

Challenger Wave

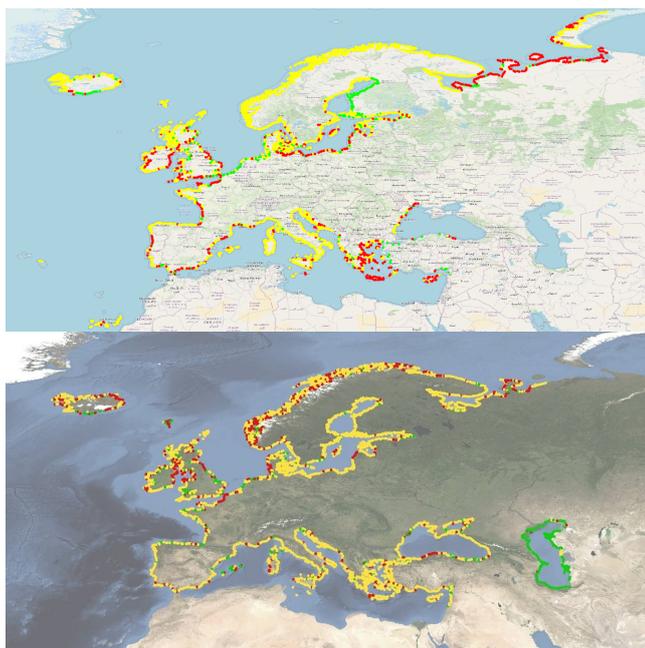


Monthly newsletter of the Challenger Society for Marine Science (CSMS)

NEWS

New EMODnet pan-European shoreline-migration map

The new EMODnet Geology shoreline-migration map, released on the 18th of March and freely accessible from the EMODnet Geology portal, www.emodnet-geology.eu/data-products/coastal-behavior/, allows policy makers, together with national and regional coastal managers, to determine large-scale coastal behaviour and identify areas of rapid change. It is based on field measurements and aerial photography, and covers time periods up to decades. This technique is particularly valuable for mapping cliffs, which are prevalent along European coastlines, particularly since state-of-the-art satellite-monitoring methods aren't yet suitable for imaging erosion of non-sandy types of coastline.



Pan-European overview maps of shoreline migration (red = landward; yellow = stable; green = seaward). Image at the top : the updated map based on field data and aerial photography. Image at the bottom : the 2019 map based on satellite monitoring. The map at

the bottom has more complete coverage but tends to overestimate erosion of cliff coasts.

Our coasts play a key role in Europe's economy, safety, coastal-zone environment and well-being. One of its key characteristics, the ever-changing land-sea interface, has been monitored in the field and from the air for more than a century, and with satellites since the 1970s. This shoreline is continuously shaped by wind, waves, tides, and human influence. Shoreline change is strongly influenced by climate change. Coastal erosion in particular is exacerbated by global sea-level rise, which will put Europe's shorelines, and others around the world, at increasing risk in the coming years. Knowing how, and at what rate, our coasts are changing is a crucial step to their sustainable management, supporting knowledge-based decision-making and thus underpinning the EU Strategy on adaptation to climate, climate-adapt.eea.europa.eu/eu-adaptation-policy/strategy. This information helps the EU move towards becoming a climate-resilient society.

"Effective planning for adaptation to climate change must be underpinned by high-quality data. The new EMODnet shoreline-migration map provides the most up to date and comprehensive information for coastal and marine industries, decision-making bodies and scientific research. Providing pan-European, regional and local data, it helps enable efficiencies in planning and decision-making processes for a sustainable future", stated Cherith Moses, Professor of Geomorphology at Edge Hill University (UK). For more information please visit www.emodnet.eu/en/new-pan-european-shoreline-migration-map-based-field-measurements-and-aerial-photography-improved.

IMBeR welcomes GiHoon Hong as its new Strategy Director

Professor GiHoon Hong recently joined IMBeR as Strategy Director at the International Project Office in Shanghai in China. His background is in

marine biogeochemistry with a particular focus on the behaviour of radionuclides in marine carbon cycles, and their application for addressing emerging scientific and human needs in the world's ocean. Gi has worked in a variety of roles including research, teaching and developing local and international marine environmental policy.



He contributed to and led several intergovernmental efforts to protect and manage marine environments impacted by human activities. These included assessment of sediments, artificial reefs, sewage sludge, as well as developing regulations for marine geoengineering to mitigate climate change, and updating and drafting guidelines and amending treaties.

Gi is originally from South Korea and he did his early studies at the Seoul National University. He did his PhD on the chemistry and fluxes of particulate carbon dynamics in fjords. at the University of Alaska, Fairbanks in USA, On his return, he worked as Research Professor at the Korea Institute of Ocean Science and Technology (KIOST) and later took over as President. More recently, he served as Adjunct and Visiting Professor at the Wayne State University in Detroit, USA and also undertook several short-term scientific visits at the East China Normal University in Shanghai.

Gi is keen to bring his scientific knowledge and understanding into local and international social decision processes. He is a firm believer that scientific research on natural and manmade environments is essential to deal with current challenges of emerging contaminants, enhance the value of natural capital (resources), and to address global climate change, and ultimately advance human civilization by achieving

sustainable development. We welcome Gi to IMBeR and look forward to working with him and learning from his extensive knowledge and experience.

VIEWS

Frontiers in Marine Science special issue call: Physics and Biogeochemistry of the East Sea (Japan Sea), Yellow Sea, and East China Sea

The East Asian Marginal Seas (EAMS) include the East Sea (also known as the Japan Sea, EJS), the Yellow Sea, and the East China Sea. The EJS is a deep (< 3500 m), semi- enclosed sea and is connected to the Pacific through narrow and relatively shallow straits. The EJS is often called a miniature ocean since it is a major anomaly in the ventilation and overturning circulation in the Pacific. The upper EJS is affected by changes in circulation and biogeochemistry of the neighbouring shelf seas, the East China Sea and the Yellow Sea, as a branch of the Kuroshio transports the shelf water into the EJS. During the last century, the water circulation and biogeochemistry of the EAMS have been strongly affected by changes in climate, river water discharge (i.e., the Changjiang River and the Yellow River), groundwater discharge, and air-sea exchanges.

This special issue aims to look into the changes in physics and biogeochemistry of the EAMS at the forefront to response to climate change and human pressure. Topics may include, but are not limited to the following:

- water circulation and ventilation changes based on various physical and chemical approaches
- hydrodynamics, water masses, mixing, sea level and current variability, fronts, eddies, and internal waves/tides
- dynamics of nutrients and trace elements: fluxes, evolution, and cycling
- carbon cycles: POC, DIC, DOC, CDOM, and other related components
- terrestrial material inputs: atmospheric inputs, groundwater inputs, and riverine inputs.
- water and material transports: box model approaches, numerical models, and tracers

- sediment transport and sedimentation; sedimentary geochemistry

Topic editors are:

SungHyun Nam - Seoul National University, Seoul, South Korea

Ying Wu - State Key Laboratory of Estuarine and Coastal Research (SKLEC), Faculty of Earth Sciences, East China Normal University, Shanghai, China

Jeomshik Hwang - Seoul National University, Seoul, South Korea

Ryan Rykaczewski - Pacific Islands Fisheries Science Center (NOAA), Honolulu, United States

Guebuem Kim - Seoul National University, Seoul, South Korea

Submission deadlines are 30th April 2021 for the abstract, and 30th August 2021 for the final manuscript. For more information please visit www.frontiersin.org/research-topics/19531/physics-and-biogeochemistry-of-the-east-sea-japan-sea-yellow-sea-and-east-china-sea.

Call for nominations for the new Frederik Paulsen Arctic Academic Action Award

Action-oriented scientific initiatives to reduce climate change will be celebrated in this new prestigious Award. The winner will receive a prize of 100,000 Euros, present the Winning Project at the Arctic Circle Award Ceremony, enjoy an honorary reception and dinner, and have the opportunity to implement their project through the UArctic Network.

The Award is linked to the name of Frederik Paulsen who for decades has been a strong promoter of Arctic and Antarctic research and cooperation as well as being a patron and a crucial supporter of many Arctic endeavours which have facilitated the cooperation between experts and scientists from many nations. Frederik Paulsen has also demonstrated strong respect for the culture and the livelihood of indigenous peoples. His support for the Arctic Circle and the UArctic is also a contribution to our success.

The Award will serve to promote and raise awareness of promising projects which address climate change through concrete actions and plans. The deadline for submission of nominations is 30th June 2021: www.arcticcircle.org/awards/nomination-guidelines.

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SALTS

Climate change study in the Northeast Atlantic Ocean

RRS Discovery left Southampton on the 25th March for an expedition to the Porcupine Abyssal Plain Sustained Observatory (PAP-SO). Led by Dr Sue Hartman, the expedition will extend a 36-year long observation at the PAP-SO that dates back to 1985. The observation is critical to understanding long-term changes in the oceans.

Dr Sue Hartman said, "This is an exciting expedition that extends a unique observation which the National Oceanography Centre has run for 36-years. The new observations and samples that we collect are needed to study the changing Atlantic Ocean and climate regulation and ocean services. The research will assess how the ocean and deep-sea eco-systems will evolve as a result of climate change and intensified human exploitation."



RRS Discovery leaving Southampton

The science and technical teams onboard will carry out a range of water column and seafloor sampling data collection operations. Additionally, they will continue the long-term measurements of sedimentation events and water currents within the Whittard Canyon, a major submarine canyon system within a geological feature that hosts England's only deep-sea marine protected area. Read more on the website, noc.ac.uk/news/noc-extends-36-year-climate-change-study-northeast-atlantic-ocean.

CALENDAR

30th May - 4th June 2021: 2021 ESSAS Annual Science Meeting: Linking past and present marine ecosystems to inform future fisheries and aquaculture

Ecosystem Studies of Subarctic and Arctic Seas (ESSAS) is a regional programme of the Integrated Marine Biosphere Research project (IMBeR). Its goal is to compare, quantify and predict the impact of climate variability on the productivity and sustainability of Subarctic and Arctic marine ecosystems.

The 2020 ESSAS Annual Science Meeting (ASM) that was originally scheduled to be held in Japan last July will now be held online. The aims of the ASM are to improve understanding of how climate change will affect aquaculture and capture fisheries, and how in turn these changes will affect resource-dependent communities. Management strategies to foster resilience in these systems will also be considered. Registration is open until 30 April: essas.arc.hokudai.ac.jp/what_s_new/2021-essas-annual-science-meeting/.

10th–13th June 2021: 3rd Euro-Mediterranean Conference for Environmental Integration *Sousse, Tunisia*

The editorial office of the Euro-Mediterranean Journal for Environmental Integration in collaboration with Springer organizes the 3rd EMCEI conference, www.emcei.net.

14th-18th June 2021: EMODnet Open Conference and jamboree *Ostend, Belgium*

The pre-registration for the EMODnet Online Open Conference on 14th-16th June 2021 is now open. This event will gather EMODnet partners and wider stakeholders and is open to all. It provides a unique opportunity to set goals for the future of EMODnet to 2030 and beyond, to recognise and further develop existing and emerging partnerships, and to listen to marine data providers and users experiences and appreciation of the value of EMODnet data, data products and services, and what can be done further to optimise the user experience.



A related EMODnet Jamboree for EMODnet partner meetings of the 7 thematic and data ingestion will take place on the 17th and 18th June 2021, on invitation.

The conference will now be held entirely online and relate directly to EMODnet open access data, data products, applications and interoperability across data services, across the following themes:

- EMODnet contributors
- EMODnet for users
- EMODnet for innovation
- EMODnet partnerships

To find out more, visit www.emodnet.eu/en/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.

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 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.

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

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
- 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

17th - 18th June 2021: Structures in the Marine Environment (SIME2021)

MASTS are delighted to be working with the INSITE programme again. In 2019 we held the inaugural and successful SIME conference. This was followed up by the session at the MASTS ASM in 2020, and now we are pleased to invite abstracts for the 2021 SIME conference. SIME2021 will be held online via HopIn and split over two half day sessions (afternoon of 17th June and morning of 18th June 2021).

In response to our societal need to generate energy, man-made structures (MMS) have been built into our coastal and marine environments. The structures range from oil and gas installations, associated pipelines and seabed infrastructure, and now we also look towards a replacement for carbon-fuelled electricity via offshore wind farms. Inevitably, these structures host communities by providing habitat and shelter, and potentially serve as stepping-stones for the spread of some species (some of whom will be non-indigenous). In addition to deliberately placed structures, shipwrecks can also serve a similar function. In turn, the biodiversity that develops on MMS can affect biological, hydrodynamic and biogeochemical processes from the water column to the seafloor, either directly (e.g. scouring, organic matter export from piles) or indirectly (e.g. population dynamics or closure/displacement of fisheries) and, hence, ecosystem functioning is also affected at various spatial and temporal scales. When flow effects in surrounding areas are included, the footprint of these structures is much larger than just the physical area. Science has an important role to play in both development decision-making as well as decommissioning, and we need a robust evidence base for informed environmental management decision-making. We need to be clear about what how future MMS that are put into the marine environment will affect the marine biological ecosystems, what should happen to these structures when they have been decommissioned and what the ecological best practice is in relation to decommissioning and rigs/renewables-to-reefs.

Academics, stakeholders, industry and government representatives and interested parties are invited to come together for talks, e-posters, networking and discussion about man-made structures already within the marine ecosystem, and any new infrastructures that may be put in place over the coming decades. Let's talk about the impacts, benefits and implications of these structures, and discuss how we can accelerate our understanding to support policy and regulatory decisions. Within an international context, and taking MMS in its widest definition, the "Structures in the Marine Environment" (SIME2021) conference will focus on the impact that the presence or removal of these structures may have on biological marine ecosystems. We would particularly welcome abstracts in the areas of Biodiversity and MMS; Restoration and MMS;

Natural vs. artificial substrata; Connectivity of structures; and the social and political implications of MMS.

You are invited to submit abstracts for 7 minute presentation slots or an e-poster. Presenters are encouraged to not solely focus on past and current research but reflect on gaps of knowledge and future research directions. Talks and posters should be accessible to other disciplines, by avoiding jargon and keeping technical details simple. Presentations will be submitted as pre-recorded videos, but presenters should expect to be present for live Q&A sessions following the talks. Please submit your abstract on the abstract template, www.masts.ac.uk/media/37080/sime_2021_abstract_template.docx, and submit to masts@st-andrews.ac.uk before 16.00 on 16/4/21. Registration is also open, hopin.com/events/sime-2021.

22nd-27th June 2021: ASLO 2021 virtual Meeting

Hoping that the virtual meeting can reach participants from farther places who normally cannot attend in-person meetings, and this platform can also be used as a "teaser" for the in-person meeting in Palma in 2023. The time zone of the meeting will be GMT European time to mirror the original June schedule (and will be held on the same days). ASLO 2021 goes virtual: <https://www.aslo.org/2021-virtual-meeting/>.

29th - 30th June 2021: The 8th PRIMaRE marine renewable energy conference

Menai Bridge, Wales

The conference represents the latest in the annual scientific conference series of the marine renewable energy community. The conference will be held **online**, and run by Bangor University, School of Ocean Sciences, www.bangor.ac.uk/oceansciences/primare.php.en.

The conference includes universities, industry and research centres active in all aspects of marine renewable energy with presentations ranging from industrial developers, university researchers, marine environmentalists and policy makers. The aim of the event is to cover a wide range of topics in marine renewable energy, including: technology, policy, environment, hydrodynamics, resource characterisation, materials, operation and management, etc.

The 8th PRIMaRE conference will provide a

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platform for both industrial and university speakers to present their up to date activities and on-going research programmes through posters.

Conference Themes within Marine Renewable Energy:

- Materials
- Fluid Dynamics and Hydrodynamics
- Survivability and Reliability
- Environmental Impacts
- Power Conversion and Control
- Infrastructure and Grid Connection
- Marine Operations and Safety
- Marine Planning and Governance

We hope to build on the hugely successful online conference of last year, with over 210 delegates from all over the world. There is no conference fee; however please register to ensure a place by 29th May 2021. Please also consider submitting an abstract of less than 500 words by the 30th April 2021. Instructions for submitting the abstract and conference registration details can be found on the PRIMaRE website, <https://primare.events/>.

Abstracts will be accepted as oral or poster presentations. The abstract should summarise the context of the presentation or poster, and include aims and objectives, a description of the methodology and summary of the findings. You can also sign up to the PRIMaRE network here: www.primare.org/?q=content/primare-network.

9th – 13th August 2021: IMBeR ClimEco7 summer school

Vancouver, Canada



IMBeR ClimEco7 summer school postponed to 2021

Unfortunately, due to the restrictions that we are currently all dealing with, and the uncertainty as to how things will be in August when we were planning to hold ClimEco7, IMBeR has taken the decision to postpone the summer school for a year.

All the applications that we received for ClimEco7 this year will be carried over to 2021. Results of the selection process will be made known during March 2021.

New dates for ClimEco7 are 9-13 August 2021

UBC, 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.

6th - 9th September 2021: Estuaries and coastal seas in the Anthropocene

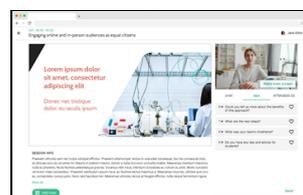
Hull, England



Same great content will now take place online as a live-streamed and interactive event. The conference will bring together our expert invited speakers, contributed talks and e-posters showcasing the latest research and addressing key topics from our cancelled in-person meeting. You will be able to participate in a live interactive conference experience direct from your desktop or mobile device.

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Live-stream presentations, ask questions to the speakers and poster presenters and chat with other attendees via a dedicated conference platform. Plus, enjoy more flexibility with on-demand access to recorded sessions for 12 months after the event.



Engage with speakers



Participate in poster sessions

We do hope that you will be able to participate in this exciting event, Conference Chairs:

- Mike Elliott*, University of Hull, and International Estuarine & Coastal Specialists Ltd
- Tim Jennerjahn*, Leibniz Centre for Tropical Marine Research, Bremen, Germany
- Masataka Watanabe*, Chuo University, Japan

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 April.

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



Position for Sarah Gille, Bruce Cornuelle, and Matthew Mazloff

Title of the Position: Postdoctoral Scholar-Employee

School or Division: Scripps Institution of Oceanography

Center, Institute, or other Organized Unit: Climate, Atmospheric Science and Physical Oceanography

Disciplinary Specialty of Research: Physical Oceanography

Contact Name: Professor Sarah Gille, Dr. Bruce Cornuelle, or Dr. Matt Mazloff

Contact Email: sgille@ucsd.edu, bcornuelle@ucsd.edu, mmazloff@ucsd.edu

Description of the Position:

The postdoctoral researcher will focus on increasing our understanding of ocean dynamics in the California Current through regional ocean state estimates with <2 km grid spacing using 4-dimensional variational (4DVar) assimilation in the California Current using all available data. This is in support of NASA's Surface Water and Ocean Topography (SWOT) mission (<https://swot.jpl.nasa.gov/mission/overview/>), which is expected to launch in 2022. A central objective is fidelity at space and time scales relevant to this mission. Priorities will include analysis of data from the SWOT Cal/Val period and throughout the SWOT mission. A goal is to use the model dynamics and additional constraints to fill the spatio-temporal gaps between satellite observations. The postdoctoral researcher will participate in production of a California Current state estimation that will provide a dynamical framework in which to analyze SWOT data and understand the high-wavenumber processes in the ocean. We aim to provide a nurturing environment and engaged mentoring to support the postdoctoral researcher's professional development. Contact Sarah Gille (sgille@ucsd.edu), Matt Mazloff (mmazloff@ucsd.edu), or Bruce Cornuelle (bcornuelle@ucsd.edu) for further information.

Responsibilities include:

- Collaborate with SWOT Science Team, the ECCO consortium (<https://www.ecco->

[group.org/](#)), and the ongoing observational, modeling, and 4DVar assimilation research activities underway at Scripps Institution of Oceanography

- Produce state estimates of the California Current with model grid spacing of <2 km using the MITgcm-ECCO software.
- Investigate the dynamical roles of balanced and unbalanced motions (including tides, internal waves, surface waves) at scales shorter than 100 km.
- Adapt innovations to the model and assimilation infrastructure as they are developed by the team.
- Analyze and interpret the state estimates in the context of SWOT observations.
- Disseminate research findings via presentations and peer-reviewed journals.
- Document, distribute, and publish state estimate output and any associated software development.

Qualifications Required and Preferred Academic Background:

Applicants should have 0-2 years of Postdoctoral experience, or be nearing completion of their Ph.D. (estimated within 3 months), and be self-motivated. Good written and verbal communication skills, including the ability to produce scientific publications and presentations and meet project milestones, are required. Also required is a strong analytical background with a Ph.D. in physical oceanography or a related field. Programming experience working in a Unix environment with experience in scripting languages such as Fortran, Python, and Matlab is highly desired. Other desired qualifications include experience with satellite observations, numerical modeling, assimilation, and data analysis (e.g. least squares, optimization, harmonic analysis, spectral analysis). A theoretical background in ocean dynamics at scales relevant to the SWOT mission (10km-100km) is also desired.

Appointment Length/Period: Initial appointment is for one year, with extension possible contingent upon candidate eligibility, performance, and eligibility of funding. Desired start date is July 1, 2021, or by mutual agreement.

Application Procedure: Please contact Professor Sarah Gille via email at sgille@ucsd.edu with a CV, a personal statement of the candidate's experience and career goals, and the names and email contact information for three referees.

The University of California, San Diego is an AA/EOE.

Application Closing Date: open until filled, with preference to applications received by May 1, 2021.



The 2021 Call for POGO-SCOR Fellowships is open

The Partnership for Observation of the Global Ocean (POGO) and Scientific Committee on Oceanic Research (SCOR) are pleased to announce that the POGO-SCOR Visiting Fellowship programme for 2021 is now open for applications.

The deadline for applications is 30 April 2021.

The scheme is designed to promote training and capacity development, leading towards a global observation scheme for the oceans, and is aimed at scientists, technicians, graduate students (preferably PhD) and post-doctoral fellows involved in oceanographic work at centres in developing countries and countries with economies in transition.

Priority is given to applicants in the early stages of their career development. The fellowship offers the opportunity to visit other oceanographic centres for a short period (1 to 3 months) for training on aspects of oceanographic observations, analyses, and interpretation. It provides financial support to cover the return airfare from the fellow's home country to the host institution, and a contribution towards accommodation and subsistence for the period of the visit.

For more information and details on how to apply please see: <https://pogo-ocean.org/capacity-development/pogo-scor-fellowship-programme/>

All applications should be made via the marine training.eu website: <https://marinettraining.eu/node/4613>

Please e-mail pogoadmin@pml.ac.uk should you have any queries and feel free to circulate this announcement to anyone you think might be interested.

There are jobs on the IMBER web site

<http://www.imber.info>



Integrated Marine Biosphere Research

Jobs and opportunities

New

- PhD: Marine biogeochemistry - Blue Carbon, University of Gothenburg, Gothenburg, Sweden. Apply by **19 April**
- 4 Teaching & Research Lectureships: Wildlife biology, conservation ecology, environmental economy, sustainable development. Bangor University, Bangor, UK. Apply by **23 April**
- POGO-SCOR Fellowship Programme for training/capacity building in oceanographic observations. Apply before **30 April**
- PhD: Attitudes, preferences and expenditures of Kansas anglers, Nebraska, USA. Apply by **30 April**
- PhD: Governance solutions to plastic pollution in Antarctica and the Southern Ocean, University of Tasmania. Apply by **14 May**
- Postdocs: Analytical Chemistry / Molecular Biology / Microbiology, Gothenburg University, Gothenburg, Sweden. Apply by **15 May**
- PhD: Analytical Chemistry / Molecular Biology / Microbiology, University of Gothenburg, Gothenburg, Sweden. Apply by **15 May**

In case you missed it...

- Assistant Prof: Hydrographic Science, University of Mississippi, Hattiesburg, MS USA. Open until filled, **apply now**
- Postdoc: Coastal and estuarine ecology, Nelson Mandela University, Port Elizabeth, South Africa. No deadline given, **apply now**
- Assistant Research (Social) Scientist, Centre for Conservation Social Science, Gainesville FL USA. No deadline given, **apply now**
- Program Coordinator: Africa Oceans Strategy. The Nature Conservancy, Cape Town, South Africa or Mombasa, Kenya. Open until filled; **apply now**
- PhD: Autonomous sensing of human impacts on seawater biogeochemistry, Royal NIOZ, Texel, The Netherlands. Apply by **14 April**
- Postdoc fellowships: Marine microbial ecology, Simons Foundation. Apply by **14 May**

Visit the IMBeR Website

imber@imr.no