

THE BRIDGE

LINKING
PAST AND PRESENT
WITH THE FUTURE



August 2015



PRIFYSGOL
BANGOR
UNIVERSITY



The School of Ocean Sciences Association (SOSA) was founded in 1994 by Sinclair Buchan and George Floodgate. Its aim is to foster close links with all those who have passed through the SOS in Menai Bridge over the years. For further information:
www.bangor.ac.uk/oceansciences/alumni
www.facebook.com/sosbangor

If this newsletter is sent to a wrong address or e-mail, please notify us as soon as possible by going to:

www.sos.bangor.ac.uk/oceansciences/alumni

or contacting

b.w.perkins@bangor.ac.uk

President/Head of SOS

Chris Richardson
c.a.richardson@bangor.ac.uk

Chairman

Mick Cook
mick@mickcook.com

Associate/Founder

Sinclair Buchan
sinclairbuchan@gmail.com

Secretary

Paul Butler
p.g.butler@bangor.ac.uk

Treasurer

David Assinder
d.assinder@bangor.ac.uk

Alumni Development

Bethan Perkins
b.w.perkins@bangor.ac.uk

Editor

Kevin Deeming
kevin@kevjen.com

Chairman's Note

Well, another 12 months have flown by since I last penned a note to The Bridge. And what a year it has been. Your SOSA committee has been very busy with the introduction of the e-newsletter, the Mini Bridge (Y Bont Fach) - which we intend to issue annually — six months after the full edition of The Bridge — and preparations for the reunion weekend, which was held during the last weekend in June. The feedback from those that attended the weekend, which was held to celebrate the replacement of Westbury Mount with the new Marine Centre Wales, was very good indeed. Ninety alumni and members of staff attended and all of the events were fully subscribed. I have just about recovered! Chris Richardson has written an amusing article (with photographic evidence) on the weekend and this can be found on page 17.



A less successful story is that of the current demise of the offshore energy industry since the price of oil dropped significantly in the latter half of 2014. Why does this matter to SOSA? Well, not only has the sector provided a lot of employment to marine science graduates from Bangor University but it has also been very generous in its support of both SOSA (through advertisements in The Bridge) and the School of Ocean Sciences, through the provision of bursaries to selected MSc students. The current downturn has resulted in a drying up of funds for the time being. However, I predict this to be a temporary situation. One never quite knows when the up-turn will occur but occur it will. The global population is still heavily dependent on energy resources from below and above the seas in terms of oil, gas and wind, and there is increasing interest in various tidal generation devices and techniques.

On a positive note, SOSA is now more than 20 years of age – a real success story. However, now is the time to review where we are with SOSA and how we can ensure another 20+ successful years. During the next few months the SOSA committee will survey members to gauge interest in our ideas to ensure that we serve SOSA members and address the financial sustainability of the organisation. We would also like to explore ways in which we can leverage the incredible international network of what is known in some circles as the 'Bangor Mafia'. Both SOSA alumni and the SOS have an enviable reputation around the globe and anything we can do to perpetuate this in the face of increasing competition has to be worthwhile.

Due to the cost of mail, it will not be possible to survey those SOSA members for which we do not have an e-mail address. Currently, we have e-mail addresses for less than half of our members. In order for us to augment and update our e-mail database I would really appreciate it if you could forward such e-mail addresses/contact details of any alumni you suspect may not be on our database to me (mick@mickcook.com) and to Bethan Perkins (b.w.perkins@bangor.ac.uk). Bethan will ensure that such contacts will be added to the database, if not already there.

In the meantime, I wish you all the very best. Mick Cook

It is always refreshing to receive an e-mail with an article or some personal news. So, next time you have something to share, remember THE BRIDGE!

THE BRIDGE is a SOSA publication, free of charge to undergraduates, graduates and staff of the School of Ocean Sciences (SOS) and available to others through registration with the Secretary. Advertisements are carefully vetted but neither Bangor University nor SOS can take responsibility for them. The articles printed here, to the best of our knowledge, were correct at the time of going to press. The opinions expressed in the THE BRIDGE are those of the contributors and are not necessarily shared by Bangor University, the SOS, the SOSA committee or the Editor.

Cover
Photograph
by

© Bridget Jones
www.dreamstime.com

EDITORIAL

We have a veritable cornucopia of news and articles for you in this edition of THE BRIDGE. I hope that you enjoy it.

Why not think about sending us a short snippet (100 words say) for the digital Winter edition, 'Y Bont Fach', or a longer piece for next year's THE BRIDGE. Make sure that any photographs are of high resolution.

Whilst putting together this year's edition of THE BRIDGE, I was struck by the following:

- Where are the physical oceanographers & geoscientists?
- Where are the people in industry and commerce?
- Marine Vertebrate Graduates seem to be everywhere. Well done.
- More photographs of bridges around the world and UK — with some information about the bridge and the person sending it — would be great.

Finally, a competition. And a competition means prizes; well, only one prize. Unfortunately, you will have to live in the UK and have a smartphone. The person who can tell me how many times the Head of School appears in photographs in this edition will win a bottle of wine from M & S. It will be sent to the winner by the social treating app, GIVVIT (Take a look, it is really interesting: www.givvit.com). After one month, all correct answers will be put in a hat and the winner drawn. The Editor's decision will be final. Have a good 2015/2016.

Kevin Deeming

kevin@kevjen.com

GOLYGYDDOL

Mae gennym gyfoeth o newyddion ac erthyglau i chi yn y rhifyn hwn o Y BONT/THE BRIDGE. Rwy'n gobeithio y mwynhewch ei ddarllen.

Pam na wnewch chi ystyried anfon pwt o erthygl (oddeutu 100 gair) atom ar gyfer rhifyn digidol y Gaeaf, 'Y Bont Fach', neu ddarn hirach ar gyfer Y BONT/THE BRIDGE flwyddyn nesaf? Gwnewch yn siŵr bod unrhyw ffotograffau o gydraniad uchel.

Wrth baratoi rhifyn Y BONT/THE BRIDGE eleni, fe'm trawyd gan y canlynol:

- Lle mae'r eigionegwyr a'r geowyddonwyr ffisegol?
- Lle mae'r bobl mewn diwydiant a masnach?
- Ymddengys bod graddedigion Fertebriaid Môr i'w gweld ymhob man. Da iawn chi!
- Byddai'n wych cael mwy o ffotograffau o bontydd o gwmpas gwledydd Prydain a'r byd - gyda gwybodaeth am y bont a'r unigolyn sy'n anfon y llun.

Yn olaf, cystadleuaeth. Ac mae cystadleuaeth yn golygu gwobrau; wel, dim ond un wobwr. Yn anffodus, mae'n rhaid i chi fod yn byw yn y DU ac yn meddu ar ffôn clyfar. Bydd y person cyntaf i ddweud wrthyf faint o weithiau mae Pennaeth yr Ysgol yn ymddangos mewn ffotograffau yn y rhifyn hwn yn ennill potel o win o M&S. Caiff ei hanfon at yr enillydd drwy'r ap GIVVIT (cymerwch olwg, mae'n ddifrif: www.givvit.com). Ar ôl un mis, bydd pob ateb cywir yn cael eu rhoi mewn het a bydd enillydd yn cael ei ddewis. Bydd penderfyniad y Golygydd yn derfynol. Mwynhewch 2015/2016!

Kevin Deeming kevin@kevjen.com

Two SOS Alumni Receive Honorary Fellowships

Donal Manahan — Professor of Biological Sciences and Vice-Dean for Students, University of Southern California
Ed Hill OBE — Director of the National Oceanographic Centre, Southampton



(Left to right) Emeritus Professor John Simpson, Professor Ed Hill, Vice Chancellor Professor John Hughes, Professor Donal Manahan and Head of School, Professor Chris Richardson

Glass Shrimps and Moulting Crabs

Kristina Turner from the BBC and independent cameraman Richard Kirby spent 10 days filming the trials and tribulations of life in rock pools in the basement aquarium of the Nuffield laboratory (fish lab) at the School of Ocean Sciences as part of the recent BBC "Springwatch" series. Research officer and alumnus, Dr Nick Jones, provided advice to the team and sourced and maintained a wide range of typical rock pool marine organisms that were subsequently filmed going about their daily life in an aquarium "rock pool set". Richard Kirby is no stranger to filming in Menai Bridge as in his early career he filmed barnacle cyprid larvae settling on rocks in the old Westbury Mount aquarium. In Episode 2 a glass shrimp was filmed going about its daily life in an artificial rock pool and in Episode 8 a common green shore crab moulted its shell. This is believed to be the first time that a crab moult has been filmed for broadcast.



Cameraman Richard Kirby with Kristina Turner and Dr Nick Jones filming an underwater rock pool scene.

WE WELCOME TWO NEW MEMBERS OF STAFF

Dr Line Cordes

We are pleased to report that in January this year Dr Line Cordes joined the school's academic staff. She specialises in marine mammal and seabird population ecology. During her MSc and PhD at the University of Aberdeen, she developed and ran a project on the demography and reproductive ecology of harbour seals.



Following the completion of her PhD in 2011, Line worked as a postdoc at the Lighthouse Field Station, exploring the potential impacts of wind farm construction on harbour seals, and investigated the impacts of seismic surveys on cetaceans in the Moray Firth. Line has joined the staff from Colorado State University (CSU), USA, where she explored the impact of environmental variation on the seasonal survival of yellow-bellied marmots.

l.cordes@bangor.ac.uk

Dr Yueng-Djern Lenn

We are pleased to report that in January this year Dr Yueng-Djern Lenn joined the school's academic staff. Yueng graduated in Physics from Cambridge and then undertook a PhD looking at the dynamics of the Southern Ocean at the SCRIPPS Oceanographic Institution in California.



She then moved to Bangor to join the Ocean Physics group as a Post Doctoral researcher but was quickly awarded a prestigious NERC Fellowship. Although a native of Singapore, Yueng's research specialises in physical processes which drive the high latitude ends of the Ocean Overturning circulation and she has visited the Antarctic three times and the Arctic once to undertake field work.

y.lenn@bangor.ac.uk

Lost at Sea Barney the dog finds 50 year old Drifter

No. It's not the Head of School; it's a Woodhead Seabed Drifter!

A keen fell-walker and beachcomber was surprised by what his dog Barney found on a beach last year. David Russell, a retired salesman from Batley, West Yorkshire was walking on the beach at Silecroft on the West Cumbrian coast, during one of his frequent visits to the region, when Barney found a red plastic disk with a tag. What Barney and David had found was a drifter released by oceanographers at the Marine Science Laboratories, Menai Bridge as part of a research programme to investigate the movement of tides and currents in the Irish Sea. However the Menai Bridge scientists did not learn much from this particular drifter—as it had been at sea since the mid 1960's!

David Russell was not too surprised by his find, saying that it was actually his third! He'd previously found another device and a meteorological balloon on the beach and he commented that "There must be something about the currents that bring things to the beach. When I found this drifter it had just come in on the tide, but it's also a quiet beach without many visitors".

A plastic strip (tag) attached to the plastic disk requested that the finder returned the tag with date and place



found before December 1968 to receive a reward of 5/- or 25 p in post-decimalisation currency!

The tag had been released by alumnus Dr John Harvey, a retired oceanographer from University of East Anglia, who worked in the mid-sixties at the "Marine Sciences Laboratories" John's research was investigating the movement of seabed and sea-surface

currents in the Irish Sea and the drifters typically had return rates of about 34%.

From Mr Russell's description of the plastic drifter, it probably became lodged on some underwater obstruction or buried under sand and shingle on the beach, as one side appeared more worn and scoured by sand or stones than the other. The recent exceptional winter storms last year probably were responsible for unearthing and freeing the drifter from its resting place.

It is disturbing that plastics remain in an un-degraded condition and have such a long life in the sea—the plastic disc and tag from this drifter were in very good condition after nearly 50 years!



John Harvey

5/- REWARD RETURNED WITH DATE AND PLACE FOUND TO MARINE SCIENCE LAB. MENAI BRIDGE, N. WALES BEFORE DEC. 1968 A2716B

About 2,500 Alumni have opted for a paper copy of THE BRIDGE and 1,700 for a digital one. The latter also get Y Bont Fach (The Little Bridge) each New Year, which is only produced in digital form.

As you will see from our Chairman's note, costs and ease of communication are forcing us to go the e-mail route as much as possible, particularly if you are living overseas. Why not send your email address — and those of any other Alumni, who you think may be interested — to Bethan Perkins (b.w.perkins@bangor.ac.uk)?

Menai Bridge Seafood Festival Saturday 30th August 2014



SOS opened wide the doors to the Cemlyn Jones Laboratory to the general public during the 2nd Annual Seafood festival to show-case its research. Demonstrations included displays of research relevant to the local seafood industry, the work of SEACAMS and CAMS and examples of cutting edge scientific research being carried out in SOS. The Ocean Sciences team (SOS staff in bespoke dark blue polo shirts) and students (orange T shirts) gathering on the steps outside the Craig Mair Laboratory.

The Cemlyn Jones Laboratory with displays of research being undertaken in SOS



News from the SOS



Is that Samphire (*Salicornia europaea*)? Alumni and staff members Drs Raquel Quinta and Julie Webb showcase their research on Samphire cultivation.



Displays of organisms entranced the visitors and alumnus Dr Lujain Alsayegh and PhD student Kringpaka Wangkulangkul were on hand to explain their mysteries.



Vice-Chancellor Professor John Hughes toured the exhibits stopping to chat with some of the undergraduate students manning Dr Andrew Davies's exhibit on the impact of discarded plastics and microplastics in the oceans.



Professor Colin Jago and Dr Mike Roberts demonstrating to the Vice Chancellor how the terrestrial laser scanner works to create a digital image of the Telford suspension bridge

News from the SOS



Alumnus and staff member, Dr Mike Roberts, and son Ethan manned an exciting demonstration of rocks, minerals and fossils. Mike explains about sharks teeth to the Vice Chancellor.



Whilst Professor James Scourse tries out the old 'Head in the *Tyrannosaurus rex* mouth' trick.



Staff members Drs Simon Neill and Mattias Green explain to the Vice Chancellor how their circulation models are helping to understand the physical and biological processes in our coastal waters

DON'T TOUCH THAT BUTTON!!

Visitors also enjoyed escorted tours around the Prince Madog, although they proved so popular that all of the tours were fully subscribed by 11.00 a.m.

The Prince Madog's captain, Jerry McCabe, demonstrates the finer points of the electronic equipment on the Bridge of the Prince Madog to the Vice Chancellor





Summer Bursaries

Each year, the School of Ocean Sciences offers a series of summer bursaries to 2nd year undergraduates to enable committed and able students to work alongside and assist members of staff undertaking research or outreach activities. This can be for a period of 5-8 weeks.

Here are the students and their research projects for 2015

Student	Bursary	Project	Supervisor(s)
Edward Doherty	Barry Paine	Relationship between seabed stress and benthic biomass on the shallow shelf	Martin Austin Mike Kaiser
Michael Thore	Barry Paine	Spatial variation in size at age and growth rates of a commercially important bivalve species	Claire Catherall Mike Kaiser
Maria Hayden-Hughes	Barry Paine	Mapping the intertidal habitat of Sabellaria beds in three dimensions using GIS	Andy Davies
Lydia Tabrizi	Barry Paine	Quantification of the chronic effects of trawling on benthic assemblage structure and biogeochemical cycling	Marija Sciberras Jan Hiddink
Jessica Bridgman	Deeming	Relationship between seabed stress and benthic biomass on the shallow shelf	Martin Austin Mike Kaiser
Jessica Marie Simmons	Deeming	Quantification of the chronic effects of trawling on benthic assemblage structure and biogeochemical cycling	Marija Sciberras Jan Hiddink
Louise Richards	Deeming	Physiological responses of crabs to climate change	Coleen Suckling Nia Whitely
Alexandra Barnsley	Gavin Winsborrow	Tidal amplitude trends in sea-level data	Mattias Green
Matilda Painter Jones	Leslie Cooper	Physiological responses of crabs to climate change	Coleen Suckling Nia Whitely
Oliver Glaze	Leslie Cooper	The responses of crab megalopae and juveniles to climate change	Luis Gimenez
Richard Joseph Castelino	Sea Zoo	Relationship between seabed stress and benthic biomass on the shallow shelf	Martin Austin Mike Kaiser

The **Final Year Darbyshire Prize** was won by **Bonita Barrett-Crosdil**. The prize is awarded annually to a student whose academic performance is judged to have been particularly meritorious that year.

The **Postgraduate Darbyshire Prize** was awarded to **Megan Baker**

The **Gavin Borthwick Memorial Prize**, which is awarded to a first-year mature student who shows the most promise in Marine Biology, was won by **Wai Man Vicky Tsoi**

The **Ray Delahunty Memorial Prize** was won by **Eleanor Catherine Pawley**. This prize, in memory of a former student in the School, takes the form of book tokens and is awarded to the best first-year student taking the Joint Honours Degree in Marine Biology and Oceanography.

The **Jeremy Jones Memorial Prize**, which is awarded to a student who has recently completed the MSc in Marine Biology, went to **Simon Polyveus Wilson Karythis**.



The School of Ocean Sciences would like to express its sincere gratitude to Folarin Lajumoke for funding African students, who have been studying the Applied Marine Geotechnics over several years.

The last recipient of the award is

Juliet Nwabuzor. Research Project: 'Factors that affect laser scanning in the coastal environment.'

Nautilus Scholars



The Nautilus Scholars for 2014/2015 are Charlotte Pashley (MSc Marine Environmental Protection), Jamie Hayes (MSc Marine Biology), Gregory Luke Keefe (MSc Physical Oceanography) and Megan Lorna Baker (MSc Applied Marine Geoscience).

MSc Scholarships

Our close marine commercial organisations continue to contribute generously to two MSc scholarships. Recipients of the awards and their research projects this summer are:

Fugro Survey Scholar

Edward Lockhart.

Research Project: 'The deglacial chronology of the last British-Irish ice sheet'.

Gardline Scholar

William Miller.

Research Project: 'Geophysical mapping of a coastal barrier system for hydrogeological applications.'

Visitors to SOS

Rydal School — SOS alumni assist in recruiting new marine scientists for the 21st century.

In January a group of thirteen year 12 students visited Ocean Sciences with two of their teachers – alumni Ian Richardson (MSc Shellfisheries and Aquaculture 1992) and Liane Hadley (Marine Biology/Zoology 2001). SOS staff - Dr Suzie Jackson (lecturer in marine sediments) and Dr Kate Griffith (Welsh medium lecturer in marine ecology) gave the students an introduction to the marvels of marine science and a tour of Ocean Sciences and the Prince Madog.



Head of School, Suzie Jackson, and Kate Griffith with visiting alumni Liane Hadley and Ian Richardson and students.



All aboard the Prince Madog, Rydal-Penrhos year 12 students with SOS alumni Liane Hadley (far left) and Suzie Jackson (far right).



Budding marine scientists get a taste of life at the helm. Students took turns to sit in the Captain's chair aboard the Prince Madog.

Qatari Alumni – 10th March 2015.



(left to right) Dr Jeffery Obbard (Director of the Environmental Studies Centre) with Professor Chris Richardson, Professor Lewis LeVay and Qatari Alumni Ibrahim Al-Maslamani and Ibrahim Al-Ansari in the Kirby Laing laboratory aboard the Prince Madog.



Admiring the view from the stern deck of the Prince Madog, the group was joined by the Dean of College, Professor Colin Jago (far right).

An Apple for the Teacher

Ocean Physics lecturer Mattias Green recently won the highly prestigious Bangor University student lead teaching award “**Teacher of the Year**”.

Organised by the Students’ Union, the SLTA gives students the opportunity to show their support and appreciation to staff who have shown dedication and hard work throughout the students’ time at Bangor. With over 300 nominations across 11 categories this year, it is clear the student body recognises the fantastic contribution staff members have made across all services and schools.

Further information:

<http://www.bangor.ac.uk/oceansciences/news/student-led-teaching-awards-2015-22874>

The award comes hot on the heels of Mattias’ victory in the **Endeavour Society’s “Top of the Profs”** competition in which 4 academic staff members make their pitch as to how exciting their research is, and the students then vote for the staff member whose research they most like.

Mattias, whose research focuses on the role of tides in driving ocean mixing, talked about what he called the “Space 1999” scenario and the global consequences if the moon broke loose from its orbit around the Earth.



Dr Mattias Green (centre) receives “Teacher of the Year Award” from Professor Oliver Turnbull, Pro VC for teaching (left of photograph) at the Student-Led Teaching Awards Ceremony. Well done Mattias.

Congratulations also to Alumnus, Dr Coleen Suckling, who received the “Open Award”.

New MSc in Marine Renewables

This October SOS will be launching a new MSc course in Marine Renewable Energy, building on long established expertise in Ocean Physics and shallow sediment Marine Geophysics, together with a growing recognition of Bangor’s leadership in this through Dr Simon Neill and his research group.

Marine renewable energy uses the natural power of waves and tides to generate electricity. Marine renewables is an exciting, fast growing, high tech industry that has the potential to become one of the largest high tech exportable industries in the UK economy.

See more at:

<http://www.bangor.ac.uk/news/latest/new-msc-at-bangor-university-generating-electricity-and-jobs-in-marine-renewable-energy-23086#sthash.15VtoGL1.dpuf>

The new postgraduate taught course will train the next generation of scientists. Those graduating from the programme will be in high demand across the marine renewable energy sector, working for device developers as resource analysts, entering oceanographic consultancies and working on *in-situ* and modelling studies for the wave & tidal industry, and geophysical surveying for the industry. There will also be opportunities to work on grid infrastructure (National Grid) and cabling, for leasing bodies such as The Crown Estate, and working for government-sponsored environmental bodies — such as Natural Resources Wales, assessing environmental impacts.

The new course will run alongside the already highly successful MSc’s in Physical Oceanography and Applied Marine Geosciences.

Contact Simon Neill for further details: s.neill@bangor.ac.uk

Research Excellence

Every five years, UK Universities are assessed as to the global impact of their research. In the most recent survey, Bangor University fared well with more than three-quarters of its research classified as either world-leading or internationally excellent.

See more at: <http://www.bangor.ac.uk/news/research/bangor-university-recognised-for-world-leading-research-21262#sthash.EbtWRvno.dpuf>

Ocean Sciences, under the “Earth and Environmental Sciences” unit of assessment, performed particularly well with 89% of research in this area classed as world-leading or internationally excellent. As a result, we finished in second place (to Southampton) amongst the largely Ocean Science submissions (i.e. ahead of Liverpool, Newcastle, Portsmouth, Plymouth, etc.). For the first time, the impact of global research beyond academia (i.e. economic development, government policy, societal impact) was assessed, with the impact of SOS fisheries conservation and marine turbulence research rated as world leading.

Is it a bird? Is it a plane? Is it H of S?... No, it's an Eclipse!

On Friday the 20th March 2015, Ocean Sciences staff stopped working for half an hour to view an eclipse of the sun. As staff began arriving for work the background light was fading and by 09.30 an almost total eclipse was underway.



Staff and students gathered to watch the unusual sight. SOS photographer, David Roberts had assembled a range of old and new equipment for observing the eclipse. Creative Dr Andrew Davies appeared with his homemade pin hole camera (front row with cardboard box in hand). Everyone had a good view of the eclipse and although a band of cloud moved in for a while and threatened to spoil the view of the eclipse, the final period of the eclipse could clearly be seen. Oceanographers Professor Tom Rippeth and Dr Yeung-Djern Lenn were on hand to explain the observed astronomical processes.



Eclipse of the sun through the parting cloud cover.

And the winner of the 2013-2014 Ocean Sciences annual cake competition is Dr Lujain Alsayegh!



Lujain, the overall winner of the cake competition, receives a cheque for £534 towards her favoured charity – Mission Blue. Donations were collected throughout the year during the weekly cake competition elimination rounds. Lujain also received the obligatory signed wooden spoon from Dr Kathryn Hughes that is passed on from one winner to another.



The array of the finalists cakes was “mouth watering” and Lujain beat off strong competition last year.

This years cake competition winner will receive, for a year, the “Dylans” engraved shield. In a sponsorship deal, Dylans Seafood Restaurant in Menai Bridge has provided a shield for the cake competition winner. Jane Evans from Dylans — together with one of the organisers of the cake competition, Jenny Shepperson — is seen displaying the shield to SOS staff and students during one of the elimination rounds.

Ho! Ho! Ho!....Guess who?



Father Christmas made an unexpected appearance at the annual Ocean Sciences Christmas Party at Neaudd Reichel Hall.

Ed. The prize for guessing correctly is a set of reindeer ears! — only joking.

Prizes can be won!



Father Christmas with the reindeer Christmas party organizing committee - Claire Catherall, Kathryn Hughes and Jenny Shepperson (L to R).

ILLUMINATING ATOMS

The portrait of academic staff member, Professor Hilary Kennedy, went on show at the Albert Hall, London, and then to other venues around the country, to celebrate the International Year of Crystallography.

ILLUMINATING ATOMS presents a selection of photographs by Max Alexander, portraying the inspirational work of crystallographers. Through portrait and documentary photography, Max showed the life of scientists at the cutting edge of discovery, including some of the world-class facilities they use. <http://www.stfc.ac.uk/research/illuminating-atoms/>

Hilary uses crystallography to see how minerals form under very cold conditions, often working at temperatures below -20°C . Her work is helping to understand and learn more about the extreme environments of Antarctica, by uncovering the natural world hidden within sea ice and in the sediments deep beneath the coldest oceans.



Outstanding PhD student, Claire Catherall, receives the prestigious Drapers' Bronze medal from the Master of the Draper's, Nicholas Bence-Trower



Claire has recently completed her PhD on the Population Characteristics and Environmental Interactions of the King Scallop Fishery in the English Channel.

The Drapers' Company is one of the historic Livery Companies of the City of London, and now a philanthropic organization and kindly donates two medals to Bangor University each year to be awarded to outstanding postgraduate students. For over a hundred years the Company has been linked to the University, initially through substantial grants towards the construction of some of the University's main buildings including the library, science laboratories and the electrical engineering department. Today, through The Thomas Howell's Education Fund for North Wales, the Company supports undergraduate and postgraduate students in various departments and faculties, and contributes to a postgraduate hardship fund providing modest support for individuals' living expenses. The Drapers' support and part-fund the annual Virginia Institute of Marine Sciences (VIMS) field course to Virginia, USA.

The Road to Bangor 'Peer'



Ocean Sciences students have triumphed in the annual Peer Guide awards. Here are SOS undergraduate students (from left to right): Hannah Lee, Laura Holmes, Maria Hayden-Hughes, Nicola Beardsley, Joel Ellis, Olivia Ryan and Lydia Tabrizi receiving their certificates for being a peer guide.

And the winner of the 'Peer Supporter of the Year' is Hannah Lee.



Anglesey Sea Zoo, Brynsiencyn, Sponsors a Summer Bursary for a Welsh Language Marine Biology Student.

The Anglesey Sea Zoo has established an 8 week funded placement for a Welsh speaking Ocean Science undergraduate student during the summer vacation in memory of the late Dr Eilir Morgan. Eilir conducted part of his PhD on the non-native New Zealand Oyster in aquaria at the Sea Zoo and along the intertidal foreshore of the Menai Strait. Frankie Hobro, Marine Environmental Protection (MEP) MSc (2001), owner and Director of the Sea Zoo, says: "Eilir was a familiar and happy face at the Sea Zoo, much liked by all the staff and considered to be a good friend by many. This placement now established in his honour acknowledges his valuable contribution and how much he is missed by everyone here".

Last years recipient of the sponsorship was Victoria Collier who graduated

with an "M" Degree (1st class) this year.

Victoria enthusiastically explains "I felt the placement at Anglesey Sea Zoo was very beneficial and interesting. It gave me the opportunity to increase my marine biology knowledge in addition to husbandry skills that proved very useful during my final "M" Degree year experimental project."

My presentation and communication skills improved greatly throughout the placement through the medium of both English and Welsh. I enjoyed the opportunity to present information to the public in Welsh as it allowed me to develop my confidence in communicating publicly in Welsh. Diving in the 'Big Fish Forest' was definitely a highlight!! Very exciting! Overall the placement was an amazing experience and I enjoyed every day."

Zoo Team Manager Sarah Meakin, MSc 2006 (Shellfish Biology, Fisheries and Culture) reports "Many of the staff at the Sea Zoo have fond memories of being at Bangor University therefore the Eilir Morgan placement provides the Sea Zoo with an opportunity to give something back to the University by supporting the professional development of future graduates. The annual placement enables the students to develop key skills that they can use throughout their academic career, whilst helping the Sea Zoo to meet two of its key objectives - raising awareness of the British marine environment and promoting the use of the Welsh language."

Web - www.angleseyseazoo.co.uk

Facebook - www.facebook.com/ASZMRC

Twitter - [@angleseyseazoo](https://twitter.com/angleseyseazoo)



Vicky preparing squid for feeding to some of the marine inhabitants of the sea zoo



Part of Vicky's role was to introduce the exhibits and explain them through her native Welsh language.



Alumnus and Professor of Oceanography, David Bowers, is to receive an award from the Remote Sensing and Photogrammetry Society (RSPSoc) at the society's annual conference in Southampton in September for his work on using satellites to study the ocean. The award is granted for 'services to remote sensing...through sustained and distinguished contribution to furthering science and applications which use remote sensing'. Dave's research group have been involved in advances in the remote sensing of ocean thermal fronts, algal blooms, salinity and suspended sediment patterns and are using this information to learn more about how our seas work. The award is made on an occasional basis and Dave is the 9th recipient since 2000.

Rib-Ride, Cakes, Dinner and a Tour of Ocean Sciences during the Grand Alumni Reunion Weekend Gathering.



All aboard the Skylark



On your marks. Get steady.

The alumni reunion began in earnest at 14.00 on Saturday 27th June for 22 intrepid alumni with an exhilarating dash along the Menai Strait to Beaumaris — interspersed with quiet interludes to catch our breath and to hear about the history of the area, the buildings and Bangor Pier that line the banks of the Menai Strait. This was followed by a mad dash into the Swellies and some exciting tight circles at speed with G forces in excess of 2-3! Wind-blown and spray spattered, the group retired to Dylans Seafood restaurant overlooking Menai Bridge Pier and were joined by other alumni for cakes, tea and coffee.



Go! Go! Go!



Relaxing with tea and cakes at Dylan's (<http://dylansrestaurant.co.uk/menaibridge>)— do you recognize anyone?

News from the Alumni

In the evening dining at Reichel Hall, Bangor. Alumni arrive and catch up with their lecturers, old friends and colleagues. Then off to dinner in the main hall.....



Time to catch up with other alumni, enjoy the 3-course meal and raise a toast to the future



And then the speeches.....



An introduction and message from our leader, Mick Cook...



...and recollections of life in hall in the seventies by Head of School: "I opened the door and found I was sharing a bedroom with two other blokes and we had one bath between 20 students!"



Welcoming the alumni Vice-Chancellor Professor John Hughes



...whilst Craig Kensler entertained us with tales from the sixties – "Dennis Crisp insisted that everyone came to coffee in the morning and tea in the afternoon and a bell was rung to summon all the staff and students to the coffee room".

Craig also kindly gave a vote of thanks to the organizing committee from the assembled Alumni. Then Kevin Deeming concluded the speeches by presenting framed photographs of a winter scene of the Menai Strait, the Telford suspension bridge and Swellies to the two 'founding fathers' of the Alumni Association – retired staff members Sinclair Buchan and George Floodgate – in recognition of their work for the Association.



For once in their lives both George and Sinclair were "almost speechless"! The evening concluded with a Ceilidh before carriages arrived at midnight.

News from the Alumni

The morning after the night before, about 60 alumni gathered in the Dennis Crisp lecture theatre in Craig Mair to hear presentations from the Head of School (H o S) on progress in SOS over the last 50 years and from the Dean of College of Natural Sciences about Marine Centre Wales and the multimillion SEACAMS project in SOS. Following coffee and presentations, the alumni toured the “nearly completed” Marine Centre Wales building that has risen from the rubble following the demolition of the old Westbury Mount house and associated sixties “butterfly” laboratory. Although the building has a little way to go before completion the alumni were shown most of the areas and were able to marvel at the wonderful views afforded from the third floor coffee room and offices. The building is a 21st century addition to the Ocean Sciences portfolio. The alumni were shown around the state of the art teaching facilities, aquarium and the Prince Madog moored on Menai Bridge pier. The alumni left at around 13.00 hrs to return to the far corners of the U.K. and the World vowing to meet again in the not too distant future.



Marine Centre Wales emerges but is not yet completed. A welcoming atrium will have a large multi-screen video highlighting the work of SEACAMS and Ocean Sciences staff.



Coffee room and balcony (with views over the Menai Strait) and laboratories



The conference centre (lecture theatre) and, on the outside of the building, cedar baffles to reduce the sunlight entering and causing over-heating of offices in the building.

The Good Old Days

Arrivals

I arrived at the Marine Science Laboratories in Menai Bridge in late September 1966. I was based in Westbury Mount, “a house built in spacious Victorian style ... [with] defects characteristic of old buildings; an unsuitable layout, unstable floors, dry rot and, it is believed, a poltergeist; nevertheless its situation was ideal”. I quote from Dennis Crisp’s Opening Address to the EMBS IV in September of 1969.

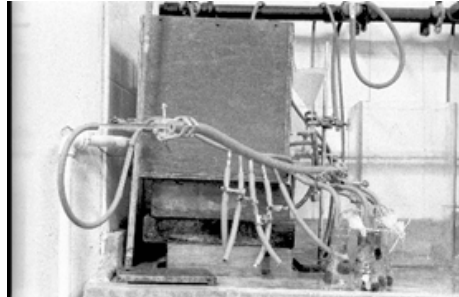
The buzz at the time was the imminent arrival of the *Prince Madog*, many were eager to get out on sea-going work because their programme demanded it (Richard Kenchington below), or simply to assist (= have fun; Chris Alexander on the right, or myself for that matter). This of course was the first *Prince Madog*.



Field Work

My own field work was in the intertidal zone of Porth Cwyfan where I sampled the edible periwinkle to study growth and reproductive dynamics, seeking to convert measures to the ‘currency’ of biological energetics. To harvest the eggs of this plankton dispersing breeder, I kept small populations in the lab in spawning arrays, the prototype is shown. This improbable and Heath Robinson apparatus led to the observation that the males did not resorb the penis at the end of the breeding season (of some 3 or 4 months) but rather they shed it – considerably altering the then understanding. A quick sampling foray confirmed that the same thing was going on in the field, and the observations

led to my one and only paper in Nature. Not, in 1969, what Nature is now, not by any means! But there the paper sits as a wonderful distortion to my ResearchGate score. Impact Factors, who believes in them?



Westbury Mount

“Unstable floors” – and uneven too, and the whole building full of snares for the unwary. One of my work places was in a disused dark-room, where in the chill of one January I inadvertently disturbed a bung in pipework under the sink. The bung stayed put till I had left, then came out, allowing the attic-mounted sea water header tanks to empty unnoticed into the room a floor below. Unnoticed, until others on that floor discovered they were paddling – by which time the sea water had gone into the electrical system, and the heating collapsed, bringing work to a temporary halt.

The tiles of the ground floor inside the main front door were solid enough, and on a quiet Saturday afternoon with only two of us in the building, I dropped a large desiccator lid on to them – it shattered with a wonderful bang. The loud whistling from my companion in the top of the building, unseen but much heard, abruptly ceased. Did he think of the poltergeist? – there was a nervous enquiry as to what had happened.

Microscope Saga

Solidity of a different sort was created in the basement of one of the satellite houses, Bryn Maelog, housing a transmission electron microscope in the basement, and a group of users clustered in the building. Then came a phone call from a research council in late winter, could some money be spent? But quickly, it was near the end of the financial

year. Would a scanning microscope not be a good idea? An excellent idea, but could ‘The College’ move fast enough? Unlikely, so don’t tell them. Out came the saws and the DIY skills, a large hole was cut in the tea-room floor, there was re-directing of electrics and plumbing, and a concrete lorry was ordered (who paid? – that I don’t know). The new plinth was cast and had set before representatives from the Estates Office arrived to check on the rumours which had now reached them. They must have decided there was no going back.

Onwards & Upwards

Dennis Crisp dated the birth of the Marine Biology Station to 1948, which is when the idea was formally adopted. He arrived as director in 1951, and seems to have driven the purchase of Westbury Mount as “temporary accommodation” for the Station. I arrived at what was now the Marine Science Laboratories less than two decades in. We are now nearly five decades further from that; the first *Prince Madog* has her successor, to be followed now by Marine Centre Wales on the site of the “temporary accommodation” of Westbury Mount. I greatly look forward to seeing this development realised, and will look back with many emotions including, yes, much affection for the old days and the old place.

Happy Christmas

In a drawer in yet another darkroom I found this ... perhaps unseasonal, but I bet nobody has seen it for a long time. Author? Robin Gibson, early 1960’s?

Dr John Grahame is a Senior Lecturer at the University of Leeds with a particular interest in marine invertebrates.

j.w.grahame@leeds.ac.uk



A Moment in Time

Coming to University College of North Wales, Bangor / Menai Bridge in September 1961 to study for my PhD under the supervision of Denis Crisp was one of the two best decisions I ever made.

To my delight Crisp had accepted me as one of his PhD students – and pointed out that I would be his first student from the USA and the first at the University College of North Wales, Bangor. I was 24 years old, very excited and I had never been in the UK or Europe before.

The Marine Biological Station in Menai Bridge was housed in the old Westbury Mount building (which was demolished last year to develop the Marine Centre Wales complex) Westbury Mount was a large, old three storey Victorian house with a maze of rooms.

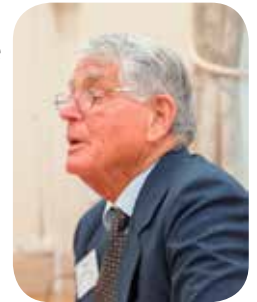
Most rooms were occupied by staff, graduate students or in use as teaching / lab spaces. The Station had

a small library, a conference room (where tea was served each morning and afternoon – an old school bell was rung to call staff and students), wood and metal workshops and a kitchen.

Several rooms on the ground floor were supplied with running seawater and concrete wet lab tables were built along the walls. The seawater system may have been simple but it was very efficient and well maintained. Students could conduct a range of basic wet-lab experiments using live animals and plants without leaving their rooms.

There were about 9-10 scientific staff and 4-5 technical staff at the Marine Biological Station in Menai Bridge when I arrived in late 1961. There were PhD students from Trinidad (1), UK (2), India (1) and USA (me). In 1961-62 there were no one year modular MSc degree courses, nor had the Marine Sciences Labs been developed. Those two important developments took place about 1963.

Additional students from the UK (4), Pakistan (1), Africa (1), Canada (1), Malaysia (1) and Cyprus (1) arrived for research degrees in 1962-63 and several more marine staff were appointed.



Let me finish my Bangor / Menai Bridge memories of 1961-65 by stating that, for me, Dr Crisp was an excellent supervisor – and we became good friends.

The other best decision I ever made was my marriage to Gwyneth in May 1965. In a month's time we celebrate our 50th wedding anniversary. Thank you Gwyneth for sharing so many wonderful memories with me since we met in Menai Bridge.

Quotes from the 27 June reunion dinner talk by Professor Craig Kensler.
craig.kensler@hotmail.com

Extract from Katy's Blog (April 2015)

In March 2015, nine months after completing a degree in Marine Vertebrate Zoology, I travelled from the UK to the other side of the world – to Fiji, the home of some of the best shark dive sites in the world.

My love for sharks began from a young age and having completed my degree I find nothing more enjoyable than diving with sharks in their natural environment.

I am staying on Beqa Island for six months, working as an Assistant Research Officer. I am completing marine surveys on the coral reefs within Beqa Lagoon. Since arriving over one month ago, I have seen white tip reef sharks on almost every dive, especially at my favourite dive site Vuvalae.

Beqa Island is less than an hour's boat ride away from Shark Corridor on the southern coast of Viti Levu, where shark feeding dives takes place. A few weeks ago I got the chance to experience a shark feed for myself.

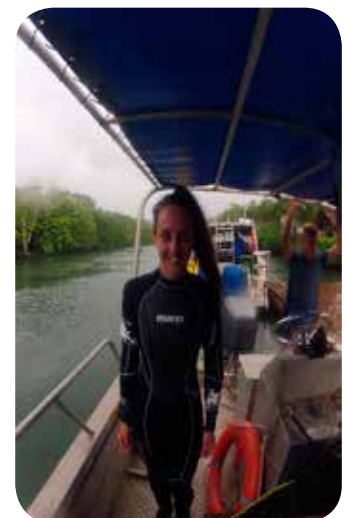
The volunteers and I kitted up on the boat

before back rolling off the boat into shark infested waters. Some of the volunteers were nervous but I was so excited! The first things I saw beneath me were dark silhouettes – sharks! We descended following our Divemaster and knelt behind a wall of coral looking into an arena in which the Fijian shark feeders entered with bins full of fish heads. In the Fijian culture there is a God legend known as Dakuwaqa who takes the form of a shark and so the Fijians are fearless!



First, the tawny nurse sharks and sicklefin lemon sharks were hand fed. Circling us were also blacktip and silvertip sharks as

well as hundreds of fish swarming with many of the indicator species, which we had been surveying at our dive sites in Beqa Lagoon.



Kathryn Ayers: ktayers@hotmail.com

You can follow Katy's blog: <http://blog.frontiergap.com/fiji-marine-blog/2015/4/16/the-sharks-of-fiji.html>

Turbulence Control!



Suzie Jackson completed her BSc in Marine Biology in 2005 and MSc in Applied Physical Oceanography in 2009. This multidisciplinary background led her to undertake a PhD, entitled: *'Turbulence control of floc size in the river-estuary transition zone'*, which was awarded in 2014. Suzie is now lecturing in the School of Ocean Sciences, specialising in estuarine sediment dynamics. In addition to her academic endeavours, Suzie is part of the British Women's White Water Rafting team.

Rafting competitions involve white water racing and slalom, which take the team all over the globe. The most recent championship that the team attended was the 2015 European Championship held in Bosnia and Herzegovina. After finishing 5th in the last world championships in New Zealand in 2014, the team improved significantly by winning overall Gold in Bosnia and Herzegovina. The competition spanned four days with a potential medal winning discipline every day. The British team started with a Silver medal in the Sprint discipline, followed by a Gold medal in the Head-to-Head racing, followed by a Bronze medal in the Slalom event and, finally, a Silver Medal in the 14km downriver endurance event on the last day. These positions combined put the British Women's team overall first in the competition, followed by Russia and Italy.

If White Water Raft racing sounds appealing, find out more and get involved via the British Rafting Team website : www.britishraftteam.co.uk.

As so often with minority sports, funding is an issue and the British Team are looking to raise cash to go to the world championships. Anyone who is interested in helping out can find the team's funding page at www.gofundme.com/vktadh9

Interestingly, Suzie's father is also an alumnus. He graduated in 1972 with an MSc in oceanography (later to be Marine Geotechnics) and received his PhD in 1975.

s.jackson@bangor.ac.uk



The Whole GB Team

Artisanal Fisheries of North-West Madagascar

My Work in Madagascar

After graduating from Bangor University in July 2013 in Vertebrate Marine Biology, my first graduate job took me to Madagascar principally looking into the direct and indirect effects of fisheries on coral reef communities, coastal fishing communities and future food sustainability.

Economically, Madagascar is one of the poorest countries in the world, with average annual GDP below US\$300. 70% of the population live below the poverty threshold and over half the population are utterly dependent on exploitation of natural resources.

Demographically, the population is moving outwards to marginalised coastal areas, where exploitation of marine resources remains unregulated and unreported. Recent analysis of declared capture production to the FAO indicates Madagascar's catch is twice that officially reported.

Marine Management

Management of the marine environment is predominantly community based as part of the "Communauté locale de base" (CLB) which has a town or village-based representative, who determines the utilisation and extraction of marine and terrestrial resources through local law, *dinar*.

Most of Madagascar's fishermen are known as *vezo*, nomadic; they travel the islands coastal waters following seasonal variation in the equatorial trade winds and there are no established fishing markets or landing sites.

Stakeholder Discussions

As part of my work, I was invited by CLB representatives from the Nosy Be Archipelago to meet with fishermen and stakeholders regarding the state of their fisheries. Fishermen reported significant declines in Catch per Unit Effort over the past decade with as much as 5kg./hr in 2001 to 0.8kg./hr in 2013 and that catch composition

had changed from high value Serranids and Syphraenids (Groupers and Barracudas) to low value poor



Brown Marbled Grouper *Epinephelus fuscoguttatus* caught by fishermen on the edge of Nosy Tanikely MPA

protein Pomacentrids (Damsselfish). Fishers attributed this to foreign commercial fishing and increased demand by expatriate communities, whereby now artisanal fishermen retain Pomacentrids for subsistence and sell higher value fish to local restaurants and hotels.



Pink Eared Emperor *Lenthrinus lentjan* brought in by night fishers to sell at a beach bungalow

This shift is reflected in the faunal diversity of the coral reefs, dominated

by aggressive algal farming, Pomacentrids forming turf thickets in long branching *Acropora spp.* corals and urchin bio-eroders *Echinometra* and *Diadema spp.* outside Marine Protected Areas (MPA's).

Marine Protected Areas

MPA's are very much in their infancy, set up mainly through the support of NGOs, and are subject to intensive poaching and 'fishing the line'.

In the north-west, most MPA's are designated to offshore, uninhabited islands. Yet the stresses to Madagascar's coral reefs are not isolated to coastal communities. The advent and increasing availability of motorised engines permits fishers to access MPA's where there is little or no enforcement and regulations.

There is Hope

Progress is being made, however, in south-west Madagascar where a large network of community-run Marine Protected Areas has been created with the help of NGOs to conserve Holothurian populations, whilst facilitating the needs of other user groups.

It is hoped that the island's political stance will settle following the 2013 run-off elections and, with assistance, the Government can meet at least part of the one million hectare MPA coverage objective.

Emma Dobinson

e.p.j.dobinson@outlook.com



Local women of Nosy Be using old mosquito nets to trap juvenile fish in the breeding grounds of the mangroves.

Have degree. Will travel.

After graduating in July 2013 in Marine Vertebrate Biology, I left the UK to go travelling. In short, I have been living the dream. Seeing and doing so many great things has been awesome on so many levels. Apart from a two week visit home between my research trip and world trip, I have travelled for 410 days and visited 11 countries.

My first stop was South Africa. Here I worked in collaboration with leading marine biologists and scientists as they undertook groundbreaking research into South Africa's marine mega-fauna.



Welcome to South Africa

Assisting in data collection and data management for ongoing projects was highly rewarding and provided information needed to manage the conservation of the ecosystem as a whole. The status and historical trends in white shark abundance in Mossel Bay were assessed using photo identification, sighting rate and mark-recapture models. These activities were part of an ongoing study since 2001. These data have helped to produce the first regional White Shark population estimates for Southern Africa.

In addition, using practical and theoretical skills gained at university, I independently carried out a study comparing changes in barometric pressure with abundance and behaviour of Great White Sharks. This was an attempt to understand why I had observed fewer Blue Sharks during a hurricane event, whilst on a shark conservation expedition in the Azores. The results supported my hypothesis and it seems that sharks dive deeper to avoid the effects of storms in shallower waters.



Diving with a Manta Ray

After my research, trip I embarked on a 10-month world trip with a fellow schoolmate. We have done so many great things I can't remember them all... I have seen some of Africa's amazing wildlife; climbed Table Mountain; ridden an ostrich; been in a shark cage; jumped the longest bungee on the planet; skied in Canada; trekked through some of New Zealand's most beautiful landscapes; walked Malaysia's jungles and Vietnam's paddy fields; jumped out of a plane at 18000 ft; dived with Manta Rays; went

white water rafting in Bali; climbed Mounts Rinjani and Ngauruhoe and the Franz Josef glacier; and taught some Burmese locals English.

A lot of people ask me, "which country was my favourite"? As you might imagine, this is nearly impossible to answer, but I have always loved Africa and as a country, New Zealand has it all, breathtaking landscapes, adrenaline filled activities, friendly people and perfect climate. I am extremely lucky and have had some of the best experiences of my life whilst making life-long friends. If you have the opportunity to travel, I would absolutely recommend it to anybody. You only live once!!



Caroline Roberts
caroline.roberts9@gmail

BRIDGES OF THE WORLD



Dear Editor, not sure if this pier fits with your requirements exactly but here is a photo of me at Scripps recently. I was attending the Coastal Sediments conference in San Diego. If it is of interest, I also became a visiting professor at the University of Southampton (not sure this will make me popular with staff at Bangor!). I have a PhD student there examining the morphological evolution of intertidal habitat creation schemes. Regards, Nigel Pontee

nigel.pontee@ch2m.com

*Nigel,
I am including this because of 'peer pressure'.
Let's have no more of these games!
Regards, The Editor*

Coggan of the Antarctic

After studying Marine Biology & Zoology at UCNW Bangor (1976-1979) and obtaining a teaching qualification from UCW Aberystwyth, I taught for a few years in Birmingham. However, the call of the sea was strong and I went back to marine science via an MSc in Applied Fish Biology at Plymouth Polytechnic.

Joining British Antarctic Survey (BAS), I completed three fixed term contracts (a total of nine years), working on the RRS 'John Biscoe' (see below) around South Georgia, wintering at Signy Island (South Shetland Islands) in 1989-90, where I completed my PhD on Antarctic fish, and led a 3-man SCUBA diving team to survey the near-shore areas around Rothera Base (67° 34' S, 68 ° 08' W) on the Antarctic Peninsula.



Then (1986)

After leaving BAS, I worked as a Fisheries Observer for the Falkland Islands Government, based in Stanley but with long trips on French, Spanish, Japanese and Korean fishing vessels (the food was fabulous. . .).

On returning to the UK, I spent six years at various marine lab's in Scotland (Oban, Millport & Aberdeen) working on deep-water fish and the impacts of demersal fishing, and then took a post at CEFAS (Centre for Environment, Fisheries and Aquaculture Science) working on benthic ecology and seabed mapping.

I did 11 years with CEFAS and, as luck would have it, crossed paths with Ivor Rees of the School of Ocean Sciences on several occasions. He had been one of my lecturers at Menai Bridge, and it proved very beneficial to have him as an external adviser on some of the research projects that I managed for Defra.

We did a lot of work surveying the seabed around the UK on the RV 'CEFAS Endeavour' (see below), and I eventually got to be the 'Scientist in Charge' on a few of the research cruises.

The contrast between my first and last ships is remarkable. On the 'John Biscoe' we had eight to a bunk room, communal washing facilities

and three separate 'messes' for the officers, crew and scientists. On the 'Endeavour' we had individual cabins with TV and en-suite facilities, and a communal canteen for all ship's personnel - but the seating arrangements still reflected the old 'mess' segregation. You have to know your station in life, and woe betide you if you sit with the officers or the crew. . . .



Now (2015)

To bring you up to date, I took early retirement in 2013, but still do a bit of freelance, advisory and academic work. Currently, I'm enjoying exploring the UK in my caravan.

Roger Coggan
r.coggan@btinternet.com

BRIDGES OF THE WORLD

Dear Editor, You asked for pictures of bridges, so I send you pictures of two ship's bridges; these are the first and last ships that I worked on... see above. Regards, Roger Coggan



RRS John Biscoe

RV CEFAS Endeavour



Roger
I am afraid that these are 'Bridges too far'.
Let's have no more of these games!
Regards, The Editor

Having a Whale of a Time

Kate O'Neil graduated from Bangor in 2009 with a BSc in Marine Vertebrate Zoology. Although she had been offered a place on the M Degree course, she was eager to head overseas to New Zealand and get some hands-on marine vertebrate experience.

Katie's dissertation was on the pathology of mass strandings, and since New Zealand is one of the

few locations in the world where strandings regularly occur, it made sense for her to head there.

Since arriving in New Zealand in late 2009, she has trained as a Marine Mammal Medic with Project Jonah and has attended two mass Pilot Whale strandings with a great success in redirecting the stranded Pilot Whales.

She worked with Dr Ingrid Visser, founder of the Orca Research Trust, and in the field studied some of the 200 resident New Zealand Orca with her. Kate has also undertaken work with Dr Karen Stockin at Massey University, working with stranded dolphin tissue samples, and studying wild populations using fin ID catalogues.

Kate is currently gearing up for the next stranding season (2014 to 2015) by working part-time for New Zealand's largest courier company. She is also raising funds for some of the organisations she works with by developing her line of marine-themed handmade jewellery "Moana Matron Designs" (moh-ah-nah meaning "the sea" in Maori).

Kate looks forward to upcoming snorkelling trips to Stingray Bay in the Coromandel and Moreton Island off Brisbane, as well as her annual trip back to the UK to visit the likes of her old gothic bunch from Bangor (Harry Burgis, Lewis Pye, and Amy Muggerridge)!

Kate O'Neil urbanchild7901@hotmail.com



Wedding Bells: Lauren Thomas-Peter & Jack Harmon 'Tie the Knot'



Jack Harmon BSc 2006-2009 (Geological Oceanography), MSc 2009-2010 (Applied Marine Geoscience) and Lauren Harmon (Thomas-Peter) BSc Marine Vertebrate Biology 2009 - 2012, got married on the 29th December 2014, having met at Bangor University in 2009.

Jack now works as a Geotechnical Engineer at Geoquip in Bath, whilst Lauren, after completing an MSc at Portsmouth University, works in the Admissions Department at the University of Bath.

laurentp16@hotmail.com

BRIDGES OF THE WORLD



Pennybacker 360 Bridge

Long way from North Wales but here I am in Austin, Texas, working in Environmental Consulting (CH2M Engineers Inc) – also a long way from my Master's Degree in Shellfish Biology, Fisheries and Culture!

But Austin is a great place to live, especially now that we are out of our multi-year drought, and I work with lots of interesting people and companies in the Chemical and Oil & Gas Industries, helping them with environmental compliance and remediation. I also have a husband and 8 year old son to add to the mix. Life is Good!

Catriona Smith

catriona.smith@ch2m.com

BRIDGES OF THE WORLD



Viaduc du Viaur (steel)



Viaduc du Viaur (concrete)

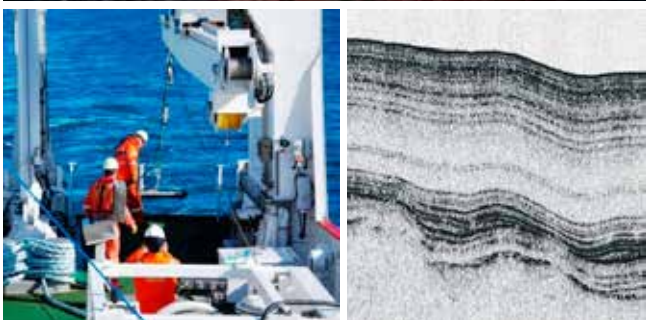
After 29 years in Wales, **Gay Mitchelson-Jacob** (BSc Marine Biology and Oceanography 1980; PhD Oceanography 1984; SOS Staff from 1986-2014) and **Nick Jacob** (MSc Oceanography with Marine Geotechnics 1982) moved from Menai Bridge; a house with views of both the Menai Bridge and the Britannia Bridge, to the Tarn region of France.

About one kilometre from their new house is this lovely old bridge – the Viaduc du Viaur designed by Paul-Joseph Bodin, who competed with Gustave Eiffel for the commission. It was the first large steel bridge built in France (460m long, 116m high) and, with a 220m arch, it was the longest steel spanned rail bridge in the world at that time. It was completed in 1902. The Viaduct takes the railway from Carmaux to Rodez, crossing the Viaur River along the border of the Tarn and Aveyron departments.

A short distance away is the more modern concrete Viaduc de Viaur, which is the N88 road crossing from Tarn into Aveyron.

e.g.jacob@btinternet.com

WHEN YOUR CAREER COUNTS...



Investigation of the shallow marine geology forms the basis for offshore surveys. Fugro Survey Limited provides a range of consultancy services, using state-of-the-art geophysical acquisition and interpretation techniques, and operates a fleet of hydrographic vessels offshore Western Europe and beyond.

Do you want to put your education to work? Many Bangor University graduates specialised, in geophysics, geology or a related discipline, have had successful careers with Fugro.

At Fugro Survey Limited, employees are offered the challenge to develop as part of a team and apply their skills across a range of offshore industry projects, both offshore and in our office in Aberdeen, Scotland.

Geophysicists are involved in seabed mapping, offshore site investigations, pipeline route surveys, geological, geophysical and geohazard desk studies, data integration and management, and much more.

Working together as a team, we can achieve extraordinary results in a demanding, challenging and global business environment.

To find out more visit: <http://www.fugrosurvey.co.uk> and www.fugro.com/careers.

...COUNT ON FUGRO