

## News from the Dean

Spring is finally making its entrance and the semester is nearing its end. This spring commencement will be a special one for SMAST as we celebrate our largest graduating class to date. Congratulations to all of our recent graduates!



In March, I joined colleagues in Washington DC for the Ocean Leadership forum entitled "The Urban Ocean," which considered the implications of climate change for port cities. This event included appearances by various elected officials, including U.S. Senator Edward Markey (D, MA) who spoke on the need for a better understanding of how changing ocean conditions may impact Boston and other coastal cities and ports in the Commonwealth and the nation. (Photo left to right: Dean Steve Lohrenz, Senator Edward Markey, WHOI Director Susan Avery)

SMAST faculty and students were well represented in February at the 2014 Ocean Sciences meeting in Honolulu. The international meeting attracted more than 5000 participants, and SMAST personnel authored or co-authored some [three dozen posters and oral presentations](#) and co-chaired three technical sessions.

Closer to home, Emeritus Professor Dan Georgianna and an SMAST-led research team, with support from the New Bedford Harbor Development Commission, unveiled a "Groundfish Port Recovery and Revitalization Plan" for New Bedford and Fairhaven at a public meeting at SMAST in March. A final version, reflecting the public input, is imminent, and will be a useful roadmap for addressing critical issues affecting the economic vitality and structural integrity of our working waterfront.

On February 26, the Massachusetts Fisheries Institute, under the leadership of Professor Steve Cadrin, wrapped up the final end-to-end review workshop on New England groundfish stock assessments. This third of three workshops addressed fisheries monitoring and survey selectivity. The previous two workshops examined environmental change and reference points and uncertainty in fisheries management approaches. A summary report, due out shortly, will provide a basis for developing improved fisheries management practices.

SMAST Professor Pingguo He is co-organizer, along with NOAA and the Massachusetts Division of Marine Fisheries, of an International Council for the Exploration of Seas (ICES) [workshop on fish behavior and acoustic science](#). The meeting of approximately 140 participants is being held in New Bedford to address technological advances in fishing gear and acoustic monitoring.

We are pleased to welcome new assistant professor Dr. Gavin Fay, who will join the Department of Fisheries Oceanography in the Fall Semester. Dr. Fay is currently a postdoctoral research associate at the NOAA Northeast Fisheries Science Center in Woods Hole. His research focuses on spatial modeling and statistical analyses of marine fisheries populations. His position is supported through a partnership of the Cooperative Institute for North Atlantic Research (CINAR) involving NOAA, the Woods Hole Oceanographic Institution, and the University of Massachusetts Dartmouth. See the "Faculty Spotlight" below for more information.

We were honored to have former Congressman Barney Frank visit SMAST recently and meet with students and faculty to discuss "The Intersection of Science, Policy and Politics." This was a special opportunity to speak face-to-face with an accomplished legislator and get an inside perspective of the policy process and how we, as a scientific community, can more effectively inform decision making.



We are excited about the progress on our new [COAST Professional Science Masters program](#), which is advancing thanks to the hard work of our participating faculty and our current cohort of students. Instead of an M.S. thesis, students participate in an internship to gain experience in an area of interest. Our efforts this school year have focused on getting the word out to our local and regional businesses, non-profit organizations and government agencies to help pave the way for our students' internships. Our "field work" has helped us to better understand the employment needs of the marine science and technology community. In response we are planning to offer more COAST courses on-line and potentially in the evenings. Stay tuned.



SMAST has been busy with community outreach activities. Researcher Dr. Cate O'Keefe delivered the keynote address "The Ones That Got Away: Avoiding Bycatch in Commercial Fisheries" at the 37th Annual High School Marine Science Symposium. SMAST students also participated in the symposium by conducting a workshop on sea scallop life history, biology and ecology. Later this month, as part of the [Working Waterfront Festival's "Dock-u-mentaries" series](#), our researchers and students will present an overview of SMAST's cooperative research with the fishing industry at the New Bedford Whaling Museum.

SMAST students continue to be recognized for excellence. Valerie Hall, who will receive her Ph.D. hood at this month's commencement ceremony, garnered honorable mention from the National Shellfisheries Association in the judging for best student presentation. Val's talk, "Use of a matrix population model to assess the impact of the second spawn on the northern bay scallop, *Argopecten irradians irradians*," was given at the NSA Annual Meeting in Jacksonville, Florida. In April, Corey Eddy (Biology/SMAST) and Chrissy Petitpas (SMAST) finished first and second, respectively, in the UMass Dartmouth "3-Minute Thesis" competition for graduate students. This marks the second year running that SMAST has taken first and second place; last year, SMAST students Natalie Jones and Katherine Thompson swept the top spots.

These are just a few of the many activities here at SMAST. I wish our graduates the best of luck as they embark on the next phase of their careers, and to all... have a great summer!

## Faculty Spotlight - Dr. Gavin Fay

Dr. Fay, Assistant Professor in the Department of Fisheries Oceanography, is the newest addition to the SMAST faculty.



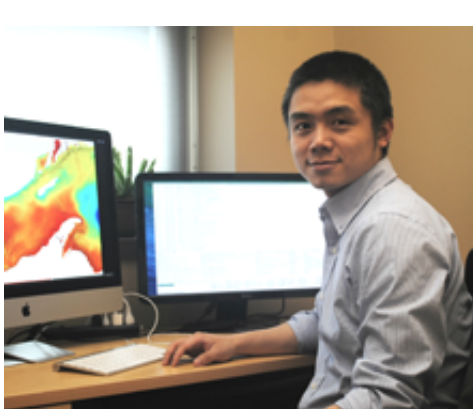
A native of the U.K., Gavin received his B.Sc. (Hons) in Marine Biology at the University of Stirling, Scotland, where he developed an interest in using quantitative methods to answer applied biological questions. He earned an M.S. and a Ph.D. in Aquatic and Fishery Sciences from the University of Washington, Seattle. During his graduate studies, he worked on a range of statistical and modeling approaches for the assessment and management of Steller sea lions, eastern North Pacific gray whales, and demersal finfish species.

Gavin has also worked for CSIRO Marine and Atmospheric Research in Hobart, Tasmania, where he focused on developing stock assessments and harvest control rules for several commercially important finfish species, and tested the performance of management strategies for the Macquarie Island Patagonian toothfish fishery.

In his current research as a postdoctoral associate at NOAA's National Marine Fisheries Service in Woods Hole, Gavin is using marine ecosystem models to evaluate the performance of ecosystem-based fisheries management strategies for the northeast U.S. continental shelf. As he develops his research program at SMAST, Gavin anticipates using interdisciplinary multi-model approaches to extend

the scope of applications for fisheries and ecosystem assessment.

## Alumni Spotlight - Pengfei Xue



After earning his BSc in Applied Mathematics at East China Normal University, Pengfei Xue traveled to the U.S. to become a research assistant in the SMAST Marine Ecosystem Dynamics Laboratory of Dr. Changsheng Chen. He received his Ph.D. in May 2012 for his work on simulating ocean observing system events in Massachusetts coastal waters.

From SMAST, Pengfei accepted a post-doctoral research position at MIT, working with Prof. Paola Malanotte-Rizzoli (Department of Earth, Atmospheric and Planetary Science) and Prof. Elfatih A.B. Eltahir (Department of Civil and Environmental Engineering). His research at MIT focused on developing and applying a regional coupled ocean-atmosphere model to the so-called tropical Maritime Continent of

Southeast Asia and to the Persian Gulf.

Now an assistant professor at Michigan Technical University, Pengfei is focusing on the development and application of numerical models to problems in the coastal ocean and the Great Lakes. He is currently involved in the development of an integrated water-ice-atmosphere-biology modeling system for the Great Lakes.

## Student Spotlight - Georgia Kakoulaki

Georgia Kakoulaki was born in Athens Greece, and educated in three countries. Georgia graduated from the Technological Educational Institution of Crete, and earned a master's degree from the Coastal Geosciences and Engineering program at Christian-Albrechts-University in Kiel, Germany, before enrolling in the Ph.D. program at SMAST.

Along the way, Georgia worked as a research assistant in studies involving in situ radar, numerical modeling, and geographical information systems. She also spent three years doing archaeological data analysis and fieldwork in the Laboratory of Geophysical-Satellite Remote Sensing and Archaeo-environment of the Institute for Mediterranean Studies.

At SMAST, Georgia's research is focused on using Lagrangian drifters to study the poorly understood process by which river plumes transition into coastal currents. Her study area is the region where the Merrimack River empties into the Atlantic (Newburyport, Massachusetts) and is part of the Merrimack River Mixing and Divergence Experiment (MeRMADE II).

Georgia has won several scholarships and academic awards, both in the U.S. and abroad, including the first place poster award at the UMass Intercampus Marine Science Research Colloquium, and the Outstanding Student Award, School for Marine Science and Technology, UMass Dartmouth, 2013.

