

Challenger Wave



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

NEWS

Call for Expressions of Interest to host the IMBeR International Project Office

IMBeR is a multidisciplinary global environmental change research initiative sponsored by the Scientific Committee on Oceanic Research (SCOR) and Future Earth. It began in 2005 and has advanced understanding about potential marine environmental effects of global change, and the impacts and linkages to human systems at multiple scales. It is apparent that the complex environmental issues and associated societal/sustainability choices operate at and across the interfaces of natural and social sciences and the humanities, and require both basic, curiosity-driven research and problem-driven, policy-relevant research. This underpins IMBeR's vision: "Ocean sustainability under global change for the benefit of society".

The IMBeR International Project Office (IPO) provides management support for the planning and implementation of IMBeR activities, coordination between the international network of IMBeR scientists, and collaboration with related international projects and programmes. The IPO is currently hosted at the Institute of Marine Research in Bergen, Norway until the end of March 2020. IMBeR is soliciting offers for a new host arrangement from April 2020 onwards, for a period of at least three, and preferably five years.

The benefits to a host institution include enhancing their international profile through connection with the IMBeR international community (over 2600 scientists from more than 85 countries), association with a range of international conferences, summer schools, regional programmes and working groups and a network of early career scientists. We would seek an active scientific collaboration between IMBeR

and the scientists at the host institution with the aim of increased international exposure, scientific publications and policy relevance.

If your institution, or a partnership of institutions, would be interested in hosting the IPO, read the full [Call to host the IMBeR IPO](#) and submit an expression of interest by 30 June 2018.

Winners of the JMSE Travel Awards for Postdoctoral Researchers and PhD Students

This is the first year that the Journal of Marine Science and Engineering (JMSE) has offered travel awards and we were overwhelmed by the number and standard of the applications. Therefore, it was a very difficult task to finalise the top postgraduate and postdoctoral candidates. I am indebted to the Editors and Editorial Board members, who helped with this process. As the Editor-in-Chief of JMSE, I am pleased to announce the winners.

The postgraduate student award was granted to Laura Weber, a fourth-year PhD candidate supervised by Dr. Amy Apprill in the MIT/WHOI joint programme. The postdoctoral award was granted to Dr. Frederic M Evers, a postdoctoral researcher at ETH Zurich.

Ms. Laura Weber's dissertation focused on characterising the microbial landscape of coral reef environments at different scales. Laura has co-authored five peer-reviewed publications, including an article in Nature Communications. The JMSE award will be used to attend the Gordon Research Seminar – Marine Microbial Strategies for Survival in a Changing Environment – where Laura will present on the topic: "Genomic Investigations into Coral-Picoplankton Interactions Within the Coral Ecosystem".

Dr. Frederic Evers received his PhD in Civil Engineering in 2017 from ETH Zurich, where he worked in the Laboratory of Hydraulics, Hydrology

and Glaciology (VAW) supervised by Prof. Dr. Robert Boes. He is now a postdoctoral researcher at ETH Zurich investigating tsunami waves. Dr Evers has co-authored ten peer-reviewed journal articles and was the first author on a paper published in JMSE, which was entitled "Impulse Wave Generation: Comparison of Free Granular with Mesh-Packed Slides". Dr Evers will use his award to attend the 36th International Conference on Coastal Engineering (ICCE) 2018, where he will present the first insights from an interdisciplinary project on tsunamis triggered by submarine landslides.

On behalf of the Section Editors, Managing Editor and Editorial Board members, it is my pleasure to congratulate Laura Weber and Dr. Frederic Evers on winning the 2018 JMSE Travel Awards. We are very grateful to MDPI for sponsoring these travel awards and to all who submitted applications. The high standard of applications bodes well for the future of marine science and engineering. We wish you all continued success in your careers: - **Editor-in-Chief, Prof. Dr. Anthony S. Clare, School of Natural and Environmental Sciences, Newcastle University**

VIEWS

History of Oceanography; tides

Dear All, in case you are interested in tides, my paper with Glen Rowe discussing the tidal observations of Captain Cook has appeared in History of Geo- and Space Sciences: <https://www.hist-geo-space-sci.net/9/85/2018/>. It is open access. There is the paper itself and a supplement. This is the first paper in the Copernicus special issue on tides for the Liverpool Tidal Institute 100th anniversary.

The special issue spans several Copernicus journals, Ocean Science being the main one for us I guess, so I'd like to encourage anyone else to submit something to either OS or HGSS if you have an idea for a paper.

By the way, if you are interested in Cook and in London sometime this summer there is an exhibition of the Cook-250 anniversary at the British Library. You have to sign up to that via: <https://www.bl.uk/events/james-cook-the-voyages>
- **Philip Woodworth**

www.challenger-society.org

Updates on EOOS (European Ocean Observing System) - Have your say !

The first edition of the EOOS Conference will take place from the 21st until the 23rd November 2018 in Brussels, Belgium. This event will bring together and connect diverse ocean observing stakeholder communities to discuss the future of a European Ocean Observing System (EOOS). This is an opportunity to showcase your work, network with stakeholders across Europe and help shape EOOS.



Stakeholders' co-design of the strategy and implementation for EOOS is key to achieving a fully integrated and sustained ocean observing in Europe. The EOOS strategy and implementation plan drafts are open for stakeholder consultation from 25th April to 15th June. The results and the finalized documents will be presented at the EOOS conference '18 in Brussels: [register now !](#)

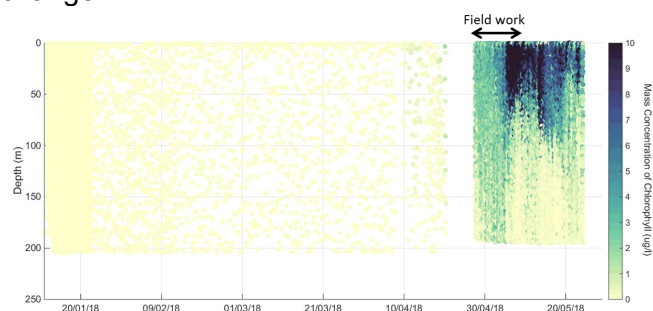
Underwater robotic vehicles give unique insight into Arctic climate change

Underwater robots have uncovered new evidence about life in the Arctic and, for the first time, revealed the moment the region's marine ecosystem springs into life after the dark winter season. The unique data was gathered by autonomous ocean-going 'gliders' and will help marine scientists understand more about the so-called 'Arctic spring bloom', which kick-starts the ecosystem and is crucial in providing food for animals in the region. Gliders work around the clock for months on end, taking measurements such as ocean temperature, oxygen levels and salinity. Researchers from the Scottish Association for Marine Science (SAMS) in Oban have been able to observe seasonal changes as they happen in the Arctic, thanks to a continuous glider presence in the Barents Sea between January and July this year.



Ocean-going gliders can collect data for months at a time in some of the most remote parts of the ocean

The gliders can also measure chlorophyll, an indication of the biological content of the water, and a rapid increase in the chlorophyll levels in mid-April this year showed the moment the spring bloom began. The data could help predict how the Arctic ecosystem will respond to climate change.



A chart made from glider data that shows the chlorophyll concentration rise as spring arrives in the Barents Sea. Image by Dr Marie Porter, SAMS

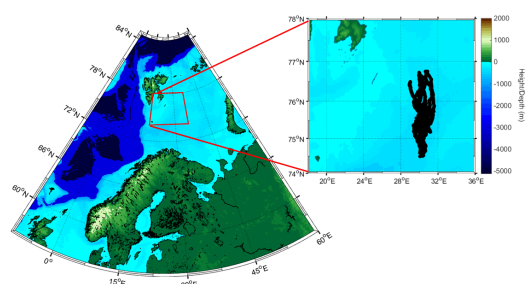
Researchers from the project will retrieve their glider on their return to the Barents Sea on board the RRS James Clark Ross in July. The cruise departs from Longyearbean, Spitsbergen on June 12th and is part of the Arctic PRIZE project, funded by the Natural Environment Research Council (NERC) Changing Arctic Ocean programme. SAMS marine scientist Prof Finlo Cottier, who leads Arctic PRIZE, said "This is the first time there has been a continuous monitoring of the Arctic ocean environment through the seasons and it has given us a very clear picture of how life responds to the changing conditions. We have seen the change from 24-hour darkness in winter to the arrival of spring when the combination of light and warming water allows an explosion of algae. This is food for tiny zooplankton, which provides energy through the food chain for all sorts of life. However, the life

cycle of the zooplankton and the spring bloom have to align for the Arctic food chain to be a success. With Arctic sea ice retreating earlier each year, the water is more exposed to the light and mixing. Is there going to be a mismatch between food availability and zooplankton life cycles in years to come ?. It's a bit like waking up at the same hour each morning, only to find that breakfast time has changed."



Prof Jorgen Berge, UiT and Dr Emily Venables, SAMS retrieve a glider from the Barents Sea during the Arctic PRIZE April cruise

Prof Cottier's team is working closely with partners in the UK and Norway, particularly at the University of Tromsø (UiT), and the previous two Arctic PRIZE cruises in January and April have been on board the RV Helmer Hanssen, owned by UiT. This month's cruise, the project's third and final cruise of the year, will give the team a chance to study the same area in summer time and will last around a month.



The gliders surveyed a remote area of the Barents Sea east of Svalbard in the Arctic. Image by Dr Marie Porter, SAMS

With warmer winters across the polar region, the Arctic Ocean is now experiencing year-on-year reductions in the extent of sea ice. These changes are having an unprecedented impact on how the Arctic ecosystem operates. The retreat and thinning of Arctic sea ice is a key driver of change, increasing the amount of light in the ocean and encouraging mixing that brings

deeper, nutrient-rich waters to the surface. These are two key determinants of productivity in the Arctic Ocean that the entire food chain relies on. It is important to understand how climate change is altering these properties and to quantify their impacts on the Arctic ecosystem if computer models that predict future change are to be improved.

SALTS

No news from sea this month I'm afraid

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

CALENDAR

15th-26th June 2018: POLAR2018 - Where the Poles come together, a SCAR/IASC Conference

Davos, Switzerland

The Scientific Committee on Antarctic Research SCAR and the International Arctic Science Committee IASC invite the international polar and high altitude community to their joint meeting POLAR2018, hosted by WSL and SLF.

Program overview

15 - 18 June 2018: SCAR and IASC/ASSW Business & Satellite Meetings

19 - 23 June 2018: SCAR/IASC Open Science Conference, including the COMNAP Symposium

24 - 26 June 2018 SCAR Delegates Meeting & 2018 Arctic Observing Summit

The goal of POLAR2018 is to bring together excellent research from both poles, as well as from high altitude areas, focusing on the similar challenges those regions face. The program features 65 different sessions, structured into 12 categories. In addition to the parallel sessions, central elements of the Open Science Conference (OSC) will be keynote presentations, mini-symposia, extended poster sessions, and

exhibitions. The annual COMNAP symposium will be held during the OSC, as well as a plenary lecture from the 2018 Arctic Observing Summit as an opening to this biennial summit immediately after the OSC. A range of excursions and trips will allow participants to make the most of coming to the Swiss Alps and enjoy science, nature, culture, and sports.

Davos

POLAR2018 will be held in the Swiss mountain town of Davos, which can easily be reached by train from Zurich Airport. Davos, Europe's highest city, is situated in the Eastern part of the Swiss Alps at 1560 meters above sea level. It offers an advanced congress infrastructure and a wide range of accommodation for all budgets. The stunning alpine environment will ensure your visit is an enjoyable experience. We are looking forward to welcoming you in Davos in June 2018.

10th-13th September 2018: 18th Biennial Conference of the Challenger Society

Newcastle upon Tyne, UK

Registration is now open for the 18th Biennial Conference of the Challenger Society for Marine Science: conferences.ncl.ac.uk/challenger-2018/registration/. For a list of available sessions, to submit an abstract or check for details and news please visit our website conferences.ncl.ac.uk/challenger-2018/. We look forward to seeing you in Newcastle upon Tyne in September - Dr Alan Jamieson, Challenger Conference 2018: Organising committee chair.



The biennial Challenger conference attracts over 400 leading UK marine scientists and science managers. 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.

❖ 2018 Mini-Expo

This year we are privileged to welcome as special keynote speaker, His Serene Highness Albert II, Sovereign Prince of Monaco - The Prince Albert II of Monaco Foundation who will be present on the final day.



The mini-expo will run over 3 days (10th, 11th and 13th). The conference normally rotates between the major UK marine research establishments, but 2018 sees the first visit to the University of Newcastle. The Venue is impressive and the exhibition space for sponsors is large, and co-located with the refreshments and close to posters and lecture rooms with good access for exhibitors.

The society is now the adhering body for the Scientific Committee on Oceanic Research (SCOR) providing yet more exposure for participating companies.

Sponsorship packages will give local, national and international companies the chance to support UK marine scientific research and the training of young marine scientists, whilst a targeted exhibition and careers fair will also enable companies to self promote and recruit new staff. Spaces will be limited so please book early.

Take this early opportunity to help make the UK's premier marine science conference in 2018 the most successful ever.

The range of sponsorship opportunities are listed below. The conference organiser is Dr Alan Jamieson School of Natural and Environmental Sciences and commercial exhibition organiser Terry Sloane will be happy to discuss any requirements that you may have.

Terry Sloane by email: terry@planet-ocean.co.uk or phone 01276 427 971

<http://conferences.ncl.ac.uk/challenger-2018/>

www.challenger-society.org.uk

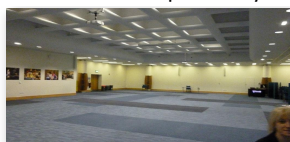
❖ Sponsorship Packages

Individual sponsorship opportunities:

Sponsors of individual elements of the event will be acknowledged in the lecture theatres, abstract book, on the conference website and on posters. Those sponsors with manned exhibition stands are able to upgrade to the **Gold package**, where they will have the opportunity to have a 5 minute speaking slot at the start of the plenary sessions.

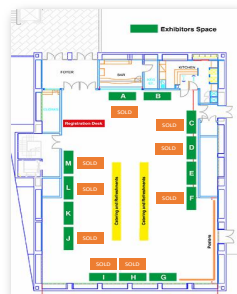
• Manned exhibition stand 3m x 2m	£600
• "Gold Upgrade" (only five slots available)	£100
• Co-sponsorship of conference dinner	£750
• Co-sponsorship of ice breaker reception	£700
• Co-sponsorship of poster session	£500
• Co-Sponsorship of public lecture	£500
• Sponsorship of keynote speaker	£550
• Exhibition banner unmanned	£200
• Brochure in delegates bag	£200
• ¼ Page advert in conference handbook	£150
• ½ Page advert in conference handbook	£300
• One A4 leaflet in delegates bag	£100

Corporate society members benefit from a 15% discount



The refreshments, and posters will be held in the Lindsfarne Room.

Stand positions are taken on a first come first served basis, preference will be accommodated if possible.



17th -19th September 2018: 8th China - Japan - Korea IMBeR Symposium Shanghai, China

This symposium will be hosted by the State Key Laboratory of Estuarine and Coastal Research <http://english.sklec.ecnu.edu.cn/> (SKLEC), East China Normal University <http://english.ecnu.edu.cn/> (ECNU).

Marine science researchers from China, Japan, and Korea have been working actively at the frontier in the areas of Global Ocean Ecosystem Dynamics (GLOBEC) and Integrated Marine Biogeochemistry and Ecosystem Research (IMBER) since the early 1990s. Various scientific workshops and/or training activities have taken place among the three neighbouring countries since then. Starting in 2002, the China-Japan-Korea GLOBEC/IMBER symposia have been an important venue for scientific exchange across focused marine science disciplines in the West Pacific region. IMBER became the core project under Future Earth in 2016 and changed its name

to "IMBeR (Integrated Marine Biosphere Research)", IMBeR has focussed on interdisciplinary research in the ocean, atmosphere, and continental shelf. This interdisciplinary approach contributes to the combination of natural sciences and social sciences in order to achieve the greatest effect of ocean management and policy development and to achieve sustainable development of the ocean.

The 8th China-Japan-Korea IMBeR Symposium will focus on analyzing the impact of climate change and anthropogenic forcing on physical processes and biogeochemical cycles, ecosystem structure and functions, and fisheries in the West Pacific region; particularly how these complex interactions in combination, influence marine ecosystems and human society.

The following topics will be included in this symposium:

1. Advances in observation and modelling of physical and biogeochemical processes in the West Pacific region
2. The response of marine ecosystems to natural and anthropogenic forcing: past, present and future
3. The Response of Society to global change in marine systems: ways forward

The Scientific Program Committee invite all experts, young scientists and students working on the West Pacific region to the forum. For online Registration and Abstract Submission visit: <http://mform.imr.no/view.php?id=78294>. The deadline for abstracts is the 15th June 2018.

17th-21st September 2018: 53rd European Marine Biology Symposium Ostend, Belgium

The Flanders Marine Institute (VLIZ) and LifeWatch Belgium are organizing the 53rd edition of the European Marine Biology Symposium (EMBS53). The EMBS53 Organizing and Scientific Committee are pleased to welcome your abstract submissions for oral papers and scientific posters. We particularly welcome papers on 'Marine Biology from a Historical Perspective', 'Science in a Modern Era', 'Marine and Coastal Citizen Science' and 'Science in the North Sea'.

Please note that no extensions to the deadline will be granted and that presenting authors are responsible for registration, travel and

accommodation costs. Presenters who are unable to attend should arrange for another qualified individual to present the paper or poster in question (with notification to the Organizing Committee). All abstract submissions should be submitted via our abstract submission form <http://www.embs53.org/submit>.

We are glad to announce that the Journal of the Marine Biological Association (JMBA) kindly offers to publishing a special issue of the EMBS53 conference (scheduled for October 2019). Everyone who contributes a poster or an oral presentation at the EMBS53 is invited to submit a manuscript by 7th December, 2018. All manuscripts will go through a peer-review process.

Important dates:

-Deadline late registration: 31st August 2018

For more information: <http://www.embs53.org/>.

- **Leen Vandepitte**, on behalf of the EMBS53 Organizing Committee.

18th-20th September 2018: Connecting glider data flow in Europe and beyond - an international conference on glider data management

Genova, Italy

Supported by EMODnet Physics, EMODnet Data Ingestion and EuroGOOS, we are pleased to announce that the registration for the glider data management meeting is [open](#). The conference will be held in the auditorium of the [Acquario di Genova](#).

« Connecting glider data flows in Europe and beyond »

Genova – 18-20/09/2018

An international conference on glider data management



<https://www.ego-network.org/dokuwiki/doku.php?id=public:egodmmeeting:september2018>, or contact us at webmaster@ego-network.org.

15th-19th October 2018: 4th CLITOP Symposium, Oceanic biodiversity under climate change

Keelung, Taiwan

Oceanic biodiversity under climate change and shifts in natural and human systems. Registration is open.

19th-21st October 2018: 6th Arctic Circle assembly

Reykjavik, Iceland



31st October-2nd November 2018: MASTS 8th Annual Science Meeting 2018, "Challenges and innovative solutions for sustainable seas"

Glasgow, UK

Join us !, now the largest gathering of marine scientists in the UK, this cross-disciplinary meeting will examine the modern challenges that face our marine waters, and identify ways and means to conserve and sustainably use the oceans, seas and marine resources for sustainable development. 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.

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 to the 2018 MASTS Annual Science Meeting should be submitted before **16:00 on Friday 27th July** to masts@st-andrews.ac.uk using the [abstract template document](#).

Abstracts can be submitted to one of the following areas:

- General Science Session
- Multiple stressors
- Microplastics and marine litter
- Increasing resilience to natural hazards
- The changing Arctic Ocean: identifying and quantifying the Arctic response to climate change
- Understanding the Influence of Man-made structures in the Ecosystem - progressing the science

For more details about these sessions and to submit an abstract please visit – <http://www.masts.ac.uk/annual-science-meeting/2018-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 for details

If you would like to exhibit at the event, or showcase a piece of equipment please contact 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. Early bird registration for the event will open on Monday 2nd July.

5th-7th November 2018: International Conference on Marine Data and Information Systems
Barcelona, Spain



IMDIS
International Conference on Marine Data and Information Systems

The IMDIS 2018 conference will be held in Barcelona (Spain) from Monday 5 November to Wednesday 7 November 2018. It will be organized by [CSIC](#) (Consejo Superior de Investigaciones Científicas, Spain), jointly with [IFREMER](#), [OGS](#) and [IOC/IOOE](#), in the frame of the [SeaDataCloud](#) project (EU H2020 - Grant Agreement 730960).

For more information, do not hesitate to contact imdis2018@seadatanet.org.
Best regards,
IMDIS 2018 Organising Committee

[SeaDataCloud](#) [CSIC](#) [UTM](#) [Ifremer](#) [OGS](#) [IOC/IOOE](#)

13th-15th November 2018: Marine Autonomy and Technology Showcase 2018
Southampton, UK

MATS Abstracts Submission Opens

We are seeking submissions under the following themes,

- Current Applications
- Aspirational applications
- Enabling technology
- Collaborative technologies
- Security of assets.



Full details of these themes can be found by [clicking here](#). Presentations including questions will be 20 minutes in length and technical in nature. The technical review committee will not accept any presentations that are overtly sales pitches. For further information please email NOCevents@noc.ac.uk

19th-23rd November 2018: MICRO2018 - All you ever wanted to know about "Microplastics" in five days.

Arrecife, Lanzarote, Spain

The title for this year's conference is **"Fate and Impact of Microplastics: Knowledge, Actions and Solutions"** and the main topics include:

- Marine Ecosystems
- Freshwater bodies
- From Macro to Nano
- Social change and behaviour
- Human health
- Policy

Registration for the conference is now open and organisers are accepting abstract submissions for the conference (deadline 21 June), [so find out more and register for the event](#).

21st November 2018: Joint meeting of the Challenger Society History SIG and the Royal Met Soc History Group

NOC, Southampton, UK

A meeting is being planned, sponsored jointly by the Challenger Society History SIG and the Royal Met Soc History Group. It will focus on how our ability to collect ocean temperature and salinity profiles has developed from the era of the Challenger Expedition (1870s) to the present day when the Argo array of profiling floats now provides global coverage. It will also highlight the products derived from these data and will look towards future developments. More information will be circulated as it becomes available.

June 2018

21st-23rd November 2018: 1st edition of the EOOS Conference

Brussels, Belgium

The first edition of the EOOS Conference will bring together and connect diverse ocean observing stakeholder communities to discuss the future of a European Ocean Observing System (EOOS). This is an opportunity to showcase your work, network with stakeholders across Europe and help shape EOOS.

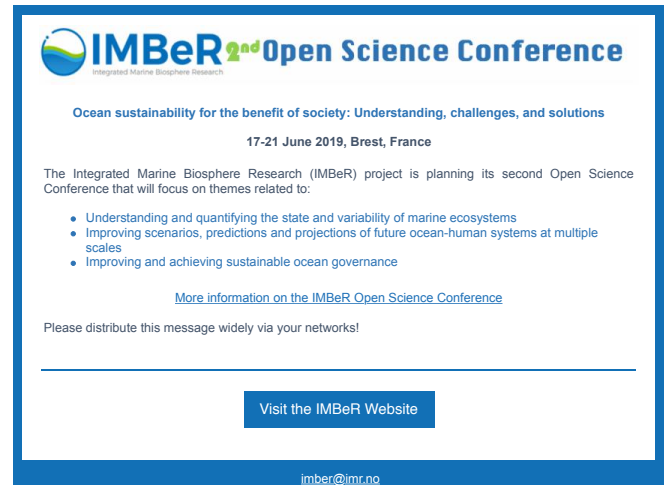


Stakeholders' co-design of the strategy and implementation for EOOS is key to achieving a

fully integrated and sustained ocean observing in Europe. The EOOS strategy and implementation plan drafts are open for stakeholder consultation from 25th April to 15th June. The results and the finalized documents will be presented at the EOOS conference '18 in Brussels: [register now](#) !

17th – 21st June 2019: IMBeR 2nd Open Science Conference

Brest, France



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 29th 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, as soon as possible

JOBS

The South Atlantic Environmental Research Institute



GRADUATE MARINE SCIENTIST 'FINE SCALING THE DESIGN OF FALKLAND ISLANDS MARINE MANAGEMENT AREAS'

**Full-time job based in Stanley, Falkland Islands.
Competitive Salary and tax rates**

Are you passionate about the marine environment? Are you up for the challenge of working in a highly productive, diverse and unique environment? The Falkland Islands marine environment supports highly productive fisheries and abundant populations of sea lions, fur seals, elephant seals, albatrosses, penguins, sooty shearwaters, white-chinned petrels, prions and much more! The role will involve working in partnership with other experts in the field, like deep water marine biologists, coastal ecologists, higher predator ecologists, oceanographers, policy formulators and legislators.

Marine Spatial Planning (MSP) within the Falkland Islands was first explored during a successful two-year Darwin-Plus funded project (DPLUS027). Following its successful conclusion Falkland Islands Government (FIG) contracted SAERI to undertake a second phase (MSP Phase II) which covered three key aspects including an Assessment of Fishing Closure Areas as Sites (AFCAS) as potential Marine Management Areas (MMAs) against international criteria for MPAs in the Falkland Islands. The project will use diverse, cutting-edge scientific methods to build on an integrated understanding of Falkland Islands marine ecosystems. In conjunction with stakeholders, evidence-based recommendations would be developed to zone MMAs in the AFCAS areas identified. Following agreed, informed designs, an economic assessment will aid understanding present and future consequences of policy formulation. MMA site management plans will be consulted upon. Relevant legislative frameworks will be drafted to support designation and site management plans. The Falkland Islands economy is reliant on its marine environment; fisheries and tourism are major contributors to GDP. Developing hydrocarbon resources will contribute significantly to the economy. With such marine environment reliance stakeholder consultation and engagement will be a key component of this project.

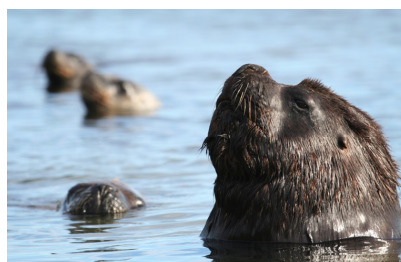
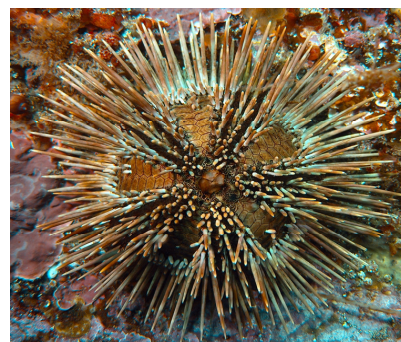
The Graduate Marine Scientist job purpose:

To support the Senior Scientist on the Darwin PLUS funded project entitled 'Fine Scaling the design of Falkland Islands Marine Management Areas' funded by the Darwin Plus Overseas Territories Grant Scheme. Phase II of the Marine Spatial Planning (MSP) Project included an Assessment of Fishing Closure Areas (as potential MPAs) against international criteria. Three areas were identified and Key baseline work is required for their effective design and management. Five steps have been identified for delivery. These are the development of 1) economic consequences of the design (present and future), 2) Policy formulation, 3) Site Management Plans, 4) Suggested legislative framework and 5) Legacy Planning (financial & human resourcing).

Essential criteria applicants should have include:

- Qualified with a Degree in Marine Ecology or related subject – (must be 1st class or upper second class)
- At least 2 years working in marine ecology / fisheries / marine science
- Experience with GIS
- Good proven numerical skills
- A good level of computer literacy with an awareness of statistical science e.g. R
- Excellent communicator

Application forms and job descriptions are available from SAERI's Office Manager (officemanager@env.institute.ac.fk) and a completed form should be returned by **22nd June 2018**.





The South Atlantic Environmental Research Institute

PROJECT MANAGER - SENIOR SCIENTIST 'FINE SCALING THE DESIGN OF FALKLAND ISLANDS MARINE MANAGEMENT AREAS'

**Full-time job based in Stanley, Falkland Islands.
Competitive Salary and tax rates**

Are you passionate about the marine environment? Are you up for the challenge of working in a highly productive, diverse and unique environment? The Falkland Islands marine environment supports highly productive fisheries and abundant populations of sea lions, fur seals, elephant seals, albatrosses, penguins, sooty shearwaters, white-chinned petrels, prions and much more! The role will involve working in partnership with other experts in the field, like deep water marine biologists, coastal ecologists, higher predator ecologists, oceanographers, policy formulators and legislators.

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The Project Manager / Senior Scientist job purpose:

The position will deliver and manage SAERI's 'Fine scaling the design of Falkland Islands Marine Management Areas' funded by the Darwin Plus Overseas Territories Grant Scheme. Phase II of the Marine Spatial Planning (MSP) Project included an Assessment of Fishing Closure Areas (as potential MPAs) against international criteria. Key baseline work is required for their effective design and management. Five steps have been identified for delivery. These are the development of 1) economic consequences of the design (present and future), 2) Policy formulation, 3) Site Management Plans, 4) Suggested legislative framework and 5) Legacy Planning (financial & human resourcing).

Essential criteria applicants should have include:

- Qualified with a Postgraduate Degree in Marine Ecology or related subject. Ideally a PhD in a relevant subject
- At least 5 years post graduate experience working in marine ecology
- Good GIS experience; strong geo-statistical skills
- A high level of computer literacy with an awareness of statistical science and model building e.g. R and/or Matlab
- A sound knowledge of large ecological databases (SQL). Ability to analyse and manage large datasets
- Excellent communicator
- Proven ability to lead work programmes

Application forms and job descriptions are available from SAERI's Office Manager (officemanager@env.institute.ac.fk) and a completed form should be returned by **22nd June 2018**.



PhD opportunity at SAMS, funded under the MASTS/Datalab call and from the Scottish Aquaculture Innovation Centre.

“Dynamic spatial modelling and forecasting of sea lice abundances”

Parasitic sea lice pose a persistent challenge to the salmon aquaculture industry in all regions in which it operates, with both ecological and economic impacts. Developing a better understanding of their population dynamics, the factors leading to outbreaks, and improving methods of control are a current priority for industrial, regulatory, academic and external stakeholders. Detection of the early stages of lice infestation is difficult, as the small size of the juvenile lice means they may be missed in routine sampling. Chemical treatments may therefore be applied in a reactionary manner, requiring greater concentrations than would be needed if applied earlier, or if the threat had been avoided by other means such as deployment of physical barriers.

This PhD project will link the outputs from computer models, describing coastal currents and potential dispersal of sea lice in Scottish waters, with models of lice population dynamics on aquaculture sites themselves. This will be validated using site lice count data, in order to take the steps necessary to provide a prototype forecasting tool for parasite abundances. At the present time, we are able to forecast physical conditions (meteorology and current patterns), and resulting dispersal patterns of larval lice, but a lack of site data has prevented development of understanding of the mechanisms for sea lice population dynamics. Over the last year, Marine Harvest have published this data on a monthly basis for their sites. Working with this data will allow parameterisation of a predictive model for lice abundances, including environmental and management factors. This will allow the development of a forecasting tool that may be used to forecast lice abundances at a regional scale and at fine temporal resolution. Development and validation of such a model would represent a huge leap forward in terms of our understanding of the parasite, but would also offer huge potential benefits to the industry in the longer term, allowing reduced treatment costs and lower environmental impacts.

Deadline: June 28, 2018 @5pm BST

Start date: October 1, 2018

Supervisor: [Dr Thomas Adams](#)

Students must be domiciled in the Highlands and Islands transition region during the course of their study to be eligible for funding. Applicants must possess a minimum of an Honours degree at 2:1 and/or a Master's Degree (or International equivalent) in a relevant subject.

To apply please complete the standard application form (<https://www.sams.ac.uk/study/postgraduate/sams-find-a-phd/>), attaching supporting documentation and send to: phd@sams.ac.uk

There are jobs on the IMBER web site

<http://www.imber.info>

**IMBeR**

Integrated Marine Biosphere Research

Jobs and opportunities

- Postdocs: Ocean biogeochemical and ecosystem modelling at University of Washington and University of California Los Angeles
- Head: Knowledge exchange (stakeholder engagement unit), Leibniz Centre for Tropical Marine Research, Bremen, Germany
- Research assistant: Ocean Acidification Community of Practise coordinator, University of Calgary, Canada. Apply by 9 June
- Call for applications: scientific diving summer school in the Aeolian Archipelago, Italy 19-27 September 2018. Apply by 2 July
- Biological technician, Ocean Associates Inc., to support National NOAA Fisheries Service, Kodiak, AK, USA
- Graduate Marine Scientist to work on marine management areas, Stanley, Falkland Islands. Apply by 22 June
- Senior Marine Scientist to work on marine management areas, Stanley, Falkland Islands. Apply by 22 June
- Research Assistant: Ocean ecosystem modelling, GEOMAR, Kiel, Germany. Apply by 10 June
- Postdoc: Agulhas System Climate Array, SAEON, Cape Town, South Africa.
- Marine Biogeochemistry Technician, NIWA, Wellington, New Zealand. Apply by 11 June
- Five Simons Postdoc fellowships in marine microbial ecology. Apply by 15 June
- Postdoc: Tropical tuna management, La Jolla, California. Apply by 2 July
- Postdoc: Molecular ecology - data management, Brussels, Belgium. Apply by 15 June
- Postdoc: Algal-bacterial interactions, Roscoff, France. Apply by 15 June
- Senior lecturer: Marine ecology, University of Gothenburg, Sweden. Apply by 15 June

Visit the IMBeR Website

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