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OCB Ocean Acidification Short Course : Participants

Brief Biographies of Instructors and Participants

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&#0187 Student Participant List

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&#0187 List of Instructors, Organizers and Teaching Assistants

Heather Benway, Woods Hole Oceanographic Institution, U.S.A.

Heather received her Ph.D. in oceanography from Oregon State University in 2005, and has research interests in paleoceanography, sedimentology, and isotope geochemistry. Heather is especially interested in the tropical-high latitude feedbacks that drive abrupt climate and deep ocean circulation changes. Her dissertation focused on the application of stable isotope tracers, box models, and tropical paleoceanography to study the transport of water vapor across the Panama Isthmus. Heather did postdoctoral research in North Atlantic paleoceanography at WHOI and then joined the OCB Project Office in May 2007, where she designs and implements community building activities to further carbon cycle science research.

Helen Bostock, National Institute of Water and Atmospheric Research, Wellington, New Zealand

Helen is a marine geologist, primarily interested in paleoceanography and carbonate mineralogy/chemistry. She did her MSci at University of Cambridge on carbonate mineralogy and the diagenesis of limestones and then her PhD at the Australian National University on the southern Great Barrier Reef using geochemical tracers to understand past and present ocean circulation in the Tasman Sea. She has been working at NIWA for the last 3 years looking at sediment cores and carbonate water chemistry from the Macquarie Ridge, Southern Ocean and the distribution of carbonate sediments and deepsea organisms in the southwest Pacific Ocean.

Daniela Bottjer, University of Hawaii, U.S.A.

Daniela received her Ph.D. from the University of Bremen in 2007. Her dissertation focused on trophic interactions in the microbial food web in a coastal upwelling system off central Chile. From 2008-2009 she was a post-doctoral scientist at the Laboratory of Biological Oceanography of Banyuls-sur-Mer where she was involved in a research project about climate and human induced alterations in carbon cycling at the Rhône River - Mediterranean Sea interface. Now she is a post-doctoral investigator at the University of Hawaii at the Centre for Microbial Oceanography (C-MORE) in Matt Church's lab where she works on oceanic diazotroph community structure and activities in a high carbon dioxide world.

Mark Carls, NOAA/NMFS/Alaska Fisheries Science Center, U.S.A.

Mark currently manages and actively participates in oil-related research projects in Alaska and is developing ocean acidification research at the Auke Bay Laboratories. He has been a principal investigator for numerous research projects involving oil spills and associated research; these include fish embryo toxicity, long-term availability of oil to biota, development of passive hydrocarbon samplers, sediment contamination, impaired salmon habitat, and interpretation and modeling of hydrocarbon chemistry. Oil byproducts are common environmental contaminants resultant from societal reliance on fossil fuels for energy; ocean acidification research involves a rather different aspect of the same problem.

Cyndy Chandler, Woods Hole Oceanographic Institution, U.S.A.

Cyndy Chandler is co-manager of the Biological and Chemical Oceanography Data Management Office (BCO-DMO) and an Information Systems Associate in the Marine Chemistry and Geochemistry Department at the Woods Hole Oceanographic Institution (WHOI) in Woods Hole, Massachusetts. During her 30 years at WHOI she has participated in 35 research cruises and is one of the three originating PIs for the Rolling Deck to Repository project funded by NSF to ensure proper stewardship of data collected aboard vessels in the US academic fleet. Her current research interests focus on the field of ocean informatics.

Sarah Cooley, Woods Hole Oceanographic Institution, U.S.A.

Sarah Cooley received her Ph.D. in 2006 from the University of Georgia, where her dissertation focused on inorganic carbon chemistry in the offshore Amazon River plume. Now she is a postdoctoral investigator at the Woods Hole Oceanographic Institution in the Doney lab. Her research interests include analytical and computational inorganic carbon chemistry, ocean acidification forecasts from coupled climate models, socioeconomic implications of ocean acidification, and communicating science to nonscientists. She also works with the OCB project office and the OCB ocean acidification subcommittee to generate teaching and outreach materials about ocean acidification.

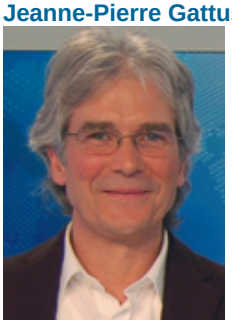
Katharina Fabricius, Australian Institute of Marine Science, Australia

Katharina Fabricius is a coral reef ecologist who has worked on coral reefs of the Great Barrier Reef and many other regions around the world since 1988. She received her PhD from the University of Munich in 1995 for her work on the Great Barrier Reef and Red Sea, and is now a Principal Research Scientist at the Australian Institute of Marine Science (AIMS). Her research focuses on the question how large-scale disturbances from terrestrial runoff, climate change and ocean acidification affect the resilience and ecological functions of coral reefs.

Nann Fangue, University of California, Davis, U.S.A.

Nann Fangue received her Ph.D. in Animal Physiology from the University of British Columbia in 2007 with Dr. Patricia M. Schulte. From 2007-2009, she was a post doc at the University of California, Santa Barbara with Dr. Gretchen Hofmann. Dr. Fangue is currently an Assistant Professor in the Wildlife, Fish, and Conservation Department at the University of California, Davis where her research focuses on understanding the physiological specializations that allow animals to inhabit complex and challenging environments. She is currently using sea urchins and fishes as models to address whether aquatic organisms have sufficient physiological capacity or plasticity to maintain successful performance in the face of anthropogenic environmental perturbations such as ocean acidification. By coupling molecular, cellular, and whole-organism measures of organismal performance framed in an ecological context, her research elucidates connections between environment, physiology, and ecosystem function.

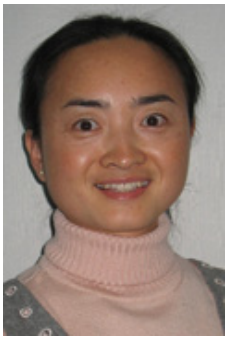
Jeanne-Pierre Gattuso, CNRS and Université Pierre et Marie Curie-Paris, France



Jean-Pierre Gattuso received his Ph.D. from the University of Marseilles in 1987. He was a post-doctoral scientist at the Australian Institute of Marine Science for 2 years and is a CNRS scientist since 1990. His main research activity presently relates to ocean acidification. He is the Scientific Coordinator of the FP7 large-scale integrated project EPOCA (European Project on Ocean Acidification).

Joaquim Goes, Bigelow Laboratory for Ocean Sciences, U.S.A.

Joaquim Goes received his D.Sc. in 1992 from Nagoya University, where his research focused on the effects of ultraviolet radiation on the carbon assimilation pathways in marine phytoplankton using stable isotope tracers and mass spectrometry. He is presently a Senior Research Scientist at Bigelow Laboratory for Ocean Sciences, Boothbay Harbor, Maine, USA, where he is involved in projects related to climate change, ocean color remote sensing, ocean ecosystems and marine biogeochemical cycles.

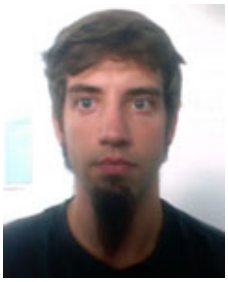


Xiang-Hui Guo, Xiamen University, China

Xianghui Guo received her Ph.D. in Chemical Oceanography from Xiamen University in 2009. Her Ph. D. focused on a comparison of the carbonate system between the Pearl River estuary (China) and the Mississippi River plume (USA). Now she is working at the State Key Laboratory of Marine Environmental Science. She will take a postdoctoral position at the Research Center for Environmental Changes, Academia Sinica in Taiwan in 2010-2013, where she will work on the response of the coral reef system to ocean acidification. Her general interest is the biogeochemical cycling of carbon and nutrients, including CO_2 gas exchange, carbon and nutrient dynamics, and biogeochemical process study through in situ sensors. Her current research seeks to reveal the influence of eddies on the carbon cycle in the South China Sea.

Terrie Klinger, University of Washington, U.S.A.

Terrie Klinger is Associate Professor of Marine Affairs at the University of Washington, Adjunct Associate Professor in the School of Aquatic and Fisheries Sciences, and a leader of the Center for Ecology of Changing Oceans at UW's Friday Harbor Laboratories. She serves as Governor's Appointee to the Northwest Straits Commission, Chair of the Olympic Coast National Marine Sanctuary Advisory Council, and Science Advisor to COMPASS. She earned a Ph.D. in Biological Oceanography from the Scripps Institution of Oceanography. Her research focuses on the ecology of nearshore benthic communities, with a special emphasis on the impacts of multiple stressors on marine ecosystem function and on the development of management strategies to reduce such impacts.



Anderson Mayfield, National Museum of Marine Biology and Aquarium, Checheng, Taiwan and Marine Science Institute, University of California, Santa Barbara, U.S.A.

Anderson Mayfield received his Ph.D. in Zoology in 2009 from the University of Hawaii, Manoa, having conducted the majority of his dissertation work at the Hawaii Institute of Marine Biology on Coconut Island within Kaneohe Bay. Working with Dr. Ruth Gates, Anderson helped to develop molecular methods for understanding the physiology of reef-building corals, the organisms responsible for constructing the beautiful coral reefs found across Earth's tropical seas. As a physiologist, Anderson is interested in understanding the physiological implications of changing environments on the cellular behavior of corals, particularly with respect to subcellular means of physiological regulation via gene and protein expression. As a National Science Foundation international research fellow, Anderson will spend the majority of his post-doctoral research fellowship in the laboratory of Prof. Chii-Shiarng Chen at Taiwan's National Museum of Marine Biology and Aquarium, returning to the United States in 2011 to conduct global transcriptome studies of corals and sea urchins with Prof. Gretchen Hofmann at the University of California, Santa Barbara.

Michael O'Donnell, University of Washington, U.S.A.

Michael O'Donnell is currently a postdoctoral fellow at University of Washington's Friday Harbor Laboratories. Moose received his PhD in biomechanics from Stanford University. He subsequently did postdoctoral work in physiological ecology at the University of California, Santa Barbara. His primary research interests center around understanding the mechanisms by which environmental conditions structure ecological interactions between organisms.

Daniela Turk, National Institute of Biology, Slovenia

Daniela received her Ph.D. from Dalhousie University, and continued her research as a post-doctoral fellow at PMEL/NOAA. Subsequently, she held positions of science officer at the CLIVAR IPO, executive director of the Canadian SOLAS and program manager at the European Science Foundation. She is presently a Marie Curie Research Fellow at the Marine Biology Station, National Institute of Biology, Slovenia where she is involved in coastal carbon cycling and ocean acidification research in the Northern Adriatic.

Zhaohui 'Aleck' Wang, Woods Hole Oceanographic Institution, U.S.A.

Zhaohui 'Aleck' Wang is an Assistant Scientist in the Marine Chemistry & Geochemistry Dept. at Woods Hole Oceanographic Institution. He received his M.Sc. in1998 in Chemical Oceanography at the University of New Hampshire and his Ph.D. in 2003 in Marine Science at the University of Georgia. His research interests include: carbonate chemistry; carbon cycling; sensor developments for in-situ measurements of the seawater CO_2 system (pH, pCO_2/fCO_2, total dissolved inorganic carbon, and total alkalinity), nutrients, and trace metals; coastal carbon and nutrient biogeochemistry; chemical oceanography and marine biogeochemistry.

Meredith M. White, Massachusetts Institute of Technology/Woods Hole Oceanographic Institution, U.S.A.

I'm a graduate student in the Massachusetts Institute of Technology/Woods Hole Oceanographic Institution (MIT/WHOI) Joint Program in Biological Oceanography. As an undergraduate, I studied Biochemistry at Lafayette College in Easton, Pennsylvania. My Ph.D. advisor is Lauren Mullineaux of WHOI's Biology Department, a larval ecologist. Also on my committee are Anne Cohen and Dan McCorkle, of WHOI's Geology and Geophysics Department, Ann Tarrant of WHOI's Biology Department, and Ed Boyle of MIT's Earth, Atmosphere, and Planetary Science Department. I am beginning a thesis to understand organismal and population-level effects of CO2-driven ocean acidification on bay scallops, *Argopecten irradians*. I'm interested in how the highly-vulnerable early life stages of invertebrates are able to survive and adapt to a lower pH ocean.

With the scallops, my work will focus on the larval and juvenile stages.

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