Welcome to our Spring 2017 newsletter. The cover photo was taken last October on a visit to Prawle Point in south Devon, where our students surveyed raised beaches as part of their Sea Level Change option module. We hope you enjoy reading about some of the recent activities and successes in the Geography Department at Plymouth University. Highlights include an account of fieldwork in Tanzania from one of our PhD students who is contributing to an international project to help tackle soil erosion; preparations for student fieldtrips to the USA, Iceland and Portugal and details of a varied programme of research seminars from leading Geographers across the UK.

Dr Nichola Harmer
Royal Geographical Society accreditation for all Plymouth Geography programmes

Plymouth University Geography programmes have gained accreditation from a new scheme run by the Royal Geographical Society with the Institute of British Geographers. This includes accreditation for our four full-time programmes: BSc (Hons) Geography, BA (Hons) Geography, BA (Hons) Geography with International Relations and BSc (Hons) Geography with Ocean Science.

Accreditation provides assurance that a geography department’s teaching is of the highest quality, as recognised by an independent review panel of academics and others using geography in their careers.

In the past five years, research by the Higher Education Careers Services Unit has shown that six months after graduation geography graduates have reported consistently higher rates of employment than the average for all subjects. The knowledge and skills students gain during a geography degree are highly valued by employers and the accreditation process helps ensure that Geography degrees deliver relevant skills and knowledge including practical experience of fieldwork, the use of different methods and approaches, the capacity for independent study and research, depth of knowledge in a Geography sub-discipline and the ability to communicate to a range of audiences. Also important are a further range of academic and transferable skills, such finding and interpreting information, the use of information technologies and the development of personal attributes.

Rural dementia research in the media

Research by Plymouth Geographers Dr Claire Kelly and Dr Richard Yarwood on the impacts of dementia on the farming community has been in the media spotlight recently including spots on the BBC One programmes Countryfile, Spotlight and BBC Breakfast, and on Radio 4’s Farming Today programme.

The research, which has focused on the impacts on rural communities in Devon, was funded by the Seale Hayne Educational Trust. It has involved listening to farmers and their families about their experiences of dementia and how it impacts on their business and home lives. Based on these discussions and a review of relevant literature, the project has made the following recommendations:

1) Where possible farmers should plan ahead for the eventuality of ill health (including dementia) or retirement. This should include Lasting Power of Attorney, handing over the farm and so on.

2) There is a need for joined up thinking between agencies and rural communities. Examples include dementia friendly parishes.

3) There is a need for all agencies working with farmers to undergo dementia training. Agencies working with farmers can become dementia friends.

4) Lessons can be learnt from initiatives to combat farming stress. The main concern is for farmers and their families to recognise issues and seek support.
Eden setting for GeogSoc Winter Ball

A hundred guests attended the GeogSoc Winter Ball in December, which this year was held at the Eden Project in Cornwall.

The event was hosted in the Gallery Room overlooking the biomes, which were illuminated at night, and guests enjoyed a three-course meal, a performance by a magician, and a DJ as well as receiving complementary return passes to the Eden Project throughout December and January.

The Winter Ball was organised by a committee of ten students (pictured opposite).

Rame Head ramble

Another recent GeogSoc event was a hike around Rame Head, on the Rame Peninsula in Cornwall.

Making use of Plymouth's marine public transport links the students took the passenger ferry from Admiral's Hard in Plymouth across The Sound to Cawsand.

Left, the passenger ferry from Plymouth and below, Cawsand - once renowned as a smuggling village and base for the walk.
Research aims to help understand and tackle soil erosion in East Africa

Plymouth Geography PhD student and research assistant Maarten Wynants writes about his field work at Lake Manyara, Tanzania, helping explore the challenges of soil erosion.

‘Ujasiri’
Swahili word meaning: 'the capacity to recover from difficulties, resilience'.

"There is a Swahili saying that the African sun is like a furnace which either melts or forgives you. Driving around the Tanzanian savannah plains you are constantly reminded of the harshness of this landscape. Masai pastoralists roam the vast rangelands in what seems like a never-ending journey, following the rains and having to compete for diminishing grazing lands shared with increasing numbers of people. On top of that, they share their environment with the biggest land mammals on earth and deadly predators who are easily tempted by an easy meal such as goat or cow.

The increasing cattle stock imposes such an intense grazing pressure on the land that almost all vegetation has disappeared.

In the wetter upland areas, the vast majority of the people are dependent on agriculture for their livelihoods. Increasing population pressures and lack of alternative livelihoods beside agriculture or capital to invest for intensification of the farms, has caused a scramble for land, where every new farmer is looking for their own plot to sustain their family. But even in such an enormous country as Tanzania, suitable land for agriculture is a finite resource. Consequently, farmers are forced to convert natural vegetation to farmland or farm on areas unsuitable for agriculture such as steep slopes. As a result of these increased pressures, the vulnerability to soil erosion increases, leading to a negative spiral of systematic land degradation.

Besides the direct detrimental effects of soil erosion and land degradation on the productivity of the land, the eroded soil has also led towards siltation and eutrophication of river channels and lakes, threatening the water quantity and quality. It is clear that both the on-site as well as off-site effects of soil erosion and land degradation impose serious threats for ecosystem service provision, food security, biodiversity conservation and ultimately the sustainable development of the region.

The fieldwork is part of an interdisciplinary project based in Geography at Plymouth and led by Professor Will Blake titled: ‘Socio-ecological resilience to soil erosion driven by land use change..."
and extreme events: Past, present and future challenges in East Africa.’ The aim is to develop a combined natural and social science approach to mitigate soil erosion in the East African Rift System. We will accomplish this following four steps. Firstly, the natural scientists will create a timeline of soil erosion responses to anthropogenic land-use change and climatic events (e.g. El Niño) over the past 150 years. Secondly, the social scientists will identify the economic, structural and socio-political factors that affect the resilience of farming and pastoralist communities. Thirdly, we will integrate the natural and social science evidence bases to develop a conceptual model of the resilience of the socio-ecological catchment system and its resilience under different land management scenarios. Lastly, we will evaluate the effectiveness of the model as a tool to engage stakeholders.

My mission was to accomplish the first step of the project and to sample swamp/floodplain stratigraphic records in order to find changes in soil erosion intensity and sources. The biggest challenge was to identify good sample sites and find a way to get there. Using GIS analysis and Google Earth we identified floodplains and ‘roads’ leading to the sites, after which we headed out in a rented 4x4 vehicle. Due to sticky clay, small dirt roads, river crossings, thorny plants and flat tyres, this proved the most time consuming step, but in the end we always got to our destination. In Lake Manyara National Park we got stuck so deep in the mud we had to walk out to a picnic area and call the park officials to rescue us. We climbed on top of a small building to be safe from the buffaloes and lions, mosquitoes and tsetse flies, whilst we waited in the dark for the rescue car. The next day it took us a couple of hours, but eventually we managed to free the car and continue our field work. Once on site, we dug holes and inserted monoliths to sample floodplain deposit to the depth of one metre.

In the end, doing field work in Tanzania is just like our project – it’s all about resilience, or ‘Ujasiri’ in Swahili - the ability to overcome difficulties.”

Workshop on protecting human rights in Central America

Dr Martin Mowforth, part-time lecturer in Geography at Plymouth University, recently organised a workshop at the 2016 Latin America Conference in London on ‘Defending Territory and Resisting Megaprojects – Threats to Human Rights Defenders’. The workshop was run jointly with Adam Lunn of Peace Brigades International (PBI) and Doug Specht of the University of Westminster.

The purpose of the workshop was to shed light on the current dangers faced by defenders of human rights, land rights and environmental rights in Central America, and to explore ways in which people in the UK can help to provide defence mechanisms for those who defend the fundamental freedom and dignity of thousands of individuals and communities around the world.

The background included the June 2016 release of the Global Witness report ‘On Dangerous Ground’ which detailed the globally increasing number of rights defenders who pay with their lives for their work.

Martin intends to develop this work in his Central America based research with a view to publishing relevant information on the website that accompanies his latest book ‘The Violence of Development’. The website is at: http://theviolenceofdevelopment.com
Geography graduate Ellen Clancy describes her career journey from Plymouth University to employment with Associated British Ports.

I was born in Hong Kong and then brought up most of my life in Cheltenham, Gloucestershire. I moved to Plymouth to study BSc (Hons) Geography and achieved a 2:1, focusing almost entirely on physical geography modules with a particular interest in cold environments and processes. My dissertation looked at Dartmoor’s past climate and whether it was a periglacial or glacial environment through investigation of the relict stone stripes on the tors.

At school, Geography was always one of my favourite subjects and I wanted to study a subject at university which would give me the chance to be exposed to a wide range of topics. Geography offered me the chance to learn in a variety of ways including lab work, fieldtrips, group work and traditional lectures, which a lot of subjects just cannot offer.

The best part about my degree were the fieldtrips. In particular, in my final year, I had the opportunity to go to Iceland where I was able to learn practical fieldwork skills and see incredible natural landscapes such as the Jökulsárlón glacial lake and I even got the chance to walk on a glacier!

The September after I graduated, I started working for Associated British Ports (ABP) as a Management Trainee on their graduate scheme. During my time on the scheme I had the opportunity to visit a number of different ports such as Ipswich, Hull, Grimsby, Teignmouth and Plymouth and to see the wide variety of operations and cargo that is handled in our UK ports. The graduate scheme gave me the opportunity to experience many port activities such as fork lift driving, driving a CSU (continuous ship unloader) and helming harbour launch boats as well as climbing up the side of a ship with a pilot to navigate the vessel into Southampton.

I am now working in the Port of Southampton as an Assistant Operations and Security Manager for Associated British Ports. I work with port users to ensure cargo handling operations are run efficiently and safely. My main work activities include compound management for cargo being loaded and discharged from vessels (in particular import and export cars and high and heavy cargo) and I am also the operational lead for bulk cargo operations. In addition I work as a duty terminal manager for cruise ship calls into the port where I am responsible for security and the operation of the terminal for a given cruise call.

My degree was very helpful in getting my job at ABP as it allowed me firstly to get a place on their graduate management scheme and I have been able to use my skills as a geographer to progress into a permanent management position in the port. Some of the most useful skills I learnt for my career were teamwork and communication, since as an operations manager, I am continually working with third parties around the port and other internal departments and without these skills very little would get done!

When I was in my final year I had no idea what I wanted to do; all I knew was I wanted to do something in the marine/shipping industry but wasn’t sure exactly what. Then, after lots of research, I found the ABP graduate scheme. I just knew it was the right career choice for me and luckily I was selected for the scheme. At the moment I hope to stay in the port operations/cargo handling industry and in the future I hope to work in some of ABP’s other 21 ports around the UK.

I would absolutely recommend a geography degree to other potential students! I had the best three years studying geography at Plymouth. The staff were so knowledgeable and supportive and lectures for me were always interesting. They ran excellent fieldtrips as well which were the best part of the degree for me! The skills you learn from a geography degree are applicable to so many careers - so it can set you up for a great career.
High profile speakers enrich Plymouth Geography undergraduate programmes

Students on our Transport, Travel and Mobilities and Spatial Planning modules have benefited over the last year from hearing about the experiences and insights of a range of high profile visiting speakers.

Our first visitor was Mark Hopwood, Managing Director of Great Western Railway and the recipient of an honorary doctorate from Plymouth University. Mark spoke about the challenges of running the billion-pound turnover business and of the importance of understanding the varied geography of the south west region in making a success of the rail service.

Next was Lord Matthew Taylor of Goss Moor. Matthew was MP for Truro and St Austell for 23 years before accepting a peerage. He spoke with our students about his recent experience working with the government on planning reform. High on Matthew’s agenda is his idea of Garden Villages as one means of addressing the current housing crisis.

Our most recent visitor was the Rt Hon Norman Baker, MP for Lewes until 2015 and a former transport minister. Norman’s insights into the internal workings of the policy process were invaluable to students learning about how our transport system is planned and operated, and how the process of putting right decades of underinvestment will take a great deal of political resolve in coming years.

Our students in 2017 will benefit from visits by the Chief Executive of the Planning Inspectorate, Steve Quartermain, and former transport minister Lord Faulkner of Worcester.

Professor Jon Shaw, the Head of Geography at Plymouth University and leader of the Transport, Travel and Mobilities module, explained how introducing the students to such high profile visitors is an excellent part of the student experience: “Our staff work with a wide range of influential people across the different policy sectors, and we’re really keen to arrange for our students to meet and learn from those people responsible for actually delivering the things we teach them about. We want our students to be the managing directors, transport ministers and chief planners of the future!”

Mark Hopwood, Managing Director of Great Western Railway

Rt Hon Norman Baker, MP for Lewes until 2015 and a former transport minister.

From left to right: Professor Chris Balch, Professor Jon Shaw, Lord Matthew Taylor of Goss Moor, and Professor Iain Stewart
Geography students showcase dissertation findings at Celtic Connections and Crannogs project meeting.

Under the supervision and encouragement of Drs Nicki Whitehouse and Kimberley Davies, Plymouth Geography and Physical Geography and Geology students Calum Edward, Emily Mills and Iona Neilson, recently travelled to Southampton University to join the Celtic Connections and Crannogs project team at their annual meeting.

The aim of the research project, which is funded by the Arts and Humanities Research Council (AHRC), is to shed light on the social roles and uses of crannogs, ancient island dwellings mostly found on lakes and mires in the north of Ireland and Scotland.

The final stage students joined members of the project team and external partners to discuss their dissertation research within the wider context of the Crannogs project. Calum and Emily presented the results of chironomid and pollen based reconstructions at the Black Loch of Myrton in South West Scotland, whilst Iona presented her pollen reconstruction from Lough Yoan in Northern Ireland.

Their contributions are proving to be integral to the project team’s understanding of each site. Their high-quality data generated exciting discussions during the meeting. Questions and input from specialists across different disciplines (such as archaeology and geochemistry) allowed the students and the project team to contextualise the results within the wider research project. The results have also aided in shaping the direction of the project’s future research plans.

All three students showed excellent initiative and gave professional presentations in a high-pressure situation. They were fantastic ambassadors for Plymouth University and their dissertation research highlights the mutual benefits for staff and students of integrating undergraduate teaching and research.

Celtic Connections and Crannogs is a collaborative project with researchers at the University of Southampton (Professor Tony Brown, Professor Pete Langdon and Dr Maarten van Hardenbroek) Newcastle (Dr Andrew Henderson and Dr Helen Mackay) and Queen’s University Belfast (Dr Finbar McCormick, Dr Emily Murray). Project partners include Historic Scotland, AOC Archaeology Group and Northern Ireland’s Environment Agency, NEA.

For further information on the project see: https://celticcrannogs.org/

It’s not just energy; it must be ‘just’ energy: Energy justice research

Professor Ian Bailey and colleagues in Geography have recently been conducting high-profile research on the justice dimensions of energy transitions. Among the work taking place under this theme is a study of justice debates within national climate politics (focusing on Australia and New Zealand), and a PhD study by Magda Kechagia (supervised by Ian and Dr Nichola Harmer) exploring perceptions of environmental and social justice among local communities where proposals for hydraulic fracturing for unconventional oil and gas (fracking) have been approved.

Publications from the research include: an article accepted by the prestigious journal Annals of the Association of American Geographers examining the use of justice arguments to oppose or support the introduction of carbon pricing in Australia; a commentary (with a nod to the BBC’s Poldark) on local justice and wind energy in Cornwall published in the Royal Geographical Society journal Area; and a paper with Hoayda Darkal investigating how ideas associated with distributive and procedural justice are expressed in public consultations on renewable energy siting in the UK, submitted to a special issue of Energy Policy.

Ian, Magda, Hoayda and Nichola also presented conference papers on justice and energy transitions at the 2016 Royal Geographical Society Annual Conference. Further papers are planned for the 2017 Nordic Geographers Meeting in Stockholm.
Geography students studying on Long-term Ecology module produce outstanding work

A final year student poster highlighting the change in range of Scots Pine since the early Holocene period has been praised as outstanding and potentially publishable.

The poster was produced by Harry Boulter and Todd Watson for an assessment on the final year Long-term Ecology module taught by Dr Nicola Whitehouse. She explained that the students had carried out primary research for the poster: “The results are truly outstanding and potentially publishable,” she said, highlighting that this research was carried out in addition to that required for students’ final year dissertations.

The assignment topic was an investigation into the flora and fauna existent in the late glacial and early Holocene periods and how distributions have changed over time. Harry and Todd chose to examine the changing fortunes of the British Isle’s only native pine tree, the Scots Pine (Pinus sylvestris), partly because Todd had worked on a nature reserve in the north-west Highlands in Scotland where he had helped grow and plant the species as part of a reforestation project. The trees have been in long-term decline due to a combination of factors including a changing climate, land clearance for agriculture and the impact of domesticated livestock on the environment.

The students used data from the European Pollen Database to focus on 82 sites in the British Isles. Samples were assigned to 500-year time intervals and six distribution maps were produced to show the expansion and decline of the species with the findings related to dominant hypotheses provided in the scientific literature.

Harry explained: “I really enjoyed the research. It was interesting shifting through the data and finding results that looked interesting” and both students agreed they found the Long Term Ecology module hugely interesting and enjoyable. Todd explained: “Nicki has a very good way of making the past relevant to the present.”

Plymouth professor helps plan for Exeter’s future

Chris Balch, Professor of Planning at Plymouth University recently facilitated a workshop involving Council Leaders, Planning portfolio holders, Chief Executives and Heads of Planning of four local authorities and Devon County Council who are working towards a Joint Strategic Plan for Greater Exeter.

Covering East Devon, Exeter, Mid Devon and Teignbridge, the plan is intended to guide development and growth to 2040 and beyond. The decision of the local authorities to work together reflects a shared recognition of the need to ensure that continuing employment and housing growth takes place in a way which respects both the qualities of life and environment, both of which form a key element in Greater Exeter’s attraction.

The purpose of the workshop was to start the process of identifying a shared vision for the Exeter City region and to explore the ways in which the Joint Strategic Plan could help deliver this.
PhD success for home-grown Plymouth Geography students

Three of our top former undergraduate Geography students have recently successfully defended their PhD viva examinations after continuing their studies as postgraduate researchers in Geography at Plymouth.

Gina Kallis, who graduated with a BA in Geography with Sociology from Plymouth in 2012 passed her viva in December with only very minor corrections. Her PhD topic was ‘An intergenerational perspective on migrant senses of identity and belonging: The case of Greek-Cypriot families in the UK’

Gina was examined by Professor Darren Smith (Loughborough) and Dr Mark Holton and was supervised by Dr Naomi Tyrrell and Dr Richard Yarwood. She will work with Dr Tyrrell in coming months as a Research Assistant on an ESRC-funded project ‘Here to Stay? Identity, Citizenship and Belonging Among Settled Eastern European Migrant Children and Young People in the UK’ (http://www.migrantyouth.org/).

Also successful was Emma Rice who graduated with a BA (Hons) in Geography and Spanish in 2011. Her NERC-funded research project was titled ‘Testing the late Holocene climate signal from ombrotrophic bogs in southernmost Chile and the Falkland Islands’ and was supervised by Dr Tim Daley and Professor Neil Roberts. Emma was examined by Professor Frank Chambers (University of Gloucestershire) and Professor Ralph Fyfe.

Tom Newton, who graduated with a BSc Geography in 2012, passed his viva in January. His PhD investigated Holocene sea-level changes in the Falkland Islands and was supervised by Dr Tim Daley, Professor Will Blake, Professor Roland Gehrels (York) and Professor Dan Charman (Exeter). Dr Helen Roe (Queens University, Belfast) and Professor Ralph Fyfe examined Tom’s thesis.

African rivers, seafaring identities and trees as indicators of past climate change top the bill for spring semester research seminars

This semester boasts an exciting programme of Geography research seminars with speakers from Plymouth and other UK institutions exploring topics from the rivers of Africa, to the identities of seafarers, and how tree rings can offer insights into past climate change.

The prestigious Mark Blacksell lecture, which is open to the public, will be given on 8th February by Professor Jamie Woodward from the University of Manchester who will be speaking on the Quaternary history of the river Nile. The seminar also will also double up as the annual South West Quaternary lecture.

Rivers are also the topic of a joint Geography/Geology lecture on the 1st February by Plymouth geologist Dr Martin Stokes who will talk about Quaternary fluvial landscape development in north west Africa: insights from river terraces.

On the 15th February Dr Sophie Yarker of Aberystwyth University will present her research on place and mobility in seafarer identities to be followed by a seminar on 22nd February given by Richard Burningham on the Devon & Cornwall rail network.

Citizen science is the subject of a seminar on 15th March by Dr Hilary Geoghegan of the University of Reading who will talk on ‘Geographies of citizen science: aligning science, policy and practice in the UK tree health context’ and trees are also on the bill for the final seminar of the semester on the 22nd March when Professor Danny McCarroll of the University of Swansea will talk on ‘Whispering trees: what tree rings can tell us about the climate of the past’.

All are welcome to attend the seminars. For more information, please see the Geography Department website: https://www.plymouth.ac.uk/schools/school-of-geography-earth-and-environmental-sciences/geography

Follow us on Twitter @PlymGeog
Understanding and managing rivers in the Anthropocene

Plymouth Geography lecturer Dr Peter Downs, whose research on rivers focuses on sustainable practices for their management and restoration, is currently conducting research in Lyon, France, after obtaining a Senior Fellowship from the European Institutes for Advanced Study. He is working with researchers from the Université de Lyon and the National Research Institute for Environment and Agriculture (IRSTEA) to develop a computer model that predicts how river channels will change in response to the influence of human activities.

The research is linked closely to recent interest regarding the ‘Anthropocene’ – the period when human activity is argued to have had an ‘overwhelming’ impact on Earth systems. While much of the recent publicity has focussed on when the period might have started and whether the Anthropocene should be formally designated as a geological epoch, the research implication is that studies of the Earth’s surface must integrally accommodate the impact of human activities. For Peter this aligns well with both his academic research interests and with practical experiences gained during a decade as a river restoration consultant in California.

He explained “...the potential is to develop a model that allows us to predict the environmental impact of human activities on a river in a part of the catchment quite remote from the action itself. This would help us to plan environmentally-sustainable management activities and to restore currently degraded rivers, but also to help us prioritise future research efforts. This research wasn’t possible 25 years ago - there has been a revolution in the availability of high-resolution digital data sets and the computational power to process them with Geographical Information Systems. Even the statistical techniques we are using weren’t in general use back then!”

Peter hopes to present progress on the model’s development at the European Geosciences Union conference in Vienna in April, and will be integrating the research into his ‘rivers’ teaching when he returns in October 2017.

Rivers, such as this one in Southern California, are subject to a wide variety of human influences – a comprehensive data set exists for this river making it suitable as the test case for the proposed model. Photograph: Peter Brand.
Preparations for summer fieldtrips underway

Staff and students are gearing up for an exciting range of fieldtrips in 2017 to destinations including the Pacific Northwest of the USA, Iceland, Portugal, Brittany and Ireland.

Final Stage geographers this year can choose from fieldtrips to the USA, Iceland or Portugal. These trips have proved very popular in previous years with students gaining a wealth of experience in fieldwork methods and getting the chance to meet local experts, learn about different cultures and explore new urban and rural environments.

Stage Two geographers will be travelling to either the west coast of Ireland or to Brittany where they will take part in a wide range of human and physical Geography projects and develop the fieldwork and research skills needed for their final year dissertations.

The Spring semester fieldtrips follow a successful Stage One autumn residential fieldtrip to the West of England as part of a dynamic immersive module taken by all new Geography students. Staff and students spend four days based in Bath and carry out fieldtrips to Weston-super-Mare, the Cheddar Gorge and the Somerset Levels.