

# Challenger Wave



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

## NEWS

### Challenger Travel Awards

Congratulations to Matteo Marasco, Leyre Villota-Nieva and Rose Stainthorpe on your successful applications for a Challenger Travel Award. It was a particularly tough selection process this time. We look forward to publishing your articles telling us how you all got on in due course.

### History: the NERC laboratories at Wormley and Bidston

John and I thought we could mention two web sites that may be of interest, which have useful information on the NERC laboratories at Wormley and Bidston.

The web site [www.oceanswormley.org](http://www.oceanswormley.org) contains a description of the Wormley laboratory (what was the National Institute of Oceanography, Institute of Oceanographic Sciences and then IOS Deacon Laboratory) and some of its people, life at sea, technologies and picture galleries (many more to be added !). The site is maintained by John Gould [wjg@noc.soton.ac.uk](mailto:wjg@noc.soton.ac.uk), who would no doubt welcome comments and contributions. Much of the content relates to technology developments and the latest contribution, that will shortly be posted there, is about the development and use of the acoustic releases that were fundamental to the deployment of equipment in the deep ocean covering all disciplines from the 1960s to 1990s.

There is no web site quite like the Wormley one for what was IOS Bidston (previously known as the Liverpool Tidal Institute and latterly the Proudman Oceanographic Laboratory and other subtle changes of name in between). However, the web site [www.bidstonobservatory.org.uk](http://www.bidstonobservatory.org.uk) was set up for the benefit of local residents, former staff and anyone interested in the observatory building and the work done there. It has a number

of interesting articles on the people and the work. The site is maintained by Stephen Pickles [stephen.m.pickles@googlemail.com](mailto:stephen.m.pickles@googlemail.com), who worked at the Daresbury Laboratory, collaborating with ocean modellers from Bidston, and who now owns the Bidston lighthouse. I am sure Stephen would welcome contributions. I am also certain there will be many more articles about Bidston in the near future as we approach the 100th anniversary of the founding of the Liverpool Tidal Institute by Joseph Proudman.

You may be interested to hear that the land on which the Proudman (new) building sat at Bidston Observatory (the former IOS-Bidston or POL) has finally been put up for sale by NERC, or at least the leasehold has. NERC has held on to that corner of land for a long time for some reason, after the rest of the site including the Lighthouse and Observatory had been sold off; <http://www.bidstonlighthouse.org.uk/former-joseph-proudman-laboratory-sale/>. The Proudman building was demolished in 2013. But nature works fast and that corner is now a pleasant area of grass and new trees. - **Phil Woodworth**  
[plw@noc.ac.uk](mailto:plw@noc.ac.uk)

### A tide predicting machine in Norway

Before computers, it was possible to predict the tidal curve at a port using a machine constructed specially for the purpose. These machines were wonderful constructions of hardwood and brass. The first of the kind was invented by Lord Kelvin in the UK in 1872 and in the succeeding decades they were installed in major maritime centres around the world. The essential idea behind the machine is that the rise and fall of the tide at any place can be broken down into a series of harmonics: that is pure sine waves with a constant amplitude and phase. The amplitudes and phases of the different harmonics is determined from observations at the place of interest (a procedure known as tidal analysis).

Once these tidal 'constants' have been determined, future tides can be predicted by projecting the sine waves forward in time, adding them up, and plotting out the resulting tidal curve. In a tide predicting machine, each of the tidal harmonics is represented by a cogwheel. The diameter of the cogwheel is proportional to the amplitude of the harmonic and the speed with which the cog turned is proportional to the frequency of the harmonic. The main semi-diurnal harmonics produced by the moon and sun have the largest wheels and there are a series of smaller ones to represent smaller harmonics. The summing of the motions and the plotting out of the curve is undertaken by an arrangement of cams attached to a chart recorder.

Tide predicting machines would typically have a few tens of these cog wheels so that the important harmonics at a port could be included in the prediction. The wheels would be specially made for each port. As a result the machines would have been expensive and made only for busy ports where the tide was important.



'Sagar No. 18' in Stavanger

The first machine of this type that I saw was in the foyer of the old Proudman Oceanographic Laboratory on Bidston Hill. It was a nice surprise to see this one in the Maritime Museum in Stavanger, Norway (picture attached). If I've got my Norwegian translation right, it was ordered in 1939 and used 20 harmonics. Phil Woodworth tells me that the machine was built in Liverpool and is 'Sagar No.18'. - **D.G. Bowers**

For a detailed article on the workings of tide prediction machines and describing how Doodson derived his tidal constants in the first place, so he could then programme the machines; see Phil

Woodworth's article online at <http://www.bidstonobservatory.org.uk/finding-amplitudes-and-phases/>.

### Karen Heywood; the new president of the Ocean Sciences Division of EGU

At the recent EGU I have taken over from Peter Brandt with the honour of representing the ocean sciences community as president of the Ocean Sciences Division of EGU. Here are some snippets of news and some invitations/requests for you all. Please feel free to circulate this within your organisations and nations worldwide.

1. The 2018 EGU will be in Vienna 9th-13th April. We have to devise a draft schedule of sessions this month. If you have any suggestions for new sessions, wish to volunteer to convene (or co-convene) a session (existing or new), please let me know. Please, do let me know if you would like to request a PICO session. We welcome joint sessions with other Divisions too (e.g. Atmospheric Sciences, Biogeosciences, Cryospheric Sciences, Climate, etc.)
2. We are particularly keen to encourage Early Career Scientists (ECS) to get involved in session convening. We would like at least one ECS convenor in the team for each session. If you're an ECS keen to volunteer, please contact me, or (if you know the session you'd like to convene) the convenor of the relevant 2017 session.
3. This is your community. Please consider joining EGU <https://www.egu.eu/membership/> and signing up to the EGU Ocean Sciences mailing list <http://lists.egu.eu/cgi-bin/mailman/listinfo/os> and the EGU Ocean Sciences ECS mailing list <http://lists.egu.eu/cgi-bin/mailman/listinfo/os-ecs>. The EGU Ocean Sciences webpage is here <https://www.egu.eu/os/home/> where you will also find links to our twitter and Facebook. Active membership helps to demonstrate the strength of the OS community to EGU.
4. Do consider sending your papers to our Ocean Sciences journal <http://www.ocean-science.net/index.html>. This benefits from open access and open peer review. Its current impact factor is 3. If you are interested in getting involved as a topic editor (or executive editor) of this journal, please contact John Huthnance [jmh@noc.ac.uk](mailto:jmh@noc.ac.uk).
5. There is a suggestion of participating in an encyclopaedia through a collection of invited

articles in Ocean Sciences that would be assembled online as an encyclopaedia. We're looking for a 'champion' or two to lead this effort. If you might be interested, contact John Huthnance [jmh@noc.ac.uk](mailto:jmh@noc.ac.uk).

6. For next year's EGU meeting, we are seeking ideas for Great Debates (on topics of current interest that are sufficiently contentious to stimulate debate) and for Union Symposia (on topics that cross disciplines and divisions). If you have any suggestions please send them to me.

7. Please make nominations for the awards for the Division before the deadline of **15th June**. See <http://www.egu.eu/awards-medals/awards-and-medals/>. Of particular relevance to us are the Nansen medal (congratulations to Lynne Talley who received the 2017 award!) and the Outstanding Early Career Scientist award (congratulations to Eleanor Frajka-Williams who received the 2017 award!).

8. Please feel free to use the webpage to advertise upcoming conferences or workshops <https://www.egu.eu/os/meetings/>

9. There is EGU support (both financial and organisational) available for workshops or training courses. Please see <https://www.egu.eu/meetings/> and particularly the co-sponsored meetings tab. I note that the OS community has not really availed itself of this opportunity as much as other parts of EGU.

Please feel free to email me if there are other things you think we should be doing to help you, the OS community. - **Professor Karen J. Heywood**, [k.heywood@uea.ac.uk](mailto:k.heywood@uea.ac.uk), or [os@egu.eu](mailto:os@egu.eu)

## VIEWS

### Cricket at the Menai Bridge Marine Science Labs

In the summer of 1964 I had my first experience of oceanography (and limnology) as a member of the Menai Bridge, Marine science Labs 2-week vacation course. This also involved a cricket match between the course members (shown in the attached photo) and laboratory staff.



Cricket, summer 1964

At least 4 members of the course went on to pursue careers in oceanography. These are: standing –

3rd from left, Prof Peter Liss, FRS,

5th from left, Dr Bob Dickson (MAFF/CEFAS Lowestoft),

6th from left, the late Prof John Edmond, FRS (1943-2001),

7th from left "yours truly".

Can anyone put names to any other faces? - **John Gould**, [wjg@noc.soton.ac.uk](mailto:wjg@noc.soton.ac.uk)

## SALTS

### PAP-Sustained Observatory Cruise 2017

RRS *Discovery* set sail to the PAP-SO Site in the Northeast Atlantic on the 14th of April 2017 for the annual cruise to service the sustained observatory mooring and to carry out pelagic and benthic studies. The PAP Observatory is a long term open ocean observatory which provides real time data, <http://projects.noc.ac.uk/pap/data>, transmitted from the mooring. The PAP-SO measures and samples essential climate variables from the atmosphere and the surface ocean and down to the seafloor. Each year the mooring is serviced, which involves replacing and calibrating the sensors at 30 m depth in the water column, and servicing or replacing the buoy and bathysnap, the time-series seafloor camera system.

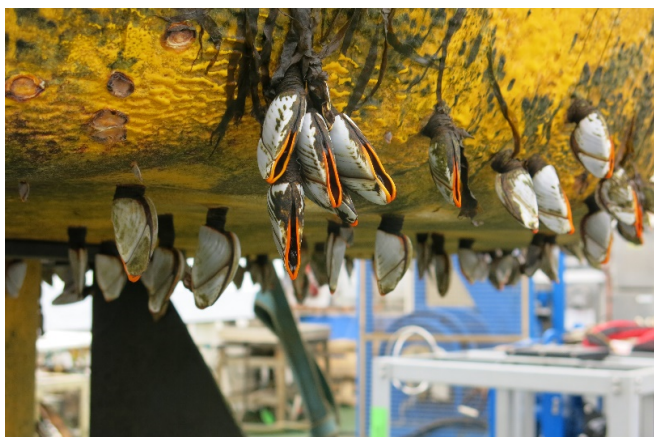


June 2017

some discrepancies in estimating the magnitude and composition of carbon export and the strength of the biological carbon pump before the start of the EXPORTS (NASA funded, US run) and COMICS (NERC funded, run by NOC) programs which focus on further understanding the biological carbon pump.



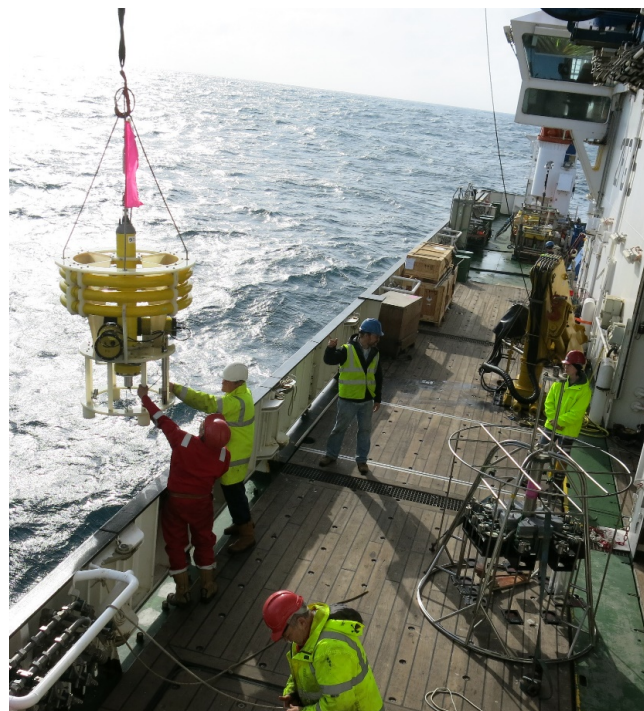
A tale of two buoys. The 2016-2017 buoy was recovered before the new buoy was deployed.



The recovered buoy had been colonised by goose barnacles and algae.

This PAP cruise was particularly exciting as it included international collaboration with scientists from WHOI, Skidmore College and the AWI to compare different methods of capturing upper ocean export. This involved deploying two types of drifting sediment traps, a surface tethered trap, gel traps, marine snow catchers and  $^{234}\text{Th}$  work. The hope is that this work will help resolve

[www.challenger-society.org](http://www.challenger-society.org)



A drifting sediment trap, known as PELAGRA, being deployed to 350 m to capture particles sinking out of the upper ocean

A wide range of exciting science was carried out on-board with more detailed accounts on the PAP Site blog <https://papobservatory.wordpress.com>. The cruise was a great success with a fantastic team of scientists, technicians and crew on-board.



Team photo before we headed back to land

For regular updates on the PAP-SO you can follow us on Twitter [https://twitter.com/PAP\\_observatory?lang=en-gb](https://twitter.com/PAP_observatory?lang=en-gb) and Instagram (@pap\_observatory). - **Chelsey Baker, NOCS**

## CALENDAR

**19th-22nd June 2017: Oceans '17 conference**  
Aberdeen, Scotland



**A Vision for our Marine Future:**  
**MTS / IEEE OCEANS '17**  
Aberdeen, Scotland, 19-22nd June 2017

This flagship conference covers all aspects of ocean science, technology and engineering and returns to Aberdeen, highlighting the importance and size of the oceanic industry to the region. The conference programme will include not only the traditional OCEANS themes but there will also be special topics focusing on the region's expertise.

For more information on the conference, exhibition, patronage opportunities, and attending the event please visit the conference website: [www.oceans17mtsieeaberdeen.org](http://www.oceans17mtsieeaberdeen.org)



**21st June 2017: Sea Scotland 2017, Sustainable Development in Scotland's Seas: Securing Progress in Uncertain Times**  
Dundee, Scotland

The Sea Scotland 2017 conference will bring together a wide range of marine stakeholders with representatives from national government and local authorities to address sustainable development of Scotland's seas following the EU Referendum. Venue: RSS Discovery, Discovery Point, Dundee, DD1 4XA. Register now via [Eventbrite](https://www.eventbrite.co.uk/e/sea-scotland-2017-tickets-23754412345) For more information visit our [website](http://www.sea-scotland.org) or follow us on [Twitter](https://twitter.com/SeaScotland).



Registration is now open for Sea Scotland 2017!

Sustainable Development in Scotland's Seas: Securing Progress in Uncertain Times

The Sea Scotland 2017 conference will bring together a wide range of marine stakeholders with representatives from national government and local authorities to address sustainable development of Scotland's seas following the EU Referendum.

Register now via [Eventbrite](https://www.eventbrite.co.uk/e/sea-scotland-2017-tickets-23754412345)

For more information visit our [website](http://www.sea-scotland.org) or follow us on [Twitter](https://twitter.com/SeaScotland).

Organised by:



**29th-30th June 2017: International Forum for Outstanding Overseas Young Scholars**  
Shanghai, China

We are pleased to announce this forthcoming event during which is jointly organized by State Key Laboratory of Estuarine and Coastal Research (<http://www.sklec.ecnu.edu.cn/>) and School of Marine Sciences, East China Normal University in Shanghai, China (<http://www.ecnu.edu.cn>). The objective of this forum is to stimulate the communications of cutting-edge estuarine and coastal research progresses and to develop a stronger research network for domestic/international scholars and East China Normal University colleagues. Applicants that work on various disciplines of estuarine, coastal, and marine sciences are all welcomed. Please provide an abstract for your 20 minute presentation during the forum.

For your information, the following research topics cover what SMS people are working on:

1) Intrinsic physical processes of estuarine and coastal waters with scales ranging from turbulent mixing, wave, estuarine circulation, shelf circulation, and their interactions, with the techniques of field observation and numerical simulations.

2) Biogeochemical processes and mechanisms that are responsible for organic and inorganic material cycling in marine environments.

3) Sedimentary processes in estuarine and coastal waters under the multiple stresses of anthropogenic activities and natural evolutions.

4) Developing a community modelling system for coastal environments that links the hydrodynamic, biogeochemical and ecological processes, with spatial scales ranging from estuary, wetland, and coastal waters.

5) Developing the estuarine and coastal observatory systems to enhance data collection and analysis capabilities.

All invited participants need to book and pay for their own air tickets first. For participants from the U.S. and European countries, the forum organizer will provide up to 12,000 RMB Yuan of international travel reimbursement. For those from other countries and regions, 6,000 RMB Yuan will be available for international travel reimbursement. The travel reimbursement for participants from China will be in accordance with relevant policy. The forum organizer will offer board and lodging during the forum free of



charge. Accommodations will be arranged by the organizer. If you need further information about the forum, please do not hesitate to contact Dr. Hong Jiang, State Key Laboratory of Estuarine and Coastal Research, East China Normal University at 86-21-62232887, or email [rczp@sklec.ecnu.edu.cn](mailto:rczp@sklec.ecnu.edu.cn).

## 7th July 2017: Marine Measurement Forum (MMF59)

Sunbury-on-Thames, UK

Hosted by The Hydrographic Society UK (THS UK), the event will be held at the BP Upstream Learning Centre. It will be preceded, on the Thursday, by a separate but associated afternoon networking event "HydSoc@The Magpie - Then and Now", exploring how contemporary cutting edge hydrography has been influenced by the pioneers and innovators of the last 50 years. It was at The Magpie Inn, also in Sunbury, back in 1978 that a certain Mike Wright and colleagues initiated the first gathering of what started out as the Home Counties West branch of the Hydrographic Society and which subsequently morphed into the present THS UK. Keep an eye open for further news of both events at [www.ths.org.uk](http://www.ths.org.uk).

Although each host assumes responsibility for announcing details of their respective event, the MMF web site at [www.mmf-uk.org](http://www.mmf-uk.org) is regularly updated with event information and also contains a wealth of data regarding the series including reports and images from previous MMFs along with comprehensive guidelines for hosts.

## 6th-7th September 2017: Advances in Marine Biogeochemistry Conference VIII

Oban, Scotland

**Advances in Marine Biogeochemistry Conference VIII**  
Save the date!  
6 – 7 Sept 2017  
at SAMS in Oban

Marine Biogeochemistry Special Interest Group of the Challenger Society



Organisers:  
MBF Chair: Gary Fones, Uni. Portsmouth  
AMBIO VIII Co-convenors: Kirsty Crockett 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](http://www.challenger-society.org.uk/Marine_Biogeochemistry_Forum)  
Contact: [kirsty.crockett@sams.ac.uk](mailto:kirsty.crockett@sams.ac.uk), [natalie.hicks@sams.ac.uk](mailto:natalie.hicks@sams.ac.uk)

Save the date for AMBIO VIII, more information nearer the time, [www.challenger-society.org.uk/Marine\\_Biogeochemistry\\_Forum](http://www.challenger-society.org.uk/Marine_Biogeochemistry_Forum)

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

Woods Hole, MA, USA

**IMBIZO5** 2-5 Oct 2017 - Woods Hole, USA  
MARINE BIOSPHERE RESEARCH FOR A SUSTAINABLE OCEAN

We have extended the abstract submission deadline for IMBeR IMBIZOs!

IMBIZO means 'a gathering' in Zulu, and we will gather in Woods Hole in October to address:

**Marine biosphere research for a sustainable ocean: Linking ecosystems, future states and resource management**

We will follow the proven IMBIZO format of three concurrent but interacting workshops, with joint plenary and poster sessions. To optimize interactions, each workshop will be limited to 40 participants, selected on the relevance of the submitted abstracts (so you must submit an abstract to be considered).

Plenary **keynote presenters** are: Eddie Allison, Mary Ann Moran, André Punt, David van der Zwaag

The workshops themes and conveners are:

1. **Critical constraints on future projections of marine systems** (Laurent Bopp & Eric Galbraith)
2. **Metabolic diversity and evolution in marine biogeochemical cycling and ocean ecosystem processes** (Gerhard Herndl & Tatiana Rynearson)
3. **Management Strategy Evaluation: Achieving transparency in natural resource management by quantitatively bridging social and natural science uncertainties** (Cisco Werner & Ingrid van Putten)

Bonus hands-on **Infographics** training workshop for all IMBIZO participants on 1 October

**IMBIZOs are great meetings, don't miss out - submit an abstract by 15 June 2017!**

More information on the IMBIZO 5 Website

[imber@imr.no](mailto:imber@imr.no)  
STAY CONNECTED

IMBIZO is the Zulu word for 'a gathering'. IMBeR will hold its fifth IMBIZO at Woods Hole in October. The overall theme of IMBIZO 5 is *Marine biosphere research for a sustainable ocean: Linking ecosystems, future states and resource management*. This is the basis of IMBeR's science plan where the research goal is to *Understand, quantify and compare the historic and present structure and functioning of linked ocean and human systems to predict and project changes including developing scenarios and options for securing or transitioning towards ocean sustainability*.

The meeting will consist of three concurrent but interacting workshops, with joint plenary and poster sessions. This format has previously been successful in promoting discussion between disciplinary experts, in developing interaction between biogeochemical, ecological and social science research, and in producing synthesis papers and journal special issues. To optimize participant interactions, each of the three workshops will be restricted to 40 participants, selected on the relevance of the abstract that you submit.

The themes of the workshops are as follows:  
WS 1 Critical constraints on future projections of marine systems

WS 2 Metabolic diversity and evolution in marine biogeochemical cycling and ocean ecosystem processes

WS 3 Management Strategy Evaluation:

Achieving transparency in natural resource management by quantitatively bridging social and natural science uncertainties

There will be a bonus day learning how to do Infographics prior to the IMBIZO. IMBIZOs are great meetings, so, choose a workshop and get your abstract in before 31 May 2017.

#### **4th-6th October 2017: MASTS Annual Science Meeting: "Sea Change – Changing Seas, Changing Times"**

*Glasgow, Scotland, UK*

The Marine Alliance for Science and Technology for Scotland (MASTS) will hold its seventh Annual Science Meeting (ASM) at the Technology & Innovation Centre, Glasgow. Now the largest gathering of marine scientists in the UK, this cross-disciplinary meeting will promote the latest advances in marine science, good governance and using sound science responsibly. It will revisit the vision: 'Clean, healthy, safe, productive, biologically diverse marine environments, managed to meet the needs of people and nature'

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.

Abstracts for talks and/or e-posters should be submitted before **16:00 on Friday 7th July 2017** to [masts@st-andrews.ac.uk](mailto:masts@st-andrews.ac.uk) using the [abstract template document](#). Abstracts can be submitted to one of the following areas:

General Science Session

Maximising capabilities of volunteer observing systems

SNH session - Safeguarding Scotland's coasts and seas.... perspectives and visions

Deep Sea

Circulation, dispersion and connectivity in Scottish Waters

#### **Marine Biogeochemistry**

For more details about these sessions and to submit an abstract please visit <http://www.masts.ac.uk/annual-science-meeting/2017-abstract-submission/>

Science presentations and e-poster sessions will take place on the first two days, together with opportunities to network. On the third day, the venue will host a number of meetings and workshops. If you would like to host a workshop or side meeting please contact [masts@st-andrews.ac.uk](mailto:masts@st-andrews.ac.uk) for details. We also invite you to join us at the conference dinner to be held on the evening of Wednesday 4th October at the Millennium Hotel Glasgow (featuring MASTS own Prof Nick Hanley and his Hoochie Coochie Ceilidh band).

The MASTS ASM is an inclusive event and we encourage all members of the Marine Science community to attend, whether you are based in Scotland, the UK or further afield. Everyone is welcome, so please circulate this notice widely. If you would like to exhibit at the event, or showcase a piece of equipment please contact [masts@st-andrews.ac.uk](mailto:masts@st-andrews.ac.uk) for details. For more general details visit <http://www.masts.ac.uk/annual-science-meeting/> or contact [masts@st-andrews.ac.uk](mailto:masts@st-andrews.ac.uk). We look forward to welcoming you at the MASTS ASM. Early bird registration for the event will open on Monday 3rd July.

#### **13th-15th October 2017: Fifth Arctic Circle Assembly**

*Reykjavík, Iceland*

To be held at the Harpa Concert Hall and Conference Centre, <https://player.vimeo.com/video/152251225?autoplay=1>. The Arctic Circle Assembly provides an open, democratic forum for discussion and cooperation on Arctic Affairs. We hope to see you in Reykjavík this fall. For more information please visit [Secretariat@ArcticCircle.org](mailto:Secretariat@ArcticCircle.org).

#### **15th November 2017: Royal Meteorological Society meeting**

*London, UK*

Early announcement of a Royal Meteorological Society meeting entitled 'Maritime Meteorology', to be held at Trinity House, London. Attendance at the meeting will be free but it will probably be necessary to register in advance. More information nearer the time.

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The CSMS email address is [info@challenger-society.org.uk](mailto:info@challenger-society.org.uk). Contributions for next month's edition of Challenger Wave should be sent to: [john@vectisenvironmental.com](mailto:john@vectisenvironmental.com) by the 30th June.

*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](mailto:jxj@noc.ac.uk), as soon as possible*

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## **JOBS**

Looking for a job in marine science ?  
Follow CIESM on Facebook



In a world where jobs are increasingly hard to find, we are pleased to let you know that we just started to post on our Facebook page a diversity of relevant job offers regularly brought to our attention.  
Follow us on [Facebook](#) now!

All the best,  
the CIESM team  
Mediterranean Science Commission

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### **Four faculty recruitments in Marine Sciences at University of Gothenburg**

The newly formed Department of Marine Sciences at the University of Gothenburg, Sweden, is enhancing its activities in Marine Sciences, and is recruiting two Professors and two Senior Lecturers. Please see the links below including all information on how to apply:

**Professor in Marine Chemistry:**

[http://www.gu.se/english/about\\_the\\_university/job-opportunities/vacancies-details/?id=371](http://www.gu.se/english/about_the_university/job-opportunities/vacancies-details/?id=371)

**Senior Lecturer in Marine Chemistry:**

[http://www.gu.se/english/about\\_the\\_university/job-opportunities/vacancies-details/?id=373](http://www.gu.se/english/about_the_university/job-opportunities/vacancies-details/?id=373)

**Senior Lecturer in Marine Benthic Ecology:**

[http://www.gu.se/english/about\\_the\\_university/job-opportunities/vacancies-details/?id=372](http://www.gu.se/english/about_the_university/job-opportunities/vacancies-details/?id=372)

**Professor in Physical Oceanography:**

[http://www.gu.se/english/about\\_the\\_university/job-opportunities/vacancies-details/?id=374](http://www.gu.se/english/about_the_university/job-opportunities/vacancies-details/?id=374)

Please note that the last day to apply for these positions is **13 June 2017**.

Per Hall  
Head of Department of Marine Sciences  
[perhall@chem.gu.se](mailto:perhall@chem.gu.se)

**At the Faculty of Life Sciences of the University of Vienna**

**Tenure-Track Position in the field of Biological Oceanography**

(full-time position) is to be filled.

The successful applicant is expected to establish an independent working group studying benthic and/or pelagic communities in relation to a changing ocean. She or he should have demonstrated proficiency in the use of molecular techniques and –omics approaches as well as in biogeochemistry and sea-going research. The successful candidate is expected to develop a strong research profile supported by external funding and contribute to the faculty's graduate and undergraduate teaching program in ecology with a focus on Marine Ecology, Biological Oceanography, Microbial Oceanography or Marine Biogeochemistry.

**Successful candidates should have the following qualifications:**

Doctoral degree/PhD and at least two years post-doctoral experience at a university or other research institution

Outstanding achievements and potential in research, excellent publication record, international reputation

Experience in designing and participating in research projects, as well as the willingness and ability to lead research groups

Enthusiasm for excellent teaching, teaching experience at universities or a teaching concept as well as the ability and willingness to teach students in all phases of their studies (bachelor's, master's, or doctoral level), to supervise academic theses and to promoting young academic colleagues.

The University of Vienna expects the successful candidate to acquire, within three years, proficiency in German sufficient for teaching in bachelor's programs and for participation in university committees. In addition, the University of Vienna expects the successful candidate to be prepared to take over responsibility on the organizational level of the Faculty and the University, if necessary.

**Job description:**

The announced position is an academic tenure-track position. Within two years' time, the University will offer a qualification agreement if the academic performance suggests that the required high qualification can be reached. With the conclusion of the qualification agreement, the employee will be allocated to the group of "Assistant Professors". If the qualification is achieved according to the agreement, employment, which originally has a six-year duration, will be continued for an indefinite period as an "Associate Professor". Via a further competitive procedure as stipulated in the University's Statutes, associate professors can be directly promoted to full professor. If the qualification goals are not achieved, the employment will end upon expiry of the contract term.

**We offer:**

The opportunity for a long-time career track (initial classification according to the [Collective](#)

[Bargaining Agreement for University Staff](#).: section 48, job group B1, lit. b). In addition to the statutory social insurance, the University of Vienna offers a pension fund to its employees, a dynamic research location with well-established research funding provisions, attractive working conditions in a city with a high quality of life, and a wide range of support services offered by central service institutions. The University of Vienna pursues a non-discriminatory employment policy and values equal opportunities, as well as diversity (<http://diversity.univie.ac.at/en>). The University lays special emphasis on increasing the number of women in senior and in academic positions. Given equal qualifications, preference will be given to female applicants.

**Application documents:**

- **Application letter**, including a brief description of:
  - current research interests and research plans for the immediate future
  - current and planned foci in academic teaching and the supervision of young researchers
- **Academic curriculum vitae**, including information about “esteem factors” (e.g. experiences as a publisher, functions in research societies or program committees)
- **List of publications**, including:
  - specification of five key publications which the applicant considers particularly relevant to the advertised tenure-track position
  - provision of an Internet link for download or electronic submission of PDF versions of these five publications
  - information about citations and impact factors, depending on the common practice in the relevant research area
- **List of talks given**, including information about invited keynote lectures at international conferences
- **Third-party funds**  
list of acquired third-party funded projects, as well as a list of third-party funded projects which the candidate was a member of (subject, duration, origin, volume), and, if applicable, of inventions/patents
- **Overview of previous academic teaching and/or teaching concepts as well as supervised theses**
  - **Teaching evaluations** (if available)
  - **Copies of documents and certificates**

Please send your application — preferably in English and in electronic form — to the Job Center of the University of Vienna ([jobcenter@univie.ac.at](mailto:jobcenter@univie.ac.at)).

**Reference no.: 7562**

The application deadline is **30 June 2017**

For further information on the position please contact Gerhard J. Herndl  
([Gerhard.herndl@univie.ac.at](mailto:Gerhard.herndl@univie.ac.at)).



There are jobs on the IMBER web site

<http://www.imber.info>



Integrated Marine Biosphere Research

## IMBeR e-News

### Announcements and reminders

- **Only a couple of weeks left to apply to attend IMBIZO5 - submit abstracts before 31 May!**
- [IPCC call for authors for report on the Ocean and Cryosphere in a Changing Climate by 17 May](#)
- [Call for review of SCOR Working Group proposals. Reviews due by 1 August 2017](#)
- [External expert review of IPBES assessments now open. Need for marine input](#)
- [Young Earth System Scientists \(YESS\) website is now online](#)

### Meetings, conferences, workshops and summer schools

- [IMBeR IMBIZO5: 2-5 Oct, Woods Hole, USA. Submit abstracts by 31 May to be considered](#)
- [ESA Ocean Remote Sensing and Synergy Summer School, 11-15 Sep 2017, Porto, Portugal](#)
- [TiBE 2017- Bio-logging conference, 28-30 June 2017, Vairão, Portugal. Abstracts by 31 May](#)
- [CODATA Conference: Global Challenges & Data-Driven Science, Russia, 8-13 Oct 2017](#)
- [Sea Level Change Conference, Columbia U, New York, USA. Early registration by 22 May](#)
- [4th Effects of Climate Change on The World's Oceans Symposium calls for sessions by 9 June](#)

### Jobs and opportunities

- [Postdocs: Oceanography and Marine-Earth Science, JAMSTEC, Japan. Apply by 23 May](#)
- [Postdoc: Marine trace metal biogeochemistry. Two years from September 2017. Apply by 6 June](#)
- [Postdocs \(Simons Foundation\): Marine microbial ecology. Apply by 15 June](#)
- [Postdoc: Ecosystem modelling for Management Strategy Evaluations, Norway. Apply by 23 May](#)
- [SOLAS Project Officer, Xiamen University, Xiamen, China. Apply by 31 May](#)
- [Future Earth Office Coordinator, Stockholm, Sweden. Apply by 1 June](#)
- [Communications Officer: Plymouth Marine Lab, UK. Apply by 2 June](#)
- [Positions in Marine Sciences, University of Gothenburg, Sweden. Apply before 13 June](#)

Visit the IMBeR Website

[imber@imr.no](mailto:imber@imr.no)