

Issue 9 | Spring 2012 | Ocean and Earth Science

SOES News

Welcome to SOES News - the magazine for current and prospective students, alumni and friends of Ocean and Earth Science. We look forward to sharing exciting updates on our world-renowned scientists, features on cutting-edge research, profiles about our talented alumni, and fun stories about our students. Enjoy!

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National Oceanography Centre Southampton

Remembering Dennis Burton (by Professor Peter Statham)



Professor Dennis Burton

Professor Dennis Burton sadly passed away on Monday 19 December, 2011. The many tributes that have been paid to him since indicate the high regard in which he was held both at the University of Southampton and across the academic world.

Dennis joined the University as Professor of Chemical Oceanography in the 1960s, during the early days of the Department of Oceanography. He went on to play an important role in the expansion of the department in the 1980s and was also involved in the foundation of the School of Ocean and Earth Science and the subsequent move from the University's Highfield Campus to NOCS in the mid-1990s. Dennis retired from the University in 1997 but continued to visit NOCS frequently, maintaining his friendships with various members of staff and consistently offering advice and support to students.

Scientifically Dennis was very sharp and rigorous and he wrote a significant number of key papers and book chapters, which gained him recognition in the marine sciences sector both nationally and internationally.

Dennis was much more than just a good scientist however, and what was first evident upon meeting him was his personable and positive manner. His ability to communicate and to take a balanced view of situations made him an excellent mentor to a large number of students, who are now scattered from Hawaii to Australia and in many places in between. He will be greatly missed but has left a long lasting legacy through his hard work and attitude to life. As my younger daughter once put it – he was a lovely man.

Retirements of Paul Tyler and Doug Masson

Professor Paul Tyler retired from his position as Professor of Deep-Sea Biology at the end of June, formally bringing to a close 24 years of service at the University. During his career Paul played a key role investigating the fauna of the deep ocean, which as recently as last year saw him exploring newly discovered hydrothermal vents in the Southern Ocean. In total his long and fruitful career included more than 50 research expeditions, 200 research papers and the supervision of over 50 PhD students.

On 7 and 8 June an international meeting focusing on 'Deep-Sea Biodiversity and Life History Processes' was held at NOCS to honour Paul's work over the past three decades. The event was a great success and demonstrated Paul's popularity and impact across the University. Dr Sven Thatje, Senior Lecturer in Marine Evolutionary Ecology within Ocean and Earth Science, stated that "Paul Tyler's dedication to contribute equally to both education and research at the highest possible level has been exceptional. His career is an inspiration to generations of students and young academics."



Professor Paul Tyler



Professor Doug Masson

In December 2011 Professor Doug Masson, one of NOCS' longest-serving and most prolific scientists, also retired. Doug joined the Natural Environment Research Council (NERC) Institute of Oceanographic Sciences in 1978, and went on to fulfill a career that spanned many areas of marine geoscience. During his time at NERC he participated in over 40 research cruises and published over 100 peer-reviewed papers.

During his time at NOCS Doug was also of considerable benefit to the University, which Tim Minshull, the University's Head of Ocean and Earth Science, recognised during his speech at Doug's leaving presentation on 9 December. Tim thanked Doug for his significant input into University teaching activities, including his supervision over the years of a large number of postgraduate students.

Fortunately, despite their official retirements both Paul and Doug will continue to work at NOCS in less formal capacities. Paul already has two research cruises scheduled for 2012/13, whilst Doug will retain Visiting Researcher status at the centre.

The Vice-Chancellor (centre back) and colleagues on the Highfield Campus



Celebrating the University's Diamond Jubilee



The Vice-Chancellor with the Earl of Wessex, during his visit to the University on 23 March 2012.



The opening of the Department of Oceanography in 1964 by Queen Elizabeth II accompanied by Prof John Raymont and the Chancellor (foreground) Lord Murray of Newhaven.

Photo: Southern Newspapers Ltd

On 29 April, 1952 Queen Elizabeth II, in the early days of her reign, founded the University of Southampton by granting it a Royal Charter. This saw the former Hartley Institution, which was established in 1862, grow into a fully independent university. Since then Southampton has developed into a world-class university and our people have changed the world for the better. Almost 200,000 individuals have now studied at the University and we continue to work at the cutting edge of global research. This year we celebrate our 60th anniversary.

The University has a strong reputation for its outstanding research and degree courses in Ocean and Earth Science, which is the product of several decades of development. Geology was actually taught at Southampton as early as the 1890s, with an official Department of Geology set up in 1946. Professor John Raymont then helped to found the Department of Oceanography in 1964. Geology and Oceanography both expanded throughout the 1970s and 1980s, and both departments were home to numerous influential professors, such as Frank Hodson, Peter Lockwood and Dennis Burton.

In 1998, the departments of Geology and Oceanography were merged to create the

School of Ocean and Earth Science, which was then relocated to its present waterfront location within the National Oceanography Centre, Southampton (NOCS). This centre represents a partnership between the University of Southampton and the Natural Environment Research Council (NERC), which results in University staff and students having unparalleled access to cutting edge facilities and fieldwork opportunities. The move has also furthered the prominence of ocean and Earth science at the University, with NOCS widely regarded as a world-class centre for research.

A wide range of activities and events are taking place to celebrate the University's Diamond Jubilee. On 23 March, HRH the Earl of Wessex visited the University to open a new Diamond Jubilee Plaza, whilst we have also established a list of our top 60 achievements over the past 60 years. We are very keen for our alumni to re-engage with the University during this special year, and encourage everyone to visit our 60th anniversary website: <http://60.southampton.ac.uk/>.

On a similar note, on 21 May alumnus Dave Blackbourn (MSc Oceanography, 1965), a member of the University's first Oceanography class, visited NOCS during a trip to the UK from his home in Canada.



Alumni now working for Fugro, the event sponsors, talking to students at their exhibit. Photo: Barry Marsh

‘Life after Graduation’ Alumni Careers Event is biggest and best yet!

Providing guidance and advice on career options in the marine and geological sectors, Ocean and Earth Science alumni and graduate employers visited NOCS to participate in the fourth Ocean and Earth Science ‘Life after Graduation’ careers event on Tuesday 6 March 2012.



Students watching the Geology and Geophysics panel at the alumni careers event.
Photo: Barry Marsh



Geology and Geophysics panel with host, Dr Lisa McNeill (centre front).



Oceanography and Marine Biology panel with host, Prof Peter Statham (centre bk).

The annual event was originally launched in 2008 to help Ocean and Earth Science students learn directly from alumni about career opportunities and to provide a forum for them to network with national and global companies. The event has grown considerably in size and this year featured over 22 exhibits manned by companies who offer opportunities for Ocean and Earth Science graduates, panel discussions with alumni and careers talks. Over 250 students attended the day-long event and the feedback has been incredibly positive.

“One of the most important issues our students face is their future employability, particularly during these challenging economic times, and the University places a strong priority on preparing our students for life after graduation” said Tim Minshull, the University’s Head of Ocean and Earth Science. “We are very grateful to our alumni and their companies who helped to make this our biggest and best event yet.”

For the first time this year the event was sponsored by Fugro, one of the top employers of University of Southampton Ocean and Earth Science graduates. Chris

Smith, an alumnus and Engineering Geologist at Fugro who attended the event said: “We hope to continue supporting the event in the future and welcome the opportunity to engage with the students and get them enthused about their future careers.” Similarly, fellow alumnus and attendee David White, a Principal Consultant at Oil Spill Response Limited, revealed that his company recruited three students from last year’s event. This clearly demonstrates the effectiveness of these types of event and the opportunities that they can present to students.

Students who attended said that it helped them to improve their networking skills and their understanding of what job opportunities exist after graduation. “A really brilliant event – I hope it grows each year” commented one student.

We extend special thanks to everyone at NOCS who helped to make the event a success, particularly the GeolSoc student volunteers.

Early planning is already beginning for next year’s event. If you would like to participate in March 2013 as an exhibitor or a speaker, please contact: alumni@noc.soton.ac.uk.

“Southampton students stand out”

Exhibitor Lawrie Cowley (MSci Geology, 2011), an alumnus, Hartley Circle GOLD member* and Geoscience Technical Assistant at Neflex gives his view on what makes Southampton’s Ocean and Earth Science graduates stand out:

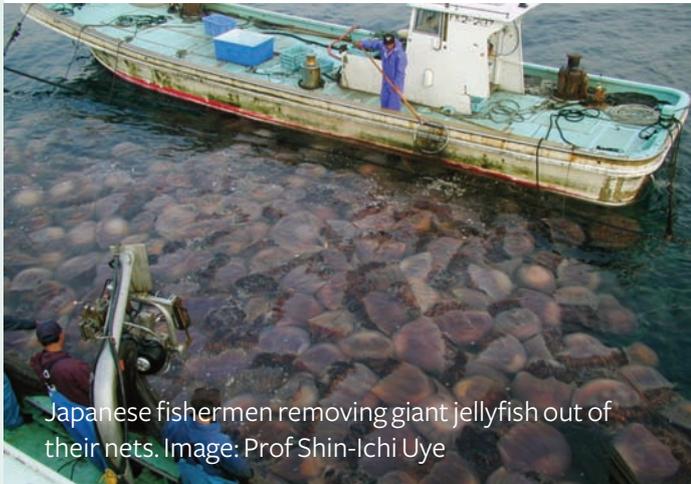
“Ocean and Earth Science at the University of Southampton is excellent at preparing students for future employment. Practical classes and projects are based around real world case studies, which give invaluable insight into work flows and roles within industry. Southampton students stand out because of this, and when combined with the dedication of the staff and the quality of the available field trips and resources, they are provided with a strong base to build upon throughout their careers.

Until I reach a point in my career where I can consider hiring Southampton graduates myself, I will continue to broadcast that they are an outstanding collection of individuals who are more than capable of adding great benefit to a wide variety of roles and industries.”

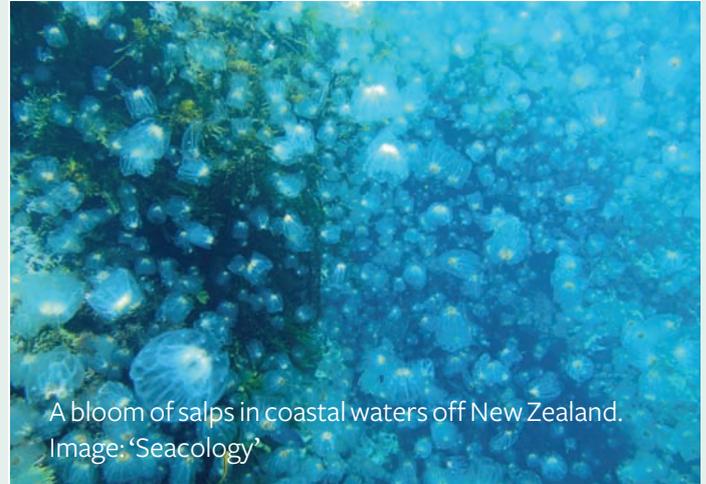
*The Hartley Circle is a group of alumni, staff and friends who support the University at a special gift level. Lawrie is the first ‘graduate of the last decade’ (GOLD) to become a member of this group. For more information, please visit:

www.southampton.ac.uk/supportus.

Ocean and Earth Science involved in studying global jellyfish populations



Japanese fishermen removing giant jellyfish out of their nets. Image: Prof Shin-ichi Uye



A bloom of salps in coastal waters off New Zealand. Image: 'Seacology'

A global study has questioned claims that jellyfish are increasing worldwide. Blooms of jellyfish have shown a substantial impact on coastal populations recently, resulting in media reports creating a perception that the world's oceans are experiencing increases in jellyfish due to human activities and global warming. A new study has questioned these claims however and suggested that there is no scientific evidence for them.

Dr Cathy Lucas, a marine biologist within Ocean and Earth Science at the University of Southampton, was involved in the study, which has appeared in a recent issue of *BioScience*, and which generated interest in *Nature*. Her co-authors are comprised of experts from the Global Jellyfish Group, a consortium of experts on gelatinous organisms, climatology, oceanography and socioeconomics. These individuals include Dr Rob Condon, a marine scientist at the Dauphin Island Sea Lab in Alabama, USA.

The increased speculation in the media formed the motivation for the study, with scientists determined to provide hard evidence on jellyfish populations due to the impact that they can have on both the tourism and fisheries industries. The study took place at the National Center for Ecological Analysis and Synthesis (NCEAS) in the USA and has led to the formation of a global database called the Jellyfish Database Initiative (JEDI). The database consists of over 500,000 data points about global jellyfish populations collected from as early as 1750, and will act as a future repository for datasets so that jellyfish blooms can be continually monitored in the future. Dr Lucas says that understanding long-term data is the key to solving the question about jellyfish blooms. She stated that "Clearly there are areas where jellyfish have increased, but there are also areas where jellyfish have decreased over decadal periods."

The JEDI has now been analysed to determine whether there has been a global increase in jellyfish or not, with the



Moon jellyfish (*Aurelia*) washed up on San Francisco beach following a storm. Image: Mark Lukach

manuscript currently in submission. Dr Condon has stated that "This is the first time an undertaking of this size has been attempted but it is important to know whether jellyfish blooms are human-induced or arise from natural circumstances. The more we know, the better we can manage oceanic ecosystems or respond accurately to future effects of climate change."

The University of Southampton's involvement in this project has been further enhanced by the fact that Catherine Hollyhead, an Ocean and Earth Science MRes student, is currently using the JEDI to generate a map of the global distribution of jellyfish biomass for her dissertation. Catherine is a recent recipient of a Richard Newitt prize, a University funding stream for students working on special research projects, and her work is being supervised by Dr Lucas.

Alumni profile: catching up with James Faroppa

BSc Geophysics. Year of Graduation: 1994

“I chose to study at the University of Southampton due to the strength of the Geophysics course on offer. The fact that the course married fundamental sciences, such as physics and geology, with an applied subject was very appealing to me. My first impressions of the University were extremely positive, and I especially enjoyed studying new subjects in parallel with furthering my learning in the more pure science subjects. I feel that this made for a good introduction to the course. In addition to this, one of the key strengths of Geophysics at Southampton is the interaction of the academic staff with industry and the real-world application that this gives to their teaching. During my time at the University Dr Bob Foster was excellent with regards to this.

If I could have my time at the University again I would do very little differently. I thoroughly enjoyed my course and feel that it prepared me exceptionally well for a career in mineral exploration. For me, being stimulated is a pre-requisite for success. I constantly craved more learning during my time as a student and the environment at the University of Southampton always gave me the opportunity to fulfil this.

After graduating from the University I initially worked in Argentina, Scandinavia and Zimbabwe as a mineral exploration



Alumnus James Faroppa

geophysicist for Rio Tinto. In 1997 I transferred to the oil industry and studied an MSc in Basin Evolution and Dynamics before joining the BG Group. I have been working for the BG Group ever since and am currently based in the UK as the company's Chief Technology Officer. Prior to this however my career involved a large amount of travel and I have worked in a variety of hydrocarbon provinces, including the North Sea, South America and North Africa.

If I was to offer advice to students today it would be to study a subject that stimulates you, and to always believe that doors will open for you if you work hard and stay committed to what you want to do.”

Create opportunity. Make a lasting difference for Southampton

As an Ocean and Earth Science alumnus and friend, you will have experienced first hand the University's commitment to innovative excellence in teaching and research.

We are committed to recruiting the most talented students and increasing the opportunities available to every student, regardless of their background. We prepare our students to become confident national and international citizens and the potential leaders of an increasingly globalised work environment. We aim to provide each generation of students

with financial support and the highest quality of education using the best equipment and resources to enable them to go out into the world and make a difference in their chosen field.

At the University we also make world-changing advances in research every day. We pride ourselves on being a place for opportunity and inspiration where our researchers can devise innovative solutions to address the global challenges we all face. Our research is world leading and our reputation is one that you, as a graduate, can be proud of.

You can play a vital role in our future by making a gift to support the University of Southampton. Support from alumni is helping to cultivate a rich and varied environment for world-leading learning and discovery and providing support for our outstanding students, academics and researchers, both today and for the future.

A gift of any size makes an instant and lasting difference and you can be reassured that you are helping to transform lives and investing in the next generation of great thinkers.

There has never been a better time to show your commitment to the University of Southampton.



Photo: John Davis

An interview with Maddy Dorrell, recent recipient of an Ocean and Earth Science scholarship



Oceanography student
Maddy Dorrell

One of the most popular areas for philanthropic gifts from our alumni is that of student support, particularly in the form of awarding bursaries and scholarships. Claire Critchley, a second year Oceanography with Physical Geography student, caught up with Maddy Dorrell on behalf of SOES News, to speak to Maddy about a scholarship that she was recently awarded and her views on alumni engagement:

Claire: Hi Maddy. So what are you currently studying and what's the scholarship you've been awarded?

Maddy: I am currently in my second year of a Master of Oceanography degree at the University. I was recently awarded a £500 progression scholarship based on the grades that I achieved during my first year.

Claire: That's great to hear, have you decided what you're going to use the money for?

Maddy: I am hoping to complete a summer placement this year, so this money will go a long

way towards supporting my travel and food expenses.

Claire: Do you feel that alumni involvement with the University is beneficial to you as a student?

Maddy: Absolutely - donations from alumni are of great benefit to all the students at NOCS. For example, alumni are often involved in the funding of fieldwork and events and in the purchasing of new equipment. On another note, actually speaking to alumni at the recent Careers Event was great as they have done the degrees that we are doing and now have successful careers as a result.

Claire: Finally, why did you choose to study at the University of Southampton?

Maddy: It has the best facilities - we are sharing NOCS with the University's Ocean and Earth Science academics and people from the Natural Environment Research Council (NERC). The research that they all do is at the forefront of science and being able to use the same technology is fantastic.

Make a Difference for the University of Southampton

My contact details:

Name:..... Title:.....
Address:..... Postcode:.....
Email:..... Tel:.....

I would like to make a gift to support the University of: £20 £30 £50 £75 £100 £60 (special 60th anniversary gift)
To the area of: Supporting the Student Experience Vice Chancellor's Strategic Fund

I enclose a cheque made payable to the University of Southampton Or please debit my:

Mastercard Visa Solo Switch/Maestro Delta

Name on card Card no. _ _ _ _ / _ _ _ _ / _ _ _ _ / _ _ _ _

Card expiry date _ _ / _ _ Issue no. (if app.) _ _ _ _ Card security no. _ _ _ _

If you would like to make a regular gift to the University please contact: annualgiving@southampton.ac.uk

Gift Aid declaration

If you are UK Tax payer and meet the requirements set out below, the University of Southampton will be able to reclaim the basic rate of tax paid on your gift, increasing its value by almost one-third at no extra cost to you.

I confirm I have paid or will pay an amount of income tax and/or capital gains tax for each year (6 April-5 April) that is at least equal to the amount of tax that all charities or Community Amateur Sports Clubs (CASCs) that I donate to will reclaim on my gifts for that tax year. I understand that other taxes such as VAT and Council Tax do not qualify. I understand the charity will reclaim 28p of tax on every £1 that I gave up to 5 April 2008 and will reclaim 25p of tax on every £1 on or after 6 April 2008.

I wish the University of Southampton to treat this donation *and any that I make hereafter as Gift Aid donations.*

Signed _____ Date: _____

Please note: To qualify for Gift Aid, you must pay an amount of Income Tax and/or Capital Gains Tax for each tax year (6 April one year to 5 April the next) that is at least equal to the amount of tax that the University of Southampton will reclaim on your gifts for that tax year.

Please notify us if you want to cancel this declaration; you change your name; or home address or no longer pay sufficient tax on your income and/or capital gains. If you pay income tax at the higher rate, you must include all your Gift Aid donations in your Self Assessment tax return if you want to receive the additional tax relief due to you.

You may also give online at: <http://www.southampton.ac.uk/supportus/donatenow> and your gift will have immediate impact.

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Cover photo: A bloom of the Common or Moon jellyfish, *Aurelia* spp. found throughout the world's oceans.