

[Press release: New information on rare River Severn fish population](#)

Monitoring work during the spring and summer of 2017 which used some of the latest technology, found that around 15,000 shad can make it above Upper Lode weir on the River Severn, near Tewkesbury before being halted by Diglis Weir in Worcester. These monitoring results are significant because they indicate the current levels of twaite shad in the river which once supported millions of this species.

Research part of a major project on the River Severn

The research was conducted by the Severn Rivers Trust, Environment Agency and Canal & River Trust as part of the multi-million pound Unlocking the Severn project, which is supported by the Heritage Lottery Fund and EU Life. The information gathered will be vital for the project which aims to restore the shad's access to 155 miles of the River Severn, north of Worcester, by providing fish passage solutions at a series of weirs that currently the fish cannot swim over or around.

Environment Agency Fisheries Monitoring Specialist, Charles Crundwell said:

We had no idea how many shad we'd find – we thought a few thousand, but in fact results suggest we could have as many as 15,000 in the lower reaches of the river. This shows great promise that by unlocking the river there's scope for a really thriving population.

Plus the work to help the shad will open up the river for all fish species, so helping the shad will help everything else for the benefit of wildlife, residents, tourists and anglers.

Using different techniques to monitor the twaite shad

In order to learn more about the remaining small population of shad, particularly the conditions they need to prosper, volunteers and staff from the Severn Rivers Trust, Environment Agency and Canal & River Trust spent many hours watching and counting twaite shad swimming over Upper Lode weir during April, May and June.

In addition, a suite of remote monitoring techniques enabled monitoring all day, every day. This included cameras, counter plates triggered when a shad passed upstream and even the use of an acoustic beam giving an image similar to the ultrasound you get of a baby in the womb.

As well as the count of the shad, the monitoring team and its contractors made the first known underwater film of shad on the Severn as they migrated

upstream and the first images of the shad's spectacular spawning behaviour, which is like a whirling dancing with rigorous splashing seen just before dark.

Acoustic tracking tags fixed to 25 shad (another first for the UK, under licence from the Home Office) showed how they migrate up the river, what habitats they use, and how barriers delay them. This is all crucial information in understanding how to create the best access routes for the fish.

An suite of underwater camera equipment was installed at the spawning sites to understand this behaviour.

The allis shad

In addition to the twaite shad, the monitoring also recorded the rarer allis shad.

Charles explained:

Historically the allis shad were even more prized as a food fish and would certainly have been an important component of the catch prior to the navigation weirs being built. This is the first photographic proof that a tiny run of these fish still hold on in the Severn, which is really exciting and means that the natural restoration of this species is also likely to occur if we are able to provide fish passage solutions at the weirs further up the river.

More information about the Unlocking the Severn project is available [online](#). You can also follow the project on [twitter](#).

[News story: Seven-year-old's invention brought to life by Dstl scientists](#)

A seven-year-old boy has had his dream submarine design made into reality by apprentices at the Defence Science and Technology Laboratory (Dstl).

Jacob Bland, from Suffolk, drew his water-propelled design and wrote to Dstl asking if they would like to make it and use it for "sneaking and spying".

With the drawing, Dstl's scientific apprentices worked up the design and printed out a 3-D model using their own 3-D printer. The work provided an excellent opportunity for the apprentices to take a concept design and produce an actual model, which contributes to their National Vocational

Qualification (NVQ) evidence.

Jacob's dad, Matthew Bland, said:

We are overwhelmed by the thought and effort put in by staff at Dstl. Jake was absolutely made up about the submarine, and it hasn't left his side yet.

He is already integrating your suggestions for improvements into a revision, and talking about his plans for a battleship to accompany the submarine. Thank you for everything you did for Jake; it's great encouragement for his imagination.

19 year-old Verity Jackson has been an engineering apprentice at Dstl for two years and supported by the Platform Systems team within Dstl, she was able to create the 3-D mini yellow submarine.

Apprentice Verity Jackson checks the final model of the sub

Verity said:

It was really great to be able to reproduce this for Jacob. It was a bit tricky and took quite a bit of work to get the model ready to print, but we are all thrilled with the outcome and equally thrilled we were able to bring Jacob's drawing to life. On the plus side, the mini project will help towards my qualification.

Damien Holden from Platform Systems, said:

It sounds like Jacob has really thought about his design. We will always need talented, creative people – perhaps Jacob will come to Dstl as an apprentice himself one day.

If you've been inspired by Jacob's design, and would like find out more about working at Dstl visit [Dstl's recruitment page](#)

[Press release: A556 'green bridge' is winter wonderland](#)

The £1.15 million bridge was one of 7 constructed across the new £192 million bypass which opened in March. Part farm access track and part wildlife

corridor, the bridge, west of Mere, has been provided to maintain connectivity between habitats separated by the new dual carriageway.

When the new bridge was used as the site of the official opening ceremony of the road in March, it had only just been planted with a mixture of hedging and plants.

Now, 11 months later, the extensive planting has given birth to a flourishing green border which is providing a safe passage across the road for badgers, voles and other small animals, insects and birds.

Aerial picture showing the Green Bridge before extensive planting

Aerial picture showing the Green Bridge after extensive planting

Highways England project manager Paul Hampson said:

The green bridge was the centre-piece of our work to ensure the new A556 was the most environmentally-friendly road Highways England has ever built. We are delighted the planting has really taken hold (and as the drone footage shows it is particularly impressive from the air). We are looking forward to watching the bridge bloom for many years to come.

Constructing the bridge cost about £890,000 with a further £273,000 on 'greening work' on the deck, which included planting trees, shrubs and grasses.

The old A556 has also been 'greened' and turned into a £5 million B road with dedicated route for pedestrians, cyclists and horse riders featuring a earth border planted with wild flowers to separate it from road traffic.

The project's green measures earned it a prestigious Green Apple Award for Environmental Best Practice last year.

Construction of the new A556 link road, between the M56 and the M6, started in November 2014 and opened in March with the old road – now the B5569 – handed over to Cheshire East Council in November. The scheme has been delivered as part of the Government's £15 billion government investment in motorways and major A roads by 2021 which is being delivered by Highways England as part of the Northern Powerhouse initiative.

General enquiries

Members of the public should contact the Highways England customer contact centre on 0300 123 5000.

Media enquiries

Journalists should contact the Highways England press office on 0844 693 1448 and use the menu to speak to the most appropriate press officer.

Press release: Secretary of State Bradley visits Belfast

Following a tour of the facility, during which she spoke to members of staff and students, the Secretary of State addressed the media.

Rt Hon Karen Bradley MP, Secretary of State for Northern Ireland:

I am absolutely delighted to be in Belfast and to be appointed to this important Cabinet post and I am really looking forward to getting down to work as quickly as possible. I want to work with all sections of the community here to help build a Northern Ireland that is fit for the future and that works for everyone.

During my visit to Belfast Metropolitan College, I have been struck by the wonderful education facilities that are available to students here. Throughout the United Kingdom, Northern Ireland is highly regarded for the excellent levels of education it provides, as well as the high calibre of its students – they can hold their heads high and compete with the best from around the world;

And of course I can't forget the marvellous tourism that this part of the world is so famous for – the Giant's Causeway, the Mourne Mountains and of course the No 1 visitor attraction in the world – Titanic Belfast. I know my family are already looking forward to getting to know this beautiful part of the United Kingdom.

Of course I have a very important job to do, and as I said yesterday my immediate challenge and key objective is to ensure that Northern Ireland has a devolved government in place in order to address the issues that affect everyone's lives, including health, education and the economy. I'm also conscious of the need to deliver a Brexit that works for Northern Ireland and to ensure everyone is safe and secure.

It is fitting my first visit should be to Titanic Quarter, which reflects both Belfast and Northern Ireland's past and its future. Once one of the world's leading industrial cities and now one of the world's largest urban-waterfront regeneration schemes.

And I understand the importance of dealing with the past and securing a safe and prosperous future. My aim is to work collaboratively to find solutions to these issues acceptable to everyone.

I have spoken to all the main party leaders. While there will be many challenges in the coming weeks – which all parties will need to rise to – I will do all that I can to ensure that we find a way to restore devolution to Northern Ireland.

[News story: Joint article: a deep and special partnership](#)

By Chancellor of the Exchequer, Philip Hammond and Secretary of State for Exiting the European Union, David Davis

Today (10 January 2018) we're both in Germany to highlight the important relationship that exists between our countries.

It's a relationship built on shared interests and shared values, that has helped both our nations prosper and grow.

And while the UK will leave the EU next year, we can still look to the future with a shared vision – one that sees Germany, Britain and the EU continue to thrive, and our relationship remain strong and close.

Trade between the UK and EU 27 is worth €750 billion a year – and a quarter of EU exports to Britain, worth €113 billion, come from Germany, more than any other EU country.

Of course we understand that Germany and other EU countries want to protect the integrity of the single market, and that without all the obligations of EU membership third countries cannot have all the benefits.

Those priorities are not inconsistent with ours – a deep and special partnership with our closest trading partners and allies.

Our commitment to Europe's security is unwavering, and we'll seek to agree new arrangements that allow us to keep the close UK-EU cooperation to tackle the shared threats we face.

Meanwhile, there are still important choices to be made about how we find the right balance in Britain's new relationship with the EU.

As two of Europe's biggest economies, it makes no sense to either Germany or Britain to put in place unnecessary barriers to trade in goods and services that would only damage businesses and economic growth on both sides of the Channel.

So as Brexit talks now turn to trade, the UK will look to negotiate a new economic partnership with the EU – the most ambitious in the world – that recognises the extraordinary levels of interconnectedness and cooperation that already exist between us.

When we leave the European Union, we will leave the Customs Union and Single Market, but in agreeing a new model of cooperation, we should not restrict ourselves to models and deals that already exist.

Instead we should use the imagination and ingenuity that our two countries and the EU have shown in the past, to craft a bespoke solution that builds on our deeply integrated, unique starting point to maximise economic cooperation, while minimising additional friction.

The economic partnership should cover the length and breadth of our economies including the service industries – and financial services.

Because the 2008 Global Financial Crisis proved how fundamental financial services are to the real economy, and how easily contagion can spread from one economy to another without global and regional safeguards in place.

That is why the UK has worked with our partners in the EU to ensure we led the world in making the regulation and supervision of finance safer.

In particular, we've sought to ensure that financial authorities across the world can cooperate in rule-setting and supervising systemically important global firms, to make sure such a catastrophe doesn't happen again.

That work shouldn't end because the UK is leaving the EU. On the contrary, we must re-double our collective effort to ensure that we do not put that hard-earned financial stability at risk, by getting a deal that supports collaboration within the European banking sector, rather than forcing it to fragment.

For such a close trade partnership in goods and services to succeed, we will need to maintain our common principles – including our shared belief in high standards – and continue the intelligent cooperation of our regulators.

Because the trust we place in each others regulators, in a whole range of areas, has been built up over many years of cooperation and there's no good reason why it should disappear after the UK leaves the EU.

We also propose to provide as much certainty to businesses throughout the EU as possible, through a time-limited implementation period after Britain leaves the EU.

During this period, we propose that access to one another's markets will continue in its current form, using the EU's existing rules, regulations and

agencies.

That way, UK and European businesses have time to prepare for a single set of changes – once we know what our future trading partnership will look like.

This implementation period is clearly in the mutual interests of the UK, Germany, and the EU – that is why the December EU Council signalled its support for rapid progress on this agreement, which we should deliver at the March council.

So this week, we both take the message to German business leaders that agreeing the details of this period with the Commission is a major priority for the UK Government.

Brexit will inevitably mean a shift in the way UK and European companies do business together.

But with the next set of negotiations just around the corner, a bold, positive and exciting new chapter in our history together awaits.

We will continue to work closely together, to make sure we put in place a new relationship that works best for the UK, for Germany and for Europe.