding success. Around 175 people attended the event on Monday 7th November, to celebrate the efforts of volunteers and partners.

The conference also outlined the vision for the future of the Arun and Rother rivers, and how people can continue to support the work we've undertaken as our Heritage Lottery funded project draws to a close.

Helen Meech, from Rewilding Britain, delivered an inspiring keynote speech, outlining her vision for rewilding in Sussex. We then heard from an array of people, sharing their unique perspectives on being involved in the project.

Mike King of Resources for Change, was commissioned to undertake the evaluation of the project. He provided an overview of his findings from the first phase of the evaluation, when he conducted interviews and questionnaires to discover what people thought and felt about the project.

The final phase of the evaluation involves analysing and reporting on all the data that have been generated. This will be compiled into a final report, available in January. Mike then posed a question about the legacy of the project, which we aimed to address in the final section of the programme.

Continued...

Steve Gilbert, from the RSPB, outlined the main areas of ARC's legacy, which broadly fall under the categories of 'people' and 'species and habitats'. Many of our 1119 volunteers will continue to contribute to conservation activities in the catchment, with specific volunteer led activities like Riverfly (an ARC supported river water quality monitoring initiative) continuing after the project ends.

Another important aspect of the people legacy is maintaining the partnerships and relationships that have been created or strengthened through ARC, laying a solid foundation for future partnership projects.

On the species and habitat side of things, the landscape enhancements we delivered will be managed and maintained well into the future, often with contractual land management agreements in place. The considerable achievements around tackling non native invasive species are now safeguarded through the establishment of the South Downs Invasives Taskforce.

Around 15 participating organisations and individuals, coordinated by the South Downs National Park will continue to meet and drive forward delivery of the South Downs Invasive Species Strategy (available at www.arunwesternstreams.org.uk/resources).

ARC's landscape scale approach to conservation required the development of a new ecosystem services mapping tool. Ecosystem services mapping is the process of identifying, evaluating and safeguarding the benefits that we get from our natural resources.

When ARC was being developed this was an emerging area of research. ARC's ambitions prompted the Sussex Biodiversity Records Centre to try the new methodology produced by EcoServ-GIS.

This is now being refined and used by environmental organisations across Sussex and beyond. Henri Brocklebank, of the Sussex Biodiversity Records Centre, said "The ambition of ARC has been so bold and

powerful...the project pushed the boundaries of ecosystem services thinking in Sussex".

We also heard from Colin Hedley, an independent advisor, who has been involved in developing cluster farming initiatives in the Arun Valley and beyond. This is an exciting area of work that sees the farming community coming together to put positive landscape management into practice.

The Arun and Western Streams Catchment Partnership is one of several bodies that will continue to bring the many organisations working in the catchment together with the aim of improving the local environment for people and for wildlife. These include water companies as well as most of the ARC partner organisations. The Catchment Plan sets out many of the priority projects for the catchment.

The next challenge will be securing funding to take some of these projects into delivery. The catchment plan can be viewed here: www.arunwesternstreams.org.uk/plan.

North American weevils come to the rescue of choked up canal!

Earlier this year the ARC project teamed up with the Wey & Arun Canal Trust to tackle an extensive infestation of Water Fern, a non-native floating fern considered one of the most invasive plants in the country.

The water fern had taken over a stretch of the Wey and Arun Canal at Tickner's Heath near Dunsfold, forming a thick mat on the water surface, blocking out the light and threatening the aquatic flora and fauna.

Stenopelmus rufinasus, commonly known as the azolla weevil, exclusively feeds off the plant without harming any native species and has proven to be an



Before weevil release

effective and environmentally friendly control agent in South Africa and the UK.

12,000 weevils, supplied by [CABI](http://www.cabi.org) (Centre for Agriculture and Biosciences International),



After weevil release

were released into the waterway at Tickner's Heath in July. Within weeks, the weevils had made an impressive dent on the thick carpet of fern.

Weevils continued



There was no sign of the weed by the autumn. "We are delighted with the work of these little insects," said the Trust's conservation advisor, Ian Burton.

The greenery still evident in the 'after' picture is duckweed. The control of the azolla created space for the duckweed to grow into. It can form green mats on the surface of the water like azolla, but duckweed can be manually controlled, for example using a floating boom to drag the plant to the water's edge for composting.

The initiative at Ticker's Heath is in line with the Wey & Arun Canal Trust's policy of controlling and eradicating invasive species, including Himalayan balsam, giant hogweed and Japanese knotweed, on land that it has responsibility for. For more information about the Trust please visit www.weyandarun.co.uk

App competition

The ARC project teamed up with the Historic Sussex Hotels Group to launch a competition to get people recording wildlife with the ARC Explorer app.

Arran Sibbald, aged nine, won our under 16 prize in the ARC explorer app competition with an amazing 56 badges collected, which took him to second place in the overall leader board.

Our winner in the adult category was Sue Kimpton who has been an enthusiastic wildlife recorder since the app's launch. Arran won a superb wildlife recording camera



Sue Kimpton and Rachel Carless

for his school St. James Coldwaltham and Sue won afternoon tea for two at the



Arran Sibbald student at St James Coldwaltham

charming Spreadeagle Hotel in Midhurst as well as a RSPB ultra high resolution nestbox camera for use at home.

ARC wins national award



Fran Southgate (SWT), Rachel Carless (RSPB), Margaret Paren (Chair, SDNPA) and Carole Mortimer (Chairman, SWT)

In October the ARC project won the Campaign for National Parks 'Park Protector Award' in recognition of making a significant impact on preserving the beauty, cultural heritage and biodiversity of one of the UK's thirteen National Parks.

Representatives of the project travelled to the House of Commons for the awards ceremony which also marked the 80th anniversary of the Campaign for National Parks.

ARC was presented with the award and a cheque for £2000 by Barry Southwell, chair of the Ramblers Holidays Charitable Trust, who sponsored the award.

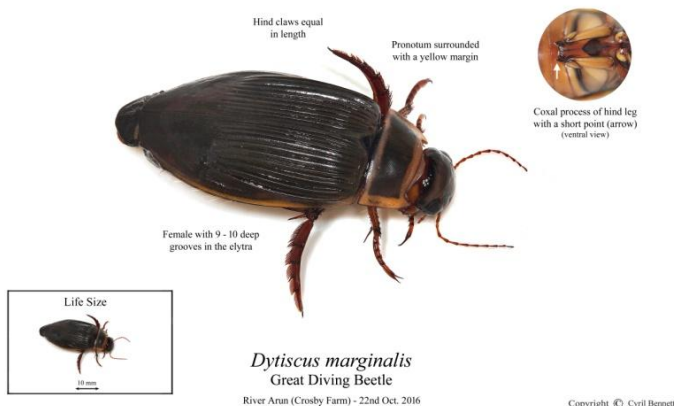
Caroline Quentin, president of Campaign for National Parks said, "How fantastic to see a project that is not only making a huge difference to the South Downs right now, but is also inspiring everyone to become a conservationist, safeguarding the future of this wonderful area."

Measuring ecological improvements in the Upper Arun

This project delivered 15 enhancements with one major enhancement (a floodplain reconnection) within a 3.5km stretch of the Upper Arun.

Prior to commencing the project we commissioned some macro invertebrate sampling from entomologist Dr Nick Everall to try to measure improvements in river ecology as a result of these enhancements.

Benchmark sampling took place at two sites in May 2015 and three sites in September 2015 (one sampling site was inaccessible in the Spring). Post works sampling was carried out at three sites in October 2016. Further sampling will be carried out in Spring 2018 at the test sites to assess against the baseline data. This is because beneficial changes can take 12-18 months after in-stream work to show marked improvements.



One of the interesting finds however was a Great Diving Beetle. More common in cleaner, standing waters, this was the first time Nick has encountered one in a river in 30 years.

The Environment Agency was also able to provide historic data for several sites with a focus on macrophytes, macro invertebrates and fish.

Post project surveys have already been carried out at two fish survey sites with another to follow in 2017. There will also be further macro invertebrate monitoring in future years to support the work of Nick Everall. For further information about any of the Upper Arun surveying work, please contact Damon Block at the Environment Agency. damon.block@environment-agency.gov.uk

Making space for rain

One area of innovation for the ARC project has been the development of community led rain gardens or Sustainable Drainage Systems (SuDS).

Over the course of the project we developed six rain garden projects, of which three have been delivered (two in Littlehampton and one in Horsham). These rain gardens total around 225 square metres of sustainable drainage, much greater than the 36 metres squared envisaged in our original bid!

The Horsham cub scouts have been keeping an eye on the new garden, photographing the emerging wild flower shoots and litter picking. We are really pleased they are so keen to help look after it.



One of the two Littlehampton rain gardens on Maltravers Road.



Rain garden at Bennett's Field, Horsham which the 5th/10th Horsham cub scouts planted with wildflowers.

A fourth rain garden project on Tesco land adjacent to the A29 in Pulborough, which has been in development for two and a half years, is now moving into the delivery phase. This is an exciting project because of the significant footfall at the site, the potential to

alleviate pressure on the drainage system which is a problem here and because this is a new concept for Tesco with potential for replication.

This project is being funded through additional monies secured by the ARC project and will be delivered in 2017.

Habitat and access enhancements at Pulborough Brooks nature reserve

A number of enhancements have been carried out at RSPB Pulborough Brooks as a result of the ARC project. Here are just a few highlights. To appreciate the reserve in all its wintery wonder, we recommend getting wrapped up warm and heading out to explore in person to fully appreciate this special wildlife haven with spectacular views of the Arun Valley.

Nature trails

One of the first visible improvements you will spot is the yellow gravel pathway leading from the visitor centre out onto the reserve. In the past there were stony paths with grass and plants growing in between making it difficult in wet conditions and also bumpy for wheelchair users. This was replaced with tarmac and covered with Cotswell gravel. This beds in well with the tarmac and is comfortable under foot and for smooth wheelchair riding and manoeuvring. It's a great

Fattengates Courtyard

At the bottom of the first slope of the trail, off to the right hand side, you enter into Fattengates Courtyard. Heritage Lottery funding paid for a brand new shelter to provide a focal point for our visitors to sit and enjoy wildlife (and shelter in bad weather). A new raised wildlife pond was also built here. Within days water boatmen had moved in. It will not take long for the pond to be populated with pond life for everyone to enjoy closer up.

This is a great spot to look for lizards and see some of the birds that frequent this area including goldcrests, firecrests, bullfinches and in the summer months – nightingales.



A compost toilet has also been installed and is available for use by visitors. It can be found on the trail next to the picnic area on the way to Nettley's Hide and Jupp's View. No more getting caught short when out on the trail!



West Mead pool



The pool in front of this hide is entirely rainfall and runoff dependent and as such it regularly dries up in the summer months. With ARC funding the area has been excavated to form a wetland area with three islands created from the excavated materials and which are already vegetated. A bund has been built up so that once this area is flooded it will maintain shallow and deeper water attracting waders such as lapwings. This will also mean that visitors to the

hide should benefit from better views of the wildlife that visits.

The trail in this part of the reserve had been subject to flooding which made the path impassable during very wet winter months. The trail has been re-routed and raised in places to enable access all year round. This project also included the planting of many trees including rowan, hawthorn, blackthorn, holly, crab apple and other fruit and berry bearing

trees alongside the trail. In years to come the area should attract a number of species like nightingales, blackcaps, whitethroats, redstarts and bullfinches.

New dipping platform and seasonal discovery trail

A new ditch dipping platform has been installed which will be open to the public next year. A kingfisher has already been sighted 'dipping' from the dead overhanging branch of an established tree.

From here visitors will also be able to access a circular wetland discovery trail which enables people to get closer to the ditches and their interesting wildlife, including dragonflies and damselflies.

When finished the walk will circle around a new 250 metre network of ditches.



Valuing the natural services of our rivers and wetlands

One of the most important aims of the ARC project was to involve people in their local environment, caring for it, and appreciating the value that it has. We call many of the benefits that nature provides (clean air, water, food, fuel) 'natural services' or 'ecosystem services'.

A great local example is the natural freshwater reservoir under the South Downs & Greensand. The permeable rock filters, cleans and stores water which supplies over a million people in Sussex with drinking water. Over the years, the application of nutrients and chemicals to the surface means that many of these aquifers have become polluted.

The demands for water are now so great that some of them are suffering from over abstraction which in turn has negative (drought) impacts on other areas of the environment.

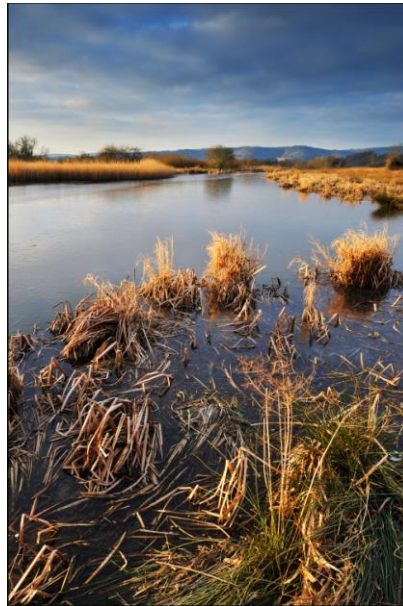


Image by www.photographersussex.com/

We wanted to show people how their local landscape supports them.

With this in mind an Ecoserv-GIS model was produced to document the natural services provided within the ARC project area including: access to nature, education, opportunities for green travel, carbon storage, climate regulation, air purification, noise regulation,

water purification and pollination.

Using Horsham as a case study, the modelling showed that the nature reserves around the town are providing multiple services such as regulation of air and noise pollution.

These are areas where we would suggest that more is done to articulate and protect the local value of these sites.

The hope is that this tool will enable planners and other stakeholders to take environmental services fully into account in their landscape and urban planning and identify where changes in land management could provide more of the required natural services, and to predict where they may be needed in the future.

The full report is available at www.arunwesternstreams.org.uk/re-sources.

Burton Mill Pond

The new wheelchair accessible platform has now been completed at Burton Mill Pond near Petworth.

This will allow users the opportunity to enjoy the wonderful views across the pond and watch the abundant local wildlife. It will also provide disabled anglers the opportunity to fish on the pond from a specially designed boat provided by the Wheelyboat Trust, via a ramp into the boat. There is now also a marked disabled bay in the car park opposite the platform for visitors to use.



New wheelchair accessible platform at Burton Mill Pond

Capturing memories of the Arun & Rother



Between 2014 and 2016 ARC volunteers interviewed 24 people from across the Arun Valley for our oral history project.

We set out to capture local people's memories and to further our understanding of how the landscape and rivers have changed over time. Landowners, conservationists, artists, retirees, local business owners and

community group leaders spoke about their childhood memories, the rivers, land management, community life and more.

In her interview CiCi Blumstein spoke about the local landscape:

"The Arun and Rother catchment area is so amazing, there are so many different habitats, beautiful scenery, history and just the sheer amount of people who are active working on conservation is just amazing – it's been a huge inspiration."

You can listen to excerpts of the interviews on the Arun and Western Streams catchment website:

<http://arunwesternstreams.org.uk/projects/arc>.

Full interviews will be available to the public at the West Sussex Records Centre in Chichester from January 2017, ensuring that these unique stories are captured for future generations.

Useful contacts:

The ARC team wishes to thank everyone for all your support over the past few years. It's been a pleasure working with you all! Here are some useful contacts for after ARC ends.

Arun Western Streams Catchment Partnership:

Gareth Williams, Environment Agency
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South Downs Invasives Taskforce:

Jeremy Burgess, South Downs National Park Authority
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