

Challenger Wave



Monthly newsletter of the Challenger Society for Marine Science (CSMS)

NEWS

Building a European Ocean Observing System

On 8 September, the first EOOS conference took place at the European Parliament hosted by MEP (Member of the European Parliament) Ricardo Serrão Santos. The event, entitled '[Building a European Ocean Observing System](#)' attracted over 70 participants from across Europe, as well as Members of the European Parliament and representatives of the European Commission's Directorates General for Research and Innovation, Maritime Affairs and Fisheries, Environment, and Internal Market, Industry, Entrepreneurship and SMEs. Attached and [online](#), please find an overview of the main outputs of the EOOS event. Further information, the event's agenda and photos are also available [online](#). Speakers' presentations will be released shortly.

Publication of the UKAAP 'United Kingdom and Arctic Science' document

The UK Arctic and Antarctic Partnership (UKAAP) have today launched a new short document '[The United Kingdom and Arctic Science](#)'. The NERC Arctic Office were very pleased to have been asked to work with UKAAP in developing this new short document and they see this as an important opportunity for the NERC Arctic Office to support the full range of UK Arctic research. The Arctic Office will be using the publication internationally and here in the UK to promote the strength and ambition of this vibrant research community and they hope you will find it equally useful.

In launching the document today, Prof. Julian Dowdeswell, the Chair of UKAAP said: "We have a very strong story to tell on the United Kingdom's involvement at the leading edge of Arctic science. We have some of the best scientists, universities

and research centres in the world; a diverse range of assets and infrastructure; and the appetite and skills to form excellent international partnerships. The commitment from the whole of the UK community to high-quality, independent research, with strong impact, is clear. In the UK Arctic and Antarctic Partnership (UKAAP), we have the privilege and responsibility to be a strong and committed voice for the polar research community. There is much to champion, but also more that, as a community, we can contribute to help tackle the most pressing Arctic questions. I saw that potential at first hand last week, when accompanying the Science Minister Jo Johnson MP to the White House Arctic Science Ministerial meeting in Washington DC. We all know that the scale of the challenge in understanding and responding to the pace of change in the Arctic requires a truly globalised effort. So for all of these reasons I am very pleased to launch this document 'The United Kingdom and Arctic Science' which offers our vision for the Arctic research community, the reasons why we must continue to engage and the principles we think will help to build on our collective success. We do not offer it as a prescriptive manifesto, but as a way of promoting and demonstrating many of the shared values and joint aspirations of what we all know is such a vibrant and powerful network. I hope you will be able to share and promote this document widely, and to use it with both existing and potential international partners in demonstrating the growing cohesiveness and strong values of our Arctic research community."

IMBER is requesting bids to host the IMBER Open Science Conference in 2019

IMBER (Integrated Marine Biosphere Research) is planning to hold its second Open Science Conference (OSC) in 2019. The five-day OSC will provide a focus for the integration and synthesis of IMBER research activities with the goal of providing new understanding and quantification of the past, present and future structure and

functioning of linked ocean and human systems in order to develop options for securing or transitioning towards ocean sustainability. Dr. Carol Robinson is the Chair of the OSC Scientific Steering Committee and appointment of the Scientific Steering Committee is underway. IMBER is requesting proposals to host the OSC. Expected participation is between 250 and 500 people. Bids should include the following information:

- Scientists and organisations who will serve as local hosts, including the expertise of local planning committee members,
- Suitability of the location to attract leading scientists, provide outreach opportunities, and link with policymakers,
- Suitability of the location for inexpensive international air travel, road and rail links and environmentally-friendly transport options (such as minimising connections),
- Description of the meeting venue and capacity of the meeting space available for the duration of the meeting. Requirements include: reception area, one plenary room and 3 - 5 breakout rooms, area to exhibit posters, and additional smaller meeting rooms,
- Availability of accommodation at a range of costs, including the number of rooms, distance from the meeting venue, and costs of rooms for high and low season,
- Distance of meeting and accommodation facilities from major airport(s) or rail links and cost of transportation between airport and meeting and accommodation facilities,
- Expected cost of meals per day,
- Expected level of local support and associated funding, including ability to provide meeting space, audio-visual equipment, and staff support at no cost to the organisers,
- Potential to raise other complementary support,
- Dates when the facility is available in 2019,
- Local entertainment and tourism possibilities, and
- Plans to minimize environmental effects of the symposium.

Enquiries and bids should be sent to Lisa Maddison (Lisa.Maddison@imr.no) at the IMBER International Project Office before **1 April 2017**. Bids should be limited to about 10 pages.

Scottish research summit will build transatlantic connections

An international marine science and technology summit began on Tuesday 20th September in the Scottish Highlands, bringing together leading academics from across the UK, Europe and the USA to explore new research and business opportunities. The three-day Global Marine Sustainability Workshop (September 20th – 22nd) was held at the European Marine Science Park in Dunstaffnage, near Oban, and welcomed representatives from world-renowned institutes specialising in technology and robotics, aquaculture, marine and coastal sustainability, and education.

The summit was organised by the University of the Highlands and Islands, the Scottish Association for Marine Science (SAMS) and the Texas A&M-Corpus Christi (TAMUCC), where the Harte Research Institute for Gulf of Mexico Studies is located. Highlands and Islands Enterprise (HIE), which developed the host venue, supported the summit. Staff from other University of the Highlands and Islands' partner colleges also attended the workshop.



Aerial view of the European Marine Science Park and SAMS UHI

The aim was to build connections across the whole spectrum of marine science, with an initial focus on learning, education and outreach; emerging technologies in aquaculture; and advanced remote sensing capabilities and data science through robotics. Among the delegates leading the research discussions were: Prof Peter Liss FRS CBE, one of the UK's leading

environmental scientists; Marty Rogers, Director of the Alaska Centre for Unmanned Aircraft System Integration; and Dr Sonia Ortega, Head of the National Science Foundation Europe Office.

During the formal dinner on the evening of September 20th, Professor Ian Bryden, the University of the Highlands and Islands' vice-principal research, and Dr Luis Cifuentes, Texas A&M-Corpus Christi's Vice President for Research, Commercialization and Outreach, signed a statement of intention to collaborate on behalf of their respective institutions. Professor Bryden said: "Research at the University of the Highlands and Islands draws its inspiration from our unique natural, social and economic environment and this transatlantic gathering represents an internationally significant opportunity to further develop our marine science capability in partnership with our Texan friends. We are looking at a spectrum of capability, from fundamental science to direct commercial application, drawn from each side of the North Atlantic and I fully expect to see great things emerging in the months and years ahead."



Malin House, part of the European Marine Science Park in Dunstaffnage, hosted the Global Marine Sustainability Workshop

SAMS Director Prof Nicholas Owens said: "This summit is a tremendous learning opportunity for both academic partners. Not only will we learn what we do differently, we will learn what we have in common; our situation in the North East Atlantic and the Harte Research Institute's setting by the Gulf of Mexico – two areas of great scientific work and joined by the Gulf Stream – make us a great match. We also share common ideas and goals for the sustainable development of a 'blue economy' and we will explore the potential commercialisation of research and innovation in achieving economic and ecological sustainability in the marine environment."

Texas A&M-Corpus Christi President Dr Flavius Killebrew said: "We are excited to formalise the already fruitful partnership established between Texas A&M University-Corpus Christi and the University of the Highlands and Islands and to support the relationship between the SAMS and the Harte Research Institute. Our university will benefit greatly from collaborative research on the summit's thematic areas - sustainable use of marine resources, sustainable aquaculture and the smart use of autonomous technologies to study and manage marine environments."

Carroll Buxton, HIE's director of regional development, said: "It's great to see the European Marine Science Park in Argyll as the location for such a significant international event. This supports the growth of Scotland's life sciences sector, and extends the international profile of the Highlands and Islands. It strengthens the developing marine science cluster at Dunstaffnage, in which SAMS has been a major part. The collaboration between SAMS and UHI, their work on marine science and in bringing this event to the Highlands, also supports the continued development of a strong university sector in the region."

Plymouth set to become world class marine hub as major new development gets green light

The first phase of a 35 hectare development that will be the new home for marine enterprise in Plymouth has been given planning permission. Oceansgate, which is on the southern edge of Devonport Dockyard, one of the largest naval dockyards in Europe, will bring together marine-based businesses to create a world-class hub for marine industries with opportunities for research, innovation and production in a collaborative environment.

Planning permission for phase one has been granted and will enable the construction of new office and industrial space totalling 27,751 sq ft to start in early 2017. Later phases will include additional workspace and waterside facilities including docks and jetties. Property consultancy JLL and William Lean have been instructed to market the site and the company are now focusing their efforts on promoting the opportunity to local, national and international businesses in the marine sector. Tim Western, head of JLL's Exeter office, said: "Plymouth's maritime history stretches back hundreds of years and its

docklands are already home to a growing network of scientific, advanced engineering and high-tech manufacturing companies. Oceansgate however is going to catapult the city's capabilities in this sector into a different league by offering workspace and facilities which exactly match the needs of modern marine companies from home and abroad. There will be workspace suitable for small start-ups and innovative businesses all the way up to international players and the space is designed in such a way that encourages sharing of ideas and collaboration. Our marketing efforts are now well underway, starting with promoting the opportunity to businesses already based in the Dockyard. We will also be focusing on operations in the wider South Coast area as well as national and international companies via our network of 280 JLL offices in 80 countries."

The aim is for Oceansgate to be a hub for a wide range of core marine and blue-tech businesses working across a number of sub-sectors including marine biology, marine engineering, water technology, subsea specialists, marine renewables, vessel building, naval architects and marine finance. It's location next to luxury yacht manufacturer Princess Yachts International and Babcock Marine, one of the largest marine companies in the UK, and the direct deep water access to the English Channel make it an unrivalled location for a wide range of businesses.

The first phase of development will consist of two blocks of industrial units totalling 14,081 sq ft each and a 13,670 sq ft three storey office building. There will also be 32 parking spaces for the offices and 28 spaces for the area around the industrial units. The three phases currently planned at Oceansgate, once completed, will feature a total of 270,000 sq ft of workspace with deep water docks and jetties and will be home to hundreds of high value jobs. Oceansgate is the first exclusively marine Enterprise Zone in the country and is a key part of Plymouth's City Deal.

VIEWS

Photos from an attendee at the CSMS conference 2016

Dear Challenger, I've uploaded photographs from the Challenger 2016 meeting, and thought they

could potentially be of use to the Society. They're probably a bit heavy on Liverpool itself rather than the meeting, but there are a few in there that might be of interest <https://www.flickr.com/photos/25348090@N03/sets/72157670440791593>

- Andrew Yool, NOC

SALTS

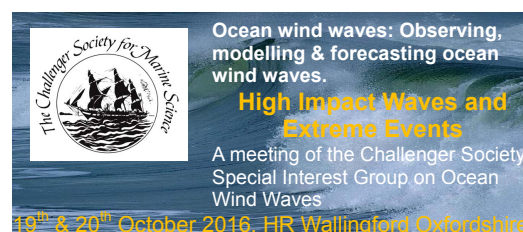
No news from sea this month I'm afraid

I know that this is a favourite section for many readers, where we get the inside information about life at sea, its thrills and spills. So please the next time you are at sea or carrying out any fieldwork, please remember that a simple paragraph or two will get you published here. – Ed

CALENDAR

19th–20th October 2016: High Impact Waves and Extreme Events: A meeting of the Challenger Society Special Interest Group on Ocean Wind Waves

HR Wallingford, Oxfordshire, UK



Introduction

This is the second meeting of the Challenger Society Special Interest Group on Ocean Wind Waves. The group aims to bring together scientists, engineers and modellers from across the UK, interested in observing, modelling and forecasting ocean surface waves generated by winds.

Ocean wind waves and swell are important for many aspects of oceanography and other disciplines, including meteorology, sediment transport, renewable energy and coastal engineering. Waves have direct societal implications for safe navigation, coastal erosion and flooding, as well as for climate and ocean circulation problems through their role in mediating exchanges of momentum, heat, water, gases and other quantities between the ocean and the atmosphere.

Topics of Interest

We welcome contributions on all aspects of ocean wave observing, modelling and forecasting, and energy generation but in keeping with the theme, seek papers linked to "High Impact Waves and Extreme Events" this meeting. Papers by early-career researchers and post-graduate students are particularly encouraged.

Abstract submission and deadline

Abstracts should be no more than 500 words and may contain up to one figure. Abstracts can be submitted online at <http://conference.noc.ac.uk/ocean-wind-waves/>. The abstract deadline is Monday 19th September.

Registration and Fees

Please register for this meeting online at <http://conference.noc.ac.uk/ocean-wind-waves/>. The meeting will run over two half days from 19th to 20th October. There is no registration fee, and teas and coffees will be provided. A sandwich / salad lunch is available to purchase at the on-site canteen.

Networking Event

There will be a tour of physical model facility and ship simulator at HR Wallingford, and a dinner will be held on the evening of Wednesday 19th October, details to be confirmed.

Accommodation

As the meeting will run over two half days, we are recommending that delegates find accommodation nearby in Didcot or Abingdon, where the suggested hotels are both Premier Inns.

For further information about this meeting, please contact:

Doug Cresswell (D.Cresswell@hrwallingford.com) or Lucy Bricheno (luc@noc.ac.uk)

We look forward to seeing you in October!

19th–21st October 2016: MASTS Annual Science Meeting: "Our Marine Environment – a Shared Resource"

Technology & Innovation Centre, Glasgow, UK

The 2016 ASM will promote the latest advances in marine science, good governance and using sound science responsibly, and describe research that will lead us to achieve a sustainable marine economy and live within environmental limits. [PROGRAMME NOW AVAILABLE](#). All talk and e-poster abstracts are now available to view online - <http://www.masts.ac.uk/annual-science-meeting/2016-abstracts/>, Register Now - <https://www.eventsforce.net/standrews/52/home>

This cross-disciplinary meeting brings together members of the marine science community, with the aim of promoting and communicating research excellence and forging new scientific collaborations. The cross-disciplinary nature of the event as well as the high calibre of the selected talks means that scientists can broaden their knowledge in marine science as well as benefit from expertise and ideas gained in a range of fields other than their own.

Science presentations and e-poster sessions will take place on the first two days (Wednesday 19th October and Thursday 20th October), together with Plenary Speakers and opportunities to network. On the third day the venue will host a number of meetings and workshops: If you are interested in hosting one of these, please contact [Dr Emma Defew](#)

We also invite you to join us at the conference dinner and ceilidh (music from the Hoochie Coochie band) to be held on the evening of Wednesday 19th October at the Millennium Hotel Glasgow. Anyone interested in exhibiting at the 2016 event, or anyone wishing to showcase or demonstrate a piece of kit/equipment should email [Dr Emma Defew](#)

We advise delegates to book accommodation for the event as soon as possible. The nearest place to stay is the [Premier Inn](#) on George Street.

A workshop on *Decommissioning and Wreck Removal* will take place in Glasgow at the MASTS Annual Science Meeting, on the 20th and 21st October, contact Izzie Bryce, IBryce@decomnorthsea.com for more information.

October 2016



SUT/MASTS Workshop Agenda

Technology & Innovation Centre, Glasgow
20th (pm) & 21st (am) October 2016

Thank you to our sponsors

INVEST IN FIFE

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Decommissioning & Wreck Removal:
Influence, educate and un-lock potential -
Bringing industry and science together

THURSDAY, 20th - 13:30-17:30	
OPEN	Welcome: Karen Seath, General Manager Decom North Sea / Co-Chair SUT Decom & Wreck Removal Workshop Setting the Scene: Moya Crawford, Chair, SUT International Salvage & Decommissioning Committee
SESSION ONE 15:50	Chair: Ben Browne, Partner, Thomas Cooper LLP Jim Christie, Oil & Gas Authority: OGA Update Ben Browne, Thomas Cooper LLP: Understanding wreck removal contracts Mike Elliott, University of Hull: The repercussions of marine structure decommissioning in integrated Hamish Holt, DNV GL: Effective management of hazards through process and efficient marine governance Tina Hunter, University of Aberdeen: Decommissioning governance in emerging environmentally challenging jurisdictions.
COFFEE & NETWORKING 16:30	
SESSION TWO 16:50	Chair: Mike Elliott, Director, Institute of Estuarine & Coastal Studies, University of Hull Tom Baxter, Oil & Gas Consultant: Decommissioning - The sustainability challenge Cheryl Robb, Zero Waste Scotland: The benefits of a Circular Economy approach during decommissioning Alistair Nieuwenhuys, Reflex Subsea: Why chop it up when we can reuse it Elizabeth Wilson, Trine Consultants: The decommissioning of fixed and floating offshore structures
CLOSE 17:30	Speaker and Delegate Q&A/ Open Discussion Chairman's Closing Remarks: Mike Elliott
17:30-18:30	Networking drinks reception
FRIDAY, 21st - 08:45-12:45	
OPEN	Welcome: Don Orr, Decommissioning Assurance Manager, BP GPO/ Co-Chair SUT Decom & Wreck Removal Workshop
SESSION THREE 9:55	Chair: Don Orr (as above) Alan Edwards, Bibby Offshore: Subsea decommissioning - Challenges and learnings Stuart Martin, Ardent Global: North Sea jacket decommissioning - A salvage approach John Gilles, Shell: Brent Delta Gravity base cell survey and remediation Michael Kurdve, SSE-AB: Decommissioning of YTTRE STENGRUND, one of the first Offshore Wind Farms
Enabling Technology	
COFFEE & NETWORKING 10:30	
SESSION FOUR 10:50	Chair: David Paterson, Executive Director, Marine Alliance for Science and Technology for Scotland (MASTS) Sally Rouse, SAMS: Pipeline decommissioning: Generating an evidence base for comparative assessments Louisa Dunn, Marathon Oil: Practical implications of NEBA in the decommissioning world Andrew Guerin, University of Newcastle: Utility and limitations of structural survey footage for evaluating marine assemblages on offshore structures Abiodun Akinyemi, University of Heriot Watt: Data integration support for offshore decom waste management
Science for Decom	
Flash presentations:	
Paul Whomersey, Cefas: A standardised approach to undertaking environmental risk based assessments of shipwrecks Kate Gormley, University of Aberdeen: ROV analysis of marine growth footage	
Speaker and Delegate Q&A/ Open Discussion Chairman's Closing Remarks: David Paterson	
CLOSE 12:45	Lunch is available

Decom North Sea, 32 Ship Street, Aberdeen, AB10 1YL | +44 (0) 1224 421089 | seath@decomnorthsea.com
WWW.DECOMNORTHSEA.COM



Dr Joanne Preston from the University of Portsmouth will be hosting a workshop on Friday 21st October in Glasgow.

Native Oyster regeneration – sharing best practice at 13.30-15.30 in Conference Room 3, Technology & Innovation Centre, 99 George Street, Glasgow.

The European flat oyster, *Ostrea edulis* (Linnaeus, 1758) occurs throughout the Atlantic and Mediterranean coasts of Europe and the Black Sea. Historically the native oyster was among the most commercially important marine resources in European waters. However, stocks of *O. edulis* have been in decline over recent decades, principally as a result of over exploitation that resulted in low rates of recruitment. In addition, the effects of the extremely cold winters, disease, invasive species and the destruction of natural oyster beds has weakened populations and impeded natural recovery. As a result of the decline of the species around Britain, the Native Oyster Species Action Plan aims to:-

Maintain and increase the abundance of the native oyster stocks

Expand the existing geographical distribution within U.K. inshore waters where biologically feasible.

Expected Outcomes/Outputs:

- Increased awareness and coherence of present and planned native oyster regeneration projects in Scotland, the UK and Europe.
- Interdisciplinary and inter-regional research facilitated

Design sampling regime for RAD-SEQ analysis of the population structure of the native oyster across Europe. To register for the ASM and this workshop, please visit <https://www.eventsforce.net/standrews/52/home>

There are a number of training opportunities available at the MASTS ASM on Friday 21st October:

- Choice Modelling for Ocean and Coastal Management
- Modelling your data: a hands-on introduction to dynamical systems and Bayesian statistics for postgraduates and early career researchers
-

15th-17th November 2016: SUT 2016 Technical Conference, The Future of Underwater Technology
London, UK

The conference will be held in London (UK) to celebrate the 50th anniversary year of the Society. It aims to attract the best authors in their field from across the world to showcase new technologies, products, best practices and in particular foresight the next generation of subsea engineering, marine science, and all aspects of underwater technology. It will be a flagship event for the Society and it is the intent for it to become a regular occurrence and be held in future at SUT global centres around the world.

Academics, Consultants, Engineers and Scientists, Business Executives and Managers, Lawyers, Insurers and Underwriters, Researchers, Technicians, Young Professionals and Students are some of the people we expect to see at the conference. There are also opportunities for sponsorship and to take up exhibition space. The venue will allow provision for vessel access alongside.

The programme will consist of plenary sessions, technical sessions, and student poster displays.

www.challenger-society.org

Substantial effort will be made to ensure the highest quality programme with emphasis on the theme of the event. The final programme will be developed by the Technical Steering Committee which will be made up of representatives from the whole SUT organisation including Branch Committees, Special Interest Groups, and Council, www.sut.org/event/sut2016.

20th-24th February 2017: Marine Imaging Workshop 2017
Kiel, Germany



The Marine Imaging Workshop 2017 follows on from a successful 2014 workshop, and invites anyone using visual imagery in the marine realm: scientists, engineers, researchers, regulators, and commercial partners. The focus is on developments and challenges in methods of marine optical imaging: imagery acquisition, processing and manipulation, annotation, segmentation and automated strategies, data management, application to scientific aims, and outlook and future developments.

Important Dates

30 Sept 2016	Registration and abstract submission open
8 Nov 2016	Abstract submission deadline
25 Nov 2016	Abstract acceptances announced
16 Dec 2016	Registration deadline
13 Jan 2017	Photo competition entry deadline
20-23 Feb 2017	Workshop

Registration

Attendance is limited to 120. Those with presentations (talk/poster) will be given preference – limit of 1 talk per attendee (additional posters available).

Please register on the workshop website. The registration fee is 250 € (+optional conference dinner), to be paid upon abstract acceptance.

Photo competition

Submit your best marine images to be judged for prizes! Adriana Basques is an international award winning underwater photographer who will judge the entries (<http://www.adrianabasques.com>). See contest rules on the workshop website.

Accommodation

Special rates at some Kiel hotels are provided for workshop attendees. Details are on the workshop website.

www.marine-imaging-workshop.com

6th-7th September 2017: Advances in Marine Biogeochemistry Conference VIII
Oban, UK

Save the date for AMBIO VIII, more information nearer the time, www.challenger-society.org.uk/Marine_Biogeochemistry_Forum

**Advances in
Marine
Biogeochemistry
Conference VIII**

Marine Biogeochemistry Special
Interest Group of the Challenger Society



**Save the date!
6 – 7 Sept 2017
at SAMS in Oban**



Organisers:

MBF Chair: Gary Fones, Uni. Portsmouth

AMBIO VIII Co-convenors: Kirsty Crocket and Natalie Hicks, SAMS

Photo: Emma Defew and Mark James

AMBIO meetings set the stage for Marine Biogeochemistry in the UK, connecting disciplines within the field and establishing networks for the integration of early career scientists. The AMBIO VIII meeting in September 2017 is to be hosted at the Scottish Association for Marine Science in Oban. Save the date! Registration will open in early 2017.

Info: www.challenger-society.org.uk/Marine_Biogeochemistry_Forum
Contact: kirsty.crocket@sams.ac.uk, natalie.hicks@sams.ac.uk

2nd-6th October 2017: the 5th IMBIZO

Woods Hole, MA, USA

Mark the dates !, IMBER will hold its fifth IMBIZO (the Zulu word for a gathering) at the Woods Hole Oceanographic Institute. The theme of IMBIZO V will be: *Marine biosphere research for a sustainable ocean: Linking ecosystems, future states and resource management*. We will follow the usual IMBIZO format of three concurrent but interacting workshops – topics to be announced soon. Please spread the news widely.



The CSMS email address is info@challenger-society.org.uk. Contributions for next month's edition of Challenger Wave should be sent to: john@vectisenvironmental.com by the 31st October.

We continue to send printed copies of Challenger Wave to members of the CSMS without email addresses. However it is in everybody's interest to send your email address to Jennifer Jones jxj@noc.ac.uk as soon as possible

JOBS

No job adverts sent to me this month i'm afraid, come on let's get writing those grant proposals ! – Ed.
