

## Presenter Biographies and Contact Information

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### ***Bill Andrade***

Bill Andrade teaches grade seven science at Swampscott Middle school. He has been a science teacher for 22 years, 21 of which have been in Swampscott. Bill has a Master of Science in Biology from Clark University and a B.S. in Marine Biology from Roger Williams University. His background and interest is in marine science which he integrates into his general science curricula through projects such as the aquaculture of eelgrass and winter flounder through M.I.T. Sea Grant, the "Adopt a Salmon Family" project with U.S. Fish and Wildlife, and oceanography cruises aboard the RV Mysis through Northeastern University's Marine Science program. Bill has been an active member in Massachusetts Marine Educators where he serves on the board of directors.

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### ***Alison Bosma***

Alison Bosma is a 7th grade science teacher at Plymouth Community Intermediate School in Plymouth, MA. Prior to teaching for Plymouth Public Schools, Mrs. Bosma worked as a science integration specialist for an elementary school in Salem, MA. While at this Marine and Environmental Science Magnet School, she developed a marine science curriculum that aligned with the state frameworks, began a marine science library within the school, and formed partnerships with community resources, such as the Northeastern Massachusetts Aquaculture Center and the MIT Sea Grant program. Past teaching experiences have included working as a naturalist for the Seacoast Science Center in Rye, NH, as a counselor for Mr. and Mrs. Fish Marine Education camps, and as an on-board assistant scientist for Sea Education Association. Mrs. Bosma received a B.S. in Biology from the University of New Hampshire and a M.A. in Biology from Boston University Marine Program in cooperation with the Marine Biological Laboratory, Woods Hole, MA.

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### ***Robert Buchsbaum***

Robert Buchsbaum is a Conservation Scientist with the Massachusetts Audubon Society. He carries out research on environmental issues of practical importance to conservation, advises sanctuaries in the Southeast and Islands region of Massachusetts on ecological issues, and provides technical analysis on a variety of policy issues. Dr. Buchsbaum received his Bachelor of Science degree in Natural Resources from Cornell and his Ph.D. in Marine Ecology from the Boston University Marine Program at Woods Hole in 1985. His research career includes studies of the interactions between geese and their food plants on salt marshes, nutrient cycling in coastal marine habitats, the decline of seagrasses along the Massachusetts coast, long term changes in the plants and animals of New England, sources of bacterial pollution in coastal waters, and the effect of invasive species on salt marshes and rocky shorelines. He initiated and serves as scientific advisor to an educational program in the Plum Island Sound region in which students and teachers from local schools participate in field research projects centered on the issue of invasive species in salt marshes.

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### ***Jody Rebecca G. Calabro***

Jody Rebecca G. Calabro is currently a Learning Adaptive Behavior special education at the Cleveland Middle School in Boston, Massachusetts. With eight years of teaching experience across grades kindergarten through twelve, she has taught at the Charles River Hospital in Wellesley and at the Cleveland Middle School. She is especially interested to provide curriculum that motivates her students to want to learn and be engaged by the activities. She has taught general middle school science following the Full Option Science Scope, Science Technology Concepts, the Connected Mathematics Curriculum, and the History Alive curriculum. She has participated in many research related projects through the world, including Whale Camp in the Bay of Fundy, the ARMADA Project, and the NE-COSEE organization. She holds a Bachelor of Arts in sociology and history from Colby College in Waterville, Maine and a Master's degree in special education from Simmons College in Boston, Massachusetts.

### ***Carol "Krill" Carson***

Carol "Krill" Carson has studied marine mammals, sea turtles and basking sharks in the Gulf of Maine since 1980. She is a Visiting Lecturer in the Biology Department at Bridgewater State College and is the Outreach Education Coordinator for the Captain John Boats out of Plymouth, MA. Krill has worked as a research assistant for the Center for Coastal Studies in Provincetown, the Bioacoustics Research Program at Cornell

University and the Woods Hole Oceanographic Institution. Krill is President of the New England Coastal Wildlife Alliance (NECWA), a local nonprofit that is helping to support a community sighting network for basking sharks and ocean sunfish. She holds a B.A. in Biology from Fredonia State College in New York and a MAT in Science from Cortland State in New York.

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### ***Rita Chang***

Rita Chang is an earth science teacher at Wellesley High School, a non-profit entrepreneur and executive, and creator and producer of the Classroom Encounters with Global Change Scientists DVD Series, a program that grew out of her passion for science, education, and social change. She is Co-Founder of Classroom Encounters, LLC, a pioneering educational film making entity she just formed with independent film maker and technology whiz, Alan Fine (who has provided long term independent technology support for DreamWorks Pictures and Animation). Before teaching, Ms. Chang was the former Executive Director of Harvard Medical's Center for Health and the Global Environment where she was responsible for strategic direction and for launching new programs including congressional briefings with panels of scientists and a two-day intensive science course on global change for policy makers. Prior to working at Harvard, Ms. Chang worked in the health care delivery field. She started up two health care non-profit companies, serving as their Chief Executive Officer, and served, for eleven years, as the Executive Director for Urban Medical Group, a pioneering medical group dedicated to providing comprehensive health care to underserved populations. In addition to post-graduate course work in this country and abroad, Ms. Chang holds an undergraduate degree from Johns Hopkins University and a Masters degree from the University of Michigan's School of Public Health.

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***John W. Farrington***

John Farrington has just retired from Woods Hole Oceanographic Institution as Vice President for Academic Programs and Dean, and Senior Scientist in the Marine Chemistry and Geochemistry Department after fifteen years as Dean and 34 years as a scientist at WHOI. Between 1988 and 1990 he served as Michael P. Walsh Professor and Director of the Environmental Science Program at UMass-Boston. His scholarly interests are the biogeochemistry of natural organic chemicals and organic chemicals of environmental concern in the ocean, science education, and science-policy interactions. He is author or co-author of over more than 110 scientific research publications and 30 publications concerning science-policy interactions and education. He has served on committees and panels for international, national and local organizations. He has been honored by the Massachusetts Marine Educators Association in 1997 with a Special Award of Distinction, University of Rhode Island Alumni Association in 1998 with its Award for Excellence in Research, the U. S. Geological Survey in 2001 with an Ambassador for Science Award “For leadership in promoting science and its use in sound decision making”, the New England Aquarium in 2001 with the David B. Stone Medal for “Distinguished Service to the Environment and Community”, and appointed a National Associate of the National Academies in November, 2003. His earned degrees are B.S., Chemistry, Southeastern Massachusetts University, 1966; M.S., Chemistry, Southeastern Massachusetts University, 1968; Ph.D., Oceanography, Graduate School of Oceanography, University of Rhode Island, (FWQA Predoctoral Fellow) 1972.

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### ***Sara P. Grady***

Dr. Sara P. Grady is Watershed Ecologist for the North and South Rivers Watershed Association and South Shore Regional Coordinator for the Massachusetts Bays National Estuary Program. She is responsible for coordinating restoration, monitoring and outreach projects on the South Shore with a particular focus within the North and South Rivers Watershed. She is currently working on multiple fish passage restoration projects, is leading an effort to monitor marine invasive species, and will be working with South Shore towns to install raingardens in public places. Her primary expertise is in estuarine ecology, benthic invertebrate zoology, and population ecology. Sara holds a Ph.D. in Biology from the Boston University Marine Program in Woods Hole, MA and an Sc.B. in Aquatic Biology from Brown University in Providence, RI.

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### ***John Halloran***

John Halloran is a recently retired science educator from the Newburyport Public Schools and he serves as the Co Chair of the Secretary's Advisory Group on Environmental Education (SAGEE) for Massachusetts. He is currently working as Science Education Director for the Gulf of Maine Institute where he focuses on linking scientific research and student programming. John has an MS in Biology from Boston University, and MEd in Experiential Education from the University of Colorado and is a PhD candidate in Environmental Studies at Antioch.

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### ***Cory Logan***

Cory Logan is currently the Science Coordinator and eighth grade science teacher at the Brookwood School in Manchester, MA. With fifteen years of teaching experience across grades 1-12, she has taught at Buckingham Browne and Nichols School, The Bishop's School, and The Hun School. Her teaching interests are broad and she has

taught many different courses, including chemistry, biology, marine biology, genetics, human sexuality, and physical science. She has participated in many research related opportunities throughout the country, including programs with Bermuda Biological Station, Shoals Marine Laboratory, Island School Teacher Program in Cape Eleuthera, Bahamas, The Edge of Kauai (TEOK), and Sea Education Association (SEA). She holds a bachelor's degree in biology from Union College in Schenectady, NY and a master's degree in Educational Technology from National University in San Diego, CA.

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### ***Charles Mazel***

Charles Mazel is a Principal Research Scientist at Physical Sciences Inc. ([www.psicorp.com](http://www.psicorp.com)) in Andover, MA, and the founder and President of NightSea LLC ([www.nightsea.com](http://www.nightsea.com)). NightSea is dedicated to developing equipment and techniques for fluorescence viewing, photography, and research, both underwater and in the laboratory. Charlie became interested in underwater fluorescence back in the mid-1970's through his love of night diving, and with stops and starts has been building specialized underwater lights and photographic gear for many years. What started out as a personal hobby turned into a research career, and he founded NightSea to make the underwater fluorescence experience available to all sport and science divers, and more recently to marine aquarium enthusiasts. NightSea gear is being used by sport divers worldwide to explore for and photograph fluorescence in the sea, and by reef scientists to locate baby corals and discover new fluorescing proteins. Fluorescence is well known in corals, but is also found in many fish, isopods, shrimp and crabs, and other marine critters, and new discoveries are being made all the time.

Charlie has a varied ocean background. He has participated in numerous marine archaeology projects, both finding and excavating shipwrecks in the US, Greece, and off the coast of Africa; worked in the deep sea survey business; worked in the side scan sonar business; managed a hydrodynamics laboratory at MIT; was assistant director of the Edgerton Center (high speed imaging) at MIT. Along the way he picked up a master's in Ocean Engineering at MIT and a Ph. D. in Marine Biology at Boston University. His research now focuses on underwater optics and imaging, of which fluorescence remains a large part. He had the privilege to lead a team that outfitted a research submersible to search for fluorescence and made exploration dives to depths over 2,500' (800 m) in the Bahamas and the Gulf of Mexico. He has written numerous scientific and popular articles on fluorescence in the sea.

Charlie's extensive time on boats provided the (unwanted) experience that motivated him to write the book 'Heave Ho! My Little Green Book of Seasickness' ([www.nightsea.com/heaveho.htm](http://www.nightsea.com/heaveho.htm)).

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***Barbara Plonski***

Barbara Plonski is Director of Science, K-12 for Milton Public School. Barbara started her career as a researcher working at Brookhaven National Laboratory (zooplankton of the Bering Sea) and Cornell University (Acid Rain Mitigation). After working as an adjunct instructor at several colleges she became a high school science teacher nine years ago at Milton High School. She has worked with fellows from the WISP Program in her own classroom and endorses the practice of bringing researchers into K-12 classrooms. Barbara has a BS in Biology from Trinity College and a MS in Biological Oceanography from University of Alaska, Fairbanks and is ever so close to finishing a CAGs in Educational Leadership.

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***Carolyn Sheild***

Carolyn Sheild is a seventh grade Life Science teacher at Clarke Middle School in Lexington, MA, where she has worked for 13 years. Her interests include deep-sea science and general marine ecology. She has presented at NSTA national conventions and other local meetings about the Dive and Discover web site and the SEAS program which she incorporates in her curriculum. She collaborates with scientists at the Woods Hole Oceanographic Institution and is on the Board of Trustees for the Sea Education Association. She earned a bachelor's degree from the University of Wisconsin-Eau Claire and a master's degree in Biology (with an emphasis on Marine Biology) from Northeastern University.

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***William Spitzer***

William Spritzer is Vice President for Programs and Exhibits at the New England Aquarium, and is responsible for development of mission-driven exhibits and programs, including oversight of exhibit design, animal husbandry, volunteer, and education programs. He has served as principal investigator for a number of informal science education projects funded by the National Science Foundation, including COSEE-New England. He is also the chair-elect of the Governing Council of the National COSEE Network. He previously worked for TERC, an education research and development firm in Cambridge, MA. He holds a Ph.D. in oceanography from MIT and the Woods Hole Oceanographic Institution, and a B.A. in chemistry and physics from Harvard University.

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