**EMBARGO: 00:00GMT, 5th October 2017**

# New research data tool provides a leap forward for ocean management

A new standard method for conducting ocean research, launched today at the Our Ocean Conference in Malta, could help transform understanding of the distribution patterns of deep sea life – and the environmental factors that influence them.

It will mean that scientists can gain a more accurate picture of trends in ocean biodiversity, and how human activity is influencing them.

The new research protocol, developed by 15 leading marine scientists, is designed to be used by all disciplines – in ocean chemistry, geophysics, biology, ecology – so that the information they measure and record about the deep sea is easily comparable from project to project, from area to area.

Alex Rogers, Professor of Conservation Biology at the University of Oxford and Scientific Director of the Nekton Oxford Deep Ocean Research Institute, believes that such a tool is essential if the deep seas are to be managed sustainably.

“For sustainable management of the ocean to be improved, we need actionable data,” says Professor Rogers, one of the scientists behind the new protocol, which is named General Ocean Survey and Sampling Iterative Protocol (GOSSIP). “GOSSIP enables marine scientists to measure standardised physical, chemical and biological indicators and generate comparable data on the function, health and resilience of the ocean. This will help catalyse improved ocean governance.”

Because of massive technological developments, scientists have collected more ocean data in the past two years than all previous data put together. A range of different protocols and observing systems exist, but until now, there has been no standardised multi-disciplinary approach for global use.

With scientists using different sampling techniques in different geographical areas, it has been difficult or impossible for them to accurately compare life and environments from place to place. This has hampered scientific productivity and the provision of actionable data to inform decisions on ocean management.

The GOSSIP protocol creates a structured approach, setting down a list of ocean variables (for example ocean floor composition, dissolved oxygen), why they are important, sampling methods, processing methods and other requirements.

It has been created using technical best-practice guidelines to support the optimal use of advancing research technology.

"This is an important opportunity to advance the standardisation of marine research," says Dr Malcolm Clark of the National Institute of Water and Atmospheric Research in New Zealand, one of the GOSSIP co-authors. "We will be able to combine and compare data sets, thereby delivering far greater power to our global analyses and better information for improving regional management."

The GOSSIP protocol was field tested during the XL Catlin Deep Ocean Survey, conducted by Nekton in 2016. This involved scientists from 12 research institutes and research tools including manned submersibles, a remotely operated vehicle, seabed mapping and biological sampling. 40,000 biological specimens and multi-disciplinary data have been analysed across a network of nine participating laboratories in the UK, the US, Canada, Puerto Rico and Ireland.

Ends.

**EDITOR'S NOTES**
Further information about the Protocol https://nektonmission.org/science/nekton-protocol

**PRESS CONFERENCE**
13:30, 5th October, Press Room, Our Ocean, Hilton, St. Julian's Malta

**MEDIA CONTACTS**

- For more information or to schedule an interview please contact the Media Office of the Nekton Oxford Deep Ocean Research Institute: media@nektonmission.org / +44 7984 677509.
- For additional media materials from the Mission (still images, b-roll, briefing notes) visit our newsroom on Dropbox: https://www.dropbox.com/sh/ujiqukl9c5253wi/AACZw7IMG8q7lC-EJQxiK7Lza?dl=0

**ABOUT NEKTON OXFORD DEEP OCEAN RESEARCH INSTITUTE (www.nektonmission.org)**
The mission of the Nekton Oxford Deep Ocean Research Institute (Nekton) is to explore the deep ocean to reveal the unknown for the benefit of humanity. Nekton undertakes multidisciplinary scientific research into the state of the deep ocean, the planet's most critical yet least explored ecosystem. Nekton's discoveries inform global decision makers and ignite public interest to catalyse change. The Nekton Oxford Deep Ocean Research Institute is a charity, established in the UK, with headquarters in Oxford.

**ABOUT XL CATLIN DEEP OCEAN SURVEY (www.nektonmission.org/mission-i)**
The XL Catlin Deep Ocean Survey is Nekton's first multidisciplinary scientific research

mission to investigate the state of the deep ocean around Bermuda, the Sargasso Sea and the NW Atlantic. The mission aims to create, develop and field test a new standardised methodology for marine biologists around the world to assess the function, health and resilience of the deep ocean. The scientific results will be launched at the Ocean Risk Summit in Bermuda, May 2018.

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**ABOUT OUR OCEAN, MALTA (**www.ourocean2017.org**)**
The European Union is hosting the 4th Our Ocean conference – 'An Ocean for Life' - in Malta, 5-6 October. Launched in 2014, the annual #OurOcean conferences aim to mobilise government, business and the non-profit sector to table ambitious commitments to measurable action fostering healthy, clean, safe and secure seas. The 2017 edition for the first time will see significant commitments coming from the corporate sector, sending a powerful signal of determination to the world.

**CO-AUTHORS OF PROTOCOL**

- **LEAD: PROFESSOR ALEX ROGERS:** Alex is Professor of Conservation Biology at the Department of Zoology, University of Oxford, Scientific Director of Nekton Oxford Deep Ocean Research Institute and the International Programme on the State of the Ocean. He has led and participated in 20 major marine expeditions including coordinating technical dive teams. His marine policy work includes projects for the UN International Seabed Authority, UN Division of Ocean Affairs and Law of the Sea, IUCN, Global Ocean Commission, and the G8+5 Global Legislators Organisation for a Balanced Environment (GLOBE).
- **DR DOMINIC ANDRADI-BROWN:** University of Oxford (mesophotic coral reef ecology, technical diving).
- **PROFESSOR ANDREW BRIERLEY:** St. Andrew's University, UK (pelagic ecology, acoustics)
- **DR MALCOLM CLARK:** National Institute of Water & Atmospheric Research, NZ, Leader of the Census of Seamounts Project, Advisor to IUCN, International Network for Scientific Investigations of Deep-Sea Ecosystems (INDEEP) (seamount ecology and deep-sea fisheries).
- **DR DOUGLAS CONNELLY**: Global Ocean Observing System (GOOS), University of Southampton (marine chemistry, chemical sensors)
- **DR KERRY HOWELL**: University of Plymouth, UK (deep-sea biology)
- **DR KATRIN LINSE:** British Antarctic Survey, UK (benthic ecology of polar regions)
- **DR ROBERT HALL:** University of East Anglia, UK (physical oceanography)
- **DR VEERLE HUVENNE:** University of Southampton, UK (seafloor and habitat mapping)
- **DR REBECCA ROSS:** Plymouth University, UK (predictive ecology, benthic ecology

- **PROFESSOR PAUL SNELGROVE:** Census of Marine Life, Deep Ocean Stewardship Initiative (DOSI), Memorial University, Newfoundland & Labrador University, Canada (deep-sea benthic ecology)
- **DR PARIS STEFANOUDIS:** Post-Doctoral Researcher Nekton Oxford Deep Ocean Research Institute (benthic epifauna and infauna)
- **DR TRACEY SUTTON:** Nova Southeastern, USA, Deep-Pelagic Conservation Working Group; Global Ocean Biodiversity Initiative (mesopelagic ecology)
- **DR MICHELLE TAYLOR:** Essex University, UK (deep sea benthic ecology)
- **DR TOM THORNTON:** University of Oxford, UK (anthropologist - indigenous ecological knowledge)
- **DR LUCY WOODALL:** Oxford University, Nekton Principal Scientist, UK, Advisor to IUCN, OSPAR Commission, UK Government, Natural England (deep-sea ecology and plastic pollution)