My recent summer was an extremely busy one. Over the last 2 years I have been raising money for a Cardiff based charity who raise money for children with terminal cancer and give them the opportunity to go on holiday with their family or meet their hero. The charity offered me the chance to raise money for them and travel to the US to represent them in doing social and environmental conservation work. It was the most amazing experience!

We first travelled to Chicago and worked with children in an outdoor summer day camp. We played games with the children and did a lot of (very hot, 40 degrees C) work in the camp's greenhouse. We also worked in the Chicago food depository, organising fruit and vegetables to be distributed to those who can't afford them, which was actually a lot of fun (until I got attacked by a cockroach hiding under an orange).

From Chicago, we took the Greyhound bus to New York City. It was the longest bus journey of my life - 19 hours! We got to travel through lots of other states adding to the greatness of the trip. The services in Indiana were amazing, lots of truck drivers smoking in the cafe, a few scary looking locals and a stunning sunset; it was definitely a cultural education!

New York was outstanding, everything was larger than life and cosmopolitan. Or so I thought. We did conservation work in Harlem and the Bronx, and, wow, that was definitely a different side to the world's most stylish city. We worked in a food kitchen in Harlem, where I met Jose, a 17 year old cage fighting charity worker from the mean streets of Harlem. In the Bronx, we worked in a very large national park, installing systems in the paths to avoid erosion. That was very hot and heavy work, which resulted in me hitting our guide in the toe with a pick axe (I had forewarned him not to trust me with one!).

Our journey continued and ended in Washington DC, which was probably my favourite part of the trip. Our youth hostel was lovely and within a close walk of all the major sites. The US Capital building was breath-taking by night; the Lincoln Memorial serene and moving; and then there was The White House. I stood in front of it for about 45 minutes, trying to figure out how such a simple place could be such a powerful image of politics. I really couldn't understand what all the fuss was about! It was just a big pretty house, surrounded by tacky souvenir stalls and burger vans. My US capital ideal had been wiped out in that moment, but that’s when I really started liking Washington DC. Our conservation work here included feeding, watering and planting trees, which for most of my group turned into a huge water fight. I took refuge behind a big red truck, which turned out to have a very confused looking driver in it, mumbling about us not appearing very 'British'.

This experience changed my life! I made so many new and wonderful friends, met really interesting people, saw some of the world's greatest skylines, did a lot of work and hopefully changed some lives for the better. I did this all while representing a truly wonderful charity! I felt so honoured and privileged to be given the opportunity to work for them, and they have inspired me to continue to raise money and work for other charities. I would advise anyone to take part in overseas conservation work. It could change your lives too!
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As one of the largest Geography departments in the UK we have plenty of news to share, here are some of the selected highlights to give you an idea of what we are up to.

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Edited by Philippa Bevan and Kimberley Peters

It was a brilliant expedition and I learnt a lot, both mountaineering and scientific skills which will serve me well throughout my degree.

Catherine Voysey
Undergraduate Student

Arctic Odyssey

During the summer I undertook a three week expedition to Northern Norway, with the British Schools Exploring Society. The expedition location was the Oksefjordenike ice cap and the local valleys. We were split into 5 groups (known as Friez) all of which had different scientific aims throughout the expedition. I was in a Skorpa Fire and our scientific research was looking into the geology of the region and in particular that at each nunatak, on the ice cap.

During the first week we spent time in the local valleys studying the geomorphology of the area and looking for evidence of previous glaciation. We also did a 24 hour data collection period considering the effects of melting ice on the glacier and how the glacial river was affected by this.

Professor Michael Woods
Head of Department

Geographers and Earth Scientists at Aberystwyth are at the forefront of researching these issues. You may have seen glaciology lecturer Alan Hubbard and his research boat on the BBC’s Operation Iceberg, studying ice melt in Greenland. Less dramatic, but equally significant, has been Henry Lamb’s role in extending our records of long-term environmental change back over more than 50,000 years; and the work of our human geographers on understanding individuals’ environmental behaviour.

This research feeds directly into our teaching, so that Geography and Earth Science students at Aberystwyth are learning the latest ideas on these critical issues and other research frontiers. To keep up to date we regularly review our courses, introducing new modules this year including Climate Change; Power, Place and Development; and Welsh Mineral Resources. Since the start of 2012, we’ve also appointed 10 new lecturers, allowing us to increase contact time with students and bringing in new expertise in areas such as dryland environments, disaster management, extreme weather events and the human geographies of the sea.

As the articles in this newsletter show, studying Geography or Earth Science at Aberystwyth isn’t just about lectures, but also about putting knowledge into practice through fieldtrips, dissertation research and independent adventures supported by our travel awards. These experiences build invaluable skills for future careers, as demonstrated in careers events that we have held this year, welcoming back graduates who are now working in fields including landscape architecture, planning, water management and environmental consultancy. Not surprisingly, the latest figures show that fewer of our graduates are unemployed after six months than the national average for Geography and Earth Sciences. Keep reading to find out more.

It’s been a wet year. Every month there seems to have been news of flooding somewhere or other in Britain, not least here in west Wales, where flash flooding lapped the fringes of Aberystwyth in June. Our flooding experts in Geography and Earth Sciences have played a key role in the local response, explaining the dynamics, monitoring the impact and advising on how to improve flood protection for the future. More broadly, the unpredictable weather is a reminder of the changing climate and the challenges posed for our economy and society.

2
Climbing Ben Nevis
Laura De Graaf
Undergraduate Student

During September this year, myself and a former student of the department (Keir Nichols) climbed Ben Nevis for Breast Cancer Care.

We travelled to Scotland on the 28th of September and climbed Ben Nevis on the 29th. All in all it took 8 hours to climb up and down and almost 90 people took part in the climb. We reached the summit unable to see anything as it started to sleet and snow. It was -10 degrees as the wind was so cold.

Reaching the top was amazing, we both felt a sense of relief. It was a fantastic achievement and so far together we have raised over £700 for the charity. The whole team who climbed Ben Nevis have reached an amazing £60,000 to help support people through difficult times.

As crazy as it sounds, I would do it all over again. Hopefully on a sunnier day!

“What the Career Advisers don’t tell you... Year in Employment scheme”

Tom Stevenson
Undergraduate Student

In July of 2012 I started work for a year at the Welsh Government as an Evaluation Analyst in the Rural Development Plan Evidence Team.

I applied for the Year in Employment Scheme (YES) for all the reasons mentioned in the numerous career options lectures; "increased chances of employment post-graduation, valuable experience in a graduate level work placement" etc. Although these reasons are true, my aim here is to give a more personal insight into the application process; the benefits, and the drawbacks of what to expect when opting into YES.

The daunting prospect of finding a placement and the application process are usually the hurdles that dissuade most people from applying to the scheme as they are perceived difficult and time consuming. In reality it can be quite straightforward. Resources provided by the careers service are a great help, especially the "Vacancies" link on the Aber Careers website which allows you to focus applications to just YES offers. An hour or two on a search engine will also throw up leads. Most YES jobs will require the applicant to be on a specific degree scheme, which also narrows down your options.

There are a few minor downsides I’ve encountered with taking a year out, especially being based in Aberystwyth, where having friends close by is both a blessing and a curse. A selection include; not having a third of the year off on holiday, not being able to lie in bed every other morning like you’re used to and most difficult of all, trying to maintain a personal life (which now includes badminton with the ladies from work) regardless of being constantly exhausted from late nights at the office meeting deadlines that really matter! Of course, there is no sympathy for these qualms as this is just “the real world”, and in two years, post-graduation this will likely be routine.

For me however, the number of positives far exceed the negatives. My placement so far has given me an insight into how knowledge from my degree can be applied to real world problems. Analytical skills developed in lectures like “Key Skills for Geographers” have proved invaluable and directly applicable to my role at work. Perhaps most importantly the placement has focussed my thoughts on the career path I may wish to follow, and has given me the experience and confidence to hopefully see this route through. Oh, and an extra year to contemplate that dissertation doesn’t go amiss!

On the whole I would highly recommend investigating this excellent opportunity available to undergraduates. Don’t be put off by the effort you’ll need to put into finding a placement; the benefits more than make up for it!

In Arctic lands
Alberto Di Dio
Undergraduate Student

Arctic environments boast some truly breath-taking landscapes, carved by water and ice through millennia of freezing and thawing. Here, forests and tundra have come to terms with some of the harshest climatic conditions on earth, and so have all the animals and peoples that inhabit these lands. With global warming though, all of this is now seriously threatened.

Thanks to a bursary, I spent over a month at the Abisko Scientific Research Station, northern Sweden, studying some of the impacts of climatic changes on these hardy yet vulnerable ecosystems.

In particular we were lucky enough to witness a rare outbreak of Autumnal Moths (Epirrita autumnata). The larvae of this herbivore defoliate the northern birch forests every 9-12 years and they represent the main biotic disturbance at these latitudes. This also inspired my ecology-focused dissertation project, and I am very grateful to Aberystwyth University for giving me the chance to join a world-class research facility. I then took advantage of the location to backpack through the Scandinavian mountains and the Norwegian fjords, living alone in the nature for nearly a month before making my way back to the UK at the end of what has been for me a deeply enriching experience.
The W J Edwards Award

Bill Edwards (1944-2007) was passionately interested in Wales—particularly in community, politics and participation. He was also fascinated by the links between Geography and other disciplines such as Art, History and Literature, as well as the social and physical sciences. As Director of Teaching in IGS and as Dean of Arts, he made a great contribution to improving the experience of students in Aberystwyth. Honouring Bill’s love of Wales and his commitment to supporting the academic and personal development of our students, this award is designed to support dissertation or Joint Honours project work which contributes to our understanding of any aspect of the physical and/or human environment of Wales.

Swansea’s Night-time Economy

Steffan Rees, Undergraduate Student

Business Improvement Districts (BIDs) are much written about in human geography. They essentially contribute a set of financial levies to provide services to enhance the profits of businesses and to improve the area for the community. My dissertation topic is the effect of Swansea’s BID on the night-time economy. Swansea currently possesses the only BID in Wales, yet no geographical work has been completed on it and neither has there been any work done on the effect of BIDs on night-time economies.

My research methods were semi-structured interviews supplemented by participant observation. Having needed to travel regularly from my home in Carmarthenshire to Swansea over the summer to interview 14 different actors from business executives to students and to observe on 5 different nights from various standpoints e.g. a sunset Tuesday night stroll to a Saturday night meal, the W.J. Edwards Award funded umpteen 36 mile round journeys, parking costs and a tasty Italian meal observing drunken revellers outside!

As a night-time destination for people residing in South Wales with bars, clubs, pubs, cinemas and a theatre, I wanted to explore the effect and consequences of setting up the BID.

The first of my three aims was to investigate the sense of place BIDs are trying to create after dark. Having heard many stories and watched some Youtube videos of the alcohol fuelled nightlife in Wind Street, the city’s nightlife centre, I wanted to discover if the BID is making changes. They’re trying to make the going out experience better through making it well organised, safer and more appealing e.g. the use of ridiculous drinks promotions are discussed with businesses, cheaper car parking rates have been secured and a help point is funded to deal with any minor injuries.

My second aim was to explore the BID’s efforts in developing the security of the area. The number of taxi marshals keeping order in the taxi points has increased with funding, the city’s CCTV has been improved, a police officer dealing with crimes affecting BID businesses is employed and regular meetings are held between BID and the police to deal with crimes efficiently. They’re not the only actors here though as the police, street pastors and the council all play roles in this.

The third aim was to look into the social sustainability of the BID’s night-time economy. Even though the alcohol fuelled nightlife of Wind Street doesn’t appeal to everyone, there are cinemas, restaurants and a theatre within the BID. Time slots were evident for various groups – until 9 or 10 o’clock for families and then the mood would change with gangs of intimidating men around.

I’ve been requested by some of my interviewees for a report of my findings. I am extremely grateful to receive funding from the W.J. Edwards award as it has allowed me to go to Swansea regularly without having to fund all the expenses myself.
This summer I travelled to Madagascar thanks to help from the IGES travel award and the volunteer conservation company, Frontier. The purpose of my visit was to collect data for my dissertation whilst also contributing to the conservation efforts of trying to protect Madagascar’s continuing disturbed forests which are endangering many of the endemic species which reside there. My research focused on reptiles and amphibians within the forests of Madagascar and therefore I spent my time trekking through the forest looking for different reptiles and amphibians and recording any sightings. However I was not just there to complete my dissertation research. I also contributed to lamur and bird surveys as they are also a very important aspect of species conservation in Madagascar.

Madagascar is a very beautiful island, and while I was there I spent 7 weeks living on a beach in a village called Ambalahonko on the island of Nosy Be off the Northern coast of mainland Madagascar. We integrated with the locals and their way of very simple living. Madagascar is one of the poorest countries in the world yet all the locals I met were all very content and happy. After spending time with the locals we became aware of the fact that basic essentials, such as a toilet with a flush, a hot and cold tap, a bed, and clean clothes were something that we all take for granted every day. Whilst in Madagascar, breakfast, lunch and dinner consisted of rice. Sloppy rice every day.

We also visited a beach (unusual for this type of forest snake) and a foaming hot spring, the “Blue Lagoon” . This was very interesting to me from a geological point of view, but also a great way to relax after a hard few days of collecting water samples!

Leigh-Anne Bullough, 3rd year Geography BSc, visited South Africa

Visiting South Africa in August 2012 helped me to gain a better understanding of the relationship between conservation and community development in Africa. I gained an invaluable insight into how these two things both hinder and complement each other in a living environment, which has increased my knowledge of my chosen dissertation subject greatly. Being able to live, work and play in a game reserve has been an ambition of mine for years. Fulfilling it whilst making friends for life has been unforgettable. I challenge anybody to visit Africa and not instantly fall in love with its landscapes, wildlife and residents.

Cerys Baldwin, 3rd year Environmental Earth Science, travelled to Iceland

I received £50 from the Margaret and Elwyn Davies travel award, which helped me to finance my trip to Iceland. I ventured here, with my mother, in order to undertake fieldwork for my dissertation project “An Assessment of the Geothermal Springs in Krafla, Iceland”. I spent the first 5 days of my week in Krafla, in north-east Iceland. Here is where I collected all samples for my dissertation. It is a volcanic area, with geothermal springs and mud pools. I had never seen landscapes like those in Krafla, except for in text books for my lectures! I have always been fascinated by Iceland’s geology, and felt very fortunate to be able to go and explore it myself. For the last two days of the week, we travelled to Reykjavik, and went to the famous hot spring, the “Blue Lagoon”. This was very interesting to me from a geological point of view, but also a great way to relax after a hard few days of collecting water samples!
Andrea Tarling, 2nd year Human Geography, went to Uganda

I used the Gareth Thomas travel scholarship to travel back to Uganda for my third time. For two months I volunteered with a charity called COBAP (Community Based AIDS Programme) in Nakulabye slums in the suburbs of Kampala. I took on an administrative role in the office of COBAP and I also joined COBAP staff in the community working with people they support locally. I was involved in setting up and running a medical outreach that offered free medical consultation to any member of the local community.

This is an event run quarterly by COBAP in Nakulabye. Each week we did home visits to people who run businesses with COBAP’s help or who are sick or elderly. The trip was completely life-changing and I was blessed to be able to return to old friends whilst also being given the opportunity to make new friends and experience living in Africa completely alone! Everything I did and saw opened my eyes to the ways of the World and broadened my depth of experience.

Alison Hood, 3rd year Physical Geography, toured South-East Asia

The aim of the award was to help fund my travels following graduation from my university studies. My travels took me to South-East Asia; visiting Thailand, Laos, Vietnam and Cambodia. These countries have cultures so vastly different to any I’ve ever seen before, which made the whole trip very pleasurable and a fantastic learning experience. The landscapes and geology of the area, from limestone karsts of Halong Bay, to the rice terraces of Sapa, the tropical beaches and coral reefs off Southern Thailand and Cambodia, are so spectacular that any fellow geographer would be impressed. I also learnt of the history of the region, such as the harrowing war between the US and Vietnam and also the Cambodian genocide - as recently as the 1970’s.

One of my personal highlights of the trip, however, was volunteering at an elephant sanctuary where I helped to feed and bathe the elephants, whilst learning about their pasts working for tourist and logging camps. I also assisted in teaching English to young adults in Laos to help broaden their cultural contact.

On discovering I was to have the honour of carrying the Olympic Torch through my University Town, I was absolutely ecstatic; I was just doing what I love best, making a difference, and felt so happy for being recognised for just being who I am. I was nominated for being inspirational and for my natural enthusiasm for life. My concern for worldly injustice led me to spend time volunteering in Kenya and Uganda, developing my passion for East Africa. I taught in underprivileged schools and helped in an orphanage and local hospital. Struck by their need, I aimed to bring joy and laughter to every child I met. Supporting my mother to take up running and complete two marathons has also seen an amazing £3500 raised for charity.

I received confirmation of my selection as a Torchbearer about 8 weeks prior to the Relay. I had been looking forward to it, although it didn’t really sink in until the night before. I was super excited, not having a clue what to expect. People were asking if I felt nervous about carrying the torch, but I can honestly say I was buzzing! I was more nervous about attending a posh Olympic party I was invited to by April McMahon, the Vice Chancellor!

At the meeting point, Plascrug Leisure Centre, I got a chance to meet all the other Torch Bearers. It was so exciting. We got a sticker with our Torch Bearer number on. Mine was 109. I was delighted when I was asked to run a second leg (100m) because one of the runners that were scheduled to carry the torch did not appear. The organisers were impressed with my enthusiasm! When I first held the torch I was surprised at how light it was (800g). There was a yellow shuttle bus to meet us at the designated collection point and take us to our allocated starting places. The arrival of the Olympic Flame in Ceredigion was something worth celebrating with huge crowds gathering to support me as I ran with the flame. Well, jumped actually, I went absolutely mental! William (a pensioner nominated for supporting local charities) passed the flame to me. My moment to shine came at around 6.30pm when I carried the torch down Pencarnau Road (A487) near Felin-y-Mor. I ran across Trefechan Bridge, down Bridge Street and down the main High Street (Great Darkgate Street). I was so happy dancing around the road, doing full turns, jumping, side stepping and leaping, throwing my head back and arms in the air! I was zigzagging so much, one of the six security guards running alongside me told me to calm down!

It went absolutely brilliantly, the best day of my life. I was really excited especially to be asked to run a second leg as well. The crowds were amazing, everyone was there and they were shouting. I was also shouting, singing and screaming so much I ran out of saliva and had a sore throat by the end! I passed the Olympic Flame onto Martin (81, nominated for assisting with meals on wheels). I felt proud to be representing the students of Aberystwyth at such a prestigious celebration. I feel so blessed for being chosen and for the opportunity to have such an amazing experience that I will treasure forever, as the Olympic Legacy lives on.

The

Chance of

a Lifetime:

Carrying

the Olympic

Torch

Susanna Ditton

Undergraduate Student
This is what we think Geography and Earth Sciences are all about. This year for the Institute photographic competition, we wanted our students to tell us what these things mean to them in terms of Geography and Earth Science. There were four categories:

Inspire – Images that inspire you in your study, and you believe would inspire others to study Geography and Earth Sciences.

Engage – Show people engaging directly with Geography and Earth Sciences, or images that will engage people.

Excite – Exciting images that show that Geography and Earth Sciences isn’t just about colouring in!

Discover – Finding that something different, something that someone else just may never have found, or an image that expresses the joys of discovery.

For 2012 we included not only the fieldtrips they had already been on (New Zealand – North and South, Crete, Spain, New York, Ireland - all trips, North Wales and Cornwall), but images students may take during their summer’s vacation. We knew so many of them undertook amazing adventures during the summer months that we wanted to see and hear about them.

Prizes will be awarded as follows:
First Prize for Best Overall Photograph - £50 Amazon voucher
First Prize for each listed category - £30 Amazon voucher
Maximum of three photographs, Highly Commended - £20 Amazon voucher

Best Photograph Overall
WINNER Laura James (BSc Geography, The Stratosphere) Inspire
In this image, the view from the aeroplane window sums up Geography; that there is a whole world out there waiting to be explored. The opportunities that a Geography degree creates for travel, as in this photo, are truly inspiring.

Best Photograph in Each Category

INSPIRE
Katie Rees (BSc Environmental Science, Pyrenees, Spain)
This photo is inspiring because it actively shows the processes of mountain creation, it brings geology to life, and shows the earth’s incredible power to shape the landscape.

ENGAGE
Daniel Johnson (BSc Geography, New Zealand)
Dominating over the local greenery, the distant bustling city of Auckland provides a sharp contrast with the quiet volcanic island of Rangitoto. The Sky Tower in the centre background is surrounded by a conglomerate of various banks, offices and hotels. Yet in the foreground only quiet trees and shrubbery exist. I like this photo as it vividly demonstrates the dramatic difference between raw nature and the modern city.

EXCITE
Lynne Potter (BSc Geography, Ireland)
On our walk through the National Park we stopped for lunch when we noticed some deer making their way down the hill.

DISCOVER
Katie Rees (BSc Environmental Science, Pyrenees, Spain)
In the left of this photo, shows what at first glance appears to be a glacier, it is actually marble that was formed in the heart of the mountain, over time the rocks above have weathered away exposing the marble beneath.

Highly Commended
Laura De Graaf (BSc Geography, Ireland) – Discover
We had just finished a 4 hour hike and where measuring lichen in the graveyard of a local church. I believe the photo captures the natural beauty of the wicklow and a sense of what lies behinds the clouds. I submitted the natural shadows of the trees created a sense of darkness on a warm sunny day in Dublin.

Daniel Johnson (BSc Geography, Singapore) – Discover
Looking up the central staircase of an oriental pagoda, a shell-like spiralling structure can be clearly seen rising to the roof of the building. This highlights an unusual parallel between architectural styles and natural design.

Anthony Scarth (BSc Computer Science and Geography, Ireland) – Discover
The coach driver stopped everyone at a viewpoint to enjoy the scenery. We were able to discover the landscape that many people would only admire when driving past in their car. The sense of scale and the alternative view of the lakes made this scene very memorable.

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The Fullbright Exchange

Katherine Stewart and Jen Turner
Postgraduate Students

This summer Geography and Earth Sciences played host to a group of American students participating in the US-UK Fulbright Commission Summer Institute exchange programme. This scheme gives students from across the United States the opportunity to experience an academic programme at a highly regarded UK educational institution at the same time as exploring the culture, heritage and history of the UK and developing a range of academic skills.

PhD students Katherine Stewart and Jen Turner led a group of eight students as part of a six-week programme at Cardiff, Bangor and Aberystwyth Universities. Whilst in Aberystwyth, students were introduced to the spectacular scenery and culture of mid-Wales. Our teaching started with the historical, cultural and archaeological aspects of the area, through to more recent land use patterns into the present day.

A guided tour of the National Library of Wales offered lessons in genealogy and a signpost towards the heritage of the Welsh language, which was also the focus of a seminar on Wales and Diaspora by Dr Rhys Dafydd Jones. A visit to the Georgian Harbour Town of Aberaeron and National Trust property, Llanerchaeron, focused upon tourism and heritage – factors also considered during an archaeological walk in mining areas with the Royal Commission on the Ancient and Historical Monuments of Wales/Metal Links Project.

In the second week, focus turned to the political, environmental and economic challenges facing mid-Wales and strategies for enhancing Wales’ future. Staff at IBERS showed what the future might hold for Wales in a tour of their plant phenomics facility and experimental bio-fuel processing plant. In contrast, at the Centre for Alternative Technology (CAT) in Machynlleth, knowledge surrounding renewable energy, organic gardening and sustainable building techniques culminated in a workshop session planning a Zero Carbon Britain. Sessions at the Aberystwyth Arts Centre with local shoe-maker Ruth Emily Davey and renowned artist Mary Lloyd Jones, saw students engaging with the trials and tribulations of working artistically, sustainably and profitably in the mid-Wales environment.

After two weeks at the Institute the eight students boarded flights bound for destinations from California to Seattle, taking with them then treasured memories of Aberystwyth and IGES that we hope will encourage their US-peers to consider Aberystwyth as an option for their own studies.

GRADUATE BIOGRAPHIES

You’ve worked hard and played hard for three years, and that degree is securely in your pocket, but what do you do next?

Here are some of our recent graduates to show you just what you can do with a degree in Geography!

JENNIFER BARLOW

Now works as:
HEAD OF YEAR – GEOGRAPHY TEACHER

It was at the end of my first year that I decided on a career as a teacher, going to lectures and field trips showed me that I loved Geography but the best part of it was sharing it with other people who were also keen. This gave me the desire to see the world and pass on what I had learnt. The area of study I most enjoyed was physical Geography but the wide range of modules available gave me a broad understanding of Geography. When applying for jobs this gave a great basis to teach all levels, from Primary through to A Level. My enthusiasm for both the subject and Aberystwyth as an institution has not dulled over the years and a number of Sixth Formers have followed me to successfully take Geography at Aberystwyth. My geographical knowledge has allowed me to run trips to Uganda, Germany, France, Poland, and many more local trips to areas like Snowdonia. Using modern technology like GIS at Aber has enabled me to develop the curriculum giving the students I teach more employability and relevance in the 21st Century. The enthusiasm of lecturers coupled with being in a fantastic location for Geography provided a solid foundation to allow me to go on to success in my chosen career.
It is worth noting that a 2010 poll of over 200,000 graduates from UK universities found discovered that those with geography degrees had the lowest rate of unemployment six months after graduation of any discipline polled (Higher Education Career Services Unit).

ZOE KERSHAW
Now works for ENVIRONMENT AGENCY

I would not be where I am now without having completed my MPhil research within IGES. My project was titled ‘Local Policy and Practice in Flood Risk Management’ and I am now very fortunate to work at the local level that I studied in the Environment Agency in York, within the Flood Incident Management team.

The Environment Agency has a huge number of responsibilities, all with a focus of maintaining a healthy and diverse environment for us to enjoy. With my work, I visit communities, professional partners and businesses whose property is at risk of flooding to raise awareness about what can be done in advance to minimise the impact, as well as during, i.e. who to contact and what to do, and following flooding. Back in the office, I compile technical maps to aid more visual emergency flood plans to be made. Much of our team’s work is to incorporate huge amounts of data and evidence from previous flooding and mathematical models to improve the Agency’s flood warning service. Obviously, this is something we want people to trust so a lot of effort is made, to make the warnings as accurate as possible.

I have really enjoyed getting to know the surrounding landscape through the river network. I previously worked in Cardiff with the Environment Agency Wales, and even though I was in the same Flood Incident Management team and role, the differences were quite surprising!

Choosing to do an MPhil at Aberystwyth gave me an opportunity to research in greater detail a question that had occurred to me in a previous role within a local authority. Since I was unsure about committing to the length of time a PhD requires, I felt an MPhil was perfect for me. I had excellent support from my supervisors as I was crossing the boundary between physical and human geography – and it proved a bridge certainly worth crossing!

On 28th February 2012, the Geography and Earth Sciences (IGES) launched their new and exciting ‘AU Geography and Earth Sciences’ Facebook fan page. After several edits the page has been steadily building a following and achieved its 500th follower on 16th October! At the same time, the Centre for Glaciology also launched its own ‘AU Centre for Glaciology’ Facebook fan page and accompanying Twitter feed, with similar success in building its following.

The pages are intended to provide information about IGES and the CfG and have been a good way to highlight the wealth of activities that go on in Geography and Earth Sciences. From weekly seminars to undergraduate field trips, postgraduate expeditions and the Summer University, the IGES page is turning into a good repository for all the goings-on in IGES. The Centre for Glaciology’s page is generally aimed at a more research-focused and glaciologically-minded audience. Nevertheless, the pages are an excellent way to keep an eye on what’s happening in your department and the opportunities that may be available to you.

Why not get involved and ‘Like’ the pages at the web addresses below:

IGES FB: facebook.com/AUIGES
CfG FB: facebook.com/AUCfG
CfG Twitter: twitter.com/AUCfG
5,895 metres is high, extremely high. It was a sobering moment when the cloud cleared in Moshi, and we saw the challenge ahead. We were to spend the next 6 days attempting to reach the top of Mt Kilimanjaro, Africa’s highest mountain and volcano, and raise money for a great cause, Footsteps International.

Around 40% of climbers have to turn back, so success was by no means guaranteed. The terrain and conditions aren’t difficult, but the problem is the decreasing oxygen so high up: you start at 2,100 metres (that’s already 750 metres above Ben Nevis!) The following day we set off with our guides who set the pace, “pole pole” (Swahili for “slowly, slowly”) to manage the altitude. Over 4 days, we trekked through forest, moorland, ancient lava flows and alpine desert. We reached Kibo Camp (4,700m) in the afternoon of day four.

At midnight we set off into the moonlight for the summit, zig-zagging up the scree slope. The gradient is the steepest of the whole climb and I felt nauseous in the thinning air. We reached Gilman’s Point (5,681m) on the crater rim at about 7:30 am, but we weren’t at the highest point yet. Two hours of exhausting shuffling and we finally arrived at Uhuru (Freedom) Peak, 5,895m – on the roof of Africa! The glaciers near the top, 3 degrees south of the equator, are steep-sided, and 40 metres thick, with very little debris cover. They are incredibly impressive, despite having receded significantly in recent decades.

The trudge back down the scree slope seemed to take hours but on the descent you can walk as fast as you like (or can), because oxygen levels increase with every step. After spending 4.5 days going up, we made it to the bottom in just 1.5, finishing in the rainforest with monkeys in the trees! It was a great achievement, but the real reason for the climb was to raise money for some amazing work done by Footsteps International in Kenya. It was a huge privilege to be able to visit several of their projects after climbing Kilimanjaro.

The Church on the Rock School in Nairobi is a collection of corrugated iron classrooms in Kware slum. Most of them are twice as big as they used to be, thanks to Footsteps. The classes are still big, but the children now have space to sit at desks, and windows providing light to see the teacher and their work. Many children don’t get enough food at home, so Footsteps provides maize and beans for school meals.

The Sunshine Home in Naivasha provides housing for 90 ex-street boys. It was wonderful to meet the boys and chat with them about their future hopes (as well as debating the merits of Man United and Chelsea). Two of the oldest boys left for university whilst we were there, an amazing achievement when they had once struggled to survive hunger on the streets.

It was a wonderful adventure, and inspiring to see how far every penny (and every pigeon-step) can go when it is towards a good cause. For more information visit: www.footstepsinternational.org www.justgiving.com/jo-matthews-kilimanjaro/
In January 2012, Neil Glasser, Tristram Irvine-Fynn and I embarked on a 12,500 km round-trip across the Atlantic to Argentine Patagonia, South America.

Patagonia is the southernmost part of Argentina and Chile and hosts the majestic southern section of the Andes highlands. Currently perched atop the Andes are the Northern and Southern Patagonian icefields, the largest icefields outside the polar regions. The focus of our trip was to collect samples of glacial sediments east of the Northern Patagonian icefield for optically stimulated luminescence (OSL) dating.

We spent two weeks in the field, one week east of Lago Buenos Aires and one week east of Lago Puyeüredón. These lakes are immense. Lago Buenos Aires has a surface area of 1,850 km² (the same size as Ceredigion!) Lago Puyreüredón is smaller with a surface area of 325 km² (but that is still six times the size of Loch Ness)! During the glaciations of the past, vast glaciers extended out from the Andean mountain icefields and into the extensive lowland valleys, deepening these lake basins. Moraine forms from these past glaciations in the two valleys.

The oldest extends back to the Great Patagonian Icefield, and the questionably paved Ruta 40. Patagonia is a vast expansion of empty space with dramatic panoramas, immense skies and natural treasures at the end of every road. Memories of the awe-inspiring sight of the large Perito Moreno glacier pouring out from the Andean mountains and calving into Lago Argentina will always remain. Visiting the Southern Patagonian Icefield brought my fieldwork full circle as I could observe the processes that I am trying to uncover from the past in a contemporary setting. The wildlife in Patagonia is just as exciting as the scenery. It was a common occurrence to observe armadillos, guanacos, nandus, condors, penguins... the list is endless. Patagonia is a unique part of the world and provides an experience filled with inspiration, colour and adventure for anyone prepared for the challenge. I would highly recommend a visit to Patagonia both for interesting scientific research and out-of-the-ordinary holidays.

The adventure did not stop once the fieldwork was complete. After spending two weeks under the shadow of the Andes, the ice was calling! So with the work over, the adventure continued to the Southern Patagonian Icefield and along thequestionably paved Ruta 40. Patagonia is a vast expansion of empty space with dramatic panoramas, immense skies and natural treasures at the end of every road. Memories of the awe-inspiring sight of the large Perito Moreno glacier pouring out from the Andean mountains and calving into Lago Argentina will always remain. Visiting the Southern Patagonian Icefield brought my fieldwork full circle as I could observe the processes that I am trying to uncover from the past in a contemporary setting. The wildlife in Patagonia is just as exciting as the scenery. It was a common occurrence to observe armadillos, guanacos, nandus, condors, penguins... the list is endless. Patagonia is a unique part of the world and provides an experience filled with inspiration, colour and adventure for anyone prepared for the challenge. I would highly recommend a visit to Patagonia both for interesting scientific research and out-of-the-ordinary holidays.

Postgraduate Experiences

Postgraduate students often get the opportunity to spend long periods of time in very unusual parts of the world. They work with a wide range of academics across the globe as well as local people. PhD students Rachel Smedley and Joanna Matthews give us a glimpse into just some of their experiences.

Dry Spaces and Wet Places

Rhys Dafydd Jones, Lecturer

Having a quiet pint at the Sunday evening quiz is a tradition for many Aberystwyth students; yet, for over a century pubs in Aberystwyth were not allowed to open on a Sunday. Rhys Dafydd Jones, Coleg Cymraeg Cenedlaethol lecturer in Human Geography spent time in the National Archives in Kew in July examining Home Office and Welsh Office papers relating to local option polls on repealing the Sunday Closing (Wales) Act, 1881.

The Act was introduced by the Liberals – the dominant party in Wales – as a way of courting the votes of non-conformist Christians, who were a substantial majority in Wales at the time. Its aim was not only to promote temperance but also to demarcate Sunday as a sacred day, differentiated from the rest of the week. By the late 1950s, however, the Conservative Government felt that there was a need to update and harmonize the licensing laws in England and Wales.

The problem facing the Minister of State for Welsh Affairs, the predecessor of the Welsh Secretary, was how to deal with Wales. Home Office papers detail the dilemma facing the Government: imposing its will on Wales would have cost the Tories seats, while an Inquiry would have merely delayed the issue. The Government were also reluctant to take the option of local polls as it was considered an ‘alien’ way to conduct politics. However, in allowing local authorities (the thirteen counties and four county boroughs) to hold local polls was an acceptable compromise. From 1962, local polls were held every seven years if more than 500 electors petitioned the local council to hold a poll.

Rhys’ research also examined the position local and Wales-wide media took on the polls. Many felt that the 1881 Act was not only out of date, but also ineffective: private members clubs could open on Sunday and were not as tightly regulated as the pubs. For others, the Act preserved the ‘Welsh Sunday’, as it was one of the few pieces of legislation that dealt solely with Wales. As time went on, Sunday Closing was largely restricted to the Welsh-speaking heartland of western Wales. Rhys’ research explores the entwining themes of Welsh nationhood, religion, and rurality in constructions of Sunday Closing, which builds on his research interests concerning the role of religion on rural lives and minority rights, as well as an extra-curricular interest in real ale! The next stage for Rhys is to conduct interviews with campaigners in four rural areas to explore their motivations for campaigning, bringing a qualitative dimension to studies of electoral behaviour.

Rhys’ archive work is funded by the Sir David Hughes Parry Award, while his interview work is funded by a small grant from the Coleg Cymraeg Cenedlaethol.
In January 1915, Sir Ernest Shackleton's ship Endurance was planning books. The most notable unexpected bonus was a visit to secure background material and photographs for lectures and refer to the inability of human ingenuity to beat the conditions as the one of the four objectives they had set themselves. Old hands often and acquired plenty of material for analysis. So, overall, they achieved snow and a fierce overnight blizzard, the party covered a lot of ground freezing over. After establishing camp, the party had four hectic days working on the landforms, rocks and sediments in the area to figure briefly, and see where the survivors had managed to hang on, living off seal and penguin. It is hard to imagine a more inhospitable place. Commenting on his impression of this, his 11th, visit to Antarctica off Point Wild, and produce charts for the occasional cruise ship that visits this historic site. With unusually-beregion conditions, the ship's company were fortunate to be given the opportunity to go ashore briefly, and see where the survivors had managed to hang on, living off seal and penguin. It is hard to imagine a more inhospitable place. Commenting on his impression of this, his 11th, visit to Antarctica on his return, Professor Hambrey said: "Antarctic fieldwork provides among the most severe challenges on Earth. We know that weather and ice conditions can beat even the most sophisticated facilities at our disposal, and it is always a risk that the planned fieldwork cannot be achieved. It was disappointing that we had only 4 days ashore, but thankfully we achieved a lot in that short time..." Dr Bethan Davies added that "Despite only a brief stay ashore, we worked extremely hard and achieved more than we thought possible in such a short time. This science will help constrain numerical models, which are used in predicting future ice-sheet behaviour. We are grateful to HMS Protector for her support in what were often difficult conditions." The team now plans to go to Alexander Island, northern Antarctic Peninsula, for four weeks in November 2012 to work on Holocene valley glacier fluctuations and ice shelf controls on small glacier behaviour.
Understanding natural processes of the Earth system as well as the interactions of its different components with manmade activities – especially in the context of global climate change – has been recognised by the global scientific community as a very urgent and important research direction requiring attention for further investigation.

To this end, being able to map and accurately provide spatio-temporal information on the surface atmosphere exchanges of parameters such as latent (L) and sensible (H) heat fluxes (both instantaneous and daily average ones) and of soil surface moisture content (Mo) is of key importance to understanding land surface interaction processes of the Earth system, how terrestrial ecosystems work and how different components of Earth system interact with manmade activities. LE is defined as the turbulent flux of heat from the Earth’s surface to the atmosphere associated with evaporation of water at the surface. On the other hand, H is the turbulent flux of heat transferred between the surface and air when there is a difference in temperature between them. Soil moisture is generally perceived as the water contained in the unsaturated soil surface of the Earth, derived from rainfall, snowmelt or by capillary action from groundwater.

Both LE and H fluxes are involved in a number of Earth’s physical processes feedbacks at the local, regional and global scales, having an important bearing to the global water cycle. H flux has a strong influence on the turbulent nature of the near surface atmosphere by changing molecular movement through heat transfer, whereas LE flux is directly linked to the global water and carbon cycle. Soil moisture is a significant component of climatological, hydrological and ecological systems. It has long been recognised as a key state variable of the global energy and water cycle due to its control on exchanges of energy and matter and physical processes, impacting also directly exchanges of trace gases on land, including carbon dioxide, which in turn influence the dynamics of the atmosphere boundary layer and thus weather and global climate.

The importance of accurate estimation of their spatial/temporal distribution globally was addressed in the “Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for the Community action in the field of water policy” or, in short, the EU Water Framework Directive. The advent of satellite-based remote sensing over the last few decades has led to the development of several algorithms for the estimation of the latter parameters from remote sensing observations, often used in combination with ancillary surface and atmospheric observations.

Remote sensing provides today the only viable solution for obtaining estimates of both surface fluxes and soil moisture content at the spatiotemporal scales and accuracy levels required by many applications. Yet, at present global operational mapping of those parameters from remote sensing instruments is lacking or is underdeveloped. In general, their estimation by remote sensing techniques is done in quite diverse and unconnected methods. Specifically, methods combining the biophysical properties encapsulated in a satellite-derived scatter-plot developed between the surface temperature (Ts) and vegetation index (VI) maps often combined with simulations from a land-biosphere model have shown a considerable prospect for potential operational implementation scenario.

Recognizing that gap that currently exists as well as the strong relevance of both the turbulent heat fluxes and Mo parameters to the numerous Challenges of the European Space Agency’s (ESA) Living Planet Programme the present research aims to develop a series of prototype products for the global estimation of the above parameters combining advanced technologically designed instruments from ESA-funded or co-funded missions.

Any information or questions regarding PROgRESSion can be addressed to the Principal Investigator, Dr George P. Petropoulos, gep@igfhe.ac.uk

Example of inverted energy fluxes and Mo maps derived from the implementation of a TFI method using here ALI-TREX imagery and a SWAT model for a region in The Netherlands.
Dr Ann Rowan joined IGES as a C3W-funded postdoctoral research fellow in March 2012 having completed a PhD in Earth Sciences at the University of Manchester. Ann is a glacial geomorphologist working in the Centre for Glaciology with Professor Neil Glasser and Dr Duncan Quincey to model the response of Himalayan glaciers to past and future climate change. Also, in collaboration with High-Performance Computing Wales, she will use a weather research and forecasting model to discover the meteorological controls on these glaciers. Ann is contributing to undergraduate teaching in the Y1/2 Key Skills for Geographers and Y3/4 Palaeogeology modules.

Joe Williams

Joe Williams joined IGES as a Lecturer in Physical Geography in September 2012 from Kansas State University. Joe graduated from the University of Southampton with a BSc degree in Geography, before obtaining his PhD from the Open University in partnership with the Natural History Museum, London. Joe’s research focuses on understanding long-term ecosystem dynamics as a response to disturbances from climatic adjustments and anthropogenic impacts. He uses lake sedimentary records to assess the vulnerabilities and resilience of terrestrial and aquatic systems to these disturbances, via the use of multiscale biological and biogeochemical indicators. Joe is particularly interested in the Bolivian Tropical Andes and the interactions of climate, vegetation and pre-Columbian society. Outside of academia, he continues his interests in mountain ecosystems with snowboarding, hiking and climbing.

Cerys Jones

Cerys Jones joined IGES as a Lecturer in Geography in February 2013, part funded by Coleg Cymraeg Cenedlaethol and predominantly teaches geography through the medium of Welsh. Cerys completed her undergraduate and postgraduate degrees at the Institute. She has contributed to our Welsh-medium provision since 2008 and was appointed a Welsh-medium Teaching Fellow in 2011. In May 2012, Cerys received a 9 month post as a Research Assistant at the University of Wales Centre for Advanced Welsh and Celtic Studies (CAWCS). Whilst at CAWCS, she worked on an AHRC-funded project entitled ‘The Snows of Yesteryear’ (http://eira.llgc.org.uk) in partnership with the National Library of Wales, Aberystwyth University and the Met Office Hadley Centre's ACRE project. Her research focuses on climatic and environmental history and human responses to unusual or extreme weather, mostly in Wales since the nineteenth century. Outside academia, her time is mostly taken up by the numerous and varied activities of the Young Farmers Movement.

Rachel Howell

Dr Rachel Howell moved to Aber in mid-September, having just completed a PhD at the University of Swansea University, where she obtained her degree and Ph.D. She has held previous lectureships at Reading (UK) and most recently at Manchester Metropolitan Universities where she was Reader in Physical Geography. Her research interests are in drylands, particularly the Kalahari of southern Africa, where she has spent far too much time digging soil pits and looking intently at processes occurring in and on the desert sands. Her recent work has focused on the impacts of grazing and climate on biological crusts and soil carbon. This has taken him to the Malagakadi salt pans in northern Botswana, where he has looked at the biological and chemical uptake of carbon in hyper-saline and alkaline soils. Exploring the links between soils, ecosystem services and rural livelihoods is to also an important aspect of his work.

Andrew Thomas

Andrew Thomas has been appointed as the new senior lecturer in physical geography. This is a welcome return to Wales for Andrew, who is a graduate of Swansea University, where he obtained his degree and Ph.D. He has held previous lectureships at Reading (UK) and most recently Manchester Metropolitan Universities where he was Reader in Physical Geography. His research interests are in drylands, particularly the Kalahari of southern Africa, where he has spent far too much time digging soil pits and looking intently at processes occurring in and on the desert sands. His recent work has focused on the impacts of grazing and climate on biological crusts and soil carbon. This has taken him to the Malagakadi salt pans in northern Botswana, where he has looked at the biological and chemical uptake of carbon in hyper-saline and alkaline soils. Exploring the links between soils, ecosystem services and rural livelihoods is to also an important aspect of his work.

Kevin Grove

Kevin Grove joined IGES after completing his PhD at the Ohio State University in June 2011 and holding a postdoctoral fellowship at Dartmouth College the following year. His research bridges physical geography and political ecology to study how societies are governed through social and ecological uncertainty. As part of his dissertation research, Kevin conducted a participatory ethnography with Jamaican national disaster management agency to study the cultural and political effects of catastrophe insurance and community-based disaster management. His work has been published in geographic and interdisciplinary journals, including the Annals of the Association of American Geographers, Security Dialogue, Society and Space, and Geoforum.

Kimberley Peters

What better place to study the sea, than by the sea? Kimberley’s research focuses on human engagements with the oceans and she has most recently considered the legal aspects relating to offshore radio piracy, publishing papers in Environment and Planning A, Area and Geography Compass. Kim joins IGES from the University of Sheffield, having previously completed a doctorate at Royal Holloway. Kim will be teaching a range of modules from first year to Masters – with a particular focus on research methods!
BSc Environmental Earth Science
BSc Geography
BSc Daearyddiaeth
BA Human Geography
BSc Physical Geography

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