

## THE NOC ASSOCIATION

7<sup>th</sup> ANNUAL MEETING, LONDON, THURSDAY 30<sup>th</sup> MARCH 2017

UK MARINE SCIENCE 2017: CHALLENGES FOR THE NEXT DECADE



Black Trigger fish at Boatswain Bird Island (Ruan Sinclair, Two Boats School, Ascension Island)

*'We are all together in this, we are all together in this single living ecosystem called planet earth. As we learn how we fit into the greater scheme of things, and begin to understand how the system works, we can plan ahead, we can use the resources responsibly, to show some respect for this inheritance that goes back 4.6 billion years.'*

*Sylvia Earle, Oceanographer*



**Welcome by Professor Peter Liss, CBE, FRS  
Chairman, NOC Association**

Welcome to the 7th Annual Meeting of the NOC Association. As always, there is plenty of change on the marine horizon! Plans are shaping up, for formation in 2018, of the UK Research and Innovation (UKRI) which will incorporate the seven Research Councils, Innovate UK, and the research funding and knowledge exchange elements of HEFCE. Sir Mark Walport, who presented at our 5<sup>th</sup> Annual Meeting, has been appointed as Chief Executive designate of UKRI.

As the UK heads towards leaving the European Union by 2019, our community is considering how this will affect the research environment. The implications of BREXIT is one of today's agenda items; other topics include the Future of the Sea Project, the Marine Pioneer and the Suffolk and North Devon project sites, the Global Challenges Research Fund, an update on the RRS *Sir David Attenborough, G7: Future of the Seas and Oceans* and Centres for Doctoral Training. I am delighted to welcome our speakers Henry Green, Dr Aisling Lannin, Dr Kate Hamer, Dr Ray Leakey, Professor Ed Hill, Claire Durkin and Professor Angela Hatton.

Our community is working hard to address the challenges of managing, protecting and sustainably exploiting the marine environment, against a background of ever increasing economic pressures. The 7th Annual Meeting will be an opportunity to learn more about how we are, and how we can, meet these challenges. I hope you enjoy the day and if you have topics you would like to discuss, please take this opportunity to raise them.



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Chairman, NOC Association  
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## **Logistics**

### **Venue**

De Vere Holborn Bars  
138 – 142 Holborn  
London  
EC1N 2NQ

Tel: 0871 222 4832

Web: <https://www.phcompany.com/de-vere/holborn-bars/>

On arrival you will be directed to the registration desk which will be open at 1000 hrs. Please collect your name badge and head to the meeting room. Tea and coffee will be available. Please return your name badge to the reception desk on departure.

### **Access and dietary requirements**

For requirements concerning dietary needs or access, please kindly advise Jackie Pearson. Contact details are below.

### **Information Technology**

The venue has freely accessible WiFi and for speakers, a lap-top and slide advancer will be provided.

## **The NOC Association Secretariat**

Jackie Pearson     [jfpea@noc.ac.uk](mailto:jfpea@noc.ac.uk)     Tel: 023 8059 6097

## 7<sup>th</sup> Annual Meeting of the NOC Association

### UK Marine Science 2017: Challenges for the next decade

Thursday 30<sup>th</sup> March 2017

#### AGENDA

- 1000 Reception opens – *tea, coffee and pastries*
- 1030 Welcome – Professor Peter Liss, Chair of the NOC Association
- 1035 Foresight Future of the Sea – emerging findings - Henry Green, Government Office for Science
- 1055 Questions
- 1100 An introduction to the Marine Pioneer and the Suffolk and North Devon project sites - Dr Aisling Lannin, Marine Management Organisation
- 1120 Questions
- 1125 Scene setter for discussion: The Global Challenges Research Fund – Dr Kate Hamer, Natural Environment Research Council (NERC)
- 1145 Questions
- 1200 Update on the ‘Compendium of Capability’ - Jackie Pearson, National Oceanography Centre (NOC)
- 1205 The RRS *Sir David Attenborough* – capability and update - Dr Ray Leakey, Scottish Association for Marine Science
- 1225 Questions
- 1240 Lunch
- 1330 Scene setter for discussion: Implications of Brexit for UK marine science and environmental policy - Professor Ed Hill, NOC
- 1350 Questions
- 1400 G7: Future of the Seas and Oceans - Claire Durkin, Department for Business, Energy & Industrial Strategy (BEIS)
- 1420 Questions
- 1430 Scene setter for discussion: Centres for Doctoral Training – introduction by Professor Angela Hatton, NOC

1445 Discussion – arrange three groups

- New ideas for CDT studentships, Group A
- Implications of Brexit for UK marine science and environmental policy, Group B
- The Global Challenges Research Fund, Group C

1515 Refreshment break – *tea, coffee and cake*

1530 Feedback to plenary – Group A

1535 Feedback to plenary – Group B

1540 Feedback to plenary – Group C

1545 Topics raised by the audience – Chair, Professor Peter Liss

1600 Meeting close

## Speakers

### **Professor Peter Liss, CBE, FRS, Chair of the NOC Association**

Professor Peter Liss has been based in the School of Environmental Sciences at the UEA for more than 40 years, researching and teaching many aspects of environmental chemistry.



Peter's research has focused on the biogeochemical interactions between the ocean and the atmosphere, specialising in the processes of air-sea gas exchange, the mechanisms of trace gas formation in the oceans, and their reactivity and role in the atmosphere. Peter received the Challenger Society Medal, the Plymouth Marine Sciences Medal, and the John Jeyes Medal of the Royal Society of Chemistry. He served for five years on NERC Council, was Chair of the Scientific Committee of the International Geosphere-Biosphere Programme, and Chair of the Scientific Steering Committee for the international SOLAS Project and was until recently a member of Defra's Science Advisory Council. Peter chairs the Underwater Sound Forum, the MEDIN (Marine Environmental and Data Information Network), the MASTS (Marine Alliance for Science and Technology in Scotland) Advisory Board, and the NOC Association Board and is a member of its Science Advisory Council.

### **Henry Green, Government Office for Science**



Henry Green leads the Foresight Future of the Sea project in the Government Office for Science. The project is analysing the implications of long-term threats and opportunities for the UK's marine and maritime interests, and due to publish its report in Summer 2017. Henry has worked in Government since 2013 on a wide range of policy areas, including the UK's ageing population, zero hours contracts, taxation and prisons.

### **Dr Aisling Lannin, Marine Management Organisation (MMO)**

Aisling Lannin completed a PhD in fisheries biology and management, with extensive time at sea on fishing and research vessels and in Spanish, French, English and Irish fisheries laboratories. She then managed a Marine Protected Area in Berwickshire and Northumberland where she co-wrote an innovative stakeholder led management plan joining land and sea designations that was hailed as a UK exemplar. Following this she provided scientific support for stakeholder identification of marine conservation zones at Natural England. At MMO Aisling co-designed the evidence gathering system and co-wrote the Evidence Strategy. Aisling also provides technical advice and scientific evidence for decision making.





**Dr Kate Hamer, Head of International  
Natural Environment Research Council**

Kate joined the Natural Environment Research Council (NERC) as the Head of International in December 2016. In this role, Kate is responsible for NERC's engagement in the UK Governments' Global Challenges Research Fund and Newton Fund. She also has responsibility and oversight of NERC's international collaborations with European partners through Horizon 2020 and bilateral and multilateral collaborations with global partners through lead agency agreements, strategic programmes and collaborative mechanisms such as the Belmont Forum. Before joining NERC, Kate worked in the International Relations Unit at the Biotechnology and Biological Sciences Research Council for 4 years, leading negotiation and development of collaborative strategic research programmes. Kate has experience of working with UK Government and Parliament through secondments to the Department of Business Energy and Industrial Strategy and the Parliamentary Office of Science and Technology. She has a PhD in Chemical Biology from the University of Nottingham.



**Dr Ray Leakey, Honorary Research Fellow  
Scottish Association for Marine Science**

**Science User Lead, NERC New Polar Research Programme**

Ray Leakey's research has been concerned with the ecology of marine micro-organisms in polar, temperate and tropical waters, and their role in carbon and energy flow.

He has conducted field studies in the Atlantic, Indian and Southern Oceans, and in UK, Norwegian, Pakistani, Arctic and Antarctic coastal waters. In summers 2008, 2010 and 2012 he led the NERC-funded ICECHASER 1, ICECHASER 2 and UK Ocean Acidification Arctic research cruises to the Greenland, Norwegian and Barents Seas.



**Professor Ed Hill, OBE, Executive Director, National Oceanography Centre**



Professor Ed Hill is Executive Director of the National Oceanography Centre (NOC) in the United Kingdom. The NOC is part of the Natural Environment Research Council (NERC) and has a remit to provide UK national capability to undertake and enable large-scale oceanographic sciences from coast to the deep ocean. His research background is in physical oceanography where he specialised in the circulation of continental shelf seas, during which time he participated in over 20 research ship expeditions and led half as Chief Scientist.

Ed has served on a numerous national and international advisory bodies including the International Steering Group of the Global Climate Observing System, the European



Marine Board, the cross-Government UK Marine Science Coordination Committee, the Governing Board of the National Centre for Ocean Forecasting and NERC's Executive Board and its Science and Innovation Strategy Board.

Ed received his MSc and PhD degrees in oceanography from Bangor University (Marine Science Laboratories, Menai Bridge) and his BSc in applied mathematics from the University of Sheffield. He was subsequently recognised by both universities with the award of an Honorary Fellowship (Bangor) and an Honorary Doctorate of Science (Sheffield). He was appointed Officer of the Most Excellent Order of the British Empire (OBE) in 2010 for services to environmental sciences.

### **Claire Durkin, Head of Global Science, Innovation and the Knowledge Economy Department for Business, Energy & Industrial Strategy**

Claire has spent over 20 years in senior posts in the UK Civil Service. Now head of Global Science, Innovation and the Knowledge Economy, Claire is responsible for the UK's global work on science research and innovation. Her previous work has included leading on policies covering the UK labour market, including vocational skills development and initiatives to improve participation in the labour market for minority groups. She has worked on core economic and business policies, including competition policy and consumer affairs. She was director of the UK's energy markets and responsible for the security of energy supplies and for the safety and security of civil nuclear power in the UK. As director of Trade and Development she worked on Free Trade Agreements and the development of more open and efficient trade routes for the benefit of developing and emerging markets. She leads the Government's Newton Team and is, with the FCO, co-managing the global Science and Innovation Network.



Before entering the Civil Service Claire was a lecturer in Further and Higher Education, teaching English Literature and Law and working on opening up access to Higher Education.

### **Professor Angela Hatton, Director of Science and Technology National Oceanography Centre**



Professor Angela Hatton is a microbial biogeochemist with interests in the role microorganisms play in the production and removal of environmentally significant trace gases. A former Director of Research at the Scottish Association for Marine Science (SAMS), Angela has previously held research positions at SAMS and the University of East Anglia where she held two NERC Fellowships and obtained her PhD. Angela has participated in numerous seagoing research expeditions as part of international scientific programmes including OMEX, LOIS, ESCAPE and DISCO as well as field based studies in both the Arctic and Antarctic.

Angela has contributed to the strategic planning of important collaborative science programmes, including serving on steering committees or advisory groups for the UK Surface Ocean Lower Atmosphere (SOLAS) Programme, the UK National Ocean Acidification Programme, and on the programme integration team for the Quantifying and Estimating the Earth System (QUEST) Programme. Angela was elected a Fellow of Royal Society of Biology in 2014 and is currently Chair of NERC's Science Board.

### **Abstracts for presentations**

#### **Foresight Future of the Sea – emerging findings – Henry Green**

The Foresight Future of the Sea project was launched by Professor Sir Mark Walport, the Government's Chief Scientific Adviser, in May 2016. It is bringing together the latest scientific evidence and industry, policy and academic expertise to understand the implications for the UK of long-term changes in the ocean's economy and environment. This talk will present key findings on several key areas, and propose some important next steps for science and policy.

#### **An introduction to the Marine Pioneer and the Suffolk and North Devon project sites – Dr Aisling Lannin**

The marine pioneer is one of four pioneer projects designed to help identify good practice and innovative solutions, and test the best analytical tools, data and governance approaches in a range of situation. This will inform the development and implementation of Defra's 25 Year Environment Plan. This talk will introduce the approaches being tested through the pioneer programme as well as the two marine pioneer sites.

#### **The Global Challenges Research Fund – Dr Kate Hamer**

The presentation will provide background and a detailed overview of the Global Challenges Research Fund. High level information on other relevant ODA research funds which may be of interest to members of the NOC Association will also be presented alongside some key points to consider regarding development of ODA compliant research proposals.

#### **The RRS *Sir David Attenborough* – capability and update - Dr Ray Leakey**

The RRS *Sir David Attenborough*, due to enter service in autumn 2019, will be the UK's most advanced research vessel and enable UK polar scientists to remain at the forefront of marine research in both the Antarctic and the Arctic. This presentation will outline the new vessel's design, its scientific capability and capacity, and the implications for conducting marine science in polar waters.

#### **Implications of Brexit for UK marine science and environmental policy – Professor Ed Hill**

As the UK heads towards 'Brexit', this presentation will touch briefly on the various issues that may have implications for UK marine science and environmental policy and will act as a scene setter for the discussion session.

## **G7: Future of the Seas and Oceans – Claire Durkin**

When Science Ministers endorsed the 'G7 Future of the Seas and Oceans' Initiative in 2016, it showed a joint commitment to strengthening scientific knowledge so that more appropriate and coordinated policies can be developed for the sustainable use of the oceans and seas. Utilising its status as a global leader and centre of excellence for marine science and research, the UK continues to play a pivotal role in leading this Initiative. As well as providing a stocktake of this work to date, Claire Durkin will outline how both the research community and government can work together to take forward our ambition in the future.

## **Centres for Doctoral Training – introduction by Professor Angela Hatton**

NERC is developing a portfolio of CDTs to complement the Doctoral Training Partnerships (DTPs) scheme. CDTs support strategically targeted, focused PhD studentships aimed at addressing specific research and skills gaps identified by NERC, our partners, and the wider community.

In October 2013, in recognition of the importance of focused training, NERC Council agreed additional funding for the NERC CDT portfolio to allow the establishment of at least one CDT per year.

This introductory talk aims to raise awareness of the NERC call for new ideas on CDT funding.

### **Discussion session**

For the discussion at 1445 hrs when we will divide delegates into three groups where each group will work on one of three topics that has been covered during the morning:

Group A - New ideas for CDT studentships, Chair – Professor Angela Hatton

Group B - Implications of Brexit for UK marine science and environmental policy, Chair – Professor Gideon Henderson

Group C - The Global Challenges Research Fund, Group C – Chair, Dr Kate Hamer

There is half an hour for the discussion and five minutes for feedback to plenary. Below are some key web links that may be helpful to review prior to the meeting:

### **New ideas for CDT studentships**

[Centres for Doctoral Training \(CDTs\)](#)

[Evidence of training priority](#)

[Centre for Doctoral training 2017 call](#)

## **Implications of Brexit for UK marine science and environmental policy**

### [Implications for the future of the UK's Marine Environment](#)

Stephen Hull, Technical Director, ABPmer

[A listing of the responses to the Parliamentary Inquiry](#) - a number of our members submitted responses to this Inquiry including: Imperial College London, University of Portsmouth, University of Liverpool, Cardiff University, University of Nottingham, University of Exeter, University of Leicester, University of Edinburgh, University of Hull, the National Oceanography Centre, Challenger Society for Marine Science, University of East Anglia, University College London, Newcastle University, University of Sheffield, University of Southampton, Plymouth Marine Laboratory, University of Cambridge, University of Oxford and the Marine Biological Association.

### [A Brexit Blueprint for Sustainable Seas](#)

Stephen Hull, Technical Director, ABPmer

## **The Global Challenges Research Fund**

[Global Challenges Research Fund](#) (Research Councils UK)

[Global Challenges Research Fund](#) (NERC)

[Over £40m pledged in new bid to tackle global challenges announcement](#)

### List of confirmed attendees for the 7<sup>th</sup> Annual Meeting of the NOC Association

<b>Title</b>	<b>First Name</b>	<b>Surname</b>	<b>Organisation</b>
Professor	Icarus	Allen	Plymouth Marine Laboratory
Professor	Martin	Attrill	University of Plymouth
Dr	Tracey	Aze	University of Leeds
Professor	Grant	Bigg	University of Sheffield
Dr	Chris	Brierley	University College London
Professor	Tony	Clare	University of Newcastle
Dr	Greg	Cowie	University of Edinburgh
Professor	Stephen	de Mora	Plymouth Marine Laboratory
	Claire	Durkin	Department for Business, Energy and Industrial Strategy
	Alan	Evans	National Oceanography Centre
Professor	Kevin	Flynn	University of Swansea
Dr	Matt	Frost	Marine Biological Association
Professor	Dougal	Goodman, FREng	The Foundation for Science and Technology
	Colin	Grant	CG Metocean Consulting Limited
	Henry	Green	Government Office for Science
Professor	Robin	Grimes	Foreign and Commonwealth Office
Professor	Ailsa	Hall	Sea Mammal Research Unit
Professor	Ian	Hall	University of Cardiff
	Steve	Hall	National Oceanography Centre
Dr	Kate	Hamer	Natural Environment Research Council
Professor	Angela	Hatton	National Oceanography Centre
Professor	Gideon	Henderson FRS	Oxford University
	Andrew	Henson	National Oceanography Centre
Professor	Ed	Hill, OBE	National Oceanography Centre
Professor	Mark	Inall	Scottish Association for Marine Science
Professor	Atilla	Incecik	University of Strathclyde
Dr	Mark	James	Marine Alliance for Science and Technology for Scotland
Professor	Racheal	James	University of Southampton
Dr	Dan	Jones	National Oceanography Centre
Professor	Hilary	Kennedy	Bangor University
Dr	Aisling	Lannin	Marine Management Organisation
Dr	Ray	Leakey	Scottish Association for Marine Science
Professor	Peter	Liss CBE FRS	University of East Anglia
Dr	Adrian	Martin	National Oceanography Centre
Dr	Bernie	McConnell	Sea Mammal Research Unit

<b>Title</b>	<b>First Name</b>	<b>Surname</b>	<b>Organisation</b>
	Dave	McInroy	British Geological Survey
Dr	Sally	Morgan	University of Leicester
Professor	Matt	Mowlem	National Oceanography Centre
Professor	Adrian	New	National Oceanography Centre
	Jackie	Pearson	National Oceanography Centre
Professor	Ros	Rickaby	University of Oxford
Professor	Carol	Robinson	University of East Anglia
	Roland	Rogers	National Oceanography Centre
Professor	Jon	Sharples	University of Liverpool
	Andrew	Smith	Foreign and Commonwealth Office
Dr	Michael	Steinke	University of Essex
Captain	Tim	Stockings	British Antarctic Survey
Dr	James	Strong	University of Hull
	Stephen	Taylor	Foreign and Commonwealth Office
	Samantha	Turner	National Oceanography Centre
Professor	Andrew	Watson, FRS	University of Exeter
Dr	Mike	Webb	Natural Environment Research Council
	Naomi	White	Department for Business, Energy and Industrial Strategy
Dr	Phil	Williamson	University of East Anglia
Professor	Andrew	Willmott	University of Newcastle
Dr	Willie	Wilson	The Sir Alister Hardy Foundation for Ocean Science

The NOC Association  
The International and Strategic Partnerships Office

Updated 6<sup>th</sup> April 2017