



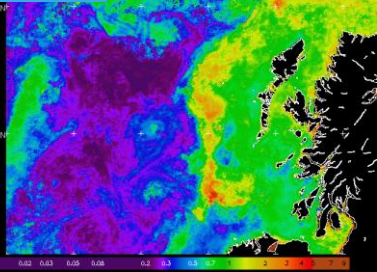
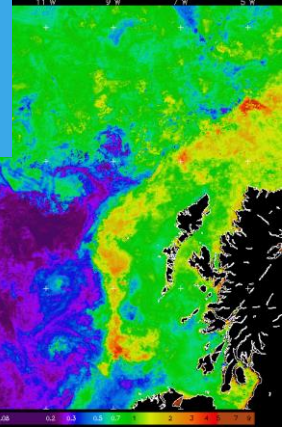
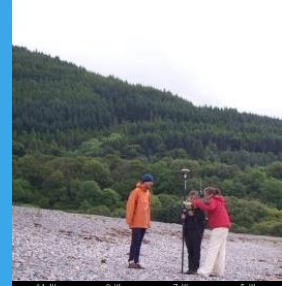
The Challenger Society for Marine Science



AGM 2017

Wednesday 6th September 2017,

AMBIO - Oban





Agenda

- 1. Approval of minutes of AGM of September 8th, 2016**
- 2. Matters arising from minutes of AGM 2016**
- 3. President's Report**
- 4. Treasurer's report and accounts**
- 5. Appointment of auditors for Independent Financial Review**
- 6. Election of new Council Members and Officers**
- 7. AOB**



Approval of minutes of previous AGM September 8th, 2016

Challenger Society for Marine Science

About Us Contact Us Login

Home News Events Research field Membership Publications Awards SCOR Blog ECR Network

Challenger society 2018 Conference

Challenger Society 2016 Conference

- Presidents Photography Competition

Challenger Society 2014 Conference

- Challenger Society 2014 prize winners
- Conference 2014 information sheets
- Dig out your best photo and win a prize
- Can You Produce Winning Photos?
- Some dos and don'ts for posters and presentations

Prospectus 2013

Annual General Meetings

Annual General Meeting 2016 - Liverpool

Annual General Meeting 2015 - Sheffield

Annual General Meeting 2014 - Plymouth

Annual General Meeting 2013 - Leeds

Latest News

Deep-Sea SIG meeting in Oban September 2017

The next **Deep-Sea Ecosystems** SIG meeting will be held at the **Scottish Association for Marine Science on 4-5th September 2017**. This will be forum for presenting new ideas and discussing how we as a community can improve funding for deep-sea projects in the UK. For more information and registration (FREE) please contact Dr Bhavani Narayanaswamy.

http://challenger-society.org.uk/DeepSea_Ecos

<http://www.challenger-society.org.uk/AGM> 2016_final_minutes.pdf

Matters arising from minutes of AGM 2016

Proposer: Emma Cavan

Seconder: Tim Jickells



Council Members, Terms of Office & Responsibilities

Officers

Rachel Mills	2016-2018	President
Tim Jickells	2014-2016	Past President
John Bacon	2014-2018	Honorary Secretary
Sinhue Torres-Valdés	2013-2017	Honorary Treasurer

Council Members

John Allen	2013-2016	Editor, Challenger Wave
Mattias Green	2014-2017	Membership, Student Travel Awards
Gideon Henderson	2015-2018	UK SCOR representative
Luisa Cristini	2015-2018	Early Career Scientist Network
Ruth Airs	2014-2017	Meetings, SIGs & Local Networking Events
Terry Sloane	2013-2016	Industry Liaison & Technology
Louisa Watts	2015-2017	Education & Outreach (Co-opted)
Emma Cavan	2016-2019	Communications

Ex-Officio & Co-Opted Members

Angela Colling	Editor, Ocean Challenge
Grant Bigg	Chair, Editorial Board, Ocean Challenge
Rob Hall	Data Protection, Membership
Alan Jamieson	Conference 2018 - Newcastle
Richard Sanders	Policy Liaison
Peter Burkill	SCOR membership
Ed Mawji	Treasurer
Alejandra Sanchez-Franks	Diversity and Early Careers



Current Society Membership

(01/09/2017)

Total no of registered members on database	1021 (includes lapsed memberships)
Active members (subscribing)	517 (443 PP, 201 SO,)
Post-Grad Student Members	439 (190 paid)
Full Members	486 (281 paid)
Retired Members	62
Corporate Members	11



Presidents Report - AGM 2017

Rachel Mills

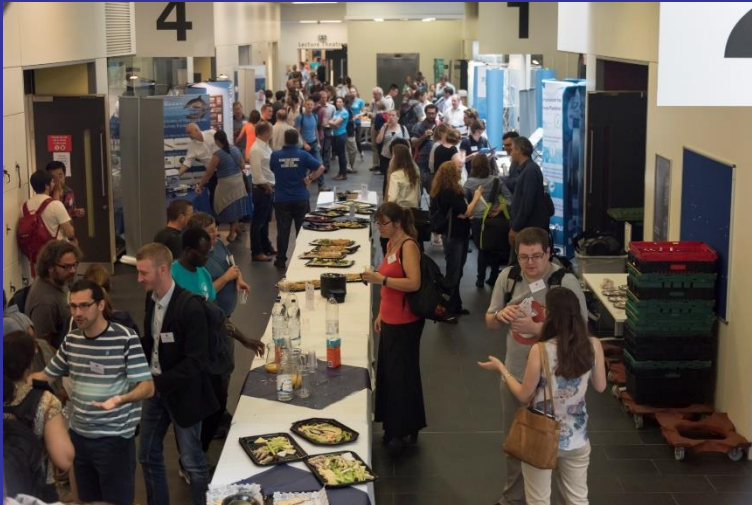


Conference 2016

5th-9th September

University of Liverpool, John Moores University
and NOC

- 33 Session Subjects over 3 days
- 183 talks ~320 delegates
- Challenger medal winner – Prof Karen Heywood
- 5 Keynote speakers
- Special Interest Groups
 - Marine Science Data Management
 - Ocean Modelling
 - Deep-Sea Ecosystems
- Diversity in Science – inaugural meeting



- £5000 Corporate Sponsorship
- £7100 from membership subscriptions



Conference 2018

10th-13th September
University of Newcastle

Local Organising Committee

Alan Jamieson Deep sea biology and technology. Chair
Andrew Willmott Physical Oceanography. Deputy-Chair
Miguel Morales Maqueda - Physical Oceanography
Rob Upstill-Goddard – Biogeochemist
Tom Bramald - Events manager
Sheree Ibbetson - Events organiser



Capacity – up to 360



The Duke of Edinburgh Award Centre

Keynote speech from Challenger Honorary Life Member

His Serene Highness Albert II, Sovereign Prince of Monaco
The Prince Albert II of Monaco Foundation





Challenger Wave

John Allen

- 12 issues published this year – emails to active members – download function.
- Articles can be submitted at any time to John Allen (john@vectisenvironmental.com)
- especially, news from research cruises (or links to blogs!)

August 2017

Challenger Wave



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

NEWS

Clockwork copepods: Microscopic marine creatures swim to their own rhythm

An experiment conducted in a Scottish loch has revealed how a microscopic animal, the main food source for many larger marine species, schedules its day using its own genetic clock. The 'body clock' of the copepod *Calanus finmarchicus* shapes its metabolic rhythms and movement through the water column. This in turn has an enormous influence on the entire food web in the North Atlantic and Arctic oceans where *Calanus finmarchicus* is a central plankton species.



As the site of a rare 'captive' population of the copepod *Calanus finmarchicus*, Loch Etive in Argyll was crucial to the scientific findings.

As part of the study, which has been published in the journal, *Current Biology*, scientists from the Oban-based Scottish Association for Marine Science (SAMS) carried out research in Loch Etive, Argyll, where one of the only known isolated populations of *Calanus finmarchicus* is found.

www.challenger-society.org

In the world's oceans, countless zooplankton species, like copepods and krill, rise to the surface at dusk to gorge themselves on single-celled algae that can only thrive where there is sufficient sunlight. The cover of night offers the zooplankton protection from predators like fish, which need light to hunt. When dawn approaches however, they sink back into the dark depths where they can hide from their predators throughout the day, completing a cycle that likely represents the largest daily movement of biomass on the entire planet. Though this phenomenon was first discovered over a century ago, researchers are still working to decipher which signals these marine organisms use to decide when to rise and when to descend.

Along with colleagues at the Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research (AWI) and the University of Oldenburg in Germany, the SAMS team showed that *Calanus finmarchicus* possesses an internal genetic clock, also called the circadian clock, which produces a specific 24-hour rhythm that functions even without a day/night cycle. This could be important during the constantly dark polar winter and in the deep sea. Light is only needed in order to occasionally reset the clock, and work previously carried out by SAMS researchers showed zooplankton in the Arctic regulated their movements using moonlight, in the absence of sunlight, during the polar winter.

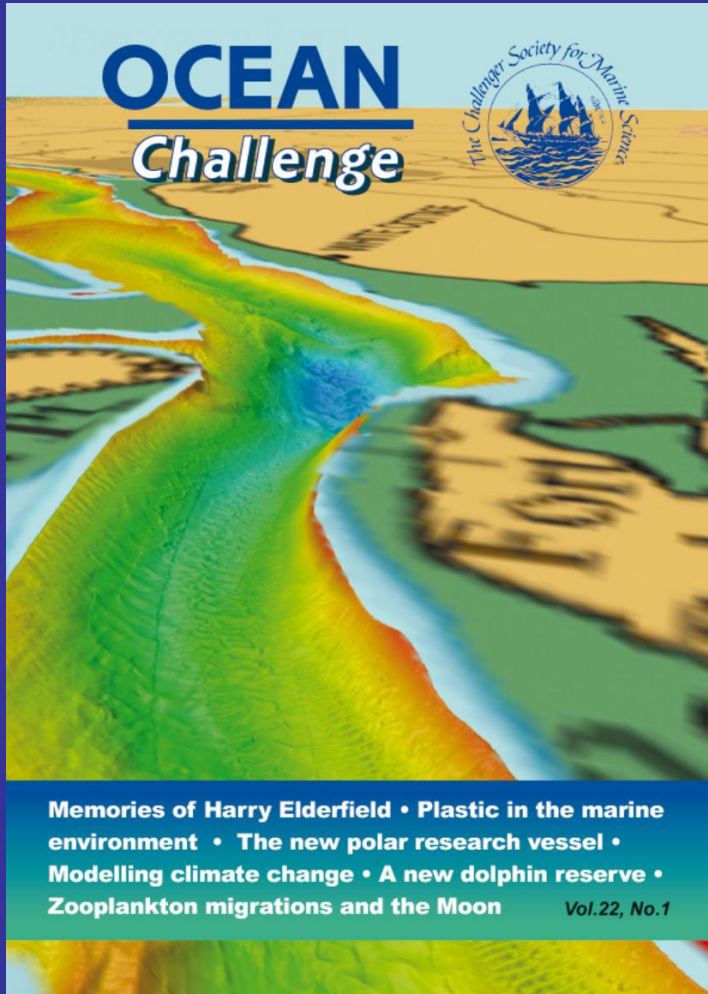
The latest paper's lead author Sören Häfker of AWI said: "We were amazed to see how precisely the genetic clock maintained its 24-hour rhythm without any external stimuli, and that we found the same rhythm under controlled laboratory conditions as we did in the natural habitat of Loch Etive."

The copepod *Calanus finmarchicus*, which can swim many tens of metres in its daily migration, builds up large fat reserves in its body, making it



Ocean Challenge

Angela Colling (Editor), Grant Bigg (Chair, Editorial Board)



- Volume 22, No.1 out Summer 2017
- Issues freely available on the website back to Volume 4
- Content of issues have been tagged and search function being developed at present (planned release for November 2017)
- Grateful thanks to outgoing Board members: Rosie Chance, Helen Findlay
- New Board members joining : Bee Berx
- New Material always welcome!

Contact the Editor angelaamcolling@gmail.com



Meetings and Events

Ruth Airs: ruai@pml.ac.uk



New Special Interest Group: Marine Science Data Management

Contact Dr Matt Donnelly matdon@bodc.ac.uk

See website for full list of SIGS: www.challenger-society.org.uk

Meetings supported 2017:

Meeting	Date	Location	Organiser
Advances in Marine Biogeochemistry	6-8 Sept 2017	SAMS, Oban	Kirsty Crocket, Natalie Hicks
Ocean Modelling SIG meeting	11-12 Sept 2017	Met Office, Exeter	Jennifer Graham, Tim Graham
Workshop: from Genes to Gases	13th June 2017	UEA	Colin Murrell, Terry McGenity
Sea Level Futures	2nd-4th July 2018	NOC Liverpool	Joanne Williams
Deep Sea Ecosystems meeting	4th-5th Sept 2017	SAMS, Oban	Nick Higgs
Remote Sensing SIG	27-28 Sept 2017	Leicester	Chris Banks

Budget for 2017: £3000 Fully Allocated



Stepping Stones Bursary

Ruth Airs: ruai@pml.ac.uk

http://www.challenger-society.org.uk/Stepping_Stones

- Supports career development of members of marine science community.
- £1000 per grant for activities enhancing career prospects: eg. collaborative visits, laboratory or field work.
- Open to PhD candidates (PhD thesis submitted) or post doctoral researchers.
- For researchers seeking employment post-qualification, and those between fixed term contracts.
- Four awards per year.

	2016				2017	
	Feb	May	Aug	Nov	Feb	May
Number of applications	7	6	3	6	4	2
Awardee	Coleen Suckling	Thomas Chalk	Holly Pearson	Anna Belcher	Angela Stevenson	Katrin Schmidt
Research activity	Research visit to Florida Gulf Coast	Attendance at Goldschmidt conference	Training course for new skills	Research cruise	Fieldwork, Philippines	Speaking at Krill Symposium
Amount awarded (£)	£1000	£1000	£995	£980	£1000	£698
Report received?	Yes	Yes	No	Yes	No	



Communications Emma Cavan

This year on **Twitter** @ChallengerSoc:

- 2,228 followers (1,637 in 2016)
 - ASLO = 1187
 - AMSA (Aus) = 589
 - AGU Ocean Sci = 214



We need blogs – please send to emma.cavan@utas.edu.au



This year on the **Website**:

- Brand spanking new-look website!
- BLOG started Jan 2017
 - 7 blog posts
 - > 1000 views from all over world (e.g Chile, US, Germany, Thailand...)

Comms activities next year:

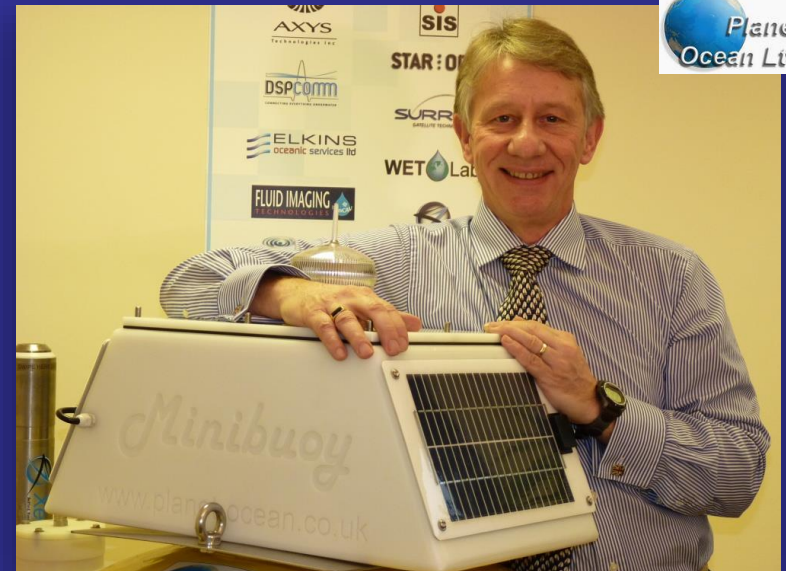
- Continue Blog
- More info on SIG meetings online
- Tagging for Ocean Challenger
- ECR/Diversity page
- Search Function – Ocean Challenge



Industry Liaison & Technology

Terry Sloane

- Terry's role is to be the link between the Society and industry, the people who primarily provide the instruments used in ocean research. In addition, he sits on the IMarEST, Science & Technology Advisory Group and Operational Oceanography SIG. He is Chairman of the Association of Marine Scientific Industries (AMSI) and as such ensure that each are informed of the others activities and common interests.
- We have established links with the two major ocean exhibitions in the UK, Oceanology & Ocean Business. Formalised benefits and costs to corporate members and have seen an increase in membership as a result.
- Terry secured ~£5000 corporate sponsorship for the 2016 conference and is already developing sponsors for the 2018 event.





Early Career Network – Luisa Cristini

Diversity in Marine Science – Emma Cavan



Emma Cavan



Luisa Cristini

Highlights

- “Diversity Breakfast” chaired by Emma Cavan, Chris Daniels and Kyle Meyers at the Challenger Conference 2016. 1-hour panel discussion with 4 experts and a mediated Q+A session.
- CS and UKPN joined forces to get funding from the UK Foreign Office to organise 2x 1-day workshops for ECS on the topic of outreach for Polar Sciences. One workshop was hosted at NOC and the second at BAS and covered also project management.



Education & Outreach

Louisa Watts

TEEN:TECH®

Focus on attendance at TeenTech Events during 2016 and 2017

- Events organised across the country
- TeenTech helps young people understand the opportunities in the science, technology and engineering industries, no matter what their gender or social background. Lively, focussed age appropriate initiatives help young people 8-18 understand their potential and raise their aspirations.



Surrey – November 2016 and 2017



Solent May 2017



Student Travel Awards

Mattias Green



- £8500 awarded for travel grants in 2016
- 10 awards for International Travel (£5k) and 14 awards for UK travel (Challenger Conference)

- Nov 2015: 5 out of 11
- Feb 2016: 3 out of 9
- May 2016: 9 out of 24
- Aug 2016: 8 out of 13



Lucie Minns – visited ASLO meeting in Hawaii

2014-2015 – 34 applications 13 awards

2015-2016 – 57 applications 25 awards

Budget of £8k – UK £250 International £500



UK-SCOR

Gideon Henderson, Peter Burkill



- The Scientific Committee on Ocean Research is an ICSU body coordinating international ocean science
- The UK's subscription to SCOR is \approx £16k. 51% from Challenger, 49% from Royal Society
- This year, the Challenger Council formally took over liaison with SCOR, and the previous separate UK-SCOR committee was disbanded
- UK participation in working groups is very high: 6 Chairs or Co-chairs; 7 other Full Members; and 17 Associate Members
- Also membership on steering committees for 5 international programmes, including Chair of IMBER (Carol Robinson) and Co-Chair of Quiet Ocean Experiment (Peter Tyack). And recent UK President of SCOR Internationally – Peter Burkill
- Further details about SCOR and UK involvement on on Challenger Website, and will be provided in future Challenger publications



Accounts 2016

Changes to Charities Law in 2015 meant that charities with an income of less than £1m are not legally required to have fully audited accounts and only a review document is required to be submitted to the Charities Commission.

However, in the interests of maintaining complete transparency in all of our affairs, the Challenger Society Council elected to continue to engage the services of an external auditor to perform an Independent Financial Review of the Society's accounts each year.

We have retained the services of:

Argents Chartered Accountants
15 Palace Street
NORWICH
Norfolk
NR3 1RT



2016 Accounts

Sinhue Torres Valdes – Ed Mawji

- The Society's total income for 2016 was **£22,034**, an decrease on 2015 (£33,944) and a increase on 2014 (£16,435).
- Income from membership subscriptions increased to £11,501 from £7661 in 2015.
- Total expenditure during 2016 was **£31,909**, a small increase on 2015 (£29,493) and small decrease on 2014 (£33,659).
- Consequently operating profit for 2016 was **-£9,875**, compared to 2015 £4,451 and 2014 -£17,224.



<u>Challenger Society</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Income	£16,435	£33,944	£22,034
Subscriptions	£7,626	£7,661	£11,501
Expenditure	£33,659	£29,493	£31,909
Operating Profit	-£17,224	£4,451	-£9,875



2016 Accounts

- Dividends from the Charitable Organisations Investment Fund (COIF) resulted in an income of £1,526. Revaluation of the funds yielded an gain of £3,987, with the total investment worth £45,627 as of 31st December 2015.
- There was £57,488 held in bank accounts on 31st December.
- The total funds carried forward on 31st December 2016 were **£103,115**, from £109,003 on 1st January 2016.

	2010	2011	2012	2013	2014	2015	2016
Administration	1595	1409	1680	1450	1975	4641	659
Publicity	0	0	577	327	0	300	0
Ocean Challenge	4211	5887	5656	3029	3569	3644	2165
Prizes and Awards	2741	2943	2820	4250	9041	4540	11784
Accountants	2399	2400	2340	2400	1323	1164	960
Council travel	1586	2241	2010	2714	2732	1148	2333
SIGs	59	531	1156	2053	2291	1716	1152
Local networking	548	10787		9872	0	0	0
Subscriptions	109	2937	4612	6578	7896	8681	9290
Equipment dep	163	436	326	245	184	138	103
Sundry	190	34	31	33	0	0	0
Total Exp	13975	29984	21642	36383	33659	29493	31909
Subscriptions	14324	12362	15256	10656	7626	7661	11501
Grants	6000	4000	4000	4000	5650	3000	9000
Sponsorship CW	0	500	0	500	1350	1185	0
Sponsorship conference	3003	10700	0	18973	0	20961	0
Interest from investments	1457	1501	1513	1814	1571	1130	1526
Deposit account interest	7	7	7	7	7	7	7
Total Inc	24791	41980	20776	37189	16435	33944	22034
Operating profit	10816	11996	-866	806	-17224	4451	-9875
Investment holding	34047	32090	35072	39280	41130	41640	45627
Total Funds carried	102247	112286	114402	119416	104042	109003	103115



Reserves policy

Through consultation with the Charities Commission guidance on reserves policies for small charities, the following policy was agreed at the 97th meeting of council and is reviewed on an annual basis:

- 1) **£15k** would be placed in reserve to cover unforeseen emergencies
- 2) **£30k** (3 x £10k) would be placed in reserve to offset any potential future uncertainties in income (effectively the difference between annual subscriptions (£15k) and total income=expenditure ~£25k)
- 3) A contingency fund of **£20k** (equivalent to one year average annual expenditure over past decade) be held in reserve to meet unforeseen needs including unexpected opportunities which might arise for the society to further its objectives.

In summary:

Council proposes to keep a £65k reserve under annual review.

Current funds held are £103k



Questions on 2016 accounts ?

Proposer: Tim Jickells

Seconder: Peter Statham



Council Members Completing their Terms this year

Huge thanks to these members who have served on
council and complete their terms this year:

Tim Jickells	Past-President	2013 - 2017
Sinhue Torres-Valdez	Treasurer	2014 - 2017
Luisa Cristini	Early Career Portfolio	2015 - 2016



Election of New Council Members

Six new members to elect to Council:

Peter Burkill

Rob Hall

Richard Sanders

Ed Mawji

Alejandra Sanchez-Franks

Rob Goddard

SCOR member

Data Protection and Membership

Policy Liaison

Treasurer

Diversity and Early Careers

President Elect



Professor Peter Burkill

Peter Burkill is Professor of Ocean Science at Plymouth University, UK and Adjunct Visiting Scientist at National Institute of Oceanography Goa, India. His background is in biological oceanography and his research has been on the role of microzooplankton in marine food-webs. He has published 140 peer-reviewed papers and accumulated an h-index of 47. He was a member of HEFCE's Earth Sciences RAE2007 and REF2014 panels. He served as SCOR's President 2014-2016 and continues on SCOR's Executive until 2020. His main activity is the development of international ocean sciences, particularly in the Indian Ocean.





Professor Rob Goddard

Professor Rob Upstill-Goddard has been chair of Marine Biogeochemistry at Newcastle University since 2004 and is currently a Director of Research Expertise in the School of Natural and Environmental Sciences. Rob's current research focuses on evaluating the environmental controls of air-sea gas transfer, especially the role of surfactants in the sea-surface microlayer, and the biogeochemical cycling and air-sea exchange of methane and nitrous oxide. Rob graduated in Environmental Sciences from Lancaster University and did an MSc in Oceanography at Southampton before completing a PhD in marine biogeochemistry at the University of Leeds. Prior to joining Newcastle University as a lecturer in 1993 Rob held post-doctoral positions at the University of Cambridge and at UEA, with the latter being based at the Marine Biological Association and subsequently PML.

During his career Rob has lead several research cruises, held more than 20 external research grants, supervised around 20 PhD students, developed Oceanography teaching at Newcastle and served on a number of NERC and other scientific committees.





Dr Rob Hall

After an undergraduate degree in Oceanography at the University of Southampton, I completed my PhD in Physical Oceanography at Proudman Oceanographic Laboratory (now National Oceanography Centre, Liverpool) and the University of Liverpool, under the supervision of Profs John Huthnance and Ric Williams. I then spent three years as a postdoctoral research associate at the University of Hawaii working with Dr Glenn Carter before being appointed Lecturer in Shelf Sea Oceanography at the University of East Anglia. My research is on shelf sea and shelf edge fluid dynamics, diagnosed from observations and numerical model simulations. I have a specific interest in internal waves and internal tides, their interactions with complex topography such as submarine canyons, and their effect on turbulent mixing, biogeochemical fluxes, and primary productivity. My other research interests include tidal bores, wave and tidal energy, and the effect of ocean circulation on fisheries. I have been a member of the Challenger Society since my PhD studies.





Dr Ed Mawji

Ed currently works in the Analytical Science team of the Ocean Technology and Engineering Group supporting the development of *in situ* microfluidic sensors. His own work focuses on the development of an *in situ* Alkalinity sensor with spectrophotometric pH determination. In addition he is examining methods to preserve reagents for long term sensor deployment. He previously worked for BODC and the GEOTRACES programme.





Dr Alejandra Sanchez-Franks

Alejandra is an air-sea fluxes and physical oceanography post-doctoral researcher in the Marine Physics and Ocean Climate group at the National Oceanography Centre in Southampton. She joined the NOC after finishing her PhD in Stony Brook University, New York in April 2015. She is currently focused on the Bay of Bengal Boundary Layer Experiment (BoBBLE) project, which is a joint collaboration between the UK and India investigating the role of the Bay of Bengal in monsoon variability. Alejandra will be responsible for coordinating Early Career Researcher events and Diversity in Marine Science activities on the council.





Professor Richard Sanders

Richard is currently chair of the Ocean Biogeochemistry and Ecosystems group at NOC and an honorary Professor at the University of Southampton. He has degrees in Chemistry, Oceanography and Environmental Science with the early part of his research career focussed on the cycling of inorganic nutrients in the hypernitrified estuaries in Eastern England. Since 2000, when he moved to NOC, he has worked on the Biological Carbon Pump, the biologically mediated mechanisms by which ocean life controls climate. He is leading a 3.7 Million pound NERC large grant to work on the controls over mesopelagic mineralisation with fieldwork in the Benguela Upwelling and Southern Ocean and is also working on the oceanic uptake of anthropogenically remobilised atmospheric CO₂. In the future he plans to work extensively on the transfer of terrestrial organic matter from land to sea and its fate in coastal waters, initially via a large project in the UK, eventually taking this expertise into S Hemisphere and tropical settings.





Election of New Council Members

Propose to elect new members to Council en bloc:

Peter Burkill

Rob Hall

Richard Sanders

Ed Mawji

Alejandra Sanchez-Franks

Rob Goddard

SCOR member

Data Protection and Membership

Policy Liaison

Treasurer

Diversity and Early Careers

President Elect

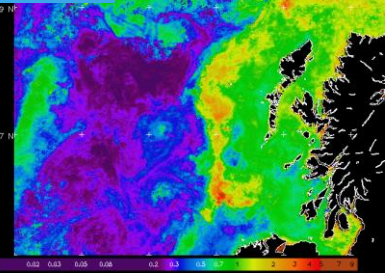
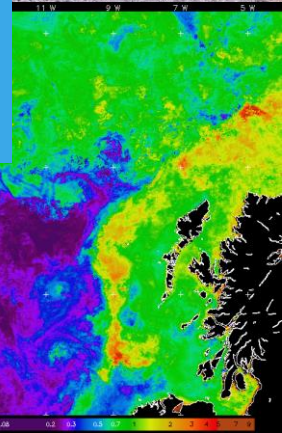
Proposer: Alan Jamieson Second: Emma Cavan



The Challenger Society for Marine Science

Any Other Business

Next meeting - AGM 2018
To be held at the Challenger Conference 2018
Newcastle University
10th -13th September 2018





Questions from the Floor

1. How does a member get voted onto the council?

Council members are usually voted onto council after a member expresses an interest to do so to a present member of the council. It is rare that candidates exceed places, although the size of the council has increased to reflect new areas of responsibility (Policy, SCOR and Data Protection). On occasions a member has been approached when suited to a particular role (Hon Sec, Hon Treasurer). The council will endeavour to call for Eols for council members in advance of present members ending their terms.

2. Will fellowships be awarded this year.

Fellowships are awarded each other year at the Conference. A call for nominations for Fellows will be made in January 2018 with a closing date of April 2018.