

Challenger Wave



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

NEWS

UN Decade, submission of Implementation Plan to the UN

Following a consultation process the IOC-UNESCO, www.unesco.org/new/en/natural-sciences/ioc-oceans/, has now submitted its Implementation Plan for the UN Decade of Ocean Science for Sustainable Development, to the UN for approval by the General Assembly at the end of this year. The IP summary document is available here www.oceandecade.org/resource/109/Summary---Version-20-of-the-Ocean-Decade-Implementation-Plan.

For some detail relating to UK contributions to the development of the IP please see projects.noc.ac.uk/iwg/decade-undos. Or for more details of the UK's work at the IOC please see www.uk-ioc.org/. Alternatively please get in touch with Alan Evans, Head of the International and Strategic Partnerships Office at the National Oceanography Centre, using ispo@noc.ac.uk.

DGMARE director, Christos Economou, to open EMODnet 10 years webinar

We are very much looking forward to celebrating 10 years of EMODnet with you. Check the latest programme, www.emodnet.eu/en/webinar, and join us for the webinar on 22nd September 2020 14:00-17:00 CEST.



During this afternoon, we will take stock of key EMODnet achievements over the past decade with showcases and testimonials from data providers, users and partners. This will also pave

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the way for the Open Conference in June 2021, to co-design the next phase of EMODnet.

VIEWS

Call for nominations for the 2021 IMBeR Scientific Steering Committee

The Integrated Marine Biosphere Research project (IMBeR, www.imber@info) invites nominations for a position as a member of its Scientific Steering Committee (SSC) for a term beginning on 1 January 2021. The SSC is responsible for the development, planning and implementation of IMBeR science. The IMBeR science plan (2016-2025) is available at: imber.info/science/imber-science-plan-and-implementation-strategy-spis/.

SSC members serve for a period of three years, with the potential of renewing for an additional 3-year term. The IMBeR SSC and sponsors, the Scientific Committee on Oceanic Research (SCOR) and Future Earth, will select the new SSC member based on expertise, and contribution to the geographic and gender balance of the SSC. Nominations from Central and South America, which are currently under represented, are especially welcome. More information about the SSC is available at: imber.info/science/regional-programmes-working-groups/cliotop/scientific-steering-committee/.

There is one position available on the SSC, and we seek nominations from individuals with the expertise to address aspects of the IMBeR Science Plan and in particular with experience in one of the following:

- Processes, drivers and stressors underlying changing marine species diversity
- Sequestration and storage of 'blue' carbon in the marine environment
- Social and cultural anthropology of marine-dependent societies

- Human interventions to reduce or limit the impacts of climate change on marine life

Nominations should include the following information:

- Name of the nominee
- Affiliation
- Contact information
- Email
- Website
- Expertise keywords
- Up to ten relevant publications
- Nominated by (optional)
- Short, one-page CV
- Brief description (200 words max.) of what/how the nominee would contribute to the IMBeR science plan

We envisage that applicants who are not selected for the SSC position would automatically have the option to remain involved in IMBeR as a National Contact. The recently reinvigorated IMBeR National Contacts Network aims to broaden the international reach of IMBeR-related research. National Contacts form a network linking relevant research undertaken in their respective countries to the international IMBeR community. National Contacts are appointed for a 3-year term that can be renewed for a further three years.

Please send nominations to the IMBeR International Project Office-Canada imber@dal.ca by Tuesday 15 September 2020.

SALTS

UK marine biologist aids Mauritius clean-up after oil disaster

A British marine scientist based in Mauritius has described the ecological disaster that has gripped the island after volunteering to help stem the impact of the worst oil spill in the island's history. Mauritius is still reeling from the effects of oil spilled from the Japanese-registered MV Wakashio. The freight ship collided with a coral reef off Mauritius on July 25th but only started breaking up 13 days later, releasing approximately 1,000 tonnes of oil and diesel into the sea, close to two protected UNESCO sites.

Dr Georgina Robinson of the Oban-based Scottish Association for Marine Science (SAMS), who works in Mauritius, joined fellow islanders in

collecting sugar cane and even cutting her hair to help fill kilometres of booms to halt the spread of the oil. She also sought help from the British High Commissioner Keith Allan and the UK Oil Spill Association and is currently liaising with biotech companies to source enzyme and microbial-based products that would accelerate the degradation of the oil and speed up the recovery of impacted coastal zones.



Boom production site at Anahita on Thursday, August 13th

Dr Robinson said: “Mauritius is known for its beauty and incredible biodiversity, which attracts a lot of tourism, so this has been disastrous for the environment and for the island economy. The grounding of the Wakashio occurred in one of the sensitive marine areas in Mauritius. The nature reserve of Ile aux Aigrettes, a protected island that provides a sanctuary for some of Mauritius’ rarest species of tree, birds and reptiles, was in direct line of the oil that started to flow from the ship on August 6th. The mangroves and coastal zone along the south-east of Mauritius, including RAMSAR wetlands have been impacted. The environmental damages and impact on coastal livelihoods will be felt for years to come.”

Dr Robinson added, “There has been a huge response from NGOs, businesses and volunteers

CALENDAR

5th - 9th October 2020: Marine Alliance for Science and Technology for Scotland 10th Annual Science Meeting (ASM) -Online

Online

We will look back at the significant progress made by our partners and collaborators, and look forward to 2021, which sees the start of the decade of ocean science for sustainable development. We will examine the modern challenges that face our marine waters, and identify ways and means to conserve and sustainably use the oceans, seas and marine resources for sustainable development.

This cross-disciplinary online meeting brings together members of the global marine science community, with the aim of promoting and communicating research excellence and forging new scientific collaborations.

This year the ASM will be an online event. We will spread over five days (not the normal three days) and use pre-recorded talks, which will be much shorter, to ensure online fatigue is not an issue. Sessions will be in the form of seven 5-6 minute pre-recorded 'flash talks' (i.e. online video/powerpoints/animation), followed by a live Q&A session within which all the speakers will be panel members.

- General Science Session
- Governing Scottish Seas: theory, practice and future horizons
- Structures in the Marine Environment
- Marine Climate Change
- Coastal ecosystem-based solutions: Climate-change adaptation and mitigation
- Multiple Marine Stressors
- Sustainable Aquaculture
- Marine Biogeochemistry
- Marine Science Technologies & Methodologies

For further general information, please visit, www.masts.ac.uk/annual-science-meeting/.

Postponed --- 8th – 11th October 2020: Eighth Arctic Circle Assembly

Reykjavik, Iceland

Due to the COVID-19 pandemic it has been decided to postpone the 2020 Assembly. The

and I joined one of four boom production sites on the island. I was filling sacks with sugar cane straw that were packed into huge socks to soak up the oil with plastic drums and bottles for floatation. We were using anything that would soak up the oil. People were cutting their hair and donating that. The community response was amazing to see. Everyone just dropped what they were doing and came together, helping at a production site, or Crowdfunding for equipment. Mauritius is a real melting pot of nationalities and religions but came together as one nation in the face of this disaster.”



Sixteen east coast hotels volunteered to construct more than five kilometres of booms in two days

Dr Robinson was last year identified as a rising star of UK research after gaining a prestigious fellowship for her work to address global food shortage by recycling waste from food production industries. The UK Research and Innovation (UKRI) Future Leaders Fellowship will allow Dr Robinson to overhaul the current 'nitrogen cycle' process by which excess nitrogen in the form of animal waste from industries like agriculture and aquaculture is turned back into an inert gas and released into the atmosphere. Instead, Dr Robinson proposes a system that will recycle this waste by using it to feed sea cucumbers and marine worms, so-called deposit feeders, which can then be farmed as a high-protein food source for humans and livestock and may even be used to generate electricity.

The researcher said her own experimental work had been unaffected by the oil spill, although she remained concerned about the potential effect on a nearby fish farm related to her research. While based in Mauritius, Dr Robinson will use her research findings to help the island develop its blue economy.

2021 Assembly is scheduled for October 14th-17th. For Information, visit www.arcticcircle.org.

10th – 12th November 2020: Marine Autonomy and Technology Showcase 2020

Southampton, UK

Planning for this year's Marine Autonomy and Technology showcase (MATS 2020) in November is still ongoing despite the uncertain landscape. Details on this year's themes are available on the NOC's Events pages, noc-events.co.uk/mats-showcase-2020.

The expert session chairs for the NOC's Marine Autonomy and Technology Showcase 2020 are:

Claire Cardy (MD of Nortek UK)

Doug Connelly (the NOC's Associate Director for Research and a Director of NOC Innovations Ltd)

Peter Collinson (Lead for the Marine Autonomy Group at BP)

Dan Hook (Managing Director at Armada)

Dan Ridgwell (Unmanned and Autonomous Systems Capability Lead for BMT).

1st – 3rd December 2020: Oceanology International

London, UK

We've got some great news to share with you! Oceanology International will be taking place as a live event at the London ExCel Centre. Once the UK Government confirmed that events could go ahead on from 1st October, we have been all hands to the pumps to make sure that Oceanology International can run safely and smoothly. Rest assured that with the enhanced health and safety protocols developed in collaboration with the relevant authorities and guidelines, Oceanology International will showcase the best our industry has to offer. To see all the health and safety measures in place at the venue, please make sure to read our full onsite safety guide. To go with the in-person event, we will also be launching a virtual Oi platform – details coming soon!. Make sure to register today and we'll see you in December, www.oceanologyinternational.com/.

Dramatic progress in ocean surveying is unlocking previously unimaginable opportunity across the ocean tech community. The 50th Anniversary Oi expo looks ahead to the next half century of surveying and services. Survey and services are key dimensions of the current ocean tech revolution, enabling new kinds of insight into

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the ocean floor, aquatic life and ongoing change in our oceans.

Progress in automation is unlocking previously unimaginable opportunity across the ocean tech community. It's a unique chance to meet the teams behind the innovations and see the technology in action. From subsea controls to autonomous survey boats, aerial drones to independent sample collectors, unmanned systems will streamline operations and deliver new depth in detail and data.

Oi oceanology
international
2020
17-19 MARCH 2020, LONDON, EXCEL



This is a unique chance to find out what's possible, meet the teams and see the technology in action. Register online now to attend Oi 2020: www.oceanologyinternational.com/.

Visit the show to:

- Have access to a free and interactive educational programme that will inspire and inform you on key industry topics.
- Meet experts and do business – the show offers more than 500 exhibitors, global suppliers of cutting-edge technology.
- Stay up to date with regulations and policies to make more effective decisions for your business and projects.
- Explore features such as the Ocean ICT Zone, focused on marine and ocean IT, communications, satellite and data solutions.

To succeed in your future ocean strategies, you need to be where the people shaping them are. Register now to Oceanology International 2020 and celebrate our 50th anniversary where the industry is.

Our technical sessions unpack the latest developments and insights on essential topics, including:

- offshore energy development
- asset monitoring

- navigation and positioning
- hydrography, geophysics and geotechnics
- environmental stressors
- data interpretation and AI

It's shaping up to be a sensational show and an occasion no one in the Ocean tech community can afford to miss.



In its 50 years, Oi has consistently advanced with the community involved in exploring, monitoring, developing or protecting the world's oceans by providing networking across different sectors, knowledge exchange from various disciplines and valuable business opportunities. That reflects on the developments of the show programme year by year and the new benefits for attendees.

11th – 14th January 2021: The Fifth Xiamen Symposium on Marine Environmental Sciences

Xiamen, China

The State Key Lab of Marine Environmental Science (MEL), Xiamen University and the Earth Science Division of the National Natural Science Foundation of China (NSFC) are going to hold the fifth bi-annual meeting XMAS-V. The theme of XMAS-V is **Multidisciplinary Sciences Serving a Sustainable and Healthy Ocean**. More information about the meeting can be found at <http://melmeeting.xmu.edu.cn/xmas5/>.

15th – 17th February 2021: Oceanology International Americas

San Diego, USA

Oi Americas will be taking place from the 15th-17th February 2021 in the San Diego Convention Centre. Topics will include:

- Sensors and Instruments
- Vessels, Vehicles and Platforms
- Data Communications
- Data Management
- Data Analysis and Interpretation
- End-use Case Studies

For full details on the event topics, check out our website here: www.oceanologyinternationalamericas.com.

14th-18th June 2021: EMODnet Open Conference and Jamboree

Ostend, Belgium

Due to the outbreak of the COVID-19 virus, the second EMODnet Open Conference and Jamboree which was initially scheduled to take place in September 2020 has been postponed. Save the date for this event, which will bring together the extended EMODnet family in Ostend (Belgium) to set goals for the next phase of EMODnet to 2030. More information will follow, www.emodnet.eu/conference2021.

14th-18th June 2021: the postponed EcoSummit 2020

Gold Coast, Australia

As a result of the spread of COVID-19, Elsevier and the EcoSummit 2020 Chairs took the decision to postpone the 6th International EcoSummit Congress to 2021, to be held in the same venue at The Gold Coast Convention Centre, Australia.



Call for abstracts open for our 2021 dates

14-18 June 2021 | Gold Coast, Australia



You can submit your abstracts and register with confidence as we are relaxing our cancellation terms due to the COVID-19 situation: we will refund your registration fee, with no penalty, should you wish to cancel during the uncertainty of the outbreak.

Join mailing list

Sponsorship enquiries

The **6th International EcoSummit: EcoSummit 2021** (rescheduled to 14-18 June 2021) will have a focus on coastal and marine ecosystems including adjacent terrestrial ecosystems and all habitats that are integrated within those ecosystems, including river networks, wetlands and catchments. [>> View our outstanding speakers and panelists](#)

Supporting publications



Oral and poster abstract submission for symposia and general sessions is open until **30 October 2020**. Abstracts should be submitted using the online abstract submission system. [>> View symposia and submit abstracts](#)

Registration is open at the original 2020 rates for our new dates. Early-bird rates are available until **5 March 2021**. Remember you can cancel your registration at any time if affected by the COVID-19 outbreak. [>> View rates and register](#)

We send you our warmest wishes at this challenging time.

EcoSummit 2021 Co-Chairs

Jan-Olaf Meynecke, Griffith University, Australia

Robert Costanza, Crawford School of Public Policy at Australian National University, Australia

B. Larry Li, University of California, Riverside, USA

Due to this rescheduling, oral and poster abstract submission for symposia and general sessions is

open until 30 October 2020. Abstracts should be submitted using the online abstract submission system, ecosummitcongress.com/submit-abstract.asp. We continue to look forward to welcoming our speakers and plenary panelists to the Gold Coast in June 2021.

Registration is open for the new dates, ecosummitcongress.com/conference-register.asp, and we look forward to seeing you at EcoSummit 2021. So that you can submit your abstract and register with confidence we are relaxing our cancellation terms due to the Coronavirus COVID-19 situation. Rest assured that we will refund your registration fee, with no penalty, should you wish to cancel during the uncertainty of the outbreak.

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16th - 18th June 2021: 9th International Workshop on Marine Technology - MARTECH 2020

Vigo, Spain



The organising Campus de Excelencia Campus do Mar (University of Vigo, Spain) and the Universitat Politècnica de Catalunya (UPC, Spain) will call for papers for MARTECH 2021, www.martech-workshop.org.

The main objective of the MARTECH Workshop is to show latest investigations and exchange of information and points of view on current research in MARine TECHnology. The Program Committee cordially invites you to participate and submit your contribution in one of the proposed topics:

- Operational Oceanography
- Instrumentation, Metrology, Signal processing
- Seafloor observatories and sensor networks
- Observatories, remote sensing
- Marine Robotics: ROVs, AUVs, ASVs, Gliders
- Underwater imaging and communication

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- Seafloor and Water Column characterization
- Technology for Marine Biology and Aquaculture
- Renewable energies
- Coastal, regional, and offshore research vessels and platforms
- Marine Geophysics technology and solutions
- Marine Data Interoperability and data flow
- Technologies for a sustainable dredging
- 2021 as a point between the past and the future

Yours sincerely, Dr. Ana Bernabeu, General Chair and Dr. Joaquin del Rio, Steering Committee Chair

9th - 13th August 2021: IMBeR ClimEco7 summer school
Vancouver, Canada



6th - 10th September 2021: Postponed Challenger Society Biennial Meeting
Oban, Scotland

The biennial Challenger conference attracts around 300 leading UK marine scientists, science managers and early career scientists. As well as showcasing cutting edge marine science and technology, the conference is noted for its training of young scientists and networking events, including a public lecture by an eminent authority on relevant societal marine issues.



Once again the call is out for sponsors and exhibitors wishing to participate in next year's conference. The conference is a great place to be if you are recruiting marine science graduates.



For the only the third time, the conference will be held at SAMS (Scottish Association for Marine Science) in beautiful OBAN. SAMS hosted the first post war conference back in 1946 and since then only once more since in 2006.

20th – 22nd September 2021: Oceanology International Middle East

Abu Dhabi, UAE

Whilst it is hugely disappointing to postpone the launch, and not a decision we have taken lightly, we believe it is the best course of action for all involved. In the last couple of months, we have

been speaking to customers, partners and supporters to understand their views and to ensure we make the best decision - in such challenging circumstances - for the ocean communities we serve.

We trust that postponing Oceanology International Middle East will enable us to deliver the true value of this world-leading brand next year. Amid these challenging times, we would like to reiterate our commitment in creating new opportunities and connections for our industry. Over the next several months, we will offer our support to the global community by hosting various digital activities that will connect our exhibitors with their targeted clients. In advance, we thank you for your understanding and support. If you require any further clarification or information regarding this situation, please feel free to email us at info@oceanologyinternationalmiddleeast.com.

5th - 9th September 2022: Challenger Society Biennial Meeting – celebrating the 150th anniversary of the Challenger Expedition

London, UK

To be hosted by the National History Museum, just a 'date for the diary', stayed tuned.

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 30th September.

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

Project Manager, Underwater products & defence projects, Chelsea Technologies

Chelsea Technologies is looking for a talented Project Manager to join its R&D team in the design and development of underwater products and defence projects. The successful candidate would be responsible for delivering projects on time, on budget and to specification ensuring they are properly planned, resourced and executed, assisting with NRE estimations, monitoring costs against the project plan and raising any deviations. Excellent planning and organising skills are essential as are strong verbal and written communication skills.

chelsea.co.uk/careers/project-manager-underwater-products-defence-projects/.

Mechanical Design Engineers (x2), Chelsea Technologies

Chelsea Technologies are recruiting for a first-class Mechanical Design Engineers with at least 2 years' experience. These roles represent a tremendous opportunity to join a dedicated team of engineers & scientists, designing technically advanced optical & acoustic instrumentation that is widely recognised for both quality & measurement performance. The successful candidates will be expected to embrace the opportunity for significant & rapid career development by accepting an increasing level of overall responsibility for product design & project management that would not necessarily be available within a larger organisation. In addition to complex & challenging design work from concept through to medium volume manufacture, it will be expected that the standard drawing office requirements for build standard control & change note implementation are undertaken.

chelsea.co.uk/careers/mechanical-design-engineer/

Sales Executive (Maritime / Shipping Technology), Chelsea Technologies

Would you like to work for a company that makes a difference? A company that has a rich heritage and an exceptional reputation for innovation and quality? Would you like to work for a company that supports your development and gives you the opportunity to raise your profile and grow as a recognised professional? If so, we would love to hear from you. We are looking for a talented and highly motivated Sales Executive with experience of consultative technical selling to take on our maritime portfolio and help us continue our success in the global maritime sector with our green shipping and ballast water technology.

chelsea.co.uk/careers/sales-executive-maritime-shipping-technology/.

Postdoctoral Scholar, Lagrangian Drifter Laboratory, Scripps Institution of Oceanography

The Lagrangian Drifter Laboratory (LDL; <https://gdp.ucsd.edu/ldl/>) at the Scripps Institution of Oceanography (SIO), University of California – San Diego (UCSD) invites applications for a Postdoctoral Scholar to work on the Global Drifter Program (GDP; <https://gdp.ucsd.edu/ldl/global-drifter-program/>) with a focus on measurements of surface waves from drifting buoys. Preference will be given to candidates with expertise in Lagrangian observations and upper-ocean dynamics.

At the time of appointment, the applicant must possess a PhD in Physical Oceanography or a closely related field and have less than four years of total postdoctoral service. The initial appointment can be for one or two years with the possibility of extension dependent on performance and funding. Salary and length of initial appointment will be commensurate with qualifications and experience. Postdoctoral Scholars at UCSD are exclusively represented by the International Union, United Automobile, Aerospace and Agricultural Implement Workers of America (UAW).

To apply, please send a single PDF including cover letter, CV, and contact information for three references with the subject “GDP postdoc position” to Drs. Luca Centurioni (lcenturioni@ucsd.edu) and Verena Hormann (vhormann@ucsd.edu). Screening of applicants will begin immediately and continue until the position is filled.

The Global Drifter Program was funded at SIO and is currently administered by the Lagrangian Drifter Laboratory. SIO is a world-renowned center of marine research with approximately 200 principal investigators leading research programs on all aspects of earth, ocean, biological, and atmospheric sciences. We are committed to academic excellence and diversity within the faculty, staff, and student body.

UCSD is an equal opportunity/affirmative action employer with a strong institutional commitment to excellence and diversity (<http://diversity.ucsd.edu/>).

There are jobs on the IMBER web site

<http://www.imber.info>



Integrated Marine Biosphere Research

Jobs and opportunities

New

- Natural Resources Manager, First Nations Fisheries Council of BC, Vancouver, Canada. Open until filled
- Program Coordinator: Ocean Pollution Research, Ocean Wise, Vancouver, Canada. No deadline given so apply now
- Communications Specialist: Oceana, Washington DC, USA. No deadline given, apply now
- Postdoc: Natural resources and sustainable development, NOCRISES, Uppsalla, Sweden. Apply by **10 September**
- Technical advisor: Mangrove Markets, Blue Ventures, Indonesia, Madagascar or UK. Apply by **13 September**
- PhD opportunities with work entirely or partly at a Portuguese institution: AIR Centre PhD Scholarship Programme. Apply by **14 September**
- Postdoc/Junior scientist: Ocean modeller, CMCC, Bologna, Italy. Apply by **15 September**
- Postdoc: Governance of emerging OceanNETs. IASS, Potsdam, Germany. Apply by **20 September**
- Postdoc: Nearshore Marine Ecology, Juneau, AK, USA. Apply by **4 October**
- Stanford Science Fellowships: Apply by **15 October**

In case you missed it...

- Lecturer/Senior lecturer: Environmental sustainability, University of Melbourne, Australia. Apply by **13 September**
- Tenure-track Assistant Prof: Chemical Oceanographer. NC State, Raleigh, NC, USA. Review of applications begin on **12 October**
- Group leader: Organismal biology using marine species, University of Bergen, Norway. Apply by **30 November**

[Visit the IMBeR Website](#)

imber@imr.no