Challenger Wave

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

NEWS

Coastal Ocean Processes Special Interest Group

The third meeting of the Challenger Society Coastal Ocean Processes Special Interest Group (SIG) was jointly hosted by Cefas and UEA, (through CSSUS - the Collaborative Centre for Sustainable Use of the Seas), on the 1st and 2nd April 2019.



The aim of this SIG is to host interdisciplinary discussion on coastal and shelf seas. This time the meeting had 34 attendees from 9 institutions, with 18 oral presentations, 5 posters, and plenty of discussion over tea and, a lot of biscuits. Presentations covered a wide variety of work, in Greenland fjords, the Arabian Gulf, UK shelf seas and beyond; including ship-based nutrient sampling, autonomous ocean gliders, coastal radar, and model simulations.

The meeting hosted presentations from early career through to senior scientists. There were presentations from 8 PhD students, from BAS, NOC, Liverpool and UEA. These included carbon

dynamics in UK estuaries (Ruth Payne and Chiara Borsellino), meltwater circulation on the Greenland Shelf (Jake Opher), and the impact of model resolution for predicting oil spill dispersion in the Faroe-Shetland Channel (Ryan Gilchrist).

Buoyed by the success of this meeting, the next meeting of the Coastal Ocean Processes SIG is currently planned to take place within the next Challenger Conference (in Oban, September 2020). If you would like to be notified of future events, please contact jennifer.graham@cefas.co.uk or robert.hall@uea.ac.uk for more information. - Jennifer Graham & Rob Hall

Challenger Society undergraduate award

The society offers the "Challenger Society for Marine Science Student Award" (www.challenger-society.org.uk/Student_award). This used to be the tripartite award joint with other societies but is now all ours. The award is for outstanding 3rd year dissertations, to be submitted by supervisors with a cover letter. The one winner gets a £500 award and a nice certificate.

Please share at your institutions. The deadline to submit is 31st July and I will handle the initial submissions and then ask council to review. NOTE, however, that only one submission is allowed from each institution, so some initial sift will have to be done by local council members. - **Dr Mattias Green, Bangor University**

Open Sea Lab II sets sail and promises more open data, more opportunities and even more excitement than OSLI!

EMODnet's second Open Sea Lab (OSLII) was officially launched at a kick-off event. www. opensealab.eu/kick-off-info, on the 24th of May in Brussels. It marked the opening of applications for OSLII in Ghent from 4th - 6th September, 2019. The entire webcast is now available online, www.opensealab.eu/stream, as well as the speakers' presentations.

Revealed at the event were the three challenges, www.opensealab.eu/challenges, for OSLII, namely: (i) Marine Environmental Management and Protection, (ii) Blue Society and Ocean Literacy, and (iii) Sustainable Blue Economy. As the concept of Open Sea Lab is to connect marine data and society, the challenges focus on how open marine data can serve societal needs.



Technical experts from EMODnet (Pascal Derycke), ICES (Neil Holdsworth) and Copernicus Marine (Fabrice Messal) demonstrated the data, products and services available via their portals and invited potential applicants to explore the diversity of resources, from data and data products on marine litter to underwater noise and from fish trawl surveys to sea ice.

Training Course on Research Data Management

UNESCO/IOC are pleased to inform you that the period for applications is open between **5th July** – **17th August 2019**. We therefore invite you to share this information among potential interested candidates in your country and Region. All information, including a course flyer, can be found following the UNESCO/IOC link https://www.oceanexpert.net/event/2135.

Research Data Management (RDM) covers the planning, creating, storing, organizing, accessing, sharing, describing, publishing and curating of data. RDM is mandated by many funding agencies and increasingly by governments to provide access to funded research results.

The management of data, particularly large-scale data, has many challenges, and the roles of researchers, facilities that manage marine data, repositories and libraries are coming together to provide access, preservation and archive of this data and the scholarly products associated with it.

A Certificate of Participation will be issued to all successful students (90% attendance to the classroom course mandatory). The UNESCO/IOC Project Office for IODE is certified as a Learning Services Provider (ISO29990:2010). The OceanTeacher Global Academy is a Project of IOC/IODE supported by the Flanders-UNESCO

Trust Fund (FUST) of the Government of Flanders, Belgium.

Please fill in the online application form at otga.wufoo.com/forms/wu05w01031xs7v/ no later than 17 August 2019. Do not leave for the last minute since the system will close automatically. In case you have any questions please contact the organisers well in advance: given time differences you may not get a reply to your questions immediately. No tuition fee applies. Both full- and co-sponsoring are available for a limited number of participants.

NOTE: Priority will be given to participants originating from Europe and North African countries. UNESCO is committed to promote gender equality. Applications from women are strongly encouraged.

In case of questions please contact the OTGA Secretariat ioc.training@unesco.org, always indicating as subject: OTGA Training Course: Research Data Management, 21-25 October 2019, Oostende, Belgium

VIEWS

The Oceanographic Institute of Cumaná needs your support: The Systematic Elimination of the Oceanographic Institute of the Universidad de Oriente. Cumaná-Venezuela.

The Oceanographic Institute of Venezuela, funding institution of the Universidad de Oriente in Cumaná, was created in 1958 and began activities in 1959. It is one of the oldest and most important centres for oceanographic and marine science research, public service, and undergraduate and graduate training in the Caribbean, Latin America and the world.

From the beginning, the Institute fostered relations with the main universities of the world, which allowed the arrival of researchers to reinforce the faculty with a view to conduct Graduate studies in Marine Sciences (Oceanography, Marine Biology and Fisheries). Notable regional and global scientists, such as Dr. Brian Luckhurst, Dr. Jeremy Jackson, Dr. Daniel Pauly, Dr. Fernando Cervigon, and Captain Jacques Y. Cousteau, taught and conducted research at the Oceanographic

Institute. Many of the Marine Science students and scientists have conduct research with the aid of the oceanographic research vessels and shore-based laboratories.

In celebration of its 50 years, the Oceanographic Institute hosted the 62 Gulf Caribbean Fisheries Institute (GCFI). During that meeting, there were over 300 scientists from the region that participated, and Dr. Daniel Pauly provided the keynote speech. However, now on its 60th anniversary, the days of providing a higher-level education in oceanography, marine biology and fisheries, making the science accessible to the public are gone, in part due to insufficient allocation of financial resources in recent years and mostly due the vicious vandalism that the Institute has endured since the beginning of this year.



Main entrance of the Oceanographic Institute of Venezuela-Universidad de Oriente, Cumaná-Venezuela.

Some of the surrounding buildings of the Institute have been vandalized and stripped to their bare structure, and other buildings have been burnt down since the early days of 2019. The University authorities have requested safeguard measures from the official authorities of the State, but no action has been taken.

In May, sadly, it was the Institute's turn to be viciously vandalized and robbed of major equipment throughout its Departments (Oceanography, Fisheries Biology, and Marine Biology). Fortunately, in light of what had happened in the surrounding buildings, scientists had begun to safeguard movable equipment (optics, etc). However, it was not sufficient because over the past few weeks the Institute has been systematically stripped of its major electrical power sources (transformers, power cables, and

system breakers). Once that occurred, it was then stripped and robbed of its air-conditioning equipment, freezers (where samples were stored), and office equipment (printers, copying machines), making it almost impossible to work in that environment.



Violation of the entrances to Departments and Laboratories. Severed power cables, robbery of main circuit breakers and internet routers. Trashing and violation of laboratories. Main office equipment all gone.

The once well-known Graduate Program in Marine Science was forced to a technical shut down. The enrolled graduate students were left without an option: there isn't one. The local and regional scientific community is probably wondering why this is happening. In all of the crises the University has endured, none included the violation and the demise of its infrastructure, and its research Institutes have never been touched in such a vicious way.

Some claim that the economic situation we are living in has forced people to steal from an easy target in order to survive. Others including faculty members and graduate students, suspect that it is a well coordinated plan to strip the Institute, and the University Campus of Cumana of its capacity to teach and conduct research, and to force the displacement of its university faculty and students, so that other official entities can take for obscure plans. claiming over abandonment of the premises. So far, some Oceanographic Institute faculty members and graduate students have stood their ground and have refused to leave the building. The Marine Biology Department, the only one still able to function, is heavily impaired; the other two (Oceanography and Fisheries) are barely functioning. It is unknown for how long, maybe

until their personal well-being becomes lifethreatened.

It is important that the regional marine scientific community is aware of such destruction, and how vicious society can turn when governed by unscrupulous officials where no actions have or will be taken to safeguard the higher-education and research institution that exists in Venezuela. This outcry is a hope that the marine scientific community does not stand-by passively as this occurs. - **Professor Freddy Arocha**



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

17th – 19th September 2019: IOCCP meeting, OceanObs '19

Honolulu, Hawaii, USA

For more details of the IOCCP OceanObs'19 meeting, please go to http://www.oceanobs19.net/breakout-sessions/.

25th September 2019: Sonardyne to host Marine Measurement Forum #63

Yateley, UK

The Steering Group for the Marine Measurement Forum (MMF) series of twice yearly, one day networking seminars is delighted to announce details for the forthcoming MMF63. The event will be hosted by Sonardyne at their Yateley, Hampshire HQ.

Detailed information on the day's proceedings, including a call for presentations and event registration, can be found at www.eventbrite.co.uk/e/mmf-63-hosted-by-sonardyne-tickets-61858940757.

25th – 26th September 2019: Workshop on Sea operations for Ocean Observatories

Toulon, France

EMSO ERIC proposes to bring together the major players in the field for a workshop focusing on means and methods for servicing fixed-point observing systems during their deployment, maintenance and recovery operations. Several sessions might interest the ocean observing community community, including one dedicated to intervention procedures with divers on shallow water equipment. Register by the 31st July. All details on the workshop web site wwz.ifremer.fr/rd_technologiques/Actualites/WorkShops/Workshop-On-Sea-Operations-EMSO.

1st – 5th October 2019: Ecological Modelling Global Conference

Salzburg, Austria





This global conference, to be held at the Salzburg Congress Centre, is the 22nd biennial conference of The International Society for Ecological Modelling (ISEM) and will bring together scientists from all professions and applications that deal with the use of ecological models and systems ecology. The Conference Chairs are:

Gudrun Wallentin, Department of Geoinformatics, University of Salzburg

Tarzan Legović, Ruđer Bošković Institute

Brian Fath, Department of Biological Sciences, Towson University

2nd - 4th October 2019: MASTS ninth Annual Science Meeting (ASM), Bold Science to Meet Global Challenges.

Glasgow, Scotland, UK

The 9th ASM, will take place at the Technology and Innovation Centre, and will examine the science we need to meet the modern challenges that face our marine waters and seas. This crossdisciplinary meeting brings together members of the marine science community, with the aim of promoting communicating and 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 2nd and Thursday 3rd October), together with Plenary Speakers and opportunities to network. On the third day the venue will host a number of meetings and workshops.

Abstracts for talks and/or e-posters to the 2019 MASTS Annual Science Meeting should be submitted before 16:00 on Friday 16th August to masts@st-andrews.ac.uk using 2019 abstract template document on the website. Abstracts can be submitted to one of the following areas:

- General Science Session
- Technologies & Methods in Marine Science
- Multiple stressors
- Marine Biogeochemistry
- The future of Scottish fisheries in a changing world
- · Deep Sea

For more details about these sessions and to submit an abstract please visit - www.masts.ac. uk/annual-science-meeting/2019-abstractsubmission/.

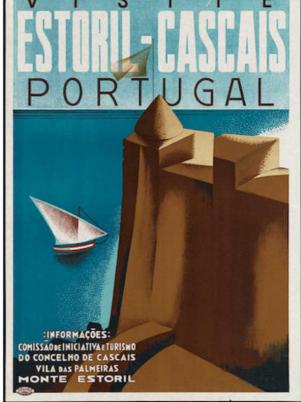
On the third day, the venue will host a number of meetings and workshops. Confirmed workshops so far include:

- A science-policy workshop (Wed 2nd Oct)
- Aquaculture careers workshop (Wed 2nd
- Decommissioning and Wreck Removal (afternoon, Thurs 3rd Oct & morning, Fri 4th
- Arctic marine science: current research and opportunities for engagement in the Russian Arctic (9am-1pm) - theatre style (morning, Fri 4th Oct)
- NERC Innovation Programme for Oil and Gas (afternoon, Fri 4th Oct)
- An Introduction to Modelling in Scottish Water (full day training workshop, Fri 4th
- MEDIN Data Management Training for new Scientists and Surveyors (full day training workshop, Fri 4th Oct)
- Addressing the ecological implications of offshore renewable energy developments across receptor groups - shaping future

- marine energy research (all day, Fri 4th Oct)
- The Scoping and Ranking of Pressures in Scottish Marine Regions and Scottish Offshore Marine Regions

If you would like to exhibit at the event, or showcase a piece of equipment please contact masts@st-andrews.ac.uk for detail. We look forward to welcoming you at the MASTS ASM. Early bird registration for the event will open on Monday 15th July.

7th - 11th October 2019: 42nd CIESM Congress Cascais, Portugal



Come and join our 42nd CIESM International Congress in the second week of October. A Congress conceived and designed to compare the approaches, findings and perspectives of Atlantic and Mediterranean researchers on a great number of common issues. So come to Cascais (Portugal) and meet hundreds of marine scientists from the Atlantic and Mediterranean shores. This will allow you, inter alia, to:

 actively participate in a number of debates (40 in total) covering all marine disciplines, and listen to four cross-disciplinary panels. See program sessions, ciesm.org/marine/ congresses/sessions cascais.php:

- engage discussions with all authors in three Plenary Poster sessions, and with friendly moderators, ciesm.org/marine/congresses/ mosaic cascais.php;
- enjoy the various, informal receptions and the free visit and guided tour of the world-famous Lisbon Aquarium mid-week.

Do not wait much longer: Cascais is a picturesque town, highly popular with tourists and so hotels and pensions in the vicinity will fill up quickly. Have a close look at the Congress webpage, www.ciesm.org/. - Cordially, The CIESM Congress Team

10th - 13th October 2019: Seventh Arctic **Circle Assembly**

Reykjavik, Iceland

Registration is now open for the 7th Assembly of the Arctic Circle, the largest annual international gathering on the Arctic. The Arctic Circle is an open, democratic forum where anyone can ask a world leader a question during Plenary Sessions, bring innovative ideas to interactive workshops, or organize Sessions in their own name: the platform is yours.



Following consultations with Arctic Circle partners and participants, it has been decided to open the Arctic Circle Assemblies ONE day earlier, on Thursdays. Plenary Sessions will end on Saturdays and the party for all participants will take place on the Saturday evening. On Sunday, thematic Excursions and Tours devoted to areas of interest to Arctic Circle participants will be offered. Arctic Circle Assembly participants are advised to arrive in Reykjavík on Wednesday, October 9th in order to participate in morning Sessions on October 10th. Participants who wish to attend October 9th Pre-Events should arrive on October 8th or earlier.

The Arctic Circle is attended by over 2000 participants from more than 60 countries: confirmed speakers represent governments. businesses, scientific institutions, indigenous associations, environmental organizations and other Arctic partners. Breakout Sessions will begin on Thursday morning and the Opening Session will be held after lunch on that day. In addition opportunities will be created for those who so desire to hold Breakout Sessions, working or networking meetings on Sunday morning. Pre-Events will consequently be on Wednesdays. The Arctic Circle Secretariat has received over 180 proposals for Breakout Sessions at the upcoming 2019 Arctic Circle Assembly; a record high.

Programs from previous Assemblies, which list all past Breakout Sessions, may be found at www.arcticcircle.org. The Arctic Circle provides an open, democratic forum for discussion and cooperation on Arctic Affairs.

12th – 14th November 2019: Marine Autonomy and Technology Showcase (MATS) 2019

Southampton, UK

The Delivery Committee for MATS 2019 are pleased to announce that Abstract Submission is now open. During MATS 2019, our aim is to explore the information needs of users of Marine Autonomous Systems (MAS), review the current technologies available to enable the data gathering for MAS users and explore the methods of taking that data and making it exploitable information for the user need. Presentations must focus on work undertaken in the 12 months since MATS 2018 or be a forward look into the next 5 years.



13th - 15th November 2019: Oceanology International China

Shanghai, China

The 2019 call for papers is now open at www.oichina.com.cn/en-gb. Oi China attracts

6,000 attendees from over 20 countries, this is your chance to speak in front of professionals from across Asia's marine technology and ocean science community. This year we're accepting papers on:

- Unmanned Vehicles
- Ocean ICT
- Ocean Observation and Sensing
- Positioning and Navigation

Have something important to say ?, submit your paper for consideration. Papers may be presented in English as live Chinese translation will be provided. If you would like to submit your paper in Chinese please contact Penny Pei at penny.pei@reedexpo.com.cn alternatively submit in English to Dominic.coyne@reedexpo.co.uk by 19 July.

16th February 2020: Ocean Obs Research Coordination Network (RCN) OceanObs'19 Conference follow-up meeting

San Diego, USA

The Ocean Obs RCN will host an OceanObs'19 Conference follow-up meeting immediately preceding the AGU/TOS Ocean Sciences Meeting (https://www2.agu.org/ocean-sciences-meeting/).

The OceanObs'19 Conference (Hawaii 16-21 2019; (http://www.oceanobs19.net/) September, will be the third conference of this series, held once every ten years. The Ocean Obs RCN annual meeting on 16 February 2020 will be dedicated to the synthesis of threads and recommendations emerging OceanObs'19 Conference. Of particular interest will be focusing the community on the planning for the implementation of initiatives emerging from OceanObs'19. The meeting will advance links between observation networks and operational users to facilitate the delivery of critical information to stakeholders, and to address critical policy issues that require multidisciplinary ocean observing systems.

Please circulate this 'Save the Date' reminder widely. We will follow up with an agenda after the OceanObs'19 Conference. Best wishes, on behalf of the organizing committee (Frank Muller-Karger, Jay Pearlman, Linwood Pendleton and Dawn Wright)

The OceanObs RCN is an NSF-sponsored forum

on all aspects of ocean observing. Discussions identify advances and challenges in ocean observing and may identify new technologies and promote their cost-effective development, identify policy priorities, and highlight capacity building requirements for the next decade. This includes discussion od Decade of Ocean Science for Sustainable Development (2021-2030) being organized by the IOC (https://en.unesco.org/ocean-decade), and balancing ocean observations, science, use, and conservation requirements.

Jay Pearlman, Ph.D. Fellow IEEE, IEEE France, Director, Four Bridges jay.pearlman@ieee.org.
"Submit your Best Practices in Ocean Observing for peer-review: https://www.frontiersin.org/research-topics/7173/best-practices-in-ocean-observing

21st - 25th June 2020: 6th International EcoSummit Congress, EcoSummit 2020 - Building a sustainable and desirable future: Adapting to a changing land and sea-scape, Gold Coast, Australia

This conference series was founded in 1996 in Copenhagen, as a forum for scientists, practioners, and policy-makers working across disciplines to solve the integrated environmental, social, and economic problems facing the world today. Since 1996, EcoSummits have occurred around the world (Canada, China, USA and Europe), with EcoSummit 2016 hosting 1400 participants from 87 countries in Montpellier, France.

EcoSummit 2020 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. We expect all aspects of environmental modelling, engineering, science, and policy to be covered under the focus of climate adaptation and the need for developing socio- economic and environmental resilience and sustainable prosperity around the world. Further focus will be placed on fragile systems that are more likely to suffer the consequences of climate change and anthropogenic pressure such as islands, coastal communities and arid landscapes.

In the current context of an increasing world population, in particular in coastal regions, it is evident that building sustainable cities and using resources sustainably is inevitable. It is envisaged that the Summit will produce a declaration encompassing vision its and recommendations. We welcome your participation and look forward to seeing you at EcoSummit 2020

EcoSummit 2020 Co-Chairs:

Robert Costanza, Crawford School of Public Policy at Australian National University, Australia. Bai-Lian (Larry) Li, University of California, Riverside, USA.

Jan-Olaf Meynecke, Griffith University, Australia

Visit the **EcoSummit** 2020 website: ecosummitcongress.com

7th - 11th September 2020: Challenger Society **Biennial Meeting**

Oban, Scotland

Just a 'date for the diary', stayed tuned, more very soon.

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 July.

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, ixi@noc.ac.uk, as soon as possible



Professor in Sustainable Energy Systems

Heriot-Watt University

Location: - Orkney

Salary range: £59,828 + professional minimum (salary dependant on experience and qualifications)

Category: Academic

Hours: Full Time, Permanent Closes: 5th August 2019 Job Ref: IRC23070

To celebrate Heriot-Watt University's 2021 bicentenary of pioneering research we are seeking to appoint an outstanding full-time Professor in Sustainable Energy Systems in the School of Energy, Geoscience, Infrastructure and Society (EGIS) at Heriot-Watt University's Orkney Campus. The post is co-funded by Heriot Watt University, Highlands and Islands Enterprise and Orkney Island Council. The post holder will be expected to build an internationally excellent research and teaching portfolio centred at ICIT. They will build upon recent successful research collaborations between Heriot-Watt University, energy stakeholders in Orkney and industrial partners with the aim of significantly increasing energy related research.

Please contact Professor Eddie Owens E.H.Owens@hw.ac.uk for an informal discussion.

https://www.jobs.ac.uk/job/BTN263/professor-in-sustainable-energy-systems	

Further information and application instructions can be found at:

Senior Research Associate in Physical Oceanography Ref: RA1644

£33,199 to £39,609 per annum

Applications are invited for the post of Senior Research Associate in Physical Oceanography to undertake research in ocean processes in the Amundsen Sea, Antarctica. You will work with Professor Karen Heywood and Dr Rob Hall on the NSF-NERC-funded TARSAN project.

You will contribute to an observational field campaign in the region of the Thwaites glacier in the Amundsen Sea, Antarctica, using autonomous underwater vehicles (gliders and propeller-driven), autonomous surface vehicles, moorings, and ship-based hydrographic and turbulent microstructure surveys. You will process, analyse and publish the observations, in collaboration with other TARSAN scientists in the UK, US, Sweden and Korea, spanning expertise in glaciology, atmospheric and marine science.

The research will be based within the Centre for Ocean and Atmospheric Sciences (COAS) at University of East Anglia.

Essential requirements for the post include a PhD in physical oceanography (or equivalent experience) and a publication record showing evidence of international quality and you must be able to meet all the essential criteria in the person specification. You should have excellent oral and written communication skills, with experience of presenting results at conferences.

We anticipate that you will participate in the TARSAN observational oceanographic campaign in the Amundsen Sea, and that you will visit international TARSAN partners.

The full time post is available from a start date to be agreed, i.e. between 1 January 2020 to 30 June 2020 and is for a fixed term of period of up to 3 years.

Closing date: 19 August 2019.

Please see details at https://myview.uea.ac.uk/webrecruitment/pages/vacancy.jsf?vacancyRef=RA1644. Applications must be made online through the website, not by email.

The EGU is hiring for two job vacancies at its Executive Office in Munich, Germany. The deadline for applications is 14 July 2019.

Chief Strategy & Finance Officer

The EGU has recently launched a new strategy, www.egu.eu/news/490/new-chapter-for-egu-announcing-the-unions-strategic-plan-and-office-move/, to set a direction for the Union and to guide the work of its Council, committees and staff until 2025. This is an exciting time in the development of the EGU and we have created a new position of Chief Strategy & Finance Officer to lead the development and implementation of the Union's strategic plan and vision, with particular responsibility for the financial security of the Union going forward. This role will be part of the EGU leadership team and will report directly to the EGU Executive Board.

The full job vacancy, including key responsibilities, person specification and how to apply, is available at https://www.egu.eu/jobs/2428/egu-chief-strategy-finance-officer/ or in PDF below. Informal enquiries about this position can be made to the EGU Executive Secretary Philippe Courtial (executive-secretary@egu.eu).

Head of Media, Communications & Outreach

We are also seeking to appoint a Head of Media, Communications & Outreach to manage EGU press and communication activities and lead the media, communications and outreach team. This position will replace the current Media and Communications Manager role. Responsibilities include managing press releases and other news, organising press conferences and running the press centre at the EGU General Assembly, as well as overseeing all aspects of EGU communications and developing a forward-looking vision for communicating the work of the EGU.

The full job vacancy, including key responsibilities, person specification and how to apply, is available at https://www.egu.eu/jobs/2427/egu-head-of-media-communications-outreach/ or in PDF below. Informal enquiries about this position can be made to the EGU Media and Communications Manager Bárbara Ferreira (media@egu.eu).