

Challenger Wave



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

NEWS

Registration is now open for Sea Scotland 2017, Sustainable Development in Scotland's Seas: Securing Progress in Uncertain Times

The MASTS Marine Planning and Governance Forum is proud to support and co-organise the 2nd Sea Scotland Event with ScotLINK and other partners on 21st June 2017. This year we focus on the critical topic of the impact of the EU Referendum and constitutional uncertainty on marine policy and the progress towards sustainable development of Scotland's seas. Recognising the prevailing uncertainty, but the need for discussion on impacts, concerns and the opportunities that may be presented, SS17 provides a platform for dialogue, with a focus on other useful frameworks, including OSPAR, ICES and the UN Sustainable Development Goals.

We look forward to welcoming representatives from a wide range of marine sectors, local and national authorities, NGOs, scientists and others to Dundee, to share perspectives and build ideas for action in informing a progressive approach to sustainable development as Scotland's relationship with the EU is negotiated.

Registration is now open with the details set out below. Please contact Emilie@scotlink.org or lucy.greenhill@sams.ac.uk if you would like more information on the event. Venue: RSS Discovery, Discovery Point, Dundee, DD1 4XA Register now via [Eventbrite](#) For more information visit our [website](#) or follow us on [Twitter](#).

Marine Measurement Forum announces hosts for next five events

The Steering Group for the non-profit making Marine Measurement Forum (MMF) series of twice yearly, one day networking seminars is delighted to announce that host organisers have been secured through to Spring 2019.

The next forum will be MMF59, to be hosted by The Hydrographic Society UK (THS UK). The event will be held at the BP Upstream Learning Centre, Sunbury-on-Thames on Friday 7th July 2017. 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

The hosts for MMF60 will be iXblue who have managed to secure the rather fascinating venue of Land Rover BAR (Ben Ainslie Racing) in Portsmouth for 31st October. Moving on to 2018, the National Physical Laboratory will host MMF61 at their Teddington HQ in the Spring with Fugro, Wallingford following in the Autumn with MMF62. In Spring 2019, the hosts for MMF63 will be ecoSUB Robotics.

Each MMF event comprises a number of presentations by organisations and individuals involved in the many diverse aspects of the marine measuring sector. The management of the event is handled by each host but will fall within guidelines provided by the resident Steering Group. The audience generally comprises a cosmopolitan mix of researchers, surveyors, engineers and manufacturers all of whom have a common interest in the art/science of maritime data gathering. The MMF series has continually proven to be very popular, with attendee numbers generally around the 50-60 mark and offers a simple, cost-effective opportunity to highlight specific skills, capabilities, projects and developments.

Although each host assumes responsibility for announcing details of their respective event, the MMF web site at 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. - **Roger Scrivens. MMF Steering Group**

MASTS Workshop: Marine Environmental Issues Pertaining to the OSPAR 98/3 Decision.

To enable exploitation of offshore oil and gas reserves, over 600 platforms have been installed in the North Sea and North East Atlantic region. The OSPAR 98/3 decision requires that these platforms (excluding derogation cases) are removed and returned to land for onshore disposal after production has ceased. Pipelines and concrete mattresses are not covered by the 98/3 decision, but also require decommissioning. The cost of decommissioning in the North Sea (NS) is projected to be £60 - £100 billion. For most European oil producing nations, state governments are liable for a significant proportion (up to 70%) of the total decommissioning costs. Decisions regarding decommissioning policy will, therefore, have significant implications for tax payers, and as such must be based on the best available scientific evidence. The environmental implications of decommissioning, and specifically of structure removal, are contested but will involve both positive and negative changes for marine habitats and species. In light of the rapidly maturing NS hydrocarbon basin, low oil price and acceleration of NS decommissioning, a synthesis of the current scientific understanding of the ecological outcomes of removing structures is both timely and pertinent.

The MASTS Oil and Gas Environmental Research Forum is sponsoring a one-day workshop, on the 23rd May 2017 at The Melting Pot, Edinburgh (<http://www.themeltingpotedinburgh.org.uk/>), to review the environmental implications and knowledge gaps relating to OSPAR 98/3. The output from the workshop will inform a MASTS position paper, which will be used to advise decommissioning policy, highlight knowledge gaps and direct future environmental research.

The potential positive and negative environmental consequences of platform decommissioning options (removal, partial removal or in-situ decommissioning) will be considered in relation to

the broad themes listed below. A (non-exhaustive) list of example topics are provided for each theme. Each theme will be considered during break-out sessions and it is expected that participants will identify and prioritise further topics relevant to each theme. The workshop will only consider marine environmental issues: social, economic, health and safety, technological and terrestrial environmental interactions will be specifically excluded.

Theme	Example topics
Artificial reef effects: benthic organisms	Habitat provision; trophic linkages; dispersal and connectivity; spread of non-native species; presence of rare and protected species (e.g. <i>Lophelia</i> and <i>Sabellaria</i>)
Fish populations	Habitat provision; enhancement of exploitable biomass; refugia within platform safety zones
Drill cuttings piles: interactions with platform removal	Disturbance by removal process; disturbance by fisheries interaction post removal
Protected megafauna (e.g. mammals, birds)	Interactions with structures; appropriate models to consider
Relevant scales for assessing change	Acute local impacts versus regional impacts; relevant spatial scales for assessing change
Seabed disturbance/loss	Long term loss of sedimentary habitats from in situ decommissioning; physical disturbance during removal; smothering of soft-bottom communities; alteration of hydrodynamic regimes
Long-term fate of in-situ decommissioned structures	Corrosion rates; platform materials (steel, concrete, plastics); potential for future removal; monitoring requirements

To register, please send the following information to Sally Rouse (sally.rouse@sams.ac.uk) by the 15th of April 2017

- Name
- University
- Area of expertise
- Would you be willing to chair a break out session: Y/N and name of break out session theme (left column in table above)

The workshop is open to academics working in any field of environmental science. Where necessary, participants will be selected from interested parties to ensure sufficient representation in the relevant topics. Selected participants will be notified by the 30th of April.

VIEWS

Marine Plankton: A practical guide to ecology, methodology, and taxonomy

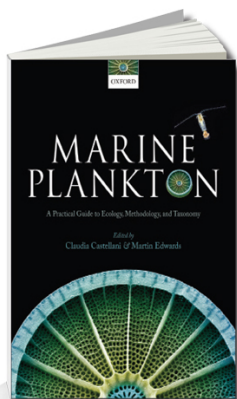
A new reference text, edited by well known colleagues. This book is a practical guide to the taxonomy and identification of planktonic organisms, which also provides a general introduction to plankton biology and incorporates the latest techniques in plankton ecology. The book is targeted towards senior undergraduate

and graduate students taking courses in marine ecology, as well as for professional marine biologists.



Marine Plankton

A practical guide to ecology, methodology, and taxonomy



Edited by **Claudia Castellani and Martin Edwards**

- A practical guide to the ecology and identification of planktonic organisms
- Incorporates the latest techniques in plankton fieldwork
- Richly illustrated throughout with detailed line drawings

A thorough understanding of planktonic organisms is the first step towards a real appreciation of the diversity, biology, and ecological importance of marine life. This book is a practical guide to the taxonomy and identification of planktonic organisms, which also provides a general introduction to plankton biology and incorporates the latest techniques in plankton ecology. This is an essential reference text suitable for senior undergraduate and graduate students taking courses in marine ecology, as well as for professional marine biologists.

APRIL 2017 | 704 PAGES
9780199233267 | HARDBACK
£150.00 **£105.00** | \$225.00 **\$157.50**

Claim your **30% discount** when you order online today*

Ordering Details

ONLINE www.oup.com/academic/biology

POSTAGE & DELIVERY

For more information about postage charges and delivery times visit www.oup.com/academic/help/shipping/

* only when you order directly via www.oup.com/academic/, adding promotion code **ASPROMP8** to your shopping basket. Discount valid until 30/09/2017. Limit 10 copies per transaction. This offer is only available to individual (non-trade) customers. This offer is exclusive and cannot be redeemed in conjunction with any other promotional discounts.

The specifications in this leaflet, including without limitation price, format, extent, number of illustrations, and month of publication, were as accurate as possible at the time it went to press.

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

23rd-28th April 2017: European Geosciences Union General Assembly

Vienna, Austria

Craig Smeaton from the University of St. Andrews

will convene session BG3.3/OS3.9, entitled *Coastal Carbon: From Vegetated Coasts to Sedimentary Stores*. Details of the session can be found at <http://meetingorganizer.copernicus.org/EGU2017/session/24946>.

The *Copernicus Marine Environment Monitoring Service (CMEMS)* session, OS4.6, will focus on studies of:

- scientific advances on thematics relevant to CMEMS that are needed for the short to long term evolution of the CMEMS products.
- verification, validation and uncertainty estimates of CMEMS products, forecasting skills.
- the use of CMEMS products for downstream applications.
- ocean monitoring and on the long-term assessment of the ocean physical and biogeochemical states.

A detailed description is available in the direct link to session OS4.6, <http://meetingorganizer.copernicus.org/EGU2017/session/24345>. General information on the General Assembly, is available at <http://egu2017.eu/home.html>.

Session OS2.2 is entitled *Advances in understanding of the multi-disciplinary dynamics of the Southern European Seas (Mediterranean and Black Sea)*. Introduced with a Keynote talk given by Professor Joaquin Tintoré, the session will overview recent developments and understanding, by observations and modelling, of the Southern European Seas (SES) general circulation, physical processes, their ecosystems and biogeochemical fluxes. For further information, visit the EGU Assembly site: <http://meetingorganizer.copernicus.org/EGU2017/session/23131>.

27th-28th April 2017: Scottish Inshore Fisheries Conference 2017

Inverness, UK

The fourth Scottish Inshore Fisheries Conference kicks off on the Thursday with a session to introduce the EMFF funded Scottish Inshore Fisheries Integrated Data System or 'SIFIDS' Project. This project will focus on using new technologies and processes to improve data collection and use within Scotland's inshore fisheries, with the intent of reducing the reporting burden on fishermen and improving the information base on which fisheries management

decisions are made. This session is then followed by the official opening of the conference at an evening reception at Eden Court and we welcome all delegates to attend this.

On the Friday, Fergus Ewing MSP, Cabinet Secretary for the Rural Economy and Connectivity will open the day, and delegates will also have the opportunity to attend sessions on a variety of subjects including fisheries management challenges and actions, Brexit, and marketing the local catch. There will be ample opportunity for networking, visiting stands, speaking to representatives from a range of organisations, celebrating our fantastic seafood, and sharing experiences and knowledge in an informal setting on a wide range of issues.

We look forward to welcoming you to the 2017 Inshore Fisheries Conference. For more information about the conference, the venue or help with accommodation contact masts@st-andrews.ac.uk.

22nd-26th May 2017: The 49th International Liège colloquium on Ocean Dynamics, the 8th Warnemünde Turbulence Days

Liège, Belgium

Almost four decades after the “Marine Turbulence”, 11th Liège Colloquium in 1980. Three decades after the “Turbulence in the ocean. From the millimeter to the megameter”, 19th Liège Colloquium in 1987. Two decades after the “Marine Turbulence Revisited”, 29th Liège Colloquium in 1997. One decade after the “Turbulence Re-visited”, 39th Liège Colloquium in 2007. The exciting topic of marine turbulence will be revisited for the 3rd time during “Marine Turbulence Re³-visited” as the 49th Liège Colloquium in 2017.

As in 2007, the workshop will be co-organised together with the Warnemünde Turbulence Days (its 8th edition), a biennial workshop on specific challenges in marine turbulence, organised by the Leibniz Institute for Baltic Sea Research in Warnemünde (Germany). Combining the historically broad approach of the Liège Colloquium with the specialized Warnemünde Turbulence Days, this joint venture will concentrate on five focal topics :

- Turbulence-wave-interaction
- Turbulence-(sub)mesoscale interaction
- Turbulence and the marine ecosystem
- Turbulence observations in the ocean

Turbulence modelling in the ocean

Further details (registration, deadlines, venue, etc.) are available on the web site <http://labos.ulg.ac.be/gher/home/colloquium/colloquium-2017/>. We are looking forward to welcoming you in Liège on behalf of the Organizing Committee.

23rd May 2017: MASTS Workshop: Marine Environmental Issues Pertaining to the OSPAR 98/3 Decision.

Edinburgh, Scotland

The MASTS Oil and Gas Environmental Research Forum is sponsoring a one-day workshop, at The Melting Pot, Edinburgh (<http://www.themeltingpotedinburgh.org.uk/>), to review the environmental implications and knowledge gaps relating to OSPAR 98/3. The output from the workshop will inform a MASTS position paper, which will be used to advise decommissioning policy, highlight knowledge gaps and direct future environmental research.

Theme	Example topics
Artificial reef effects: benthic organisms	Habitat provision; trophic linkages; dispersal and connectivity; spread of non-native species; presence of rare and protected species (e.g. <i>Lophelia</i> and <i>Sabellaria</i>)
Fish populations	Habitat provision; enhancement of exploitable biomass; refugia within platform safety zones
Drill cuttings piles: interactions with platform removal	Disturbance by removal process; disturbance by fisheries interaction post removal
Protected megafauna (e.g. mammals, birds)	Interactions with structures; appropriate models to consider
Relevant scales for assessing change	Acute local impacts versus regional impacts; relevant spatial scales for assessing change
Seabed disturbance/loss	Long term loss of sedimentary habitats from in situ decommissioning; physical disturbance during removal; smothering of soft-bottom communities; alteration of hydrodynamic regimes
Long-term fate of in-situ decommissioned structures	Corrosion rates; platform materials (steel, concrete, plastics); potential for future removal; monitoring requirements

To register, please send the following information to Sally Rouse (sally.rouse@sams.ac.uk) by the 15th of April 2017

- Name
- University
- Area of expertise
- Would you be willing to chair a break out session: Y/N and name of break out session theme (left column in table above)

The workshop is open to academics working in any field of environmental science. Where necessary, participants will be selected from interested parties to ensure sufficient representation in the relevant topics. Selected participants will be notified by the 30th of April.

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



60th HYDROGRAPHIC SOCIETY OF THE UNITED KINGDOM

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.oceans17mtsieeeaberndeen.org

Logos: IEEE Oceanic Engineering Society, SUBSEA, marine technology, UNIVERSITY OF ABERDEEN, ROBERT GORDON UNIVERSITY, VisitAberdeen, Scotland

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](#) For more information visit our [website](#) or follow us on [Twitter](#).



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.

21st June 2017
Discovery Point, Dundee

Register now via [Eventbrite](#)

For more information visit our [website](#) or follow us on [Twitter](#).

Organised by:

Logos: Blue Seas Thinking, NERC, LINK, THE UNIVERSITY OF EDINBURGH, UNIVERSITY OF ABERDEEN

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

www.challenger-society.org

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.

Although each host assumes responsibility for announcing details of their respective event, the MMF web site at 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

Save the date for AMBIO VIII, more information nearer the time, www.challenger-society.org.uk/Marine_Biogeochemistry_Forum

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 Crocket 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
Contact: kirsty.crocket@sams.ac.uk, natalie.hicks@sams.ac.uk

2nd-6th October 2017: the 5th IMBIZO Woods Hole, MA, USA

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.

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

Reykjavík, Iceland

Proposals are now being accepted for Breakout Sessions at the Fifth Arctic Circle Assembly to be held October 13-15, 2017 in Reykjavík, Iceland. Participation will be granted based on session topic, area of focus, goals, and room availability at the Harpa Reykjavík Concert Hall and Conference Centre, <https://player.vimeo.com/video/152251225?autoplay=1>. When proposals are submitted, 50% of speakers need to be confirmed.

Submission Deadline: MAY 12th, 2017

Proposals must follow [guidelines](#), please submit proposals to Secretariat@ArcticCircle.org. The Arctic Circle provides an open, democratic forum for discussion and cooperation on Arctic Affairs. We hope to see you in Reykjavík this fall.

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 28th April.

We continue to send printed copies of Challenger Wave to members of the CSMS without email addresses. However it is in everybody's interest to send your email address to Jennifer Jones, jxj@noc.ac.uk, as soon as possible

JOBS

Scientist position at the Helmholtz-Zentrum Geesthacht (HZG) near Hamburg

The work is concerned with data assimilation for coastal ocean models.
For details please check

https://www.hzg.de/campus_career/vacancies/009796/index.php.en

Helmholtz-Zentrum Geesthacht Zentrum für Material- und Küstenforschung GmbH Max-Planck-Straße 1 |
21502 Geesthacht | Deutschland/Germany, <http://www.hzg.de>.

There are jobs on the IMBeR web site

<http://www.imber.info>



Integrated Marine Biosphere Research

IMBeR e-News

Announcements and reminders

- [Bids to host the 2019 IMBeR Open Science Conference are due soon. Submit by 1 April](#)
- [Future Earth & partners seek applications for Development Team of the Ocean KAN by 30 April](#)
- [Contribute to DSR II special issue from IIOE2 on Indian Ocean research. Submit articles by 1 Nov.](#)
- [Interactive Communities in Action map for global analysis of challenges and solutions](#)
- [2017 Annual World Oceans Day Oceanic Photo Competition. Submit by 12 May](#)

Meetings, conferences, workshops and summer schools

- [IMBeR IMBIZO 5: Sustainable oceans, 2-5 Oct, Woods Hole, USA. Submit abstracts by 31 May](#)
- [Register now for the ESSAS OSM on Arctic & Subarctic marine systems, Tromsø, Norway](#)
- [GEOTRACES Summer School, 20-26 Aug, Brest, France. Pre-register before 15 April](#)
- [2017 OCB Summer Science Workshop, 26-29 June, Woods Hole, USA. Register before 20 May](#)
- [Ocean Carbon Hotspots Workshop, 25-26 Sep., Moss Landing, CA, USA. Abstracts by 19 May](#)
- [2018 Ocean Sciences Meeting, 11-16 Feb., Portland, Oregon, USA. Session proposals by 3 May](#)
- [Blue Planet Symposium: Role of the oceans in life support, 31 May -2 June, College Park, MD, USA. Register by 15 May](#)
- [AGU Fall Meeting, 11-15 December, New Orleans, LA, USA. Session proposals by 19 April](#)
- [Climate Change & High CO2 Effects on Fishes, 2-6 Oct, Tahiti. Abstracts by 22 July](#)
- [PICES 2017 Annual Meeting, 20 Sep-1 Oct, Vladivostok, Russia. Abstracts by 1 June](#)

Jobs and opportunities

- [Training Sustainable Blue Growth, 10-19 July 2017, Trieste, Italy. Apply by 1 May](#)
- [Postdoc: Numerical modelling and oceanography, Flødevigen, Norway. Apply by 3 May](#)
- [Postdoc: Sustainable fisheries, ASU, Honolulu, Hawaii. Apply by 24 April](#)
- [SCAR Fellowship for PhD or 5 years post PhD Antarctic Research. Apply by 1 July](#)
- [Future Earth Global Sustainability Postdoc, Stockholm, Sweden. Apply by 15 April](#)
- [Two Masters Projects: Effects of climate change on decapods, AWI, Bremmerhaven, Germany](#)

Visit the IMBeR Website

imber@imr.no