

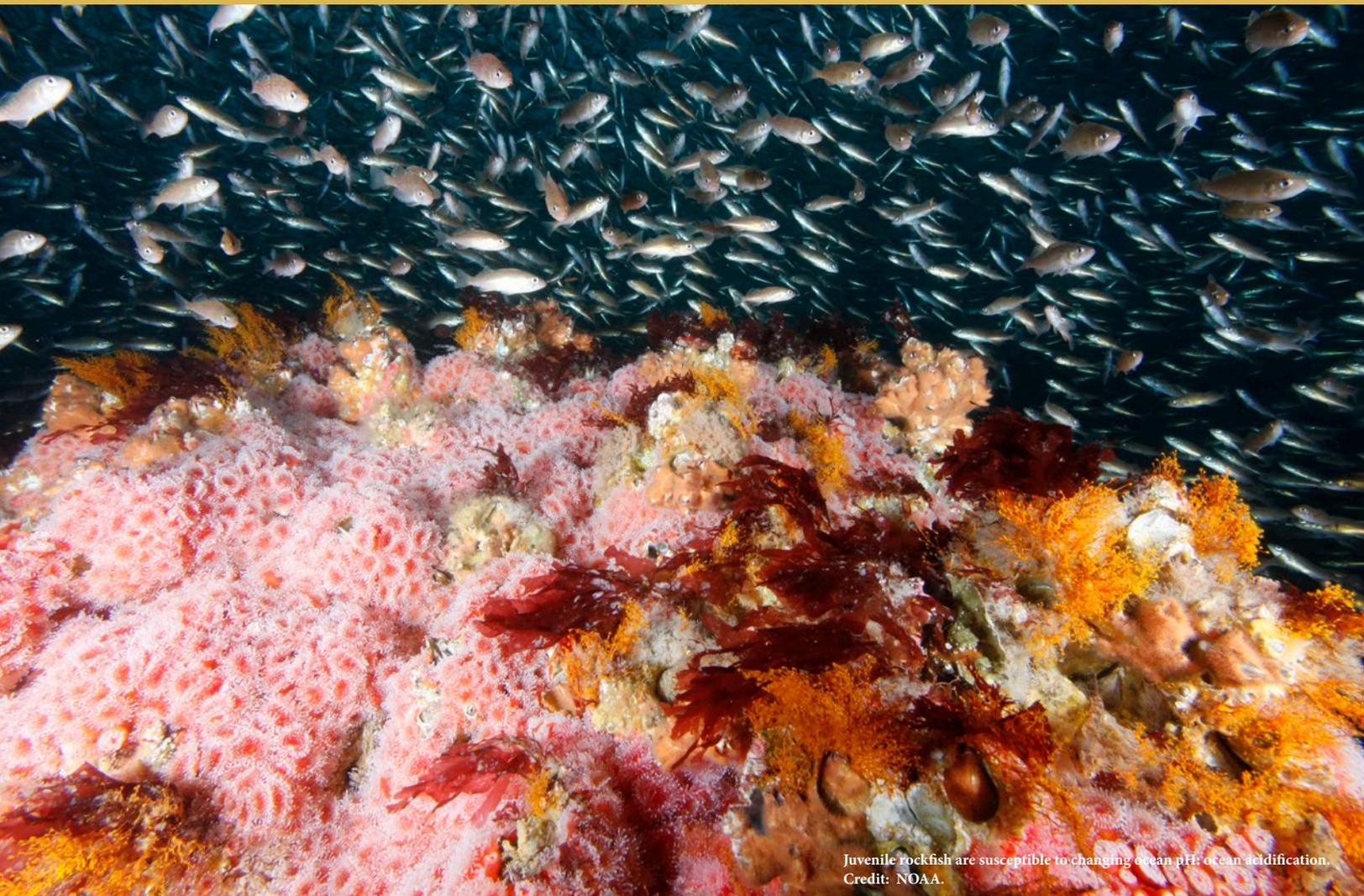
# OCE

DIVISION  
OF OCEAN  
SCIENCES

# MAKING WAVES

NEWSLETTER

Fall 2014



Juvenile rockfish are susceptible to changing ocean pH: ocean acidification.  
Credit: NOAA.



National Science Foundation  
WHERE DISCOVERIES BEGIN



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## OCE Division Director's Message



### Welcome to the fall 2014 OCE newsletter – Making Waves!

This has been a busy time within the Division. After much internal discussion, we have undertaken a rebalancing of the science sections. The Physical and Biological Oceanography programs will remain in the Ocean Section, currently led by Acting Section Head Mete Uz. The Chemical Oceanography program is now with the Marine Geology and Geophysics program in the Marine Geoscience Section, currently led by Acting Section Head, Don Rice. ***These changes will have no effect on the submission of proposals to the science programs.*** There is also a search underway for two new Section Heads, providing us a unique opportunity to rethink how we structure these positions. Section Heads assume great responsibility in developing the Division's budget and in representing the Division in interagency and international activities aligned with their programs. This provides additional support for the Division Director and long term continuity with interagency and international partners.

I continue to hear concern from the community regarding the competitiveness of proposals that ask for ship time. Let me say once again that if your research requires ship time then ask for what you need. Your submission will be evaluated based on the excellence of the research proposed, not the cost of

the ship time requested. Though there is important work that can be done in a laboratory, many of our most pressing questions can only be addressed by going to sea. We have the finest research fleet in the world. If you need a ship – request it!

I would also like to reiterate OCE's policy for proposals that require ship time on UNOLS vessels. We ask that proposals requesting ship time, particularly of the large global class vessels, be submitted to the August 15 target date. Having this information near the start of the federal fiscal year, which begins October 1, assists us in developing an efficient, cost efficient cruise schedule. This is just a request, however, to assist with planning. We will still consider proposals that request time on UNOLS ships at the February 15 target date.

This is my last message as Division Director. Though I look forward to only having one job and getting back to nitrogen research full time, it has been an incredible honor to serve the ocean science community at NSF. The Foundation is an inspiring place! The work of the people here is absolutely critical to advancing the scientific enterprise in the United States and the world. It has been wonderful being a part of it!

Rick Murray will take over as Division Director on January 12, 2015. He has visited NSF a number of times, and I am increasingly including him in conversations regarding Division activities and future planning. The goal is to have a smooth transition when Rick comes on board, and we will achieve that. These are challenging times on many fronts, and Rick will need the support of the community as he takes on his new role. I think he is going to be great!

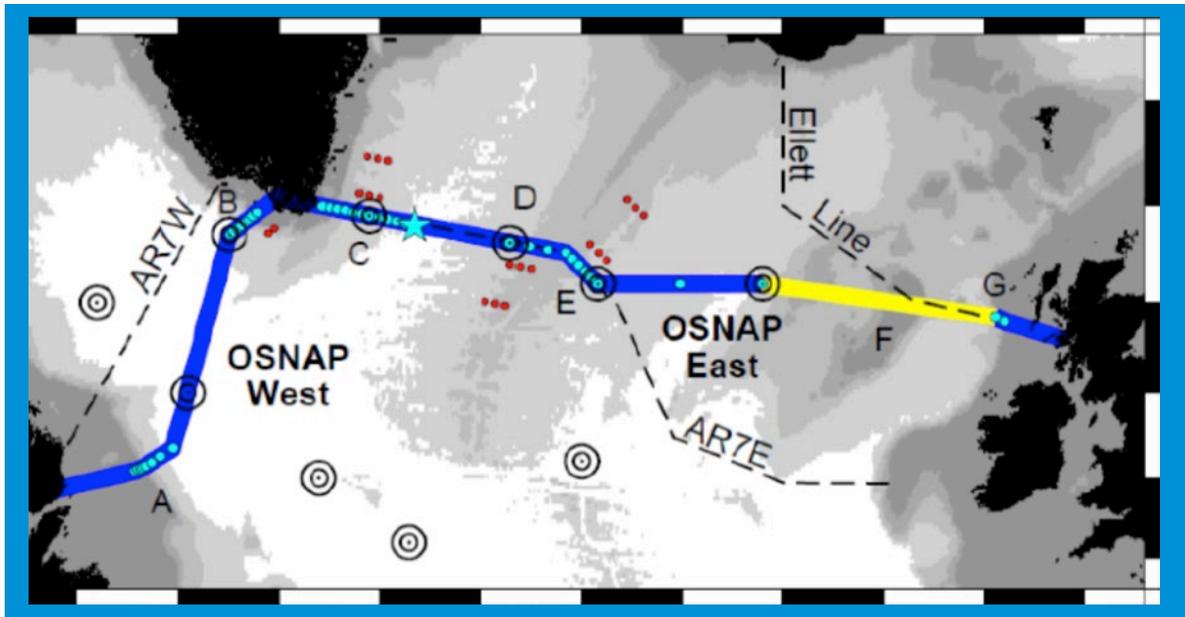
As always, I am here to serve and my door, e-mail, phone line are always open. I welcome your comments and concerns.

With warm regards,

Deborah A. Bronk, Division Director  
Division of Ocean Science  
[dbronk@nsf.gov](mailto:dbronk@nsf.gov); 703-292-7715

## OSNAP (Overturning in Sub-polar North Atlantic Project) is Underway!

OSNAP is a US-led international program involving physical oceanographers from seven countries (U.S., U.K., Canada, Germany, Netherlands, France and China) focused on measuring the Atlantic Meridional Overturning Circulation (AMOC) in the sub-polar North Atlantic and the intra- and inter-gyre connectivity. Over the summer, six research cruises took place between June and September on U.K., U.S., Canadian, and French research vessels, followed by the OOI Irminger Sea Node (Cyan star) deployment cruise.



First, U.K. scientists conducted a full-depth hydrographic/carbon/tracer survey (in blue/yellow). Then WHOI scientists deployed sub-surface floats (red dot clusters) and the sound sources (concentric circles) used to track them. Finally, several international teams deployed the two mooring (cyan dots) and ocean glider (yellow) arrays across the Labrador Sea and the Irminger Sea/Iceland Basin, respectively.

The OSNAP observing system is designed to capture the net transport of the overflow waters from the Nordic Seas, as well as that from the Labrador Sea and to follow their transformation through the sub-polar gyre. Together with the MOCHA-RAPID array at 26.5°N, Canadian and U.S. program in the Labrador Sea/ David Strait and the European Union's NACLIM observations of the Nordic Seas overflows, the OSNAP array form a comprehensive observing system in the North Atlantic that will allow for a reexamination of the "overturning" paradigm that (1) a slowly-varying AMOC can be estimated from a synoptic measure of the full-depth, trans-basin density field, (2) temporal variability in overturning transport and properties is spatially coherent, (3) the AMOC's transport and property variability primarily result from transport and property variability of deep North Atlantic water masses, and (4) the waters that compose the lower limb of the meridional overturning circulation are carried continuously along deep western boundary currents.

For more information on OSNAP, see: <http://www.o-snap.org> (cruise plans, cruise reports and blogs, news and events, etc.)

Press Release 13-175: NSF awards grants for deployment of new observing system in the North Atlantic Ocean [http://www.nsf.gov/news/news\\_summ.jsp?cntn\\_id=129117&org=NSF](http://www.nsf.gov/news/news_summ.jsp?cntn_id=129117&org=NSF)

## New Resources for Biological Oceanography and Chemical Oceanography Program PIs to Develop Data Management Plans

NSF requires a Data Management Plan for each proposal. As part of the proposal review process, the Biological Oceanography and Chemical Oceanography Programs, and their review Panels, assess the compliance of these plans with NSF and OCE Data Management Policies. While many of the Data Management Plans submitted have been adequate, others fall short in describing what data will be collected and how they will be made publically available.

In addition to serving as a data and metadata repository, the Biological and Chemical Oceanography Data Management Office (BCO-DMO) website includes information to help investigators prepare Data Management Plans: <http://www.bco-dmo.org/nsf-two-page-data-management-plan>. In Fall 2014, BCO-DMO will make a new Data Management Plan template available online to assist investigators in submission of plans that meet OCE Sample and Data Policy requirements. The Biological Oceanography and Chemical Oceanography Programs ask PIs to use the guidance and new template available on the BCO-DMO website for proposals submitted in February 2015 and thereafter. This way, we will minimize the need for revision of non-compliant or inadequate data management plans.

BCO-DMO continues to provide a central portal for metadata and data for projects funded by the Biological Oceanography and Chemical Oceanography Programs. As new awards are funded, investigators are expected to contact BCO-DMO staff to register their projects in the database and to submit metadata and data in a timely fashion. The Data Management Plan should be one of the first project documents submitted to BCO-DMO. Annual and final project reports to the Programs should include status of registration, metadata, and data submission with BCO-DMO (with a URL link to the entry) as a Product.

Please contact the BCO-DMO office with questions about using the template for Data Management Plans, registering your project, or submitting data or metadata (<http://www.bco-dmo.org/>, or [info@bco-dmo.org](mailto:info@bco-dmo.org))

## RAPID and EAGER Requests to the Biological Oceanography Program

The Biological Oceanography Program receives scores of requests for RAPID or EAGER funding each year. Many of these do not meet the criteria for consideration under these funding mechanisms. Before contacting the Program, we strongly encourage PIs to carefully consider RAPID or EAGER guidelines set forth in the NSF Grant Proposal Guide ([Chapter II.D.1 and 2](#)), and clearly communicate to the Program how their proposed activity fits within the scope of these funding mechanisms. Below we summarize essential guidance for RAPIDs and EAGERS.

The Program will not invite RAPID or EAGER proposals for projects that, in our judgment, could be submitted to the February or August target date as a regular proposal. Nor are RAPIDs and EAGERS intended as a means to generate preliminary data or respond to availability of berth space on a research vessel simply because the opportunity exists.

RAPID is a funding mechanism to support rapid-response research on natural or anthropogenic disasters, or similar unanticipated events, when the normal grant review cycle would be too long. Requests may be for up to \$200,000 and one year duration. One defining factor for RAPID projects is urgency. Requests must include clear statements as to why the project is of an urgent nature and why a RAPID award would be the most appropriate mechanism to support the proposed work. We also favor projects that have base-line data that can be used to evaluate post-event findings. While every major environmental perturbation will have some effects on biological systems that could be followed and documented, not all will be compelling in contributing to deeper understanding of community or ecosystem processes.

The EAGER mechanism supports high-risk, exploratory, and potentially transformative research. Requests may be for up to \$300,000 and two years' duration. Requests must explain why the project would be inappropriate for the standard merit peer review process. The project must move well beyond gathering preliminary data, and be exploratory or high-risk with potential to lead to high-reward, transformative results that extend beyond the individual PI's research.

Finally, please keep in mind that you must contact a program officer by email with a brief (no more than 2 pp.) description of your project and a rough estimate of the project cost. The Biological Oceanography Program contact is currently [Dan Thornhill](#). **Do not submit a formal EAGER or RAPID proposal through FastLane unless you are invited to do so by the Program.**

## Possible Expansion of the U.S. Network of Coastal Ocean Ecosystem LTER

OCE is exploring the possibility of soliciting proposals for one or more coastal ocean ecosystem LTER sites, if we are successful in securing funds in the FY 2016 time frame.

Of the 25 sites that comprise the [NSF Long Term Ecological Research \(LTER\) Network](#), eight are coastal ocean sites, two of which are supported entirely by OCE. The Moorea Coral Reef LTER (MCR) and the California Current Ecosystem LTER (CCE) were awarded in 2004 in response to solicitation [NSF 03-599](#).

The OCE Biological Oceanography Program has initiated discussions with current coastal ocean LTER investigators to organize community discussions about what an expanded network might look like and what additional science questions it could address. We already have plans for an informal community discussion at the ASLO Aquatic Sciences Meetings in Spain in February 2015 (see ASLO schedule). We also anticipate further discussion at the LTER All Scientist Meetings in August-September 2015.

It is important to emphasize that presently this is a *developing plan without a budget commitment*. Nevertheless, we recognize that coastal ocean LTERs can be a powerful mechanism to address some of the more pressing environmental and sustainability issues of our time and hope to see this reflected in the budget.

If you would like to stay informed of the potential developments concerning the possible expansion of coastal ocean LTERs, receive information on community discussions at meetings, etc., send an email to [listserv@listserv.nsf.gov](mailto:listserv@listserv.nsf.gov) with the message body "subscribe LTER-OCE". The subject may be left blank. The listserv is for announcements only.

## Program News

**Marine Geology and Geophysics:** In the coming months, we expect to launch a search for two new Program Directors, one permanent and one rotator, to cover the broad marine geophysics portfolio. Keep an eye out for the job announcements on [www.usajobs.gov](http://www.usajobs.gov) and elsewhere, and please contact us if you are interested. We anticipate that the new staff would come on board as early as mid-year 2015. Candace Major, newly appointed to the permanent staff, now serves as acting MGG Program Lead.

**Biological Oceanography:** We have had some staff changes in the Biological-Oceanography Program. This past summer Mike Lesser returned to the University of New Hampshire after 3 years as Program Officer - thanks Mike! Anton Post has accepted a faculty position as Director of the Coastal Resources Center at the University of Rhode Island. Congratulations Anton! He will be leaving NSF in January and we are looking for a good candidate to fill this position. [The Dear Colleague letter](#) was released on October 7th. Sara Paver, our Knauss SeaGrant Fellow, has been working since January with the Coastal SEES Program and assisting the Biological Oceanography Program. Daniel Thornhill and Cynthia Suchman joined the Biological Oceanography program in August. For more about our newest staff members see below.

## OCE and Related Research in the News

- 1 Rust villages of the deep: In Pele's shadow, iron oxide, or rust, comes to life:  
[http://www.nsf.gov/discoveries/disc\\_summ.jsp?cntn\\_id=132271&org=NSF](http://www.nsf.gov/discoveries/disc_summ.jsp?cntn_id=132271&org=NSF)
- 2 Mercury in the world's oceans: On the rise:  
[http://www.nsf.gov/news/news\\_summ.jsp?cntn\\_id=132171&org=NSF](http://www.nsf.gov/news/news_summ.jsp?cntn_id=132171&org=NSF)
- 3 World Oceans Day: 12 things to know about El Niño: Is it coming, and when?:  
[http://www.nsf.gov/discoveries/disc\\_summ.jsp?cntn\\_id=131638&org=NSF](http://www.nsf.gov/discoveries/disc_summ.jsp?cntn_id=131638&org=NSF)
- 4 NSF awards \$15 million in second set of coastal sustainability grants:  
[http://www.nsf.gov/news/news\\_summ.jsp?cntn\\_id=132637](http://www.nsf.gov/news/news_summ.jsp?cntn_id=132637)
- 5 Whither the diversity of life on Earth? NSF, partners award \$23 million for studies of planet's biodiversity:  
[http://www.nsf.gov/news/news\\_summ.jsp?cntn\\_id=132506](http://www.nsf.gov/news/news_summ.jsp?cntn_id=132506)
- 6 Ocean Acidification: NSF awards \$11.4 million in new grants to study effects on marine ecosystems:  
[http://www.nsf.gov/news/news\\_summ.jsp?cntn\\_id=132548](http://www.nsf.gov/news/news_summ.jsp?cntn_id=132548)
- 7 Scientists apply biomedical technique to reveal changes in body of the ocean:  
[http://www.nsf.gov/news/news\\_summ.jsp?cntn\\_id=132505](http://www.nsf.gov/news/news_summ.jsp?cntn_id=132505)
- 8 National Science Foundation awards \$9.47 million for research on coupled natural and human systems:  
[http://www.nsf.gov/news/news\\_summ.jsp?cntn\\_id=132412](http://www.nsf.gov/news/news_summ.jsp?cntn_id=132412)
- 9 Ocean's microbial megacity: Like humans, the sea's most abundant organisms have clear daily cycles:  
[http://www.nsf.gov/news/news\\_summ.jsp?cntn\\_id=131903](http://www.nsf.gov/news/news_summ.jsp?cntn_id=131903)
- 10 Ancient ocean currents may have changed pace and intensity of ice ages:  
[http://www.nsf.gov/news/news\\_summ.jsp?cntn\\_id=131830](http://www.nsf.gov/news/news_summ.jsp?cntn_id=131830)
- 11 Antarctic ice sheet is result of CO2 decrease, not continental breakup:  
[http://www.nsf.gov/news/news\\_summ.jsp?cntn\\_id=132287](http://www.nsf.gov/news/news_summ.jsp?cntn_id=132287)
- 12 Synchronization of North Atlantic, North Pacific preceded abrupt warming, End of ice age:  
[http://www.nsf.gov/news/news\\_summ.jsp?cntn\\_id=132215](http://www.nsf.gov/news/news_summ.jsp?cntn_id=132215)

## Upcoming Due Dates

Most OCE programs continue to have 2 target dates per year for unsolicited proposals: February 15 and August 15. The Ocean Technology and Interdisciplinary Coordination (OTIC) Program has a single annual target date of February 15. For programs under the Oceanographic Facilities and Equipment Support umbrella please go to the solicitation.

**We'd like to highlight the following NSF funding opportunities, with their next due dates:**

Geophysics (PH)	12-598	Full Proposal: December 3, 2014
Ocean Sciences Postdoctoral Research Fellowships (OCE-PRF)	14-607	Full Proposal: December 8, 2014
Oceanographic Facilities and Equipment Support (Oceanographic Instrumentation Shipboard Scientific Support Equipment)	13-589	Full Proposal: December 15, 2014
Industry/University Cooperative Research Centers Program (I/UCRC)	13-594	Letter of Intent: January 5, 2015
Ocean Sciences Research Initiation Grants (OCE-RIG)	13-606	Full Proposal: January 12, 2015
Biological Oceanography		Full Proposal: February 15, 2015
Chemical Oceanography		Full Proposal: February 15, 2015
Marine Geology and Geophysics		Full Proposal: February 15, 2015
Ocean Technology and Interdisciplinary Coordination		Full Proposal: February 15, 2015
Physical Oceanography		Full Proposal: February 15, 2015
Industry/University Cooperative Research Centers Program (I/UCRC)	13-594	Full Proposal: March 3, 2015
Ocean Drilling Program (OD)		Full Proposal: Accepted Anytime

## OCE Staff Members Receive Foundation Awards

The staff of the Division of Ocean Science is an incredibly dedicated group. The excellence of many within the Division was recognized at this year's Director's Award Ceremony, where I am proud to say, OCE made quite a showing!

**Gloria Perez** | **Director's Award for Excellence** | **Administrative Professional**

*for outstanding support of program managers and proposal process, serving as the Division expert on critical systems and anticipating Divisional needs, and proactively addressing issues before they morph into problems.*

**David Garrison** | **Director's Award for Excellence** | **Program Director/Project Manager**

*for commitment to the highest quality science possible and encouraging young scientists entering the field of Biological Oceanography.*

**Donald Rice** | **Director's Award for Excellence** | **Sage**

*for steady leadership and commitment to the research community and the Foundation, success applying institutional and programmatic mastery to unique challenges, and consistent efforts at improving internal processes.*

**Eric Itsweire** | **Director's Award for Achievement in Equal Opportunity or Diversity**

*for contributions to increase diversity in the field of Physical Oceanography through the support of innovative mentoring and outreach programs, including MPOWIR (Mentoring Physical Oceanography Woman to Increase Retention) and the Early Career Program.*

**Barbara Ransom** | **Director's Award for Achievement in Equal Opportunity or Diversity**

*for going above and beyond in her role as advocate for the employee during alternative dispute resolution and EEO inquiries, with unwavering dedication to the mediation process that not only saved the agency money, but improved workplace conditions, workplace relationships, morale, as well as employee productivity.*

## OCE Staff Changes



### **Bilal Haq**

After 26 years of service to NSF and the MGG community, Bilal Haq officially retired at the end of September. Bilal's illustrious career was celebrated at a party at NSF Headquarters, attended by a great crowd of NSF colleagues and members of the research community. Thanks to Bilal for his many years of service and leadership! He will continue to work half time in the MGG and GeoPRISMS programs during a transition period. This photo shows Bilal in full regalia as he was honored as a Doctor Honoris Causa by the Sorbonne last year.



### **Cynthia Suchman**

Cynthia Suchman re-joined the Biological Oceanography Program in June as a Program Director. Her expertise is in zooplankton ecology, and she has also worked for state and regional marine science funding programs in Virginia and Alaska. She most recently served as an Expert for OCE while located in Anchorage. She returns to NSF in Arlington after a rotation 2007-2011, and is looking forward to working with colleagues in GEO and across the Foundation. In addition to core Biological Oceanography Program duties, she plans to participate on the Coastal SEES Management Team, assist with the upcoming CNH competition, and represent OCE in interagency activities related to marine ecosystem based science and management.



### **Dan Thornhill**

Dan Thornhill is a new program director in the Biological Oceanography Program. His research interests include work on speciation in marine environments, population connectivity, coral reefs, deep-sea chemosynthetic environments, and marine conservation biology. Prior to joining NSF, Dan worked as a conservation scientist at Defenders of Wildlife and an affiliated faculty member at Auburn University. His past affiliations include a faculty position at Bowdoin College as well as postdoctoral fellowships at Auburn University and the University of Georgia. Dan received a Bachelor of Science in zoology and environmental biology from Michigan State University and a Ph.D. in ecology from the Institute of Ecology at the University of Georgia.

## OCE Staff Changes



### **Melissa Genazzio**

Melissa Genazzio joined OCE in September as a Science Assistant in Physical Oceanography. She received her Bachelors of Science from The University of Rhode Island, and her Masters of Science from The University of North Carolina Wilmington, with a focus on photophysiological health of the seagrass community in Florida Bay. Prior to NSF, she has worked at a diversity of marine institutions along the coast including The Gulf of Maine Research Institute, Woods Hole Marine Biological Laboratory, Bermuda Institute of Ocean Sciences, Louisiana Universities Marine Consortium, and Mote Marine Laboratory's Tropical Research Lab.



### **Sarah Mesrobian**

Sarah Mesrobian is the division's Pathways Student. She is working on her Master's degree at George Mason's School of Public Policy. Sarah graduated from Purdue University where she earned a Bachelor's of Arts in Law & Society and Political Science. During her final semester at Purdue, she analyzed statistical data focusing on trust in government. After this project, Sarah will look for internship opportunities that are related to policy research. Prior to coming to the NSF, she was a research intern where she provided statistical background at two non-profit policy organizations.

## In Memoriam



### **Dr. Bruce Malfait**

On a more somber note, OCE and the Office of Polar Programs recently hosted a remembrance and appreciation ceremony in honor of Dr. Bruce Malfait, retired Program Director and Section Head, who suddenly passed away in May of this year. Bruce served a lead role in managing and overseeing Ocean Drilling-related activities during his 32 year career at NSF. The event was widely attended by present and former NSF staff and others. A stream of light-hearted and bittersweet tribute speeches from Bruce's former colleagues cast light on his profound influence in the advancement of Ocean Drilling and Marine Geosciences, and he will long be remembered as a friend and mentor to many within the Foundation and the science community.



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This newsletter is designed to share timely information about the National Science Foundation's Division of Ocean Sciences. If you have comments or questions, please communicate with the relevant OCE program officer, or with Jane Montgomery who serves as newsletter editor. The newsletter will be distributed by email and posted on the OCE homepage. Please feel free to forward to colleagues. If you would like to subscribe to the OCE Newsletter, please follow the instructions below:

- 1 Send an email to [listserv@listserv.nsf.gov](mailto:listserv@listserv.nsf.gov).
- 2 In the text of the message, put the following command:  
Subscribe ocenewsletter your name  
Example: subscribe ocenewsletter John Doe

If you do not want to receive the newsletter by email, please send an email to:

[OCENEWSLETTER-signoff-request@LISTSERVE.nsf.gov](mailto:OCENEWSLETTER-signoff-request@LISTSERVE.nsf.gov)