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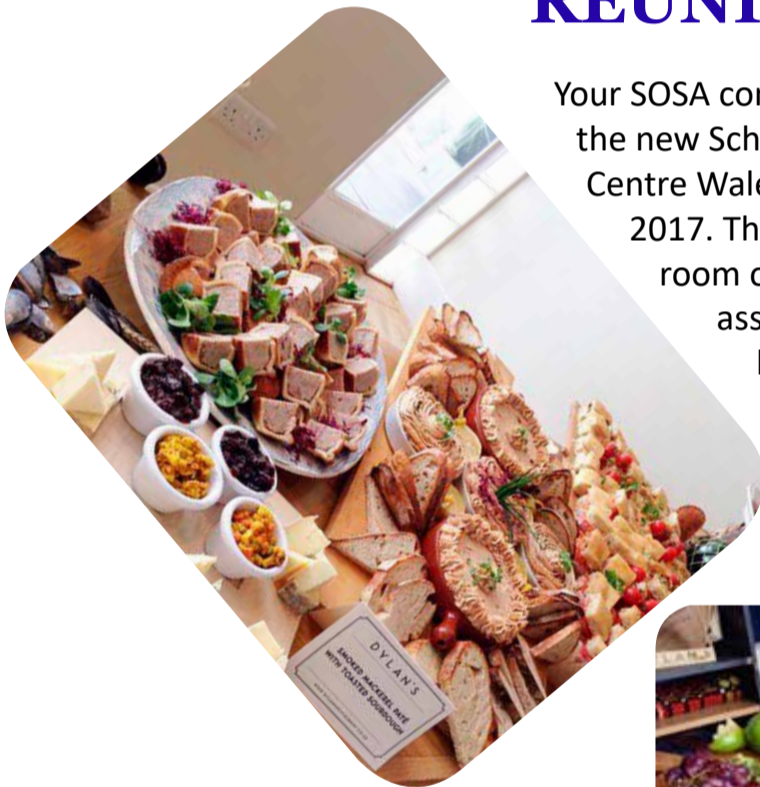
2017

THE DIGITAL NEWSLETTER OF THE SCHOOL OF OCEAN SCIENCES ASSOCIATION

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## REUNION SUMMER 2017

Your SOSA committee is planning a Reunion Buffet in the new School of Ocean Sciences building Marine Centre Wales on the evening of Saturday 1st July, 2017. The reunion will be held in a function room overlooking the Menai Strait and, assuming good weather, we will have access to the terrace, with its lovely views of the Strait.



The delicious buffet (Vegetarian/Seafood/Cold Meats) will be provided by Dylan's of Menai Bridge. We are in for a treat as the accompanying pictures illustrate.

The cost is £35 per person, including wine and soft drinks. The undergraduate and postgraduate rate will be £25. Payment should be made through the on-line shop (*see overleaf*). Please put the date of 1st July in your diary. If you require more information, contact:

**Chris Richardson: [c.a.richardson@bangor.ac.uk](mailto:c.a.richardson@bangor.ac.uk);**

or

**Mick Cook: [mick@mickcook.com](mailto:mick@mickcook.com)**



## Keeping her eye on the ball

After completing my BSc at Bangor, I went to Bournemouth University to complete a MSc in Biodiversity Conservation. I stayed in Bournemouth for a few years and did the odd volunteer opportunity, whilst working full time at McDonald's.

One of these volunteer opportunities included a dive for the archaeology department, during which I discovered a new ship-wreck off the Isle of Wight!

In 2012 I received an opportunity to work for a company based in London that specialises in Pest Control and Other Environmental Services. I started off as the service controller but then became more involved in the environmental side of the company, where I analysed water samples amongst other water feature management tasks.

Wanting to progress professionally and seeing the potential in Health & Safety, I undertook the NEBOSH General Certificate in Occupational Health and Safety, became the H&S Manager and got the company BS OHSAS 18001: Occupational Health and Safety Management certified.

Following on from this I have specialised in Pest and Bird Control Management. I now manage the Bird Control side of the company, which is becoming increasingly successful.

During my free time I've qualified as a Basketball Referee, although I also train at a local club as a player. I referee local amateur games in London, and this year I am going to Sweden in May to referee an international tournament.

**Gina Siebler**  
**Class of 2009, BSc Marine Biology & Oceanography**  
**gina\_88@sapo.pt**



*Gina (on the left) with international basketball referees from Italy and Spain*

## Croeso!

Welcome to the SOSA 2017 winter electronic newsletter.

Its main objective is to try and publish relatively short articles and bits of information about the alumni — where they are now and what they have done since leaving Menai Bridge.

I hope that you enjoy it and, hopefully, read about old friends and colleagues.

**Editor: Kevin Deeming**  
**kevin@kevjen.com**

Matthew Collins (Class of 1982) has recently been appointed a Niels Bohr Professorship at the University of Copenhagen. His work on ancient proteins will spur research by describing the fundamentals of biomolecular survival and exploring ancient proteomes, fossil sequences and material culture. Replicating his experience in establishing 'BioArCh' at York, Matthew will hope to bridge the divide between the sciences and humanities. Greenland's sediments and Denmark's bogs are world recognised as some of the richest sources of protein artefacts in the world (skins, leather, textiles and tools). Matthew will divide his time between York University, where he is based, and Copenhagen.



Tim O'Hare (MSc and PhD Physical Oceanography, 1987-1992) is now Deputy Head of the newly formed School of Biological and Marine Sciences, University of Plymouth. Away from work, he will shortly celebrate his fourth year as a runner by tackling a 50 mile ultra-marathon in Somerset in May 2017.



## SOSA REUNION ON-LINE SHOP

The "SOSA Reunion 2017" will be held on Saturday 1st July 2017 at 7pm, in the New Marine Centre Wales Building, School of Ocean Sciences, Menai Bridge. Closing date for bookings is 20th June 2017. Please use the following link to make your booking:

<http://shop.bangor.ac.uk/product-catalogue/ysgol-gwyddorau-eigion-school-of-ocean-sciences/sosa-summer-reunion>



## There's gold in them thar pipelines!

*Here's a true funny tale after I left Bangor, graduating in Zoology/Oceanography 1970.*

In 1983, I had completed an extended 5 month trip, diving in the oilfields in Abu Dhabi, so I could be home with my kids by December for Christmas. I had just got back home, when there was the Brinks Mat bullion heist in Heathrow on the 26th November. The news was full of it. I copied the 6 o'clock news onto VHS tape. Also on TV that week was Keith Jessop's film of the "Stalin's Gold" recovery from the HMS Edinburgh; so I recorded that as well.

Then to my annoyance, after only a few days in the UK, I was asked to go back to the Middle East. A major defect on a weld on the Main Gas Line in 120 feet had been found -- "if you don't come back, don't come back." And so, waiting for the air ticket from Heathrow to arrive, I cast a 15lb lead ingot in a bara brith baking tray from old fishing weights I had found, when diving in the Menai Strait. I then stamped it with Swiss coins and painted it with 15 coats of gold lacquer. It looked the bis!

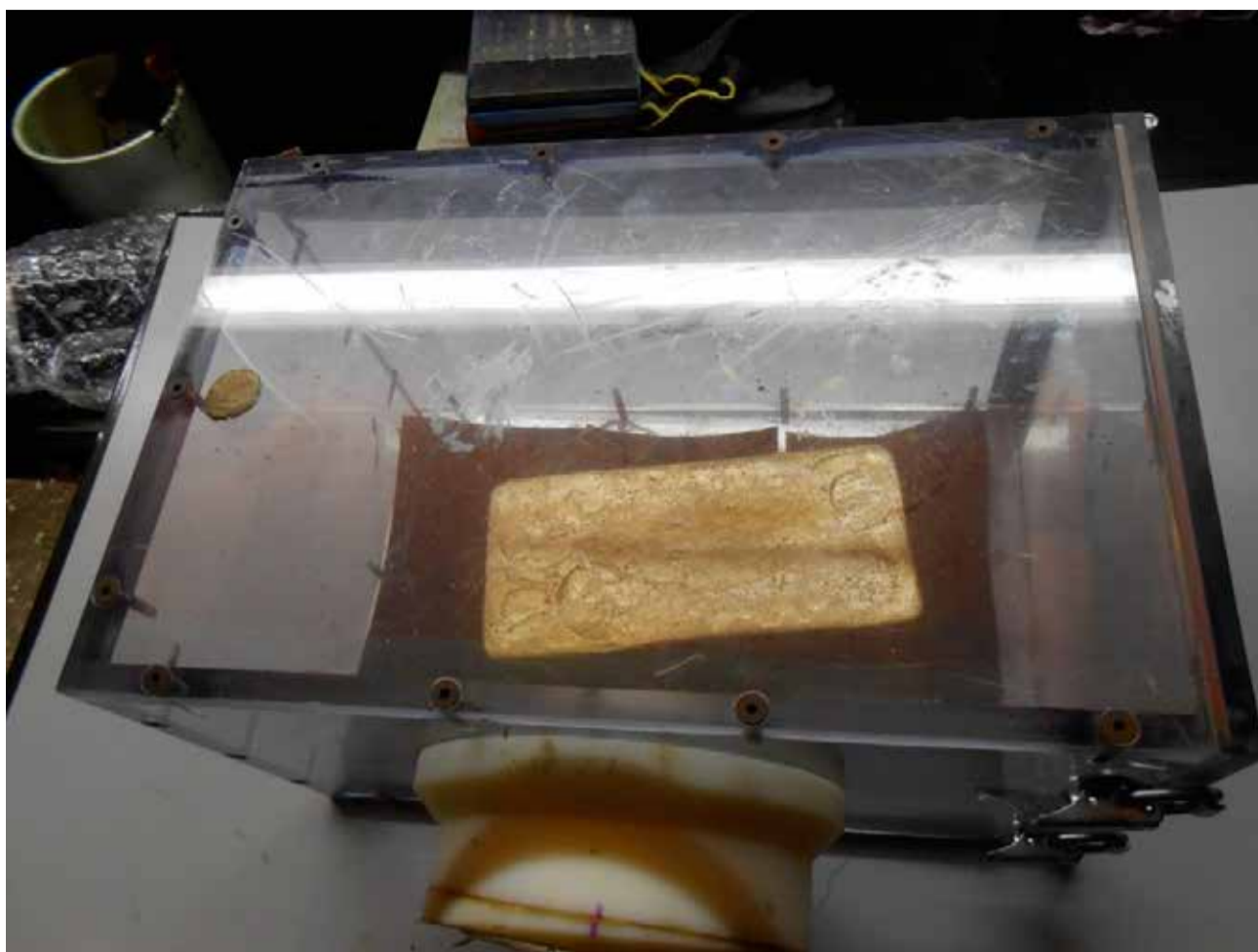
I carried it in Sophie's, my daughter's, little pink schoolbag through tight Heathrow security, wrapped in rugby socks! Plane -- then heliport -- then offshore complex; no one found it!

I hid it in my cabin and told no one.

I gave the divers the VHS recordings and they



*The McCreadie Diving Mascot*



*The infamous gold bar!*

were glued to it: every bar from HMS Edinburgh was worth £110K and the Brinks Mat heist was worth £29M in gold bars (£89M equivalent now). I reminded the divers that somewhere along the 40" pipeline that we were inspecting a gold smuggler's dhow had been sunk by a gunboat. There could be hundreds of thousands of pounds out there. There was gold fever on the ship from 18th Dec onwards!

I wanted someone to find the fake gold bar on Xmas Day.

I asked round the dinner table what each would do if they found any gold bars: "tell the company to go forth and multiply, move to the south of Spain, buy a Ferrari..." A Glaswegian said it would be his and he would not share it; an ex-London bobby said he would declare it! All the ship talked about was GOLD and any newspaper we got was about GOLD.

I planted it along the pipeline on the next joint we had to inspect on the 23rd. On 24th several dived on it--no one said anything and I couldn't ask. Had the Glaswegian found it? I dived first Christmas morning and it was still there--how had they all missed it?

The weather got up, so there was no diving until the 27th. The first diver was the London bobby. Suddenly communications failed. Quick, standby diver get in! He was just going to jump in when the sound came back. No problems. So the bobby continued for about another hour.

We were doing surface decompression with oxygen. The bobby came out, hat and bottle came off, but he wanted to go in the chamber with his rubber suit on, as he said he was cold, but this is not allowed, as it is flammable in pure oxygen under pressure. The Diving Supervisor came on deck, unzipped him, and the gold bar fell on the wooden deck!

He was pushed into the decompression chamber screaming. Another diver was told to run the chamber. He was also screaming because all others had scuba sets on and were over the stern and into the sea: "one bar-- could be 100s!"

As air and time ran out they began to surface: "Did you find any more? Which way did you swim?" Then someone spotted me sitting down. "Why wasn't Dave in?" Someone scratched the gold bar. The truth dawned on them. "You carried that all the way from Wales?" "How did you get it past Heathrow security within a week or two of the heist?"

We never saw the bobby again after that trip! Turned out to be a hilarious Christmas in the middle of nowhere.

P.S. I was involved with the Panda RAG stunt in 1969!

**Dave McCreadie**  
Class of 1970, BSc Zoology/Oceanography  
[david.mccreadie@twi.co.uk](mailto:david.mccreadie@twi.co.uk)

# Green Shoots In The Offshore Industry?

*A view by Mick Cook – SOSA Chairman*

Why is the graph, illustrating crude oil prices over the past four years, so important to so many graduates of the School of Ocean Sciences? It may not be immediately obvious and I will come back to that question in a while, after explaining what has happened post mid-2014.

Prior to mid-2014, Brent Crude oil prices had remained at record highs above US\$100 per barrel for several years. Oil company profits rose, exploration and development activity was at very high levels and marine scientists, particularly geoscientists, were in great demand. Rates for services were sky high.

Saudi Arabia, fearful of growing competition from oil shale in the USA, decided to open the floodgates releasing large quantities of oil on to the market. Their intention? To reduce the oil price significantly in an attempt to drive higher cost shale oil producers to the wall.

The result of the Saudi actions was a catastrophic drop in the price of oil and carnage in the oil and gas sector. High cost oil, particularly shale oil, oil sands and deep water oil all suffered significant adverse reactions in a very short space of time. Redundancies escalated with some of the larger service providers, such as Schlumberger, laying off tens of thousands of employees and smaller companies going to the wall. Oil & Gas UK estimated 84,000 jobs linked to the industry in the UK alone went in 2015, with 40,000 losses expected to have occurred in 2016.

So why is this recession so important to marine scientists? Well, many such individuals are employed in the oil and gas sector directly and times have been very tough over the past 30 months. Perhaps as significant, the downturn in oil and gas has a marked knock-on impact on those marine scientists working in other offshore sectors. As the demand for marine science personnel falls, rates fall, and personnel lose jobs. Money for training and research dries up.

I act as an advisor to several organisations that operate in the marine science field. Personal experience assures me that when the offshore oil and gas industry sneezes the entire offshore industry catches a cold in varying degrees. The demand for marine scientists has benefited to an extent from activity in UK Round 3 windfarm operations and an upturn in the deployment of submarine telecoms and power cables, worldwide. However, these are only small pockets of good news. Overall, the fall in demand for marine scientists has been severe.

## Green Shoots?

This is not the first deep recession in the oil and gas industry. And, nor will it be the last! I have experienced five such episodes during my 36 year career. However, the oil price has stabilised over the past few months and there is a slow upward trend as evidenced on the graph above.

The graph below shows world oil supply and demand. In 2014, supply began to exceed demand as the Saudi actions took hold and not unexpectedly this correlates directly with the oil price fall. However, the graph also shows supply slowing in 2016 and demand beginning to exceed supply once more resulting in an upturn in oil prices.

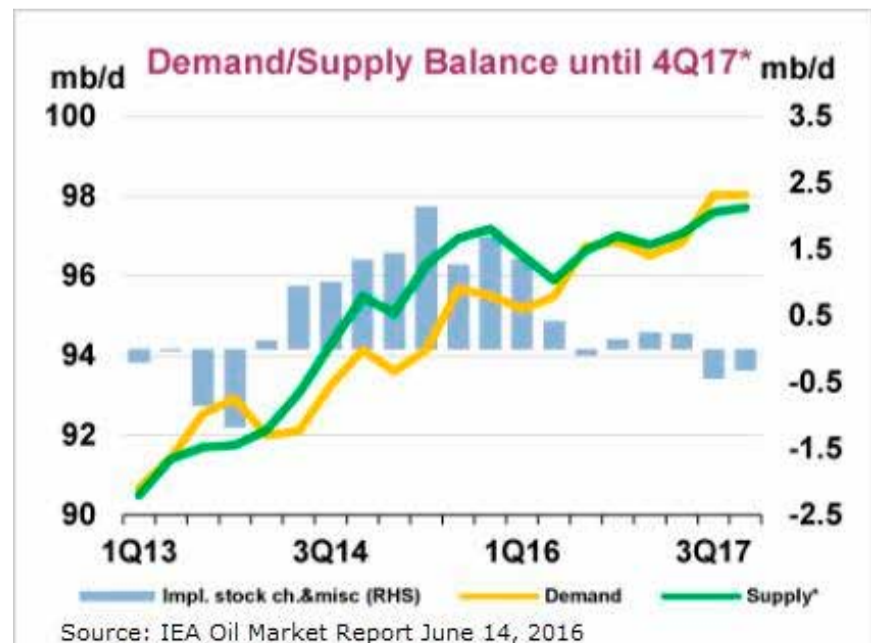
So, what does this mean for activity in the offshore sector? I spend a lot of time talking to people working in marine science across a number of industry sectors. Over the past few months' such conversations have revealed an increasing confidence. Activity levels are up on the same period in 2016 and green shoots are beginning to appear. Would it be advisable to put a large amount of money on significant expansion of activity in 2017? Probably not. But the outlook is definitely looking the best it has been for the past two and half years. How quickly oil shale returns or what happens to supply from countries such as Iran are unknown and could constrain the upward trend in prices. Only time will tell.

Of course, many readers will by now have reached high levels of exasperation shouting "low oil prices are good" – cheap petrol, electricity etc - and we don't want these dirty hydrocarbons anyway! True. However, high oil prices promote the increased growth of renewable energy sources. But that is a story for another day.

Monthly West Texas Intermediate and Brent crude oil prices (2013-18)



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, January 2017



Source: IEA Oil Market Report June 14, 2016



## The End of an Era

I went late to University (26) and had no 'O' levels nor 'A' levels, having left school at 15. What I did have was a wide-ranging knowledge of marine environments, having worked in aquaria shops specializing in the new coral reef fish-keeping hobby at that time. I had also spent a year in the Caribbean catching live coral reef fish for the aquarium trade

What Bangor had in those days (1978) was an "intermediate year"—an extra 4th year designed for students who were short of one A level. They had never had one who was short of 3 before! The Intermediate year was challenging as I didn't get a grant and there were no student loans in those days. Bangor Uni helped me with accommodation and my dad sent me £5 a week from which I ate, smoked, and put petrol in my motorcycle. I became an expert on bone stew! The bones came from the local butchers for my non-existent dog. I boiled these up in a pressure cooker and just added more vegetables.

At the end of the first term I won my appeal for a four-year grant and was wealthy beyond my dreams. I was 30 when I graduated and soon found I was too old for the jobs I was qualified for and two under-qualified for the jobs for my



*Kew Gardens*

*©Kmiragaya/Dreamstime.com*

age. So I took a job working for a mate of mine who ran the café in a famous dance studios in the west end of London. I worked there for a year and a half, the work was hard and paid a pittance, but the people were nice.

One March evening in 1985 I was finishing work and walking into Covent Garden Tube Station. I passed a newsstand and sitting there was a New Scientist magazine. For some reason, I just knew it had something in there for me. I brought it, sat on the tube and opened it up on a double page advert: "The Royal Botanic Gardens, Kew, wish to develop a living display of marine plants." I knew this was my job. Over 200 people responded to the advert and they gave 12 interviews over two days but no one had a chance; it was my job and I got it!

I started my time at Kew in June 1985. At my first meeting with the curator he said: "I want you to create a display of marine plants to go into a new aquarium, which will be installed under the refurbished Palm House. We have no idea how to do it; most of the UK algologists say it can't be done. Get on with it." So I did.

The marine display opened to the public

in July 1991. Really it was a habitat aquarium featuring two tropical habitats -- Coral reef and Mangrove swamp -- and two British habitats -- rocky shore and saltmarsh.

In 2003 we added a 3D display of phytoplankton, using electron micrographs of phytoplankton and created for us by one of the pioneer "walking with dinosaurs" animators. It carried three simple messages: You are looking at plants; We are phytoplankton; We provide half the oxygen you breathe.

The marine display has been wowing visitors to Kew for 26 years and constantly hitting very high up scores on visitor surveys. But, after millions of visitors, it is badly in need of a complete refurbishment. Sadly, this year Kew has decided the cost of refurbishing the aquarium would be too high. Senior management does not see marine plants as part of its strategy. The marine display will close this March.

When it does there will not be a botanic garden in the world with a display of marine plants. And whilst, these days, it is not unusual to see a few species of tropical algae in aquariums, they are rarely named and never interpreted. So this incredibly important group of plants, which provide half our oxygen, take up massive amounts of carbon dioxide, were the fore runners of all land plants, and are the basis of most marine food chains has no representation in any aquarium or botanic garden. Even more amazing is that most of the UK Aquaria are, literally, a few metres from a rich diverse community of marine plants!

**I am proud that I could give them some presentation for 30 years. I am proud that Bangor gave this guy, who left school at 15, the chance to learn about the amazing world of the oceans.**

*Pete Morris  
Class of 1982, BSc Marine Biology and Plant Biology.  
P.Morris@kew.org*





## A Fishy Tale

Since leaving Bangor University in the summer of 2014, it would be an understatement to say that life has been pretty full on. I continued straight on with my studies, completing an MSc in Ecosystem Management of Marine Systems (EMMS) in September 2015, taught at University of St Andrews and Scottish Association of Marine Science (SAMS) in Oban.

A few weeks after graduation, I then moved to Plymouth to start my first 'real' job as a Marine Enforcement Officer in the Civil Service for the Marine Management Organisation (MMO), part of DEFRA. Whilst working for MMO I joined a gig rowing club and rowed in the World Championships in the Scilly Isles. It is now 14 months later, and I have accepted a new job to work as a Marine Scientist for the Madagascar Research and Conservation Institute (MRCI), which started in January 2017.

I chose the EMMS course partly because I wanted to challenge myself by trying somewhere new and I always wanted to go to Scotland. The first semester in St Andrews provided a solid foundation in ecosystem dynamics, GIS and intensive quantitative skills and statistics that were not for the faint hearted. The second semester at SAMS was an unforgettable experience. It had the stunningly remote, coastal location in the mountains with lochs to swim and scuba dive in on your doorstep (though not so fun in January when your dry suit leaks), a close-knit community with great lecturers, and I made some really close friends. So much so, I went back to visit for New Year.

The highlight of the MSc, was the scientific diving module in Indonesia. It was a three-week trip, with three dives a day in tropical conditions on a coral reef, living in a hut on a remote island, undertaking surveys with an amazing group of students, staff and locals. It was this experience, unknowingly at the time, which helped me get the Marine Scientist job in Madagascar.

I worked for the MMO for over a year, but almost every day was different. My main tasks involved 'on the ground' law enforcement of fishing activities, via inspections of vessels, markets and premises around the coast, investigation work into illegal activities and data analysis. However, I also drove a police boat at night, got covered countless times in smelly dead fish slime during freezing winter night inspections, witnessed accidental by-catch of blue fin tuna, attended a spiny lobster conference and went aboard the Navy Ship HMS Severn. The learning curve was endless.

One of the best aspects of the job was meeting and learning from such a wide range of fascinating people, from fishermen to navy officers and government officials. I also gained an inside knowledge into how the fishing industry and other maritime activities actually work and how they are managed by the government. However, I missed the science aspect of my work and wanted to travel, which is partly what drove my decision to leave.

Over the last two years I have developed a lot as an individual, been through the mill of

endless job applications, some strange living situations and difficult decisions, though everything up to now has all helped lead me to where I am, off on a new adventure to Madagascar!

**Emma Bagnall**  
**Class of 2014, BSc Marine Biology**  
**[ej.bagnall92@gmail.com](mailto:ej.bagnall92@gmail.com)**



***The School of Ocean Sciences played host to a visit from Bangor University administrators who had signed up for the University "Administrators Programme 2016". Captain Jerry McCabe, David Assinder and Chris Richardson showed the visitors around the Prince Madog as well as the school's laboratories, aquaria and Marine Centre Wales.***



## Selamat Pagi



A year after I graduated from my undergraduate program in Malaysia, I went on to pursue the MSc in Marine Biology at the School of Ocean Sciences. MSc coursework has helped strengthen my skills in various aspects of marine biology, fisheries and conservation and given me a solid background in oceanography.

After I graduated from Bangor, I worked as an academic tutor at the University Malaysia Terengganu and then they offered me a scholarship for my PhD and now I'm undertaking a PhD at the National University of Malaysia. As a fisheries and marine biology student, I combine my knowledge from both fields into my PhD which is in the field of Fisheries Oceanography.

My PhD project aims to contribute to understanding the effects of climate change and climate variability, with a primary focus on pelagic fisheries. My research will involve aggregating data from satellite remote sensing and fisheries surveys in the South China Sea Exclusive Economic Zone (EEZ).

My past experience of living abroad has taught me to be independent and that it takes hard work and effort to achieve my goals. Resilience matters more than intelligence. Every PhD journey is unique. Everyone progresses differently, faces different personal life challenges and has a different set of strengths and weaknesses. No one says it is going to be easy, but I am sure it is going to be worth doing.

I thank my MSc project supervisor Dr Ian McCarthy, who is also the MSc Marine Biology course director, for all his support and kind help since the beginning of my MSc course until my current PhD studies. As a fisheries student and a diver, I have become fascinated with the marine environment. Now, ocean protection is no longer just a global or political issue on the agenda, but a personal one as well. Thus, I am going to contribute my knowledge to educate youngsters about the importance of the oceans.

**Yeny Nadira**

**Class of 2013, MSc Marine Biology**

## A Shocking Story

Shortly after graduating in Applied Marine Biology at Bangor University, I moved to Hobart, Tasmania, Australia, with my boyfriend Ben Scoulding (also an ex Bangor student), after he got a job at a fisheries acoustic company, Echoview ([www.echoview.com](http://www.echoview.com)).

Soon after arriving, I began volunteering at CSIRO (Commonwealth and Scientific Industrial Research Organisation), investigating the morphology of egg cases and hatchlings of *Atelomycterus* catsharks. I am currently in the process of writing descriptions of these to allow the identification of specimens that are occasionally trawled up.

During September I presented a scientific poster at the Australian Society of Fish Biology and Oceania Chondrichthyan Society conference on a project I completed during my placement year in the Netherlands titled: 'The changes in by-catch of juvenile plaice in the North Sea brown shrimp fishery'. This was my first conference. I found it both inspirational and motivating. Networking here proved fruitful, landing me a job over the summer as a technical officer for the Inland Fisheries Service on the Carp Management Program. This program aims to eradicate invasive European carp from Lake Sorrell which contains the last population of indigenous carp in Tasmania. This has been an amazing opportunity -- teaching me many valuable practical

skills -- all within the beautiful scenery of the Tasmanian central highlands.

Volunteering has paid off and in February I started my new job at CSIRO as a 'web content analyst'. I am involved with developing a website resource to aid the accurate identification of market fish in Indonesia, a venture funded by the Tree of Life Project. This website aims to contain a photo library of fishes as they ap-

pear in a market situation, their key identifying features.

Overall, we are loving the Tassie life with plenty of bush walking, camping and snorkelling

**Helen O'Neill**

**Class of 2015, BSc Applied Marine Biology**

**[hloNeill6@gmail.com](mailto:hloNeill6@gmail.com)**



**Backpack shocking for invasive European carp in the marshes of Lake Sorrell, Tasmania, Australia.**



## Landlord of the UK Seas

Like many students that enrol on the Marine Environmental Protection (MEP) MSc course, I had visions of embarking on a career that would see me travelling to exotic seas, scuba diving every day and saving the world's coral reefs from peril. Fast forward ten years and I have a desk job in central London, miles away from the coastline, and a job that never sees me getting my feet or hands dirty. Am I using my degree though? Yes, I believe I am contributing in some way to protecting our marine environment and conserving our rich and diverse ecosystems.

I work for The Crown Estate, an independent body established by an Act of Parliament and entrusted with investing in and managing property assets belonging to the monarch. All our profit goes to the Treasury. So, although we are not government, we do work on behalf of the U.K.

I work in our Energy, Minerals and Infrastructure portfolio. We own around half of the foreshore around the UK, all of the seabed out to 12 nautical miles, and the rights to various activities including renewable energy beyond 12nm and out to the edge of the U.K.'s Exclusive Economic Zone (EEZ). This means that we are landlord to a range of activities that take place on the seabed, such as offshore renewable energy developments, marine aggregates extraction, cables and pipelines, and more novel activities such as 'landscaping', a more holistic approach to managing coastal erosion using natural hydro morphological processes.



I work as the "Consents Manager", leading on work relating to: potential impacts from our tenants' proposed activities or developments; concerns that key stakeholders may have; and working with government, advisors and researchers to mitigate impacts and address remaining uncertainties and research gaps. The MEP course at Bangor was an excellent grounding for this type of work – in particular, the Environmental Impact Assessment (EIA) module that we undertook. I still shudder a little at the thought of John Turner's dreaded green/light contraption keeping us to time on our presentations, but it was a fantastic grounding for the world of work and having to give presentations to a variety of audiences.

After completing the MSc I had a few years at the statutory nature conservation agency in Wales, coordinating advice on offshore wind developments. I then turned to the 'dark side' with a year working as an actual wind farm developer and leading on aspects of their EIA. Now in my current role, my remit is much broader than just offshore wind, and I like to think that I'm doing my bit to help ensure sustainable development of marine activities, while safeguarding our marine natural heritage. It's all about helping ensure that the right development or activity goes in the right place.

It's not quite diving on coral reefs, but it has that 'feel good' factor and I am most definitely making use of my degrees – although certainly not in ways I had envisaged when I started out as an eager marine biology student all those years ago.

**Jessica Campbell (née Orr)**

**Class of 2008, MSc Marine Environmental Protection**



Piers Chapman, Professor of Oceanography, Texas A& M. The book that he has been working on in Australia is now published:

***Upwelling Systems of the World*** is now available from Springer (<http://www.springer.com/us/book/9783319425221>)



***"If you have papers or books that the School might find of interest or historical value, consider gifting them in your will...."***



***You don't need to send a substantive article and photos of yourself -- although they are very welcome. If you are busy or do not wish to do that, why not just send us a few sentences saying where you are and what you are doing? It can be included in this 'post-it note' section.***

**Editor**



## A break in time



In 2015 I graduated with a Masters in Marine Science. A multidisciplinary degree kept my options open and better suited my interests. Since then I was a husbandry/research intern for three months at Plymouth's National Marine Aquarium, and presented posters at AGU Ocean Sciences 2016 and the Challenger Society's biannual meeting in Liverpool on my 2014 SOS summer bursary project. I was sponsored by Bangor alumnus, Kevin Deeming, and supervised by Dr. Mattias Green. "Effects of future sea-level rise on tidal processes on the Patagonian Shelf" was published in July 2016 with assistance from Sophie-Berencie Wilmes and Holly Pelling.

However, my highlight was volunteering for GVI Mexico in January 2016 at their marine conservation base, Pez Maya, remotely situated in the Sian Ka'an Biosphere Reserve. It's a UNESCO World Heritage Site and protected area. The coral reef is part of the Mesoamerican Barrier Reef, stretching from Mexico to Belize, Guatemala, and Honduras. Pez Maya monitors the reef as part of a wider initiative by Healthy Reefs for Healthy People to conserve the entire barrier reef. There is a rich diversity of corals. Many are threatened or endangered. I enjoyed it that much I went back to base in October. It was a beautiful jungle setting with diverse wildlife. I saw turtles hatching on our beach, and scuba dived with sharks and stingrays!

Volunteers learn how to scuba dive, conduct coral/fish surveys, spear invasive lionfish, beach cleans, educate children in environmental awareness and fundraise for charities. All scientific data goes to multiple project partners for research. On my last day I dived with an Oceanic Manta Ray, the first ever recorded sighting in Pez Maya's 13 year history and exceptionally rare along the Yucatan peninsula.

I'm now finishing my three month PADI Divemaster Internship at XTC Dive Center, Xcalak and I continue to meet inspiring people. I worry for the future of Mexico's

coral reefs with increased tourism, fishing and industrial pressures. I wasn't interested in becoming an active conservationist before my degree, but it led me to GVI, giving me a life-changing experience. After witnessing the volume of plastic trash washed up in Sian Ka'an, and a coral bleaching event, I realise the scale of the problems affecting our oceans is underestimated and without realistic solution.

My academic break made me focus on what is important in life and what I want from it. In May 2017 I start my PhD in Ocean Sciences at Bangor University.

**Stacey Carless**

**Class of 2015, MSc Marine Science**  
**stacey\_carless@hotmail.co.uk**



**Our annual main newsletter, The Bridge, is scheduled to be sent out in early July this year. Why not send us an article about yourself or something relevant to the School of Ocean Sciences? Anything up to 1000 words. Good photographs would also be appreciated. Closing date is mid-June.**

**[b.w.perkins@bangor.ac.uk](mailto:b.w.perkins@bangor.ac.uk) or [kevin@kevjen.com](mailto:kevin@kevjen.com)**

**If your organisation/company would like to advertise in the main newsletter, please contact Mick Cook, [mick@mickcook.com](mailto:mick@mickcook.com), for further information.**

*If this is your first time to see one of our newsletters, take a look at back issues on <https://www.bangor.ac.uk/oceansciences/newsletter.php.en>*



# Don't ever forget the frog!

**Editor: I have been urged to submit the photograph, even though it was in this year's Bangoriad. So I thought that, as you are getting my photo, you may as well have my speech as well!**

\*\*\*\*\*

Vice-Chancellor, Professors, Ladies, and Gentlemen

It is indeed an honour to receive this recognition. Something which I never dreamed of. Thank you all for this. My short address is to the young women and men here today, who have received their BSc's, MSc's and PhD's. May I have the temerity to give you my own take on what I have learned in the 47 years, since I obtained my own Masters here at Menai Bridge in 1969?



On the wall in my study is hanging a sketch cartoon. It shows a frog nearly being swallowed by a stork. But although the frog is half-way into the stork's mouth, he has his hands wrapped tightly around the stork's throat, so that the stork cannot swallow him. And beneath are written the words in big letters; **"Don't ever give up!"**. In other words, you have to play as best you can the pack of cards life has dealt you. There will be good times and there will be bad times. Just keep in there fighting.

I also have another cartoon. It shows a little fish happily swimming along with a big smile on its face. And swimming behind that little fish is a slightly bigger fish about to eat it. And behind that a bigger fish going to eat that one. And so on across the page. And beneath is written in big letters: **"There is no such thing as a free lunch"**. In other words, unless you win the lottery or your old man is worth a fortune, you will have to strive for what you want and will have to go that extra mile. But try and have fun also along the way.

Many of you will go onto successful careers in marine science — in commerce, research, or academia; some of you will make careers away from marine science; some of you will spend your whole time devoted to raising a family. Whatever you do, the memories of your time here in Bangor will remain with you forever. Hopefully, they are good ones and that you have made many friends. Some of them will be friends for life.

And that brings me on to the most important point that I have learned in my years as a commercial marine scientist and manager.

Life is about people. How you relate to your colleagues, your staff, your friends, your partner, or your children is the secret to a happy life. Treat them well with integrity and fairness — and some with love, of course — and at the end of the road you will realise that your life has been fulfilled.

My years at the Marine Science Labs (now the School of Ocean Sciences) were happy ones for me as well. The Labs were beginning to get off the ground. There was a growing interest in our seas and oceans. And, of course, the nascent North Sea oil and gas industry began to drive the technology — particularly in physics and geology. At the Labs, being so small, we were integrated at both the social level and in the scientific disciplines. But the world outside, at that time, was only interested in the 'impacts by the environment': the waves, wind, tides, currents, sediments and geology...

During my career, however, I have seen a growing development in the 'Impacts on the environment': the ecology and biology.

Ironically, much of the legislation has been driven by the EU. But it has been slow. It is amazing to note that it was only 18 years ago that it became a statutory requirement for an Environmental Impact Assessment to be conducted on an offshore oil & gas installation. Like so many things in life, we now look back and think: "Why did it take so long?"

In marine science in the future there will be many exciting and interesting challenges for you. Increasing attention is being paid to our seas and oceans for food, energy, minerals, and leisure. Major issues — such as plastics in our

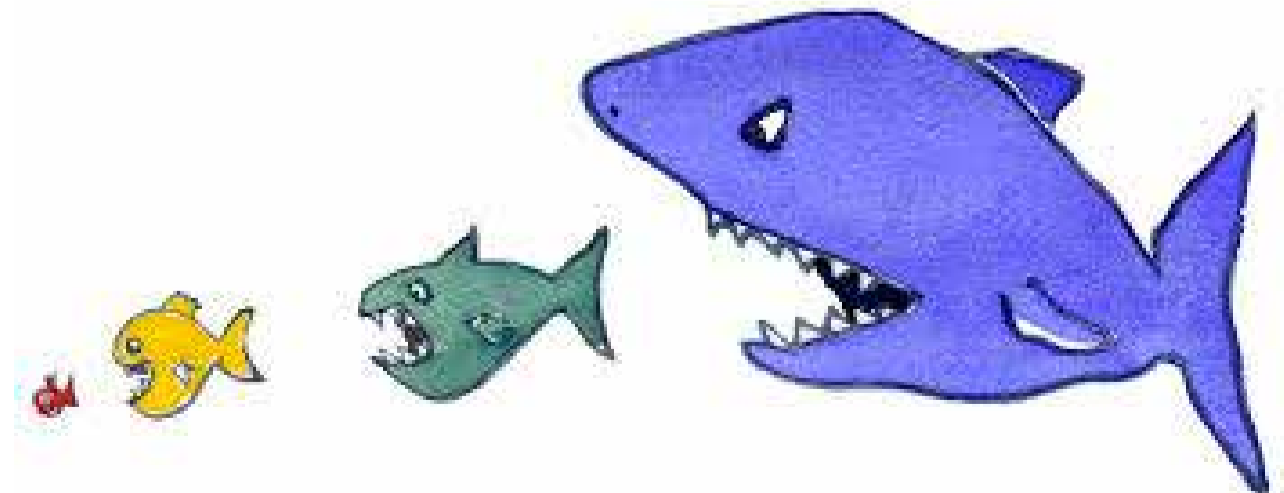


**Vice Chancellor Professor John Hughes and Professor Chris Richardson with Kevin Deeming with his University "Alumnus of the Year" award that he received during the Ocean Sciences graduation ceremony. Kevin is only the fourth recipient of the award.**

oceans, hydrocarbons in the Arctic, renewable energy, the decline of our coral reefs, and continuous over-fishing, to name a few — will provide many opportunities for development and protection.

I wish you luck. You will need it in this tough, volatile world my generation is leaving you. I was privileged to live in what some of my generation here today will agree was a 'golden age'. I hope that it will happen again for you.

**Whatever you do, never ever forget the 'frog'!**



**There is no such thing as a free lunch.**



## The End of an Era

This year we bade farewell to our chief technician Len Roberts.

Many of you will remember Len as the young man who joined the Marine Science laboratories in the 1970's as a technician, who under the then chief technician George Jones, prospered to become Chief Technician in Ocean Sciences.

After more than 45 years of service Len retired just before Christmas. Len (left) is seen here receiving words of praise from Dr David Assinder, Deputy College Manager in Ocean Sciences during the SOS staff Christmas drinks celebrations.



## Promotion to a Readership – alumnus Dr Ian McCarthy

His research has a wide remit and he has successfully worked and published on protein turnover, the use of stable isotopes and microchemistry to study movement patterns of fish and the causes and consequences of individual variation in behavioural and physiological performance.

He is gaining an excellent reputation for himself and the School in the field of marine biology and his work is enhancing the School's reputation as an international research centre for fish biology and ecology. He has also attracted £3.54M in research funding through a variety of grants.



## Mary Berry, eat your heart out.

And the winner of the annual cake competition is...



...Dr Tim D'Urban Jackson seen here receiving the annual "Cake competition" Dylan's sponsored shield from Jane Evans (Dylan's restaurant), together with "runners up", PhD students and cake competition organisers Megan Baker and Edward Lockhart.

Donations collected over the year and totaling £461.06 were shared equally between Tim's charity "Ogwen Valley Rescue" and "Blood Bikes Wales". Ex-SOS staff member, Paul Kennedy, is heavily involved with the latter charity.



Following weeks of competitive baking, Megan and Ed divide the three finalist cakes –Yum!



Paul Kennedy receiving a cheque for his charity from Megan Baker