

Geography

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BE PREPARED

Youngsters get lessons
in preparing for extreme
weather

BEACON OF HOPE

Report from the Agents of
Development Conference

FIELDWORK

Team-building in the
Lake District

Edition: Semester Two 2018



All smiles: University of Worcester First Year undergraduates enjoying the breathtaking scenes of the Lake District

WELCOME to GN Semester Two Edition.

This issue provides an informative spread of news, events, and research activities involving students and staff of the Geography Department.

GN (Geography Newsletter) Semester Two includes features on cutting-edge research involving a 3D solar-powered weather mast, a preview of Dr David Storey's latest publications, collaborations to help local primary schools prepare for floods, jobs' success for geography students, undergraduate team-building field trip to the Lake District, Images of Research competition winners and reflections on the Agents of Development conference.

This is just a summary of some of our events and activities, but you can follow us on Twitter for daily geography news developments.

 @GeographyUoW

We welcome contributions to the next issue of GN, which will be published in November during the first semester of the 2018/19 academic year.

You can get in touch by contacting Dr. Cheryl Jones, Head of Geography, by phone: 01905 85 5425 or email: c.jones@worc.ac.uk or Dr Ernest Taylor by email: ernest.taylor@worc.ac.uk

To the rescue: Fire fighters from Hereford and Worcester Fire and Rescue Service sharing flood preparation advice with local primary school pupils on the banks of the River Severn.



SCHOOLS/ YOUNGSTERS GET LESSONS IN PREPARING FOR FLOODING AND EXTREME WEATHER

Academics and fire fighters have joined forces to help school children in Worcester prepare for flooding and extreme weather.

It is hoped the Flooding and Extreme Weather Education Project will help to enhance the resilience of children and young people to the UK's most serious 'natural' hazard, says Dr Cheryl Jones, Head of Geography and Archaeology and Principal Lecturer in the School of Science and Environment.

The project is a collaboration between Lancaster University, the University of Worcester and the Hereford and Worcester Fire and Rescue Service.

The University of Worcester will examine both the human and natural causes of flooding along the River Severn, while Hereford and Worcester Fire and Rescue Service will draw on their real world experiences to offer insights into the dangers of floodwaters.

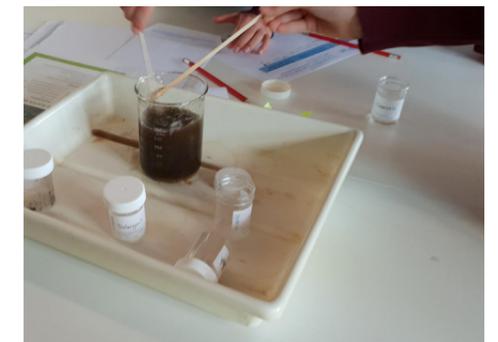
This will involve fire fighters staging river rescue demonstrations and other displays using equipment and protective clothing deployed when responding to real flooding events.

Dr Jones says the project was a direct response to a call by children who experienced severe flooding at home, school and in their communities.

"The initiative recognises the role of children as education advocates in terms of flood preparedness, response and recovery," explains Dr Jones.

"All the parties involved share a deep commitment to building resilience, flood preparedness and reducing risks. We hope the activities will develop an understanding of flood awareness, risks and community preparedness among children and young people," adds Dr Jones.

Activities organised by the project are aimed at Key Stage 2 primary school children and, to date, has benefited more than 150 youngsters across Worcestershire.



BOOKS/

EXPLORING FOOTBALLERS' ALLEGIANCE AND NEW FORMS OF TERRITORIAL IDENTITY



Dr David Storey

Football and territory – two subjects guaranteed to stir debate will be scrutinised in new publications by a University of Worcester academic.

In *Transferring Allegiance: Football, Place and National Identity*, Dr David Storey, a Principal

Lecturer in Geography in the School of Science and Environment, will explore the intricate connections between football, place and politics.

His focus is on the phenomenon of footballers that switch national allegiance from where they were born to where they live or the place their family originates.

“The declaration of a sporting nationality that may differ from an ‘official’ one, casts light on ideas of cultural hybridity and highlights the need to see identities as fluid and flexible,” says Dr Storey.

A second publication, *A Research Agenda for Territory*, is an edited volume and will draw on Dr Storey’s research in Moldova’s breakaway Transnistria region and Bosnia’s Republika Srpska.

The book also builds on Dr Storey’s earlier work including his recent paper, ‘States, territory and sovereignty’, which was published in *Geography*.

The paper explores geographical dimensions of states in particular territories, borders, sovereignty and identity, all of which have assumed critical significance since the UK’s Brexit vote.

It was nominated for the Geographical Association’s Excellence in Leading Geography award for journal articles judged to have made the greatest contribution to the development of good practice in geography teaching.

Dr Storey says his book interrogates how ideas of territory and territorial practices are intimately bound up with issues of power and control.

“My aim (together with other contributors) is to provide a critical assessment of key areas of scholarship on territory with a view to mapping out a future research agenda,” explains Dr Storey.

A Research Agenda for Territory, an edited volume, will be published by Edward Elgar.

Transferring Allegiance: Football, Place and National Identity, is to be published by Rowman & Littlefield. Both books are scheduled for publication in 2019.



Crowds gather to mark the founding of the City of Tiraspol, capital of Transnistria, the self-proclaimed Pridnestrovian Moldavian Republic



In good voice: Locals celebrating the Tiraspol anniversary

BEACON OF HOPE

Agents of Development Conference

Individual contribution is critically important in helping to deliver goals like sustainable development, a conference at the University of Worcester has heard.

Delegates at the ‘Agents of Development’ event at the university’s Riverside Building were told that personal input could trigger mechanisms of change to bolster development.

“It is critically important not to lose sight of the individual roles that all development stakeholders can play – from the top-level of policy-making to grassroots activism – in influencing and delivering goals such as sustainable development,” said Dr Alan Dixon, a Principal Lecturer in Geography in the University of Worcester’s School of Science and Environment.

He said one of the aims of the conference was to step back from addressing some of the bigger contemporary themes in development and take a more personal focus on what it means for the different actors engaged in the process.

“We were particularly keen to explore the relationship between individual experiences of ‘doing development’ (whether in a professional, voluntary, field practitioner or education-based capacity) and how this shapes our individual perceptions and guides our agency of what should be done, where and with whom,” added Dr Dixon.

A further objective of the event, jointly organised by the School of Science and Environment and locally based Beacons Development Education Centre, was to enhance student learning through linking scholarship to real world issues and public engagement opportunities.

Delegates heard of the sense of achievement of doing development, especially concerning the appreciation showed by locals in receiving outside assistance to improve their communities.

Many speakers told how they helped towards the building of new schools for local children, erected community water tanks and provided provisions for children to attend school and for health care.

Elena Lengthorn is a Senior Lecturer in Teacher Education at the University of Worcester and Education Volunteer and Secretary of Beacons Development Education Centre.

She said the annual event gives people in Worcester the chance to broaden their knowledge and perspectives of development.

“This year, our wonderful speakers were able to share their personal experiences in the field of development and the impressive changes that they have seen and been part of,” said Elena.

“It served as an earnest reminder that our individual actions really can affect change,” she added.

However, guest speaker, Paul Jackson, Professor of African Politics and Director of Birmingham University’s International Development Department, said while Europeans often made important humanitarian contributions to places such as Africa, they were also culpable in conflicts, which led to the under-development of communities across the continent.

He added that the international community was never entirely neutral and that, from his experience, there was no such thing as best practice in development.



Conference speakers included:

- Rosemary Thorpe, former University of Oxford lecturer in the Economics of Latin America and chairperson of Oxfam GB. She is the current vice president of the Peru Support Group, a human rights solidarity organisation.
- Paul Jackson, Professor of African Politics and Director of the University of Birmingham’s International Development Department, whose conflict and post-conflict reconstruction experience includes the civil wars in Sierra Leone and Uganda.
- Hannah Brayne, a PGCE student at the University of Worcester, who has studied development and believes students need to think outside their own ‘bubble’, increase their cognisance of global issues, work towards becoming global citizens and be prepared to challenge injustices.
- Sarah Fell, a PGCE student at the University of Worcester, has studied development geography and sustainable development at undergraduate level and has worked in the subject areas nationally and internationally.
- Katie Amey, a PGCE student at the University of Worcester, has a background in conservation ecology and now works on incorporating the

sustainable development goals into the school curriculum.

- John Walton, a former Worcester school teacher, is Deputy Chairman of the Himalayan Trust UK with responsibility for running its education programme in 30 schools in remote parts of Nepal.
- Dr David Webster, who was born in Kenya and after studying medicine in the UK, returned to East African as a medical officer. He current lives in the UK and is a supporter of Friends of Marsabit, the Kenyan community where he grew up.
- Albert Mvula, a PhD candidate in the University of Worcester’s School of Science and Environment, is from the remote Mzimba district, northern Malawi and was a coordinator of the Functional Landscape Approach project in the rural Nkhata-Bay district in the country.

PHOTOS 1. Katie Amey (PGCE student) 2. Hannah Brayne (PGCE student) 3. Sarah Fell (PGCE student)

4. From L to R: Professor Paul Jackson, Katie Amey, Sarah Fell, Hannah Brayne

5. Dr Alan Dixon and Dr David Webster

6. From L to R: Dr David Webster, John Walton, Albert Mvula, Hannah Brayne, Katie Amey, Sarah Fell, Professor Paul Jackson, Rosemary Thorpe

RESEARCH/ MASTERING WEATHER CONDITIONS

Research students are hoping to gain deeper insights into atmospheric weather conditions – thanks to state-of-the-art instruments.

It is expected that a new mobile solar-powered meteorological mast will provide information on air pressure, temperature, wind speed, wind direction, humidity, solar radiation, rain, soil temperature, soil humidity and leaf wetness.

A key feature of the mast is advanced 3D-wind speed/direction measuring components, which are located at its apex and uses sound waves instead of traditional wind vane.

The instruments allow students to detect atmospheric turbulence, which is an important process for moving material to/from the surface at 10Hz (ten readings per second).

Professor Carsten Skjoth supervises PhD students, leads development of the meteorological curriculum for geography undergraduates and is the principal investigator on the research projects using data produced by the mast. He said the meteorological mast is fully automatic and mobile and can, therefore, be placed anywhere in relation to field studies in atmospheric science or physical geography.



L to R: Carl Frisk, PhD student, Godfrey Apangu, PhD student, Professor Carsten Skjoth, Geoff Petch, atmospheric science technician

“This is part of the increased activities in atmospheric science, which includes undergraduate and postgraduate teaching and research,” said Professor Skjoth.

“Besides atmospheric science itself, the use of data from these instruments strongly supports the students in developing the most wanted skills within the sector,” he added.

There are currently two doctoral candidates and two undergraduates using information produced by the mast in their independent investigations.

They include PhD student Carl Frisk, whose atmospheric science

project, PollerGEN, is funded by the National Environmental Research Council and focuses on grass pollen, and Godfrey Apangu, a PhD student, whose atmospheric science project SUPREME, is funded by the European Commission.

Professor Skjoth said: “Recently, we provided the first results with the new satellite Sentinel-2, which we are also using to provide unique and high resolution tree maps: <http://eprints.worc.ac.uk/6181/>. “And, we have repeatedly used the atmospheric model HYSPLIT to analyse atmospheric transport of airborne invasive species: <http://eprints.worc.ac.uk/5224/>,” he added.

RESEARCH/ AWARD-WINNING ‘IMAGES OF RESEARCH’

Post-graduate student Emma Dabbs and Senior Lecturer Dr Alan Dixon have proved that a picture is worth a thousand words.

Emma’s ‘River Channel Evolution’ depiction came second in the Public Choice Award category of the University of Worcester’s Images of Research competition, while Dr Dixon’s ‘As we told you last time’ portrayal was voted third.

Both images were deemed ‘visually appealing’, ‘creative’ and ‘unique’ in capturing and communicating the researchers’ work.

Emma’s image is based on her MRes in River Science studies, which entail use of unmanned aerial vehicles (UAV) to take pictures.

The photographs are then used to create computer-based 3D models to assess floodplain storage capacity and rapid river channel change.

“UAV imagery allows me to map and monitor these processes from bespoke flights,” explains Emma.

“The result is ultra-high resolution continuous data over a whole reach, rather than traditional time-consuming point measurements with erosion pins or cross-section surveys in a small number of places,” she adds.

Dr Dixon’s image captures interaction with Ethiopian farmers, who he had worked with during his PhD studies in 1997.

“I was keen to understand how their situation had changed over the last 20 years,” explains Dr Dixon.

“However, it seems not a great deal has - crop yields continue to decline, the climate is even more unpredictable and the government continues to provide little support.

“More encouragingly, our research on sustainable wetland management was widely acknowledged as playing a key role in raising awareness of the important contribution wetlands make to people’s livelihoods and environmental security throughout the region,” he adds.

The Images of Research competition aims to showcase and celebrate contemporary research by bringing it to the public sphere.



Emma Dabbs (MRes in River Science postgraduate student) Public Choice Award (2nd) “River Channel Evolution”



Alan Dixon’s Public Choice Award (3rd) “As we told you last time”

FIELDWORK/STUDENTS BEGIN UNIVERSITY LIFE WITH TEAM-BUILDING EXERCISE IN THE LAKE DISTRICT

Team-building and reflection in the idyllic Lake District gave first year geography students a taste of academic life at the University of Worcester.

Over three days, students engaged in a range of geographical exercises aimed at fostering closer working relationships and social bonding.

Activities included map reading and compass navigation, whereby groups of students negotiated their way to specific landmarks in the UK's most popular national park.

Students also investigated tourism development trends in Coniston and observed the regeneration of Barrow-in-Furness Docklands and the protection of high-value nature sites, glacial landscapes and river landforms and management.

Students were able to choose topics which reflected their broad interests in human or physical geography.

Fieldtrip organiser Dr Tory Milner, Senior Lecturer in Physical Geography, said the residential trip was partly about meeting people and team-building.

“Group work and reflection are two of the most important facets of academic life and the Lake District, with its idyllic backdrop, is a great setting for new students to bond and contemplate at the beginning of their university journey,” said Dr Milner.

“We are now looking forward to our next trip to the Lakes. In the meantime, we have residential fieldwork in Provence, the European Alps, Malawi and the Cairngorms National Park,” she added.



In the field: First Year geography undergraduates in the idyllic Lake District



Lost: First Year geography undergraduates brushing up on their map reading skills in the Lake District

Streaming: River science exploration gets university support



AWARDS/ BOOST FOR RIVER SCIENCE RESEARCH STUDENTS

Prospective river science research students have received a boost from the University of Worcester.

One student will benefit from a three-year fully funded PhD studentship, while another will receive a vacation research assistant (VRA) award.

Dr Tory Milner, a Senior Lecturer in Physical Geography in the School of Science and Environment, is the lead supervisor for both awards.

She said the VRA will provide an undergraduate with the opportunity of gaining experience of working on a research project for four weeks over the summer vacation.

Both awards focus on how climatic drying impacts macroinvertebrate diversity in aquatic ecosystems.

The VRA project will examine how macroinvertebrate diversity responds to flow recession in headwater streams in the River Monnow catchment in Herefordshire.

The PhD, which runs from October, will investigate the effects of how drying in rivers and ponds impact aquatic macroinvertebrate diversity and the consequence of freshwater biodiversity conservation.

Dr Milner said globally rivers were experiencing loss of surface water due to climate change and increased water abstraction.

“These predicted flow reductions might cause previously perennial rivers and ponds to experience drying,” says Dr Milner.

She believes information regarding the diversity and functioning of rivers is important to the long-term conservation and management of freshwater biodiversity and hopes the two projects will help towards the sustainability of river systems and ponds in a changing climate.

Each year, the university’s research school awards approximately 15 student VRAs and a small number of fully funded PhD studentships through open competition.



Climate change: Cause of dry river beds will be investigated as part of research

INTERNSHIP/ SUN SHINES FOR THIRD YEAR GEOGRAPHY STUDENT

Gurpreet Grewall is excited after landing a prestigious internship in one of the most breathtaking destinations in the world.

The third year BSc Physical Geography student has been selected for the 2018 GeoTenerife Summer Programme as part of a team conducting a soil geochemistry survey at Cumbre Vieja volcano in La Palma, Canary Islands from July 27 to August 24.



Gurpreet Grewall

“This is a great opportunity for me, not only to expand my knowledge, but also to apply skills that I have,” says a jubilant Gurpreet. “Alongside this, I am able to visit a beautiful island and study something I am passionate about,” she adds.

Gurpreet’s role is being overseen by the Canarian Volcanology Institute and involves both field and laboratory duties.

These include soil CO₂ efflux measurements, collecting soil gas samples for chemical and isotopic analysis, applying statistical-graphical analysis on the diffuse CO₂ degassing survey data, performing chemical analysis of the collected soil gas samples by means of micro-chromatography and quadrupole mass spectrometry and collecting and preparing soil samples for volatile analysis.

“I am delighted for Gurpreet,” says Dr Cheryl Jones, Principal Lecturer and Head of Geography and Archaeology in the University of Worcester’ School of Science and the Environment

“It is a really competitive process. They only recruit around ten interns across Europe and North America so Gurpreet has done exceptionally well to have secured a place on such an exciting programme,” adds Dr Jones.

As part of the programme, Gurpreet will be able to contribute to a paper, which will be presented at the 2019 conferences of either the European Geosciences Union or the American Geophysical Union.

Moreover, Gurpreet is expected to take part in welcome and graduation activities and lectures, with other interns, in Tenerife before transferring to her base in La Palma.

JOBS/ WATER WAY TO GO



Abbie Rollason and Bradley Baker

Geography students Abbie Rollason and Bradley Baker are making a splash in the world of work.

The third year BSc physical geographers have secured graduate posts with Severn Trent Water.

While Abbie has begun work as a telemetry technician, Bradley has started in his role as a water assurance technician.

“This is great news for Abbie and Bradley,” says a delighted Dr Cheryl Jones, Head of Geography and Archaeology and Principal Lecturer in the School of Science and Environment.

“Both students are hardworking and have shown dedication to their studies throughout their time with us.

“They will be great assets to Severn Trent and we wish them the best of luck in their future careers,” adds Dr Jones.

LOVATT LECTURE/ WILDLIFE CONSERVATION

Dr Jamie Lorimer, of the University of Oxford, has been praised for his engaging talk at last year’s annual Lovatt Lecture.

Event organiser, Dr David Storey, a Principal Lecturer in Geography in the School of Science and Environment, said: “Jamie delivered an informative, enjoyable and engaging talk on wildlife conservation in the Anthropocene.”

RESEARCH SEMINARS/ SPIRITS, HYDROGELS, SHARKS AND RIVERS

The authoritative SSE Research Seminar Series produced a scholarly mix of internal and external staff and postgraduate speakers throughout the year.

They included:

Dr Claire Martin, Senior Lecturer in Biomedical Sciences, who discussed the use of biosynthetic hydrogels for improved wound management.

Dr Ernest Taylor, Lecturer in Geography, who drew on his PhD research in his talk about performing spirituality in the development of rural community tourism in Jamaica.

Dr Nigel Hardiman, of Coventry University, who discussed interactions between sharks and tourists in Australia.

Rebecca Collins, who explored aspects of her on-going PhD research on the use of high-resolution data in river science.

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