

# THE BRIDGE

LINKING  
PAST AND PRESENT  
WITH THE FUTURE



July 2013



PRIFYSGOL  
**BANGOR**  
UNIVERSITY



## EDITORIAL

Welcome to the 2013 edition of THE BRIDGE. Despite all of the 'communications' facilities, which we have available to us in this 21<sup>st</sup> Century, there is still a place for a newsletter. Whether paper or digital, it brings us news of what is happening and what is planned. It also brings back memories. In doing all of these it can create a sense of identity and of belonging, however intangible.

It is a remarkable fact that the majority of people, who have spent time at the School of Ocean Sciences – whether as graduates, post-graduates or staff – have great memories and affection for 'The Labs' and Menai Bridge. I am sure that many universities view this with envy. As an Englishman, it may be presumptuous of me to suggest, but, perhaps, the Welsh word 'hiraeth' captures some of these emotions.

In the commercial world, we are known as 'The Menai Bridge Mafia'. But as I have learned from the e-mails I have received in recent months, there is a 'Menai Bridge Diaspora' throughout the world and in many walks of life.

Of course, the main strand, which binds us together, is the sea. That complex, challenging, captivating major part of the earth's surface, which is so important for all of us and our future world. Never has it had so much potential to satisfy our food, energy and emotional needs. Never has it been under so much stress and pressure.

Many of our present and future Alumni are playing, and will play, key roles in ensuring that we exploit this potential successfully, whilst leaving our seas fit for future generations.

I know that THE BRIDGE can play a small part in this.

*Kevin Deeming, Editor*

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

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## GOLYGYDDOL

Croeso i rifyn 2013 o Y BONT/THE BRIDGE. Er gwaetha'r holl gyfleusterau 'cyfathrebu' sydd ar gael i ni yn yr unfed ganrif ar hugain, mae yna le o hyd i gylchlythyr traddodiadol. P'un a ydyw ar bapur neu'n ddigidol, mae'n dod â newyddion i ni am yr hyn sy'n digwydd a'r hyn sydd ar y gweill. Mae'n dod ag atgofion yn ôl yn ogystal. Wrth wneud yr holl bethau hyn gall greu ymdeimlad o hunaniaeth ac o berthyn. Mae'n ffaith ryfeddol bod gan fwyaf y bobl sydd wedi treulio amser yn yr Ysgol Gwyddorau Eigion - boed fel graddedigion, ôl-raddedigion neu staff - atgofion melys a chryn hoffter am 'Y Labordai' a Phorthaethwy. Rwy'n siŵr y byddai llawer o brifysgolion yn bur eiddig wrth glywed hyn. Fel Sais, efallai fy mod braidd yn feiddgar yn awgrymu fod y gair 'hiraeth' efallai'n crynhoi rhai o'r emosiynau hyn. Yn y byd masnachol rydym yn cael ei hadnabod fel 'Mafia'r Borth'. Ond, fel rwyf wedi gweld o'r negeseuon e-bost rwyf wedi'u derbyn yn ystod y misoedd diwethaf, mae yna'r fath beth hefyd â 'Diaspora Porthaethwy' i'w gael ledled y byd ac ymysg pobl mewn amrywiol feysydd. Wrth gwrs, y brif elfen sy'n ein clymu gyda'n gilydd yw'r môr. Y rhan enfawr gymhleth a heriol honno o wyneb y ddaear sydd mor bwysig i ni i gyd ac i'n byd yn y dyfodol. Ni fu ganddo erioed gymaint o botensial i fodloni ein hanghenion o ran bwyd, ynni ac emosiwn hefyd. Ni fu erioed gyfnod chwaith lle bu dan gymaint o straen a phwysau. Mae llawer o'n cyn-fyfyrrwyr a'n myfyrrwyr presennol yn yr Ysgol Gwyddorau Eigion yn chwarae rhannau allweddol i geisio sicrhau ein bod yn defnyddio'r potensial hwn yn llwyddiannus a doeth, gan adael y moroedd hefyd mewn cyflwr da i'n plant ac i blant ein plant. Rwy'n gwybod y gall Y BONT chwarae ei rhan fechan yn hyn o beth.

*Kevin Deeming, Golygydd*

**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. It carries out a number of social and networking activities, such as re-union dinners and career fairs. It also maintains CIMS (Careers in Marine Sciences), a data base of alumni, who act as volunteer career advisers, with some offering possibilities for internships. Membership of SOSA is free and is automatic upon graduation - unless you opt-out.

For further information:  
[www.bangor.ac.uk/oceansciences/alumni](http://www.bangor.ac.uk/oceansciences/alumni)  
[www.facebook.com/sosbangor](http://www.facebook.com/sosbangor)

For information on:

**Careers In Marine Sciences**

Contact Dei Huws  
[d.g.huws@bangor.ac.uk](mailto:d.g.huws@bangor.ac.uk)

or join the SOS Alumni LinkedIn Group for access to the CIMS database

**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](http://www.sos.bangor.ac.uk/oceansciences/alumni)**

**or contacting**

**[b.w.perkins@bangor.ac.uk](mailto:b.w.perkins@bangor.ac.uk)**

Cover  
Photograph

by

David John Roberts  
School of Ocean  
Sciences

## Chairman's Note

Since writing my Chairman's note for the last edition of The Bridge, a year ago, a lot has happened. The School of Ocean Sciences (Alumni) Association (SOSA) has gone from strength to strength and its interaction with both The School (SOS) and the University Alumni and Development Department has increased significantly.

Firstly, there have been several changes to your representative committee. After many years of very active participation and hard work, Gay Mitchelson-Jacob (Secretary) and Ioanna Psalti (Bridge Editor) have decided to step aside for others to continue their excellent work. To that end, we welcome Paul Butler (Research Lecturer in Sclerochronology and Scleroclimatology), who has taken over Secretarial duties, and Kevin Deeming (ex MD of Metoc plc – retired) who has taken on editorship of The Bridge. We wish the two new incumbents every success and pass on very grateful thanks to Gay and Ioanna for all their past work. Further, we also welcome Liz Morris (Director - Marine Ecological Solutions Ltd) and Rebekah Newstead (PhD Student) to the committee and have already enjoyed their valued input.



Since the last newsletter, we have actively supported two new initiatives in the School. The first, driven by Chris Richardson, is the introduction of a series of summer bursaries to support student research between Years 2 and 3 for undergraduates. These enable students to spend time undertaking supervised research during their summer vacation and are funded by a number of SOS benefactors (including Alumni). The second is a suite of three scholarships (ranging between £2,500-4,000 per year) provided by industry to support MSc students in the SOS. Thanks are extended to all our benefactors, who have provided these great opportunities for students. I know they really appreciate the support they have been given in their studies.

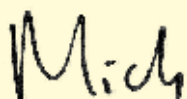
We are looking to extend these programmes in the future and any Alumnus/organisation, who is interested in providing such invaluable support, should contact me or Chris.

In addition, SOSA also supported a very successful Polar Symposium that was organised by the Endeavour Society in November 2012 and held in Menai Bridge.

With the help of Bethan Perkins (Alumni and Development Department), we have made great strides to improve the integrity of the Alumni database. This amounts to ~3,000 names and is notoriously difficult to keep up-dated. If you know of any Alumni who may not be on our database or have changed contact details (e-mail, particularly) recently, then please let Bethan know ([b.w.perkins@bangor.ac.uk](mailto:b.w.perkins@bangor.ac.uk)).

Finally, I would like to thank personally our valued sponsors of The Bridge. Without your generous support we would not be able to provide this invaluable link with our Alumni. If your company is interested in sponsoring future editions of The Bridge, please let me know.

Best wishes, Mick Cook – Chairman



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## In the Land of Brass Dragons



SOS Physical Oceanographers Dr Ben Lincoln and Ben Powell joined an international team of polar scientists on a research cruise in the Arctic Ocean on the Canadian Ice Breaker Louis St Laurent.

The cruise coincided with the 2012 Arctic Ocean Sea Ice minimum when a new record for lack of ice coverage was set, which was 25% below the previous record. As a result the ship had to travel to 81 degrees North (approximately 620 miles from the North Pole) to find sea ice on which experiments could be carried out.

There is growing interest surrounding the seasonal sea ice retreat in the Arctic Ocean, with evidence suggesting that the increased heating resulting from the decreasing summer ice coverage may be disrupting the circulation of the atmosphere in the Northern Hemisphere. It may even be responsible for the wet summers and severe winter weather experienced in the UK over the past few years.

Meanwhile, SOS Polar Oceanography veteran and NERC Research Fellow, Dr Yueng-Djern Lenn has had a very productive year. As well as contributing to two major International reviews on the Arctic Ocean and Southern Ocean, and being a partner in a successful National Science Foundation grant focusing on the processes mixing water masses in the Arctic Ocean, she also gave birth to a new baby, Bertie!

*Tom Rippeth*

## Bangor Still Rules the Waves

September 2012 saw the penultimate research cruise of the RRS Discovery after 50 years of service to the UK Oceanographic Community. SOS's Tom Rippeth, Natasha Lucas, Anne Forbes-Brook, Sebastian Rosier and Sophie Wilmes joined colleagues from Oxford, Reading and Southampton Universities and the National Oceanography Centre, to make measurements aimed at improving UK weather forecasts through deriving improved models of the processes, which determine sea surface temperatures. This cruise turned out to be Bangor dominated. It was led by Bangor graduate Dr John Allan, and other participants included Bangor oceanography graduates, Stuart Painter, Liam Brannigan, Matt Toberman and Paul Provost.

In June Mattias Green, Holly Pelling, Peter Hughes and MSc Physical Oceanography students Jess Mead-Silvester and Andrew Clegg, joined Bangor alumni Matthew Palmer (now NOC Liverpool), Colin Griffiths (now SAMS) and Claire Mahafy (now Liverpool University) and colleagues from the Scottish Association of Marine Science for a research cruise, also on Discovery, to the west of the UK to investigate the processes which drive exchange between the Atlantic Ocean and shallow continental shelf seas to the west of the UK.

Meanwhile, in July Dave Bowers led a research cruise on the Prince Madog, which brought together scientists from Bangor, Plymouth (including SOS alumnus Alex Nimmo Smith) and Strathclyde Universities, up the western seaboard of the UK. Their aim was to investigate how the size of suspended particles change when moving from estuarine water to the Atlantic Ocean and also to attempt to answer the question: "Are there suspended particles which are smaller than the wavelength of visible light?"

*Tom Rippeth*



# Samba and the Sea

## Developing Strategy

As Bangor University seeks to implement its strategy to be a leading research-led University with an international reputation for teaching and research, so too has the School of Ocean Sciences broadened its wings and is building on its international profile by developing new links. One current country of interest is Brazil and the last 12 months has seen SOS strengthen its links with this developing 'BRICS' nation.

When people think of Brazil they usually think of Carnival, samba, futebol and the Amazon, but Brazil has an extensive coastline, varied coastal marine habitats, and developing aquaculture and offshore industries. In addition, training marine scientists has been recognised as one of the key areas of development in the Brazilian government's 'Science without Borders' (SwB) programme. So there are plenty of marine-related developments for SOS to become involved with in Brazil!



## Raising the Profile

2012 has been a year when SOS has significantly raised its profile in Brazil through reciprocal academic visits and incoming students under the SwB programme. In April 2012, Ian McCarthy (SOS) was part of a delegation that included the Vice-Chancellor, Prof John Hughes, the Director of International Development, Dr Xinyu, Wu and colleagues from SBS and SENERGY that visited Brasilia and São Paulo.

On this trip, meetings were held with Brazilian Government agencies in Brasilia — the Ministry of Fisheries and Aquaculture, CAPES (the Federal Agency for supporting Higher Education) and Embrapa (part of the Ministry of Agriculture) – and with FAPESP (the São

Paulo Research Foundation) and UNESP (The state university of São Paulo) in São Paulo).



*Dr Ian McCarthy (SOS) talking to Professor Michel M de Mahiques, Director of the Oceanographic Institute of the University of Sao Paulo*

The outcomes of these visits have been very positive, with Bangor University joining the SwB programme and signing an agreement to co-fund an Academic Research Cooperation Agreement with FAPESP to provide funds to facilitate research exchanges between Bangor academics and colleagues in São Paulo.



*Professor John Hughes, Vice-Chancellor of Bangor University, and Professor Carols Henrique de Brito Cruz, Scientific Director of FAPESP.*

## Reciprocity

In November 2012, a group of academics from the Institute of Oceanography at the University of São Paulo (IO-USP) visited SOS to meet with staff and students and to discuss how closer collaboration could be achieved between the two institutions. As a result of this visit, it has become apparent that SOS and IO-USP are very similar in terms of long

established tradition of excellence in research and teaching in marine science and multidisciplinary research expertise. A number of potential projects have developed as a result of this visit and SOS eagerly awaits the outcome of the first funding round of the Bangor/FAPESP scheme to see if we are successful and can start working together.



*A delegation of five lecturers from the Oceanographic Institute of the University of Sao Paulo visiting Bangor University.*

## Brazil to Menai Bridge

2012 also saw the first Brazilians come to Menai Bridge to work/study – Renata de Rocha joined us from Rio Grande do Sul as part of SwB to spend a year studying Geological Oceanography and Drs Soledad Lopez and Sergio de Souza arrived from São Paulo to work with Stuart Jenkins.

Our Brazilian cohort increased early in 2013 with Clarissa Endo arriving from USP to conduct her Honour's project with Ian McCarthy. Dr Leonardo Yokoyama also arrived to work with Ian McCarthy, Chris Richardson and Andy Davies on a 6 month research project (funded by SwB).

The latest news (hot off the press!) is that a further 12 students have applied to come to Bangor to study Marine Science in the most recent round of Science without Borders. In addition, 2012 has seen SOS academics (Jaco Baas, Stuart Jenkins, Ian McCarthy) further develop research collaborations with Brazil.

2012 has been a very successful year indeed for SOS in the land of samba and the sea...

# Bridge over the Gulf



Research Vessel Janan

The School of Ocean Sciences has had a long research association with various countries in the Arabian Gulf region and in particular Qatar. Over the years both oceanographers and marine biologists from Qatar have undertaken PhDs with staff in SOS. Our former students now command senior positions in Qatar University and Government Agencies. Through these links, Dr Lewis LeVay has built increasingly strong collaborations in Qatar, working primarily on mangrove systems. This collaboration has culminated in a partnership to develop a large multidisciplinary research programme that encompasses the Qatari EEZ using their new research vessel (RV Janan) as the main survey platform.

Staff from the school recently completed their first joint research trip. The focus of

the trip was to understand the appropriate scale at which to study habitat and benthic diversity and to couple the patterns seen in the seabed habitats with water column processes. Quite a lot of the trip was spent testing previously untested equipment aboard the vessel and ironing out various teething problems. Nevertheless the trip was scientifically and culturally interesting.

The ship is equipped to the highest standard and offers the opportunity for prolonged and extensive sampling. This was also the first time that female scientists had been aboard the vessel (we had three from Bangor and one from Qatar University).

The biology was certainly interesting with patches of coral and oyster communities dispersed among deeper regions of muddy sediment characterised by burrowing fauna such as gobies and shrimp. At one point, a sea snake swam across our field of view and we saw others at the water surface at night as they hunted fish in the ship's lights.

This promises to be a fruitful future collaboration and will hopefully stimulate exciting opportunities for some of our students to experience something very different.

*Michel Kaiser*



## Meeting the Challenge



Two SOS Alumni topped the Challenger Society awards list at the 2012 UK Marine Science conference in Norwich last September.

**Jenny Brown**, who graduated from Bangor in Physical Oceanography and Mathematics and later undertook a PhD under the supervision of Prof Alan Davies, was made a fellow in honour of her contribution to the Challenger Society. Jenny now works at the National Oceanography Centre, Liverpool.

**Charlotte Williams**, who gained an MSc in Physical Oceanography in 2009, won the prize for the best talk by a PhD student at the conference. Charlotte is currently studying for a PhD on Oceanography at Liverpool University under the supervision of Bangor alumni Prof Jonathan Sharples, Dr Claire Mahafy and Dr Tom Rippeth!



## Iraqi Visitors

In April, SOS hosted a visit by a group of leading Iraqi academics. Currently working within the Iraqi High Education System, they were visiting Bangor to find out about the different methods of teaching and assessment used at different levels within the University. The group heard talks by undergraduate, MSc and PhD students, as well as sitting in on practicals and lectures, and participating in a poster session run by the 4th year UG M-degree students.



Each year, the School of Ocean Sciences (with financial support from the Draper's Company) runs an educational trip to the Virginia Institute of Marine Sciences (VIMS) for undergraduate students during the summer between their 2<sup>nd</sup> and 3<sup>rd</sup> years' of study. The course takes place in a beautiful location on the Eastern Seaboard, adjacent to Chesapeake Bay, in the typical "small town America" city of Wachapreague. The students get to interact with the VIMS staff who live in this small, close-knit community and to meet with other Wachapreague residents

In the past the course was limited to 10 undergraduate students, who applied to go on the trip through a competitive process by submitting a CV and a covering letter outlining why they wish to attend the course and

what they hope to get out of the trip. This year, the format of the trip changed in that (a) the trip was now offered as a 3<sup>rd</sup> year module and worth 10 credits towards the final degree mark and (b) the trip was opened up to anybody who wanted to go and who paid the student contribution of £500. This resulted in 33 students going on the 2012 VIMS trip!! We feared that this might result in some logistical difficulties: trying to feed, organise, supervise and teach 33 students. However, it was very pleasing to see that our worries were unfounded and the course ran extremely well.



*Mud, mud, glorious mud...*

The students spend their entire visit at the VIMS Eastern Shore Laboratory (taking advantage of their new Laboratory facilities) where they have the opportunity to visit and study a wide range of inter-tidal habitats and animals, which they would not find in the U.K., and to develop their field biologist skills.



*The boats lined up for another day's work*

In addition, the course also provides opportunities to learn important life skills, such as collaborating and living with people in sometimes difficult (hot, muddy, mosquito-infested) conditions. It also provides an opportunity to learn how to organise and cook for 38 people (33 students plus 5 staff) should anybody be considering a career in catering!

RPS

## Supporting the Development of Natural Resources

RPS Energy is a global multi-disciplinary consultancy providing technical, commercial, project management and training services in the fields of geoscience and engineering, health and safety, and the protection of the environment.

# Bangor Polar Symposium

Seventy polar enthusiasts gathered in Bangor University's School of Ocean Sciences to learn about the most recent advances in polar research and to network with those that share their interest in polar science. Topics ranged from glaciers and plants to past and future climate change. Talks and posters were presented from scientists at different stages of their careers (undergraduate to junior lecturers), demonstrating the wide range of polar research being undertaken.

more importantly, helped students in the preparation for their future careers and gave them a more competitive edge.

collect his data from underneath the Arctic sea ice.



Photo: Ben Strachan/Coleen Suckling



Photo: Ben Strachan/Coleen Suckling

The keynote speakers provided excellent talks on their fields of expertise, as well as describing how they ended up in polar science.

Stephanie Wilson, a Lecturer at SOS, started with an interesting talk on Antarctic food webs.

Finally Chris Alger of Calesurvey gave the day a commercial spin by talking the participants through how geophysicists carry out their work under big contracts, largely associated with the oil industry. Such work has taken their graduate employees to a range of locations, including the Arctic Circle.

Ben Butler (Bangor) was congratulated on winning the best oral presentation. Also congratulated were the joint winners for best poster presentation: PhD students Philip Blaen (Birmingham) and Rebekah Newstead (Bangor).

Thanks were extended to all those who presented their exciting science and to the mentor panel: Stephanie Wilson, Anna Pienkowski, and Coleen Suckling (Bangor University), Nick Hughes (Norwegian Met Office) and Chris Alger (Calesurvey).

Participants were also provided with an opportunity to put any questions they had to a 'mentor panel' on: "How to get yourself into polar science and general research". It is hoped that this event helped not only to promote SOS and the UK Polar Network (UKPN) as student supportive organisations but,

This was followed by Nick Hughes from the Norwegian Met Office. He came all the way from Norway to talk about how he has achieved a high profile career (without a PhD so far!) looking at sea ice. His science has taken him onto Ministry of Defence nuclear submarines in order to

Finally, the organising committee, and the symposium funders — Calesurvey, UKPN, the Endeavour Society, and the SOS — were congratulated for hosting this successful event.

Written by Coleen Suckling

## Where are they now?

### Marine Biology Sherkin Island July 1975

Professor Dennis Crisp is on the far right.

(Photo supplied by Chris Wollas chris.wollas@mbda-systems.com)





## Get on yer bike!

Members of the School of Ocean Sciences took part in the Gwynedd & Mon Cycling Challenge last summer, and won the group for organisations with 30-40 employees!



Back: Andy Davies, Jim Burnell, Anne Forbes Brook, Sophie Wilmes and Tom Rippeth  
Front: Coleen Suckling, Sandie Hague, Jazmine Sharpe and Tasha Lucas

THE BRIDGE reaches over 3000 readers around the world. You may wish to raise the profile of your company among fellow alumni or advertise your products or services. If so, contact Mick Cook on [mick@mickcook.com](mailto:mick@mickcook.com)

For this issue a special thanks to our sponsors:

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**Gardline Marine Sciences**

**RPS Energy**

**Senergy Survey & Geoengineering**

## Avast ye, me Hearties!

Ocean Sciences entered a team into the Menai Strait raft run this year. We came a commendable (at least in my opinion), 16th out of 33, which isn't bad considering our raft was under water most of the way. A fantastic day. We are now designing and building a new raft made out of carbon fibre, which will be named "The Strait Hawk" for next time!

Besides all of the fun, we made £370 in total for Hope House Children's Hospice, from our webpage and cake sale. The raft was made originally by Ben Lincoln and Eilir Morgan. So this was very much in memory of Eilir, as we know he would have laughed himself silly as we came down the Strait with a half-submerged raft/submarine. --Written by Andy Davies



Coleen Suckling, Laura Bush, Elisha Slater, Steve Newstead, Ryan Mowat, Steve Bal-estrini, Martyn Kurr, Martin Skov, and Andy Davies

## It's never too late to go marine...



Ernest Naylor is seen delivering his lecture to a 'University of the Third Age' (u3a) audience in September 2012. The lecture covered the history of Marine Science at Menai Bridge from Sir William Herdman's transfer of the Puffin Island facility to UCNW in 1892/3 until the present day demolition of the Westbury Mount Building.

Ernest Naylor is Professor Emeritus at the School of Ocean Sciences, Bangor University, where he was Lloyd Roberts Professor of Marine Zoology and Head of School of Ocean Sciences and President of SOSA. He was awarded an OBE in 1998.

*u3a is a self-help organisation for people no longer in full-time employment, providing educational, creative and leisure opportunities.*  
[www.u3a.org.uk](http://www.u3a.org.uk)

## 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..

On the right are some of 2012's students chilling-out after a hard-working summer.

Below are the names of the successful candidates for 2013.

### 2012



*Zara Turtle, Aleksandar Gakovic, Katie Sambrook, Claudia Tanneberger*

### 2013

NAME	BURSARY	TITLE	SUPERVISOR
<b>Chelsey Baker</b>	Cemlyn Jones	Changes in seafloor morphology and sediment composition in Liverpool Bay	Katrien Van Landeghem
<b>Katie Scarff</b>	Leslie Cooper	Mixed sediment dynamics	Jaco Baas
<b>Rebecca Wright</b>	Deeming	Effect of biodiversity on ecosystem functioning on a salt marsh	Jan Hiddink
<b>Renata Rocha</b>	Deeming	Geophysical data acquisition, processing and interpretation	Jim Bennell
<b>Leo Johnson</b>	Leslie Cooper	Understanding relationships between size distribution, abundance and mortality in organisms	Luis Gimenez
<b>Charlotte Angove</b>	Cemlyn Jones	Predicting variations in the organic matter content of marine sediments	Hilary Kennedy
<b>Megan Baker</b>	Gavin Winsborrow	COHBED	Jaco Baas
<b>Zoe Roseby</b>	Barry Paine	Video of moving ripples	Katrien Van Landeghem
<b>Emma Bagnall</b>	Deeming	Tagging urchins with markers to see the impacts of climate change	Andy Davies
<b>Victoria Greenhalgh</b>	Barry Paine	The impact of noise on marine invertebrates	Shelagh Malham
<b>Andrew Dugan</b>	Cemlyn Jones	Do plaice otoliths indicate changing patterns of growth with climate change?	Ian McCarthy
<b>Gemma Rayner</b>	Morrisons summer placement	Scallop fisheries	Michel Kaiser

The **Final Year Darbyshire Prize** was won by **Ilka Illers** who achieved First Class Honours with an average mark of 85% in the BSc Honours Degree in Ocean Science. Ilka Illers was also nominated for the University's Dr John Robert Jones Prize. The prize which is awarded annually to a student whose academic performance is judged to have been particularly meritorious that year. It was, however, awarded to a student from another Department.

The **Postgraduate Darbyshire Prize** was awarded to **Andrew Clegg**, who completed the MSc in Physical Oceanography with an average mark of 82%.

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 **Janine Yarwood** (BSc Joint Honours Marine Biology & Zoology), who attained an average mark of 89%.

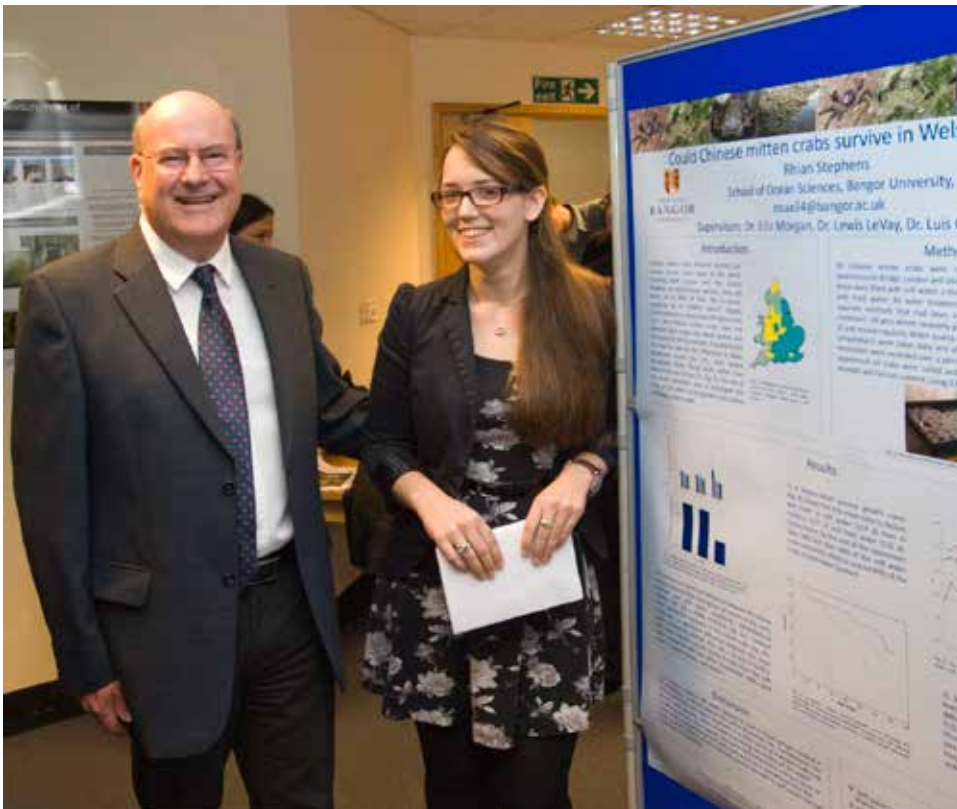
The **Ray Delahunty Memorial Prize** was won by **Thomas Parsonage**, with an overall mark of 72%. This prize, in memory of a former student in the School, takes the form of book tokens and is awarded to the best first-year student taking the Joint Honours Degree in Marine Biology and Oceanography.

The **Jeremy Jones Memorial Prize**, which is awarded to a student who has recently completed the MSc in Marine Biology, went to **Aisla Jones**, who attained an average mark of 76%.

**Sophie Noon** (Master of Oceanography) was the recipient of the **Gavin Winsborrow Memorial Prize**. This prize is awarded, in memory of a former student, to a current final-year student, who has been the most enthusiastic, helpful and selfless over the three-year course, encompassing both the academic and social arenas, and is chosen by both staff and students.

**Tom Anderson** (MSc Marine Biology) was the 2011-12 recipient of the **Fishmongers' Award**.

**Rhys McCarthy** (MSc Applied Marine Geotechnics) was awarded the **British Sedimentological Research group (BSRG) Award** for the best Masters Course Sedimentological project.



**Rhian Stephens**, 4<sup>th</sup> final year "M" degree student receiving a £50 Amazon voucher from her tutor Chris Richardson during the "M" degree poster session. Fourth year students undertake a six month project with an academic staff member. Rhian was supervised by the late Dr Eilir Hedd Morgan. Bangor University ran a competition to encourage students to complete end of module questionnaires. Rhian was one of four lucky winners.

## Gizza Job

North Wales has been identified as an area for major development in the Green Energy Sector. To raise awareness of the tremendous opportunities, a Green Energy Careers Fair was jointly organised by the late Eilir Morgan and myself (from SOS), together with members of the Electronic Engineering Department.



The aim of the fair was to raise awareness amongst our students and local people of the skills needed for this sector. It included workshops for local school children as part of the event, as well as offering our SOS and other students the opportunity to talk to employers directly and to learn how the skills they are obtaining through their degrees, here in Bangor, are relevant to jobs in this sector.

The event was supported by SOS Alumni Chairman, Mick Cook, (seen here with local students) who not only provided advice to the students on getting into a career in the sector but also gave an inspirational presentation on a career offshore.

Other Alumni also visited Bangor to talk to students about job opportunities in the marine sector and included: Anna Fulop (Fugro Survey) and Roi Santos (Gardline Maine Geotechnics), as well as speakers from Senergy and CaleSurvey.

*Written by Dei Huws*

[www.senergyworld.com](http://www.senergyworld.com)

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Phil Edwards,  
Head of Senergy Survey & GeoEngineering  
[Phil.Edwards@senergyworld.com](mailto:Phil.Edwards@senergyworld.com)



Senergy Survey and GeoEngineering is proud to be a continuing sponsor of the 'The Bridge' and the MSC bursary programme.

## Many of our Alumni now work for Cefas



**Dr Mike Waldock**



**Dr David Mills**



**Dr Ewan Hunter**



**Dr Sian Limpenny  
(nee Boyd)**



**David Walker**

The journey from the School of Ocean Sciences to the Centre for Environment, Fisheries & Aquaculture Science (Cefas) laboratories in Lowestoft or Weymouth takes quite a long time but despite this quite a few SOS graduates have made it over the last decades. Former students now occupy positions ranging from the acting Chief Executive, to two of the four Cefas divisional directors and at all levels in the organisation. Some of them are shown in the photographs.



**Dr Carolyn Barnes**

Cefas is a successful government-owned marine organisation that has continued to grow as the demand for its capabilities increases and that success is based on its staff now numbering 550! Our requirements for graduates are diverse and cover all areas of marine science from physics to fish, from the sea surface to the sea floor in coastal and sometimes ocean environments.



**Suzanna Neville**

We provide scientific advice to inform the policies of UK and overseas governments, to the EU on aquaculture, fisheries and environmental protection and provide advice to industries on marine operations. We do this based on international class science, world class observing systems -- such as SmartBuoy and Wavenet -- and use numerical models to understand and forecast changes in the marine environment.

Cefas requires graduates at all levels and across all disciplines and in a new initiative Bangor University and Cefas

are jointly initially funding 3 PhD studentships this year with the intention of jointly funding further studentships over the next few years. This is an exciting development that provides the opportunity for students to spend between 6 – 9 months based in Lowestoft or Weymouth to carry out research alongside Cefas staff and to use some of our great facilities. Students will be jointly supervised by Cefas staff who will work alongside their SOS supervisors to provide doctoral level training in key applied marine science areas that can make a real difference to human enjoyment of the seas.

The initiative will bring about closer working relationships between Cefas staff and SOS staff and students that will bring benefits to all parties. The Cefas staff involved in supervision will gain a clearer picture of the research taking place in SOS, potentially leading to new collaborations in the future. Ocean Science staff and students will gain a better understanding of the range of work Cefas carries out and the extensive facilities of the Weymouth and Lowestoft laboratories.

To find out more about Cefas and the range of exciting opportunities visit our website at <http://www.cefasc.defra.gov.uk/> or contact David Righton ([david.righton@cefasc.co.uk](mailto:david.righton@cefasc.co.uk)), who leads the Cefas part of the joint initiative.



**Rob Forster**



**Liam Ferdinand**



**Sarah-Jane Parker**



**Rebecca Walker**



**Daniel Wood**

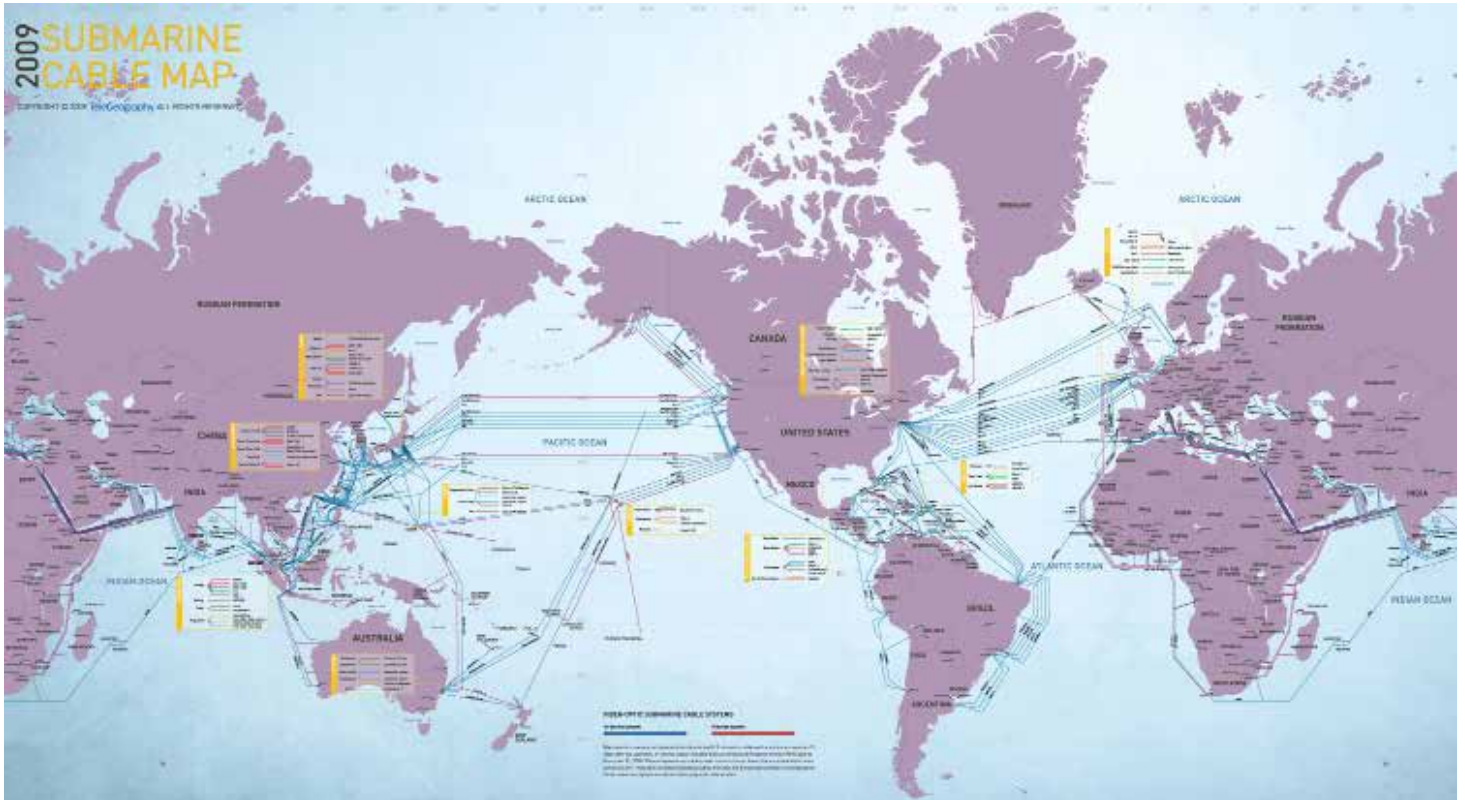


**Clare Leach**



**Louise Rae**

# SAVING THE INTERNET



2009 Map of the plethora of telephone cables lying on the sea-bed around the world.

As an Ocean Sciences undergraduate from 1995-1998, I had a fairly limited attention span. I paid a lot of attention to those lectures I found interesting, such as listening to Dr (now Professor) James Scourse describe the complex nature of a turbidity current, or how giant boulders fall from icebergs as they slowly melt. I struggled in other areas which I was sure were of far more 'real world' benefit, when the time would eventually come to get a job.

Fast forward to Boxing Day 2006, and I was only a couple of weeks into my present job with a major global telecoms company. A magnitude 7.1 earthquake strikes off the southern coast of Taiwan and triggers a huge turbidity current which tears through ten submarine cables which form the backbone of the internet in the Asia-Pacific region. The impact was so severe that trading in some Asian currencies ground to a halt and 98% of Taiwan's communications were affected. Repairs to these cables took several ships many weeks. Luckily I wasn't responsible for coordinating the repairs, but since that time my work has involved building a new cable which offers an alternate route across the Pacific Ocean, a cable from the UK to India and managing repairs in up to 9000m water depth.

The world's oceans are criss-crossed with a mesh of fibre-optic cables which support our digital lives, but they have a surprisingly low public profile. Starting out, I worked as a route planner and surveyor – marking out a potential cable route on a chart then conducting geophysical and geotechnical surveys to ensure the seabed conditions were suitable for laying and in some cases burying the cable.

These days I have much wider responsibilities, from working out where the demand lies for new cables, to inspecting old ones with ROVs. Occasionally I will be on-board a vessel but most travel is for meetings with our consortium partners – the cost of owning and maintaining submarine cables is so high that it is common for several companies to combine resources.

Fishing boats and large vessels, dragging anchor, cause tens of cable cuts every year, so protecting the cables from these threats is a constant challenge. Nevertheless, something out of the blue will always happen when you least expect it, like a boulder falling from an iceberg!

Andy Palmer-Feldgate  
andy.palmer-feldgate@uk.verizon.com

## SCHOLARSHIPS

Our marine commercial organisations continue to come up trumps. The following are funding MSc scholarships:

Fugro (£10,000 over four years)  
Gardline (£10,000 over four years)  
Senergy (£4,000 for 2012/13).

Recipients of the 2012/13 awards and their research projects this summer are:

**Jak Cornthwaite (Gardline Scholarship)**  
Experimental appraisal of scour development and bedform migration around wind turbine bases. (Supervisor: Dr Katrien van Landeghaem)

**Eugene Theron (Fugro Scholarship)**  
Analysis of boomer and core data from the Bay of Firth in Orkney, with a view to understanding the environment during the Mesolithic and Neolithic Periods. (Supervisor: Dr Dei Huws)

**Ben Loubser (Senergy Scholarship)**  
Testing new ideas of turbidite processes by comparing the latest models with field evidence from Palaeozoic rocks of Mid-Wales and West African deep marine seismic data. (Supervisor: Dr Jaco Baas)

# Saved: Hook, Line and Sinker!

## The Problem

Albatrosses are possibly one of the most iconic and amazing of all marine birds. However, many species are threatened with extinction through fatal interactions with global fisheries. By far the biggest threat faced by an albatross is death on longline fishing hooks.



Photo: Graham Madge, RSPB

As the name suggests, this fishing technique involves very long lines of baited hooks -- a single vessel may use a line extending for 130 km, from which can hang as many as 10-20,000 hooks, each baited with fish or squid.

Every year, longline vessels set about three billion hooks, killing an estimated 300,000 seabirds, of which 100,000 are albatrosses. As these hooks are deployed, they are still visible near the surface. Feeding birds spot them and try to grab the bait before it sinks. They are hooked, dragged under and drowned. When the line is pulled in, the dead bird is removed and discarded – catastrophic for the albatross, but also a poor outcome for the fishermen, who would rather catch fish.

The Global Seabird Programme (GSP) of Birdlife International and the RSPB

operate an international team, known as the Albatross Task Force, working at sea, on board vessels and in local fisheries. It promotes measures to reduce this loss of birds, with fishermen and governments alike and takes direct action in the fisheries.

## The Solution

Over the last five years, the GSP and Albatross Task Force have been working with Fishtek ([www.fishtekmarine.com](http://www.fishtekmarine.com)) to develop a 'hookpod' for pelagic longliners which will prevent seabirds from getting caught on these baited hooks. The pod is attached to a branch line and protects only the hook barb. When it reaches a pre-set depth of between 10-100m, it opens, the baited hook falls free and sinks to the desired fishing depth. The pod can be set beyond the diving depth of seabird species in any given area.

After each set, the pod is simply retrieved during hauling operations closed and stored in standard setting bins until the next set. The pod is manufactured of strong poly-carbonate with marine grade stainless steel springs to withstand the rigours of 'life at sea', and has been designed to last hundreds of sets or 2-3 years of fishing operations.



Photo: Ben Sullivan, RSPB

Hookpods stored in Bin

## The Commercial Advantages

Following two years of very successful trials in Brazil and Australia — where hookpods actually increased catches by 10% — they are due to become commercially available this year.

The system has several advantages; the weight of around 60g will optimise the sink rate and because it contains an LED light, it lessens setting times as there is no need

to attach light sticks. It reduces marine debris, as spent light sticks are often discarded at sea, and is significantly cheaper for the fishing fleets, avoiding many thousands of dollars spent replacing disposable light sticks each year.



Photo: Ben Sullivan, RSPB

Hookpod being deployed

These commercial advantages, for the fishing vessels that use it, will undoubtedly be the key to generating widespread use of hookpods within the fishing industry. Its biggest advantage, however, will be preventing the extinction of one of the ancient symbols of our oceans.

Rebecca Ingham (1990's)

Having worked in conservation in the Falkland Islands and then for 6 years for the RSPB, after her time in Bangor, Becky is now working for the company, which has designed Hookpod. Her role is to take this product to market over the next few years.

[becky3103@live.com](mailto:becky3103@live.com)

## Dr Tony Jones MBE

Tony was a member of staff at the SOS from about 1964 until he retired around 2000. He has also just retired as Chairman of the North Wales Mountain Association. Tony joined the Ogwen Valley Mountain Rescue Organisation in 1964 and was made an Honorary Life Member in 1988. He is widely recognised for his active and supportive roles in mountain rescue.

As well as the MBE for his work, Tony also earned the Queen's Jubilee Medal. He was involved in over 900 search and rescue operations worldwide. In 1993 he was the Subject in the 'This is Your Life' T.V. Programme.

Many of us will remember him in the 'Labs'. We wish him all the very best.

# My Antarctic Decade

I first landed on Antarctica at the abandoned Wilkes Station, four days short of my 50th birthday in early 1996. I was travelling on-board the Australian research and supply vessel Aurora Australis, and was taking part in a 10-week oceanographic and acoustic survey of the coastline between the French base at Dumont d’Urville and the Australian base at Davis - a span of 70 degrees of longitude. My time was mainly spent in the tedious business of acquiring 147 deep CTD (conductivity-temperature-depth) profiles, partially in support of a bio-acoustic survey of krill abundance. I was really “along for the ride” so as to have my first glimpse of Antarctica. My ‘day job’ was as a coastal oceanographer at the Commonwealth Scientific and Industrial Research Organisation (CSIRO), based in Hobart.

Five years later, in early 2001, I was again in Antarctic waters, this time on an oceanographic survey in front of the Amery Ice Shelf, the third largest ice shelf in Antarctica. My career had moved on and I was now working at the University of Tasmania studying ice shelves and trying to work out how they will react to climate change (I’m basically a modeller, but take the opportunity when I can to “get out more” and see the real world). Our interest in ice shelves (which are no different to tabular icebergs except that they are attached to the land) is that their presence regulates the flow of their parent glaciers, and that their loss may

cause the glaciers to accelerate into the sea, hence raising sea level. We were doing the mandatory CTD profiles and also deploying a series of current-meter moorings in front of the ice shelf, in order to monitor the melting and freezing processes within the ocean cavity underneath the shelf. In 2002, we returned at the same time of year to repeat the surveys and to retrieve the moorings. I well remember the day in early February (Austral summer, of course) when we arrived at the Amery in glorious sunshine to see the beautiful white glacial ice of the shelf, fronted by fast sea ice - sea ice that did nothing to help either our CTD surveys or mooring recovery!

However, I probably had the most fun in Antarctica during the Austral summer of 2005/2006. The “fun” consisted of travelling on a couple of tourist voyages into the Ross Sea, acting as a lecturer on a variety of subjects about which I know little (glaciology, sea-ice, atmospheric physics) and one (oceanography) of which I know a bit more. I boarded the Russian icebreaker, the Kapitan Khlebnikov ,



*Icebreaker: Kapitan Khlebnikov*

in Littleton, New Zealand, headed for the Ross Sea via Enderby Island, spent eight days in the Ross Sea region, and then steamed for Hobart (my home) via Macquarie Island. In Hobart, we changed passengers and I was joined by my partner, Margaret, to do the reverse leg back down to the Ross Sea and then on to Littleton. Marine scientists will understand the pleasure I felt at leaving port with my partner beside me, rather than waving from the dock!

My Antarctic days are probably now over - my involvement with ice shelves led to a keener interest in climate change, sea-level rise and their impacts. I have spent the past eight years working with sea-level observations and projections, and advising planners and policymakers on how best to adapt to future changes on the coast. It is, in some ways, a return to my roots as a coastal oceanographer, which were put down in the late 1970s in the Unit for Coastal and Estuarine Studies in Menai Bridge.

*John Hunter (1970s)-  
jrh@johnroberthunter.org*





# Water Under The Bridge

## Inspiration

The very first Oceanology International (OI) exhibition was held at the Metropole Hotel on Brighton's seafront in 1969. Research vessels were berthed nearby in Shoreham Harbour and the halls and exhibition spaces at the Metropole were packed full of equipment and displays from companies, universities and research institutes.

Inspired by what I had seen, I decided to pursue a career in oceanography. Universities were the best places to do this. Of course, I chose Bangor. The location, the mountains and the 'Prince Madog' at the end of the pier, were enough to convince me that this was the right place to study the subject.

## Philosophiae Doctor

Arriving at Menai Bridge in September 1970, I started my PhD: turbulence in the bottom boundary layer of the sea. Designing, building and testing equipment was a major preoccupation. New flow sensor electronics had to be built and suitable pressure housings designed. Modifications were required to the 'Prince Madog' for handling large multi-core cables and heavy equipment over the side of the ship, and for fore-and-aft anchoring. Equipment had to be transported to Liverpool University for calibration in the Engineering Department's flume and pre-cruise assembly and testing involved running cables from the top floor of the Physical Oceanography Building, down the stair-well and out of the front door to the equipment standing outside.

Staff and students were remarkably tolerant of this, although I'm sure that on one or two occasions I heard Jack Darbyshire muttering something under his breath about my taking over the building. With help from NIO and the efforts of Dave Boon and John Simpson, a system was eventually designed and built that would be capable of making routine measurements at depths of water up to 50m (ambitious for the time). By the summer of 1973 and with 12 cruises behind me, I had finally obtained sufficient good quality data on which to base my PhD

## Marine Investigations

By this time, however, my NERC funding had run out. To make ends meet, I joined Kevin Deeming in setting up Marine Investigations and Services Ltd (or MIS as it came to be known) in Bangor. This would enable me to remain in Bangor, while working on my PhD. Work coming into MIS in those early days included hydrographic surveys, pollution studies and meteorological and oceanographic data analysis for locations ranging from the Arabian Gulf and Nigeria to home waters such as the Celtic Sea, Milford Haven and the Menai Strait.

These were good and exciting times but I had a PhD to finish and needed some financial stability. Saying goodbye to MIS, I secured a post with NERC at their IOS, Taunton Laboratory. Fellow alumni Alan Davies and Richard Soulsby were already in post, and Tom Tucker, who had helped me at NIO, was the Director. I finally submitted my PhD thesis in 1976.

## Tempus Fugit

Well, that was all a long time ago and much water has passed under the Bridge since first I crossed the Menai Strait to embark on a career in ocean science. Now retired and after 30 years working on civil and military applications of oceanography, I lead a relatively quiet life in Dorset painting and exhibiting watercolours (usu-

ally with a marine flavour), supporting the local sailing club and walking the hills and valleys of this beautiful county.

## Importance of Menai Bridge

Looking back I can see just how important my time at Menai Bridge was in equipping me for what I would go on to do later in life. The close integration of practical work – at sea with 'home built' instruments – and theoretical studies, played a big part in this.

My wife Anthea and I visit North Wales and Anglesey whenever we can and I never cease to be moved by the sheer beauty of the place. The rhythmic pulsing and surge of the tide through the Menai Strait, the smell of seawater and the exposed foreshore combine in a powerful and evocative mix to transport me back over the years. I have visited many oceanographic institutions in my time, but the former UCNW Marine Science Laboratories - now SOS - has to be one of the best.

*Tony Heathershaw (1970's)*  
*(Tony was awarded the Challenger Medal of the Challenger Society for Marine Science in 2004, for his outstanding contributions to Military Oceanography)*

*'The RMAS 'Newton' at the ice-edge in the Denmark Strait, gathering oceanographic data to support Royal Navy sonar research. I was Principal Scientist and we had landed a small party to investigate ice conditions during a lull in data gathering'*



## Memories of a Rock-Knocker

Between the years 1973 and 1993 I was an electronics engineer working for the Royal Navy on various MoD contracts. I became a casualty of government cuts in March 1993 and was cast adrift on the open labour market. I tried several jobs but I was not suited to any of them whether through my own negative attitude or unsuitability for the work is a matter of opinion. The final straw came when I was employed through an agency and worked in a food processing factory. My sole task was to put cardboard lids on the foil trays that contained ready-made apple crumble puddings for a well-known super-market chain. I was staring into the abyss!

A drinking buddy suggested that I should take a different view on my working life and experience and have a 'mid-life crisis'. I should take my unemployment as an opportunity to turn things around and maybe do something entirely dissimilar. After several weeks of soul searching I decided that I was too old to learn new tricks so I chose a subject that was not entirely separate from my previous life with the MoD. For 20 years I had worked on underwater systems that required a relatively wide knowledge of oceanography, as well as electronic skills and ability; so it wasn't a quantum leap to open my mind to oceanographic studies.

My hobby was rock-knocking – sorry, geology. So I added the two disciplines together and made the momentous decision to run away from home (with the wife's agreement of course) and head for the mountains of North Wales and the School of Ocean Sciences. Did I mention I happen to be Welsh? To cut a long story short, I studied the BSc (Hons) Geological Oceanography course and graduated in 1997 with a 2:1. Dr (now Professor) Colin Jago was the course director at the time. Sinclair Buchan was my personal tutor.

After graduating in 1997, I immediately joined a hydrographic survey company for a pittance and very quickly discovered that office work was not my forté. I left the company at the end of 1998 and became a freelance geophysicist working through various offshore personnel supply agencies. After two years I became a freelance Party Chief (hard work) and Client Representative (life of Riley).

In 2008 I was asked to join the board of a hydrographic survey company and have since become the managing director for a second. The past fifteen years of my life have been the most enjoyable of my working career. This would not have been possible without the School of Ocean Sciences and the outstanding people that educated me -- some of whom are still there -- and, I hope, remember me with a smile, if only a wry one.

*Neil Harding (1990's)*  
neilpharding@hotmail.com

*Me, Noordhoek Diving, Dive Superintendent, Holland, 2006*



## Bali Ha'i



Coming from a large family of 12 children and attending, from the age of 10, a missionary seminary – from which I was expelled for chatting up the girls from the local school – I became streetwise at an early age. This stood me in good stead in the hurly-burly of fisheries management later on.

Arriving at the SOS in the late 60's, I met some amazing people at Bangor and Menai Bridge. They truly inspired me to do something adventurous with my life. The world was their oyster; I wanted it to be mine

After graduation in '72, my life took me to the Solomon Islands in the Pacific, where I was much involved in the fisheries sector. This entailed, among other things, in preparing a five year plan for the country's fisheries programme! Subsequently, I was involved in a wide variety of fisheries management programmes and consultancies, throughout the world – picking up an MSc (Portsmouth), a PhD (Stirling) and an MBA(Cranfield) on the way.

My career has spanned over forty years, with the last 30 years specialising in fisheries economics. I am now happily living in Bali with my Balinese wife and four year old daughter. I am CEO of a sustainable seafood company – operating in Australia, Japan and Indonesia.

*Seamus McElroy (1970's)*  
mcelroy.seamus@gmail.com

# Surf's Up!

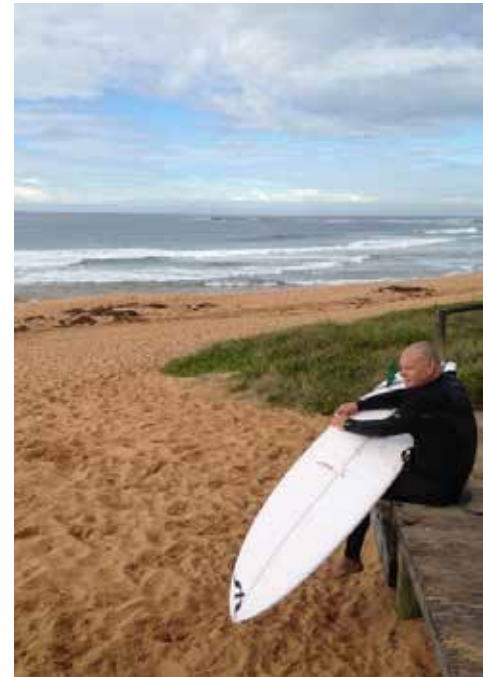
Ever since I can remember the ocean has played a significant role in my life: surfing, diving and spending time at the beach. It was a natural progression for me to study this passion at university and this pursuit found me at Bangor in 1976. Many of my fondest memories can be associated with my university days and, especially, with Menai Bridge. I still count those three years as some of the happiest ever. I had a good mentor in Sinclair Buchan.

Some of the special times in my life have been diving on Sherkin Island and sailing on the Prince Madog in the Irish Sea. I remember studying hard and winding down in The Anglesey Arms. The course was such a great balance of earth sciences and specific marine disciplines. It was taught in such a way that I developed a set of mental skills that I still utilise, both in my career and social life today.

I always knew that I wanted to spend my life working with or being near the ocean.

I graduated from Bangor and returned to my home in London. But marine science positions in London did not exist and so, for a planned period of two years, I joined a wholesale money broking firm to earn some money, prior to going back to do an MSc or PhD.

*"But the best-laid schemes o' mice an' men gang aft agley!"* The two years continued for a great deal longer, as I worked in New York, Toronto, Bahrain, and, finally, Sydney -- working in the Macquarie Bank, trading futures and derivatives. This career has seen me have a family and allowed us to enjoy so many great life experiences. But I always carry my ocean passion and go surfing most days, often with pods of dolphins. I am fortunate to watch migrating humpbacks from my home overlooking the Pacific. We even get to share the beach with an occasional Great White! As I have a little more time now, it is my intention to obtain a further degree in marine science. I feel that my life is going full circle.



Colin Williams (1970's)  
Colin.Williams@macquarie.com

## London 2012 Olympic Torch Relay

### Torch Bearer Details



Name	Steve Barnard
Email	<a href="mailto:stevenbarnard@btinternet.com">stevenbarnard@btinternet.com</a>
Phone	07515447165
Hometown	Bangor, Gwynedd
University or College	Bangor University
Year of study	Postgraduate
Subject your studying	MSc Marine Environmental Protection

Where will you be running with the Torch?	Morecambe on Friday 25 <sup>th</sup> June
---	---

Steve was nominated to run with the London 2012 Olympic Torch for the work that he has done in the community.

He gave up to 40 hours per week including evenings and weekends supporting students in Rugby Union, First Aid and Scuba Diving. He has worked closely with the Athletics Union including arranging First Aid cover for the Ultra Marathon charity event.

He has already received a number of prestigious accolades including the British Universities and Colleges Sports Volunteer of the Year award and also the High Sheriffs Award from Bangor University.



In responding to how he felt about having been chosen to carry the London 2012 Olympic Torch he said "I am really pleased that I am doing it. It has generated a lot of interest and people are genuinely intrigued by it. My family and friends are all behind it."

Steve was selected to carry the London 2012 Olympic Torch by Coca-Cola, a Presenting Partner of the London 2012 Olympic Torch Relay.

He went on to say that as a "students can get bad press in the media however the reality is that the vast majority are really productive, upstanding and positive adults. It's really good that there is this opportunity for recognition"

## Menai Bridge Mafia

SOS Alumni are to be found in virtually every marine organisation in the UK. Senergy Survey and GeoEngineering (S&G) is no exception:

**Phil Edwards** (Bsc MarPhys 1988) worked with GSI and as a NERC research assistant based on the Isle of Man before joining Gardline in 1992 — primarily in SE Asia — eventually becoming Marketing Manager. In 2008 he joined S&G as Commercial Director. In 2010, Phil became Head of S&G and Global Business Lead.

**Jim Pyrah** (Bsc GeolOcean 1992, PhD EngGeophys 1996) Initially, Jim started work for an offshore site survey contractor. Having held a number of technical and commercial roles, both on and offshore, for a variety of survey and subsea construction companies over a 13 year period, Jim joined S&G in 2010. He is now Manager - Subsea Geotechnics.

**Michael Cousins** (BSc GeolOcean 2001) worked for Thales GeoSolutions as a Trainee Geophysicist before joining Fugro Survey in 2004. He progressed to Senior Geophysical Project Manager working offshore and onshore in Aberdeen. In 2009 he joined S&G. Michael is now Senior Geoscientist/Project Manager.

**Lewis Cottee**, (BSc Environmental Science 2009, MSc Applied Marine Geoscience 2012) graduated with a distinction from the School of Ocean Sciences. He joined S&G shortly after. As a geoscientist, Lewis has had the opportunity to take part in a number of leading projects within S&G, specialising in seismic interpretation and reporting.

## In Memoriam

### Dr Eilir Hedd Morgan



Eilir was brought up in the village of Llan Ffestiniog in the heart of North Wales. The middle one of three brothers, he registered in 2002 to read Marine Biology at Bangor University. Eilir enjoyed his time at University and showed great academic and research promise at an early stage when he produced a first class honours project on crab predation in his final year. He subsequently obtained a distinction in his MSc in Shellfisheries Biology and Management in 2007, and following the completion of his thesis Eilir worked in Cardiff University for a short time and then at Llyn Aquaculture Ltd. along the

Llyn Peninsula, N. Wales. He returned to SOS where he undertook his PhD research into the introduced New Zealand, “Bluff oyster”, with Chris Richardson.

Following his PhD, Eilir was employed on a Teaching Fellowship, completed his PhD thesis and began publishing his research. Eilir published two papers with a further two papers in journal submission. He was awarded his PhD in November 2012 and was subsequently appointed to a 5-year position as the first “Welsh Medium lecturer in Marine Ecology” in SOS. Eilir had great promise and his career was destined for great things. He was an accomplished singer and musician, he enjoyed rock climbing and running and he had integrity with an abundance of humility.

Eilir was tragically killed in a freak accident on Monday 1<sup>st</sup> April 2013 at the young age of 29 years old. Eilir was dedicated to the Welsh Language and was a fantastic ambassador for the University and for Wales. Eilir touched everyone’s lives around him both as an academic, tutor and friend. Eilir’s death has deprived us all of a wonderful, caring and talented young man who had the very brightest of futures ahead of him. Eilir was kind and helpful to so many and we all benefited from Eilir in some small way during his short and brief life. We shall all miss him.

Bangor University has established the “Dr Eilir Hedd Morgan Bangor University Scholarship fund” in his memory. If you would like to contribute to the scholarship fund then donations can be made (cheque, payable to Bangor University) and sent to Paula Fleck, in the Development Office, Bangor University, Gwynedd - (a Gift Aid form is available). Depending on the sum of money raised we propose that the fund has a maximum lifetime of ten years and that the capital in the fund is used in one of the following ways:

- 1) To provide annually a 5-week summer research placement for a Welsh medium second year undergraduate Marine Biology student to undertake research work alongside an SOS member of staff
- 2) To establish a slate memorial on the foreshore at Tal-y-Foel to commemorate Eilir’s research into the Bluff oyster that inhabits the lower intertidal shore close to the Sea Zoo.
- 3) To provide annually a £100 prize for the best first year PhD talk at the annual College of Natural Sciences postgraduate research student conference.
- 4) To purchase and plant a Bardsey apple tree in the grounds of the School of Ocean Sciences. The fruit of the tree to be shared annually by staff and students in SOS.

*Written by Professor Chris Richardson*

### Nick Paige

We all met Nick at Bangor University and were all in the same department. He instantly made many friends. Throughout university we helped each other out with our strengths and weaknesses and became a great team. Nick, especially, helped us in all sorts of various essays and assignments. We do not think any of us would have got through our university years without him. He managed all of this in amongst surfing at the beach, down the local pub and diving in the chilly coastal waters of North Wales. Nick was a guy that gave his all in life. He had a true joy for everything outdoors, which showed in his love of all weather surfing, biking, camping – you name it! He worked hard and it showed for it was amazing what he went on to do after university. He continued his passion

for marine biology working in the field on projects in Belize, Fiji, and Madagascar. It was in Madagascar, where Nick was working in marine conservation, that he was killed in a freak beach accident.

It is so hard to put into words his generosity, kindness, limitless friendship and high regard he gave each and everyone of his friends and family, and they gave him in return. He was an exceptional, unique and wonderful guy and no words are ever going to be able to do him justice or describe how much he will be forever missed.

Nick’s passing in October 2012 at the age of 24 is a great loss to the world and everyone that knew him. We will never forget that he taught us to live life to its fullest.



Nick, we hope you are enjoying surfing up there to your hearts content! Rest in peace. xxx

*Written by Alice Gadsby, Scott Fryer, Jennifer Choyce, Daisy Mu-Ting Williams & Leah and Kev Arlott.*

# In Memoriam

## Lady Isobel Laing



Lady Isobel Laing in the Laing Laboratory on board the Prince Madog

Lady Isobel Laing, widow of Dr C B Lewis and latterly, Sir Kirby Laing, passed away suddenly after a long illness on the 29th of April 2013. Lady Isobel was a benefactor and ardent supporter of the School of Ocean Sciences and endowed the Kirby Laing Fellowship that to this day allows eminent scientists to visit Ocean Sciences

and collaborate with academic staff. Recently she had additionally begun funding three MSc student scholarships.

Lady Isobel was born in 1925. She studied medicine in the early post-war period, a time when few women entered the profession. She specialised in radiology and was part of the NHS's vitally important post-war mass radiography programme that surveyed the entire UK population and resulted in large numbers of people being saved from a premature death from tuberculosis.

At one time, I was privileged to present this very remarkable woman with an Honorary Fellowship. After the graduation ceremony, the Laings expressed an interest in a tour of the SOS. Whilst I showed them around the School we noticed that the old Prince Madog was alongside Menai

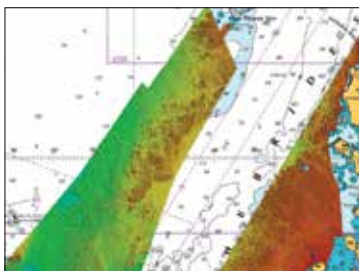
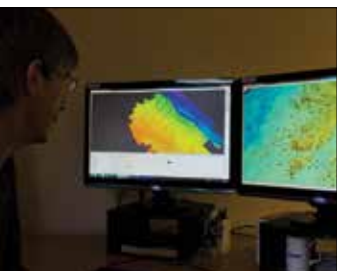
Bridge pier. The ship was a buzz of activity and the Laings -- Sir Kirby, an engineer, and Lady Isobel, a medical scientist -- were captivated by the energy and focus of the scientists and ship's crew as they readied the ship for its next cruise. I explained that our ship was the lifeblood of Ocean Sciences and that SOS had recently made a Joint Infrastructure (JIF) bid for a new ship which would be very important to our future as a sea going Ocean Science department. Shortly afterwards, the bid was successful. I wrote to the Laings telling them of this, and thought no more of it. Out of the blue, Lady Isobel offered to make a contribution to the new ship. The outcome is the Laing laboratory, which will be one long-lasting memory of the couple. Lady Isobel was gracious to come to "swing the bottle" (wrapped up in a pair of tights!) and christen the new Prince Madog.

*Written by Emeritus Professor Peter LeB Williams*



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## Keith Davenport (1970s)

For the last 20+years working for a trade association representing the ornamental fish industry ([www.ornamentalfish.org](http://www.ornamentalfish.org)) Basically, I can be involved with local councils, Westminster, Brussels, Strasbourg, and international groups like the Convention on Biological Diversity, the OIE (Diseases) and CITES (corals, clams & seahorses) in a working week. The issues range from welfare, invasive species, diseases, sustainable use...

[keith@ornamentalfish.org](mailto:keith@ornamentalfish.org)



## David Dixon (1980s)

Six years in Oman and Saudi Arabia; land surveying and oceanography later with MEPA/PME in Jeddah; after that became freelance in UK. Various initiatives, such as the Chagos 96 Expedition and Unesco IOC GLOSS in Africa/Mid East. Publications have included Tides and Waves, History of Cartography and Modern Corals, and encyclopaedia contributions. Now a carer for my mother, after a stroke, in Cornwall, UK.

[djdixon@btinternet.com](mailto:djdixon@btinternet.com)



## Adrian Smith (1970's)

Started work at Petronas in Kuala Lumpur as a "Specialist (Metocean)" in February. Helping Petronas set up their metocean data systems and procedures, and design a skills matrix for the career development for the regular staff. Out of retirement for the second time. Home and family are still in Bandung, Java.

[adriansmithuk@yahoo.com](mailto:adriansmithuk@yahoo.com)



## Anthony de Vos (1990's)

Having completed a MSc in Marine Geotechnics at Menai Bridge in 1996, I joined the Jan De Nul Group in 1997. Jan De Nul is a world leader in dredging, land reclamation, offshore works and civil construction. My work has taken me over the years to the Philippines, Singapore, the Middle East and Panama as Chief Geologist. This summer I am returning with my family to work in Belgium in the Jan De Nul headquarters.

[devosanthon@gmail.com](mailto:devosanthon@gmail.com)



## Jason O'Grady (1990s)

I was a Marine Chemistry student at SOS from '91-'94. Currently, I am Head of Chemistry at Hove Park School in Brighton. I always make a point of saying I was educated at Bangor as I really feel it's one of those special places that slips under the radar - you only really know this if you've been there and felt it for yourself.

[jogrady@hovepark.org.uk](mailto:jogrady@hovepark.org.uk)



## Tommy Furey (1990s)

Fergal McGrath and I were fortunate enough to have been beneficiaries of the Erasmus (both twice!) and Mercator Programmes under the guidance of Angie Davis, Sinclair Buchan, Dei Huws and others (graduates of 96/97). Now both back from 3d seismic and geo commercial survey world (wives and little people) and running Irish National Seabed Mapping Programme.

[thomas.furey@marine.ie](mailto:thomas.furey@marine.ie)



## Gareth Allum (2010s)

Employed by MSeis Ltd. at the end of June 2012. The company makes Passive Acoustic Monitoring equipment (PAM), which currently is mostly used in the seismic and offshore wind farm industries. My role involves manufacturing, I.T. maintenance, designing hardware upgrades, installation, and training MMO's (Marine Mammal Observers). Currently, offshore Uruguay.

[garethallum@googlemail.com](mailto:garethallum@googlemail.com)



## Stephanie Jones (2000s)

I completed a Marine Biology/Oceanography degree (2005-08) and am now working for a maritime media company delivering entertainment and training to over 10,000 merchant, cruise and yachts worldwide! I would like to see updates, pictures and research developments!

You know what would be great: access to our old work that we submitted on the blackboard system. I'd love to look through it again!

[steffiefc@hotmail.com](mailto:steffiefc@hotmail.com)



## Gus Jeans (1990s)

I started Oceananalysis Ltd ([www.oceananalysis.com](http://www.oceananalysis.com)) in January 2012, to serve all users of metocean data, with particular focus on offshore oil, gas and renewables. It was the next step after a successful career with Fugro GEOS Ltd, spanning 15 years. Previous to this I spent 5 years in academic and semi-commercial oceanography at the SOS, becoming a particular specialist in non-linear internal waves.

[gus.jeans@oceananalysis.com](mailto:gus.jeans@oceananalysis.com)



## Norma Brotohadikusumo (1990s)

I graduated in 1989 for my MSc, and 1995 for my PhD. My supervisors were Prof. Raymond Seed and Prof. Christopher A. Richardson. I miss Menai Bridge. I am still working at the same university, which awarded me a professorship. I work in the Faculty of Fisheries and Marine Science. For the next three years I am responsible to coordinate collaborations for my school.

[normaafiati@yahoo.com](mailto:normaafiati@yahoo.com)



## Mike Quinnel (2000s)

If you could mention something in the next newsletter along the lines of "Michael Quinnel is back in the UK after his own version of a "world tour" over eight years working in Norway, Singapore, France, Singapore again and now back to the UK, though still with Fugro GEOS".

[m.quinnel@geos.com](mailto:m.quinnel@geos.com)



## Susan Guppy (1970s)

I worked with Peter Spencer on an MSc in marine chemistry, then stayed in Menai Bridge for a PhD, supervised by Chris Wood. Focussing on limnology, I moved to Canada and worked in landscape architecture and environmental studies for many years. After studying architecture in New York, I finally returned to Canada, teaching planning at Dalhousie University (putting the environmental science and design together).

[susan.guppy@dal.ca](mailto:susan.guppy@dal.ca)



## Ervia Yudiati (1990's)

I graduated from the SOS in 1995. My supervisor was Dr (now retired Professor) David Jones. At present, I am completing a PhD at the Departement of Fisheries, Gadjah Mada University in Indonesia. My research is on potential antibacterial drugs from red seaweed. If there is anyone working in the same field of study, I would love to hear from them.

[eyudiati@gmail.com](mailto:eyudiati@gmail.com)



## Manuel Nicolaus (2000s)

I graduated in 2006 with a BSc in Marine Biology/Zoology. I have been working for over 5 years at Cefas. During this time I have carried out different offshore based surveys from fisheries stock assessment to nutrient and benthic surveys. Currently, I am more involved in Marine Data management, working on the implementation of the Marine Strategy Framework Directive (MSFD) as a Marine Data Biologist.

[manuel\\_nicolaus@yahoo.com](mailto:manuel_nicolaus@yahoo.com)



## Robin Stephens (1980s)

I was one of the Physical Oceanography 'class of 84' and have been fortunate to work in commercial oceanography ever since -- predominantly in the oil and gas sector. I have had the opportunity and privilege to travel extensively, and have worked on many major offshore and coastal projects. My big interest is in ocean currents in deep water. For the past five years, I have been with BMT at their Fareham offices.

[robin.stephens@bmtargoss.com](mailto:robin.stephens@bmtargoss.com)



## Sherard Scrope-Howe (1980s)

I work for the Environment Agency in Exeter. My wife, Margaret (Waite), also worked at Menai Bridge and that is, of course, where we met! We have two sons, going on teenagers so life is still very hectic. I have not been back to Menai Bridge for many years. My main memories are of the Prince Madog (the old one!) as zooplankton sampling/studies under Dave Jones were my main area of interest.

[sherard.scrope-howe@environment-agency.gov.uk](mailto:sherard.scrope-howe@environment-agency.gov.uk)



## Dario Savini (1990s)

I'm an alumnus from the Marine Environmental Protection MSc class of 1999. I'm now CEO of a company, EDO-SISTEMI SRL, that works on green wastewater technologies, an academic spin-off from the University of Pavia, where I am a Professor. Ciao.

[dario.savini@eco-sistemi.org](mailto:dario.savini@eco-sistemi.org)



## Piers Chapman (1970s)

I'm still Head of the Department of Oceanography at Texas A&M University. Apart from running the department, I'm engaged with two major research activities: one on coastal hypoxia off Louisiana and Texas; the other leading a consortium of researchers from 10 universities, following BP's disastrous Macondo well in the Gulf of Mexico. We are trying to model an oil drop from its release from an underwater pipe until it ends up on shore.

[piers.chapman@tamu.edu](mailto:piers.chapman@tamu.edu)



## Graham Jones (1970s)

It was a memorable time for me when I did my MSc in Oceanography (Marine Chemistry) in 1971 at the SOS. My classmates included Phil Reece, Dave Lane, Rod Jones and Keith Hiscock. Since then my academic career has enabled me to produce over 100 publications, conference papers and reports in human impact and climate change science. I am a member of several national and international committees and a journal reviewer of many leading international journals, and regularly review grant applications from ARC Discovery, NSF (US), NERC (UK) and the Dutch Polar Research Committee.

In the last 16 years, my research has been on natural sulphur aerosol substances produced by microalgae present in corals, ocean phytoplankton and sea ice algae. These sulphur produced substances have an important effect on global and regional climate since they are oxidised in the atmosphere to produce cloud condensation nuclei (CCN), which significantly affect incoming solar radiation and cloud droplet concentration, and are linked to the carbon cycle and global climate.

The Southern Ocean, Antarctic Sea Ice Zone and coral reefs in the Great Barrier Reef produce huge amounts of these sulphur aerosols. Present work is concentrating on measuring the production of these substances from *Acropora* coral at Heron Island.

[Graham.Jones@scu.edu.au](mailto:Graham.Jones@scu.edu.au)



## Richard Soulsby (1970s)

I retired from full-time work at HR Wallingford six years ago, but am still working there part-time. I've been with HR since 1985, and before that spent 11 years at the Taunton lab of the Institute of Oceanographic Sciences, specialising in the physics of marine sediment transport.

I've kept in touch with several SOS alumni from the late 1960s. I regularly meet Paul Driver (Marine Biology MSc) for a pub lunch. But my closest contact is with Alan Davies (now recently retired Professor at Menai Bridge). We worked together at IOS(T) and continued to collaborate on projects involving marine sediments after the Taunton lab was disbanded. Most recently, last year I published a paper on the prediction of seabed ripple properties in shelf seas, written together with an HR Wallingford colleague (Richard Whitehouse) and another SOS alumnus, Kerry Marten. Kerry did her PhD at SOS and now works at HR. Our paper focussed on one aspect of Kerry's research that involved testing the ripple prediction method (developed by Richard W and me in 2005) against measurements by POL and others off the coast of East Anglia. Kerry now works at HR Wallingford.

[rsoulsby@virginmedia.com](mailto:rsoulsby@virginmedia.com)

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