

Research and analysis: Assessment of sediment phosphorus capping to control nutrient concentrations in English lakes

This project investigated the effectiveness of a technique for stopping the release of phosphorus from lake sediments. If successful, this could accelerate the ecological recovery of lakes with excessive nutrients (eutrophication) and help to restore fish and wildlife populations.

The project has delivered detailed evidence on a method to control internal lake phosphorus loading to reverse eutrophication and has furthered our understanding of the factors likely to affect the success of sediment capping techniques.

The results of the study will be useful to staff in the Environment Agency and other bodies concerned with lake restoration projects across the UK.

Research and analysis: A DNA based metabarcoding approach to assess diatom communities in rivers

This project has established a novel, DNA based method to monitor and assess the make-up of diatom communities in rivers. This new approach will mean we can analyse a lot more samples more quickly.

We collect data on animal and plant life in the river to help us to understand, assess and manage the health of the environment. Diatoms, with around 2800 UK freshwater species recorded, are a type of microscopic algae used alongside other organisms to assess the ecological status of a river.

This project is part of a wider programme of research by the Environment Agency and other UK agencies to explore and develop DNA based methods for ecological assessment. This work will help us to approach the development of DNA based methods for other organism groups and water body types. Examples of other work include assessing the feasibility of using DNA based methods for fish in lakes, macroinvertebrates in rivers and lakes, and for the monitoring and surveillance of non-native invasive species.

Research and analysis: Validation of landfill methane measurements from an unmanned aerial system

Landfill gas is made up of roughly equal amounts of methane and carbon dioxide. Modern UK landfills capture and use much of the methane gas as a fuel. But some methane escapes and is emitted to the atmosphere. Methane is an important greenhouse gas and controls on methane emissions are a part of international and national strategies to limit climate change. Better estimates of methane emissions from landfills and other similar sources would allow the UK to improve the quantification and control of greenhouse gas emissions.

This project tested the accuracy of methane measurement using an unmanned aerial system (UAS). We released known amounts of methane and measured these emissions using an UAS. The UAS experiments successfully measured the methane releases. The measured methane emission, taking into account the uncertainty in the measurements, always overlapped with the controlled methane emission release.

Press release: Foreign Secretary in Hungary to celebrate bilateral ties

The Foreign Secretary will meet Mr Szijjártó to discuss the close relationship between the UK and Hungary and shared foreign policy challenge.

On arrival, the Foreign Secretary Boris Johnson said:

The UK and Hungary are close allies and friends. As we leave the EU, we will increase our trade, work even more closely together on European security, and increase links between our two peoples.

Foreign Minister Szijjártó and I will discuss how we can strengthen our existing friendship as we leave the European Union, and the many shared interests in our strong and modern alliance.

All the latest news is available on the Foreign Office page of the gov.uk website at www.gov.uk/fco.

[Press release: PM welcomes guests to No 10 to celebrate St David's Day](#)

Theresa May and Secretary of State for Wales Alun Cairns welcomed people from all parts of the UK including figures from Welsh business, politics, sport, charities and the media.

Guests included Welsh Red Arrows Pilot Flight Lieutenant Mike Bowden; Welsh TV personality Matt Johnson; former Welsh rugby international Richard Parks; Baroness Tanni Grey-Thompson; and London marathon runner Matthew Rees, who was made famous last year when he helped a struggling runner get across the finish line.

A number of Welsh companies attended to showcase their produce, including Penderyn Distillery, who produce award-winning single malt whiskies and spirits in Brecon Beacons, South Wales; Cwm Farm Charcuterie, who were awarded first place at the Great British Farm Produce Awards and a gold star from the Great Taste Awards for their laverbread sausage; and Ridiculously Rich By Alana – a company created by winner of BBC One's The Apprentice, Alana, who started to sell her luxury chocolate to friends and family before attracting the interest of shops in Aberystwyth.

The Culinary Association of Wales also served up a selection of Welsh canapés, and a Welsh choir from Côr y Boro and harpist Rhys Wardhaugh played traditional Welsh tunes.

Prime Minister Theresa May said:

It is always a privilege to celebrate Wales' national day alongside Welsh people from every walk of life and every part of the country.

Many of the companies who were represented here today are exporting across Europe and around the globe – showing just how much Wales has to offer at home and to the world.

From sport, business, to entertainment and music, the Welsh make their indelible mark in every possible sphere of society. Thank you to everyone who came here today, despite the bad weather, to celebrate the very best of Welsh life and for Wales making the UK the country it is. The nations of the UK each have their own unique characters, cultures and needs – but when we come together as one, we are all the better for it.

Secretary of State for Wales Alun Cairns said:

Today was an extremely important day for the whole of Wales. Despite the snow, it was wonderful to see so many people from all walks of Welsh life coming together to celebrate, underline and show our respect to our Welsh language, history and culture.

I'd like to thank the Prime Minister for the special emphasis and respect she shows to all four nations of our precious Union, as well as all the guests who made it to Number 10 even with the adverse conditions today.

Alana Spencer, of Ridiculously Rich by Alana, said:

It was a real honour to come to Downing Street today, and the day was made even more special by the fact that it is to celebrate Welsh food on St David's day. I feel proud to be a food producer based in Wales and it's lovely to be recognised alongside other incredible food producers from Wales.

Stephen Davies, of Penderyn Distillery, said:

We were thrilled to showcase Penderyn Single Malt at Downing Street on St David's Day, which is the anniversary of the launch of our Penderyn brand back in 2004. As we are currently targeting a range of new export markets, events like this help give focus to our business and brand in the eyes of our export partners.

Ruth Davies, of Cwm Farm Charcuterie, said:

It was an absolute honour and privilege to be here today and to meet the Prime Minister, and I met some wonderful people who tried our produce. To be given this opportunity as a small producer was just what we needed!